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Notes about this helpfile:

The articles in this help file were gathered from the Internet and placed into hypertext format using a program we wrote. Since we let the computer do it, there was no editing of the message content whatsoever. This has been shown to be both good and bad since some of the articles are decidedly uninteresting. Fortunately, these are in the minority.

In general, you should maximize the help window when viewing this help so as to keep the lines from wrapping around.

In addition, certain punctuation characters were lost due to incompatibilities between the conversion program and the Rich Text Format. In particular, the curly braces { and } were changed to ordinary parentheses and the backslash (\) was changed to a forward slash (/) in all cases. We hope that this doesn't cause many problems.

Nearly all of the people who contributed to The Homebrew Digest are still reachable via their e-mail addresses. Feel free to write them and/or to subscribe to the HBD (see below). The Homebrew Digest is an open, and usually unmoderated forum where anything can, and often does appear. Some of the language used in these articles may not be suitable for children, but then neither is beer in general.

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HOMEBREW Digest #1046Fri 01 January 1993

FORUM ON BEER, HOMEBREWING, AND RELATED ISSUES
Rob Gardner, Digest Coordinator

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Chicago Beer Society FAQ (R.Deschner)
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HOMEBREW Digest #1046Fri 01 January 1993

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End of HOMEBREW Digest #1046, 01/01/93

Date: Fri, 1 Jan 1993 04:17:40 -0800 (PST)

From: Jack Thompson <jct@reed.edu>

Subject: UV/fermenter

I am not competent to answer Tom Kaltenbach's question about the effect of

UV on fermenting beer, but I can suggest a couple of things about light and UV in general (there's a reason that most beers are bottled in brown (or green for a few brews) bottles. Increased shelf life (Miller's and Henry Weinhard's must sell very fast!).

Incandescent bulbs put out upwards of 75 microwatts/lumen of UV. That is not very much energy, but UV is a mutagen, and plastic, unless it has a UV

absorber incorporated with it, does not slow UV down to any appreciable extent. A couple of things which you might do are to put black paper around the fermenter and paint the inside of the refrigerator with a titanium white paint. Titanium absorbs UV better than any other white pigment.

Looking forward to reading any other postings to your question.

Jack Thompson

Thompson Conservation Laboratory

Date: Sat, 2 Jan 93 16:27 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: Alcohol and health

Now that the holidays are safely over, HBD readers may be interested in a recent review article on alcohol consumption and health published in the November 1992 issue of NUTRITION ACTION HEALTH LETTER (Vo. 19 #9). This is a publication of Center for Science in the Public Interest, a non-profit organization that focuses on nutritional issues. Their article is footnoted for those who wish to peruse the original publications in the NEW ENGLAND JOURNAL OF MEDICINE, LANCET, JAMA, etc.

First the good news: moderate consumption of alcohol lowers your risk of heart disease. For instance, a study of 44,000 men by the Harvard School of Public Health found that those reporting consumption of one half to two drinks a day had a 26% lower risk of developing heart disease. These findings have been reinforced in studies by the American Cancer Society and other organizations. (A "drink" is defined as 1/2 ounce of pure alcohol, or in homebrew terms about one can of Budmilloors). The director of the French National Institute of Health and Medical Research is quoted as saying that "there is no other drug that is so efficient [at preventing heart attacks] as the moderate intake of alcohol."

Why is this? It appears that alcohol has a significant ability to raise HDL cholesterol levels (this is the "good" cholesterol); drinkers have been found to have 10-15% more HDL than non-drinkers. "As alcohol intake goes up, HDL goes up," according to the director of the Framingham Heart Study (although it should be noted that after 2-4 drinks a day there is no increased benefit in further consumption). However, the article also notes that there is no direct link between alcohol and reduced risk of heart disease--the above studies show correlation, not necessarily cause--and there is a possibility that differences in lifestyle between drinkers and non-drinkers may account for some of the effect.

Now the bad news. Actually, this comes in two parts. The first part is that while alcohol consumption lowers risk of heart disease, when it passes from moderate to heavy it increases risk of cancer, stroke, and death from other causes. There is therefore a balance between risk and benefit, and it cannot be stated that more you drink the better off you are.

The second part has to do with the definition of "moderate". This differs for men and women. "Moderate" alcohol consumption for men lies somewhere between one and two "drinks" a day (note that this means quantity of alcohol consumed, not the bottles of doppelbock!). Basically, once you pass 2 drinks a day the scale tips toward the unfavorable. As the article says, "At four drinks a day, while a man is 25 percent less likely than a non-drinker to die of heart disease, he is 30 to 35 percent more likely to die of cancer or stroke. He's also more likely to become addicted to alcohol." (p. 6) A handy reference chart with the relative risks is printed on this page for those who like to gamble.

Women have it tougher: the break point appears to be between 3-7 drinks a week, with increased risk of breast cancer being the major problem. One study showed that women drinking 3-9 drinks a week cut risk of heart disease by 40 percent, but increased risk of breast cancer by 30 percent. Doctors therefore urge women to

take their own medical history into account when regulating alcohol consumption, but can't offer any firm guidelines. The reason is that while the cancer risk goes up for women, many more women die of heart disease than of cancer--by a factor of about 3.5 to 1--so reducing heart risk at the cost of increased cancer risk may have net advantages. In the opinion of one of the co-investigators on the above-mentioned (3-9 drink) study, "A drink a day for a woman is not too much. There's little health reason to stop." (p. 6)

Just in case any of your are thinking about it, the article also notes that binge drinking does not provide the health benefits of smaller portions regularly spaced out. Drinking your week's allowance of booze in one sitting doesn't have the same effect.

In spite of all this, the pundits are reluctant to encourage people to start drinking, or to drink more. In my own opinion this is at least partially due to a cultural bias against drinking, but it is also true that a substantial minority of drinkers cannot control their consumption. Also barred are pregnant women, people taking certain medications, and people driving or operating other machinery.

In other words, if you're in the moderate range (up to 2/day for men, 1/day for women), don't worry. If you're drinking more, well, you might consider worrying a little.

Anybody who's interested in further information should contact CSPI at 1875 Connecticut Ave., NW, Suite 300, Washington, D.C. 20009. Telephone: 202-332-9110.

Date: Sun, 3 Jan 1993 02:20:33 -0500
From: TiM@world.std.com
Subject: Calculate First, TV and TJHB!

Always Compute First.

Just a reminder for those of us who are still in our 20th or so brewing...I just finished a double brewing session, making a stout (the last batch at 7 weeks was great, but I made a couple modifications for this batch), and a Pilsner on its back. The Pilsner was from a recipe in ZYMURGY. After I ground the grains and mashed, I thought the grain looked a little thin, but what was I to know, I've been running around brewing bunches of 1.055-60 beers the past few months. When the O.G. came out at 1.036 I nearly died...THEN I went to my handy dandy Darryl Richmond shareware converted to EXCELL and mucked with spreadsheet and found that no extraction rate possible would have been able to hit the O.G. of the published brew with the bill of grain listed....normally I ALWAYS run things through the spreadsheet or at least calculate them out on a piece of paper by hand... The first time you're brewing anything, don't trust what you read. Compute it yourself factoring in experience with your own equipment. Live and Learn.

Strange Things On TV.

My wife was sitting in the living room writing on our portable with some nameless noise on TV when she suddenly called me into the room. Apparently it was some cop show (on Saturday evening) and they were going to arrest some guy for having a 'still'. When the cameras followed into the guys house it was obvious from the Cajun-type cooker and setup that he was home-brewing. In the back of the squad car as they were loading everything in was a copy of Papazian's JOY OF HOMEBREWING! The cop gave this grand speech about how normally this stuff would come out ok but all he has to do is deviate from the recepie and it could kill someone...They were still convinced they had a hard-liquor still. This probably wouldn't have made it to the

Date: Sun, 3 Jan 93 17:12:59 CST
From: gjfix@utam.uta.edu (George J Fix)
Subject: Some Questions about Lambic

The temptation to join a conversation which on the one hand involves hot-side

aeration (HSA), and on the other Martin Lodahl & Lambic, is too great to pass up. Martin's reply in HBD#1045 to Steve Anastasi's interesting post in HBD#1044 reminded me of a number of questions I always wanted to ask him. Since these topics are current, I thought now was as good a time as any to do so.

I have always assumed that in a beer style like Lambic, where flavor complexity is taken to the outer limits possible in a grain based beverage, that the usual rules do not always apply. I suspect that this may be the case for Lambics as far as HSA is concerned. This, however, like everything else in this post, is more of a question for Martin than a statement of fact by me.

Negative effects due to HSA are usually reflected in a flavor the Germans call "Herbststoffe." Roughly translated this means "grain bitter" or "grain astringency." Although, I do not have Martin's vast tasting experience with Lambics, the ones I have tasted in Europe have never shown any indication of Herbststoffe. Sometimes I pick up astringent tones in bottled Lambics which have been imported to the U.S. I believe, however, these flavor tones are artifacts, i.e., resulted from the beer's long journey across the Atlantic, and are not intrinsic to this beer style.

There are some theoretical considerations which suggest HSA should be a nonissue. Ironically, the same issues arise in a project I am currently working on which involve beers very far removed in character from Lambics. Herbststoffe arises from the presence of what could be called HSA aldehydes. These in turn arise from the interaction of ethanol in beer (as well as some other things) and products which were oxidized on the hot side of wort production. The HSA aldehydes have been isolated, and definitely display "grain astringent" flavors. Moreover, it has also been shown that most *Saccharomyces* will ignore them. Thus, in most beers, if present, they will spill over into the finished beer and display Herbststoffe. With Lambics, on the other hand, there is a good deal more to the story. As Professor Verachtert and his students at the University of Leuven in Belgium have shown, there are a large number of microbes which get onto the playing field. It is conceivable, although definite proof is lacking, that some of these might find the HSA aldehydes inviting targets, and reduce them to alcohols. Given the large fatty acid composition of Lambics, the alcohols would probably be converted to esters, and form a small part of the very large ester pool in Lambics. If true, this would mean that all of the splashing of hot wort that takes place in Lambic brewing does no harm.

What bothers me (slightly) are the implications of this for North American Lambic brewers. At the present time they will not be dealing with a "full deck" with respect to the relevant microbes, and this conceivably could be an important issue. To cite a specific example, we have in the Southwest a number of really dedicated Lambic brewers. A couple of these have gone to great lengths to simulate the actual Lambic brewing environment, including both splashing hot wort as well as having cob webs in their brewing area. While I really enjoy tasting their beers, they consistently have a flavor tone which I will oversimplify and call "metallic."

I do not remember ever tasting anything like this in Europe, although I have tasted something like it in selected bottles which were imported to the U.S. I, of course, defer to Martin for a final judgement on "metallic" flavors in Lambic. But, assuming for the moment that they are artifacts and not intrinsic to Lambics, this raises the issue of the possible need for brewers in North America to modify the traditional process. If I were given a vote, I would place as No. 1 on the list the removal of the cob webs; removal of splashing comes further down on the list! However, in general which of the rules we use for normal beer (whatever that might be!), should be followed, and which should be rejected in favor of traditional Lambic practice?

Martin, I realize this is the first working week of 1993, and everyone has a lot to do. Thus, I hate to put a number like the above in a good friend's lap at this time. Nevertheless, when you have the opportunity, I would really enjoy your insights into these matters, even if they are only preliminary and tentative opinions.

George Fix

Date: Sun, 3 Jan 93 22:30 EST
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)
Subject: Enzyme for brewing "dry" beers

Last Thanksgiving I was in the Chicago area and I picked up a "dry beer" kit made by Glenbrew of Scotland. I usually don't buy kits or hopped malt extract, but I was intrigued by this kit because I've never really understood how the mega-breweries go about making a "dry" beer. This kit apparently is imitating Michelob Dry, as there was a big picture of a Michelob bottle on the label, minus the Michelob name, of course. The reason I am posting this message is that the kit included a packet that was stamped "DRY PILSNER ENZYME, ADD WITH YEAST". Presumably this contains an enzyme that helps break down the higher, unfermentable sugars in the wort into simple sugars that can be metabolized by the yeast. Use of such an enzyme might be an interesting new variable to try in different recipes. Does anybody know what this enzyme might be? Is there a commercial source for it?

End of HOMEBREW Digest #1047, 01/04/93

Date: Mon, 4 Jan 93 07:54:24 -0500
From: zentner@ecn.purdue.edu (Mike Zentner)
Subject: Re: Calculate First, TV and TJHB!

>Strange Things On TV.

The show is Cops on Fox. I saw it too. As they sorted through the incriminating evidence, I realized I have every piece of the same equipment (chillers, mash tun, burner, large boiling vessel). If you watched the whole story, though, the cops, in their planning of the raid were careful to note that brewing was legal and that they would have to be careful about this (although I don't think they really knew what was involved in homebrewing).

As I understood it, they did not find a functioning still, but did catch this guy homegrowing something else as well. They took him away, but his face was blurred, which may indicate that he was not found guilty.

The bad press given to TCJHB was strictly due to the show, like it was some kind of manual of sorcery or something. The reference to a bad batch causing health problems was to a bad batch of distilled liquor...this is true. Looking at the guys house, it's not unbelievable that he wasn't also distilling liquor...it could be done with homebrew equipment & slight modifications.

Mike Zentner

Date: Mon, 4 Jan 93 13:48:05 GMT
From: baker@dfwdsr.SINet.SLB.COM (James Baker - Dallas Seismic)
Subject: homebrew cop tv

Homebrew COP TV:

I saw the episode mentioned in HB 1047. Actually, the guy was arrested for distilling alcohol and growing marijuana. In the pre-raid meeting of police, it was stated that brewing beer was legal, that they were looking for a still.

I assumed that the police grabbed all the evidence that they thought could be used, thus the carboy and brew book. Better safe than sorry, eh?

The interviewed cop DID repeatedly refer to the distilled spirits as being 'brewed'. (e.g. "When you brew that stuff, the result could blind someone, or in a worse case kill them")

jb

Date: Mon, 4 Jan 93 09:08:03 EST
From: davehyde@tecnet1.jcte.jcs.mil
Subject: Kegged!

Well, I finally got all my keg stuff straightened out. I kegged 5 gal of raspberry lager on thursday, and tapped it on Sat. Wow. I don't wanna go back

to bottles again. Thanks to all (all 3 of you) who responded, the advice was right on.

Dave Hyde
davehyde@tecnet1.jcte.jcs.mil

Date: Mon, 4 Jan 93 07:05:44 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Competition Announcement

***** Competition Announcement - Bay Area Brewoff *****
**

This is your last notice for the Bay Area Brewoff hosted by The Draught Board homebrew club. This is a medium size competition, last year we had 150+ entries. We always have good, experienced judges at this competition.

The competition will be held at Lyons Brewery in Dublin, Ca. The competition will be held on Jan 23, 1993. Last year we had a Holiday beer category as an experiment. The response was so good, we are going to do it again.

The entries are to be shipped to arrive the week of Jan 2-9. An entry consists of two 12 oz bottles. Entry deadline is Jan 9, 1993. The entry fee is \$5.00 per entry. Label each entry with the category, your name, address, phone number and club affiliation, if any. For entries in the Holiday Beer category, specify any spices/herbs/special ingredients used. For entries in the Mead category, specify melomel, cyser, or metheglin as necessary. If you have any questions, you can call John Pyles (competition coordinator) at (510) 791-0589.

Entries should be shipped to -

Lyons Brewery Depot
7294 San Ramon Road
Dublin, Ca. 94568

The categories are as follows -

India Pale Ale
Pale Ale - American & English
Dry Stout
Porter
Barley Wine
Amber Lager (Steam style)
Mead (all types)
Holiday beer

Bob Jones

Date: Mon, 4 Jan 93 10:07:28 EDT
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: Metallic flavors (lambic, etc.)

George Fix says:

-) While I really enjoy tasting their beers, they consistently
-) have a flavor tone which I will oversimplify and call "metallic."
-) I do not remember ever tasting anything like this in Europe, although
-) I have tasted something like it in selected bottles which were
-) imported to the U.S. I, of course, defer to Martin for a final
-) judgement on "metallic" gflavors in Lambic.

Interesting. I know that many people, including George, have complained about the quality of domestic kilned malt. I have made several beers with 100% domestic "Munich" or "Vienna" and invariably the result is dry, a little bit tart, has a weird cherry-grape flavor component, and has a noticeable metallic component. These were all ales

I used to attribute this to oxidation, HSA, or what have you. That may well be, but other beers handled similarly are clean and have no oxidation-like defects. I wonder if perhaps this grain is at fault. Is oxidation/HSA a real problem with high proportions of these malts? Any comments?

=====
=====O Fortuna, velut Luna, statu variabilis=====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052
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Date: Mon, 4 Jan 93 10:30:05 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: water treatments

Hi All,

In HBD #1046, Jim White writes:

>I noted absolutely no mineral precipitation in my boiler after a 1/2
hour
>boil.

Water "hardness" is a measure of carbonate content. Since no carbonate precipitated out, I'd venture to say that this water is already fairly soft.

>In any event, it seems I need to acidify.

It may not be necessary to acidify for mashing. When water is added to grist, it will acidify naturally to some extent.

My water source is a private well, the water is quite hard. After pre-boiling my mash water, I get a lot of precipitate, but the pH is still close to 7. Once the water and grist is mixed however, the pH drops to roughly 5.4-6.0, depending on the type of malt. If I use English pale malt, the pH drops to 5.4-5.5, and I leave it at that. If I use less modified pilsner malt, the pH gets to ~6.0, and I use a teaspoon of gypsum to drop it to 5.4-5.5. My theory is that the degree of kilning accounts for this difference, as the acidification effect is more pronounced if dark malts are added to the mash.

Anyway, I'd recommend not acidifying any mash water until after mashing in the grain, as it may not be necessary.

>...I wonder, though, would a small quantity of
>Orange juice accomplish the acidification w/o making the resultant beer

If your water has a pH of 8 after boiling, you probably should acidify for sparging. Use a "food grade" acid like citric, lactic, or acidblend, and be very careful not to overdo it. I use 1/4 *teaspoon* of acidblend to acidify 4 gallons from ~7 to ~5.5. A little goes a long way, and you don't want to let the pH of the runoff drop below 5.0.

There was a discussion of sparge water acidification in HBD about two weeks ago, issues #1033 and 1034 if memory serves. Check the archives.

Cheers,
Jim

Date: Mon, 4 Jan 93 10:25:46 CST
From: cush@msc.edu (R. Cushing Hamlen)
Subject: brewing Munich Dunkels

This last weekend I tried my hand at brewing a true Munich Dunkel. After reading Miller, I decided to do so using all Munich malt. My source for Munich malt states that the malt is enzymatic, with sufficient enzymes to convert starch without using pale malt.

Well, to make a long story short, I ended up with about three gallons of starchy barley malt porridge....it did not even begin to convert! The process was a protein rest at 130F, conversion at 150F for two hours, another hour at 158F (out of desperation). PH was 5.2. Mash was 9.1 pounds of grain with one quart of water per pound of grain.

So, the question is this: has anyone out there make a Munich Dunkel using all Munich malt, and had success doing so? I am wondering if the 'Munich' malt we can buy here is simply not a good malt to use to make a dunkel, or if I happened to get some malt whose enzymes had been inactivated.

This is likely a good topic for open discussion on the HBD, so go ahead and post any responses.

- - -
> Cush Hamlen | cush@msc.edu

Date: Mon, 4 Jan 93 08:59:18 -0800
From: SCHREMPP_MIKE/HP4200_42@pollux.svale.hp.com
Subject: UV, Zima

One way to block the UV nasties in your fridge... Break the top off a brown beer bottle and stick it over the bulb. Let the guys that formulated the glass do the work of figuring out the techie stuff.

ZIMA... a malt beverage. While stuck in the snow all last week at Tahoe I spent a lot of time in Safeway. I saw and bought a bottle of ZIMA, a "CLEAR malt beverage". I thought, "Gee, a clear beer". Wrong. It was junk. Don't be fooled into buying any, it ain't even close to beer. Luckily I was cheap enough that I only bought one bottle, not a whole six pack.

Mike Schrempp

Date: Sun, 3 Jan 1993 21:33:13 -0500 (EST)
From: HAPANOWICZ@bigvax.alfred.edu (The road of excess leads to the
palace of wisdom.)
Subject: COPS & TCJOHB

The Saturday 2/1/92 episode of COPS on the FOX network had an interesting case that related to homebrewing.

The West Precinct of the Pierce County Sheriff office (Washington State) obtained a search warrant to look for a still in a guys house. Deputy Andy Estes was explained in the briefing that they want search the mans house and find the still. It wasn't clear if a still was all they were after but a man from the Liquor Board was also present at the briefing. They had some info on where the still was kept in the house from an informant. Deputy Estes stated that the man had brewing equipment (Homebrewing is legal) and he had a still (Illegal). He presented the procedure that they would follow to serve the warrant.

The sheriffs served the warrant and searched the house. They found the burner (A high BTU burner like we use to boil a large wort) and stated that it was used for the still. They also found several soda kegs. They called the company that owned the soda kegs and stated that they were stolen and asked if they would like them back. Also found was a wort chiller and other homebrew equipment. The guy had a keg setup for mashing the grains and the Liquor board guy said thats what was needed to make the whiskey or grain alcohol.

In the search of the house they found a greenhouse in the closet that he was using to grow you-know-what, not hops but its second cousin.

They packed the brewing equipment into a van and took him off to jail.

Deputy Estes stated that all this guy needed to do was to make one bad batch and everyone who drank it would go blind.

Comments:

I don't know if the man involved was selling his product(s), the beer, the alcohol or the green stuff.

The camera focused on a book in the man's house: Guess what it was titled. YUP! Papazians "The Complete Joy of Homebrewing."

The Liquor Board guy stated that if copper tubing was found it was part of a still. I think the guy was brewing beer from grains and the copper tubing was part of the chiller.

The man in question also had a cooler that had tubing running through it.

All the equipment that I saw related to homebrewing and it seemed to be an advanced set-up.

It seemed as if all the legal authorities involved had no clue on the chemistry or engineering involved with homebrewing beer.

I don't have the name of the Liquor board guy or the man in question.

I can get these names off the video tape if anyone wants to pursue this further (someone in Pierce County Washington?).

I really have a life, I was waiting for Ren&Stimpy to come on :^) !

Questions:

If you obtained soda kegs via a deposit are you stealing from the beverage company? His kegs had warning labels on them. What if you buy refurbished kegs, do these have the names of beverage companies stamped on them? Mine do. I meant to say that the kegs in the first sentence were obtained from a redemption center.

What is law on distilling alcohol for personal consumption?

Did anyone else see this show? Comments? Let's write some letters and set the authorities straight on this. I think that punishment is in order for his "plant" growing, even though Clinton didn't inhale.

I am willing to send the tape to anyone who wishes to view it as long as it gets passed around. Note: My VCR is screwed up such that the tape may be of good quality when viewed on your VCR (Head Problem).

Rick Hapanowicz HAPANOWICZ@CERAMICS.BITNET hapanowicz@bigvax.alfred.edu

Date: Mon, 04 Jan 93 11:53 CST
From: XLPSJGN%LUCCPUA.bitnet@UICVM.UIC.EDU
Subject: Glo:gg Brew

Dear Brewers,

Well, the holidays are over and I thought I'd send a little note about the reactions I received from my Glo:gg Ale brewed for the season. First of all, I want to thank all who offered their advise and know-how, all were very helpful. Unfortunately, I'm afraid that I chose the wrong method... Not that the brew was a failure - in fact I got a great deal of responses that it was quite good... but...

The overall opinion was that it was "interesting" in that it tasted alot like a cinnamon and rasin roll, moreso than a beer (even a holiday brew!). Let me recap what I did:

Following Papezian's recipe for 'Elbro Nerkte Brown Ale' I thought I'd simply add the glogg spices (in essence form - soaked in alcohol) at bottling. Instead, however, I decided to add them to the secondary after steeping them in 1 gal of water, much the same way as if I were steeping specialty grains at the start of a boil. In effect, I added a 'tea' of glogg to the secondary (spices and all) and let ferment for 10 days. Then bottled.

My personal reaction to the brew is that it is certainly drinkable, but perhaps best left for a desert-type beverage. It is heavily spiced (I presume due to the steeping, rather than simply adding them as is - dry - to the secondary... or even added to the boil when I added the finishing hops...). Further, I misread the original recipe and added 1/2# rather than 1/4# black pattent malt, and that oversight added a rather dry bitterness to the finish. The carbonation was almost too good (best yet!).

I think that if I try this one again, I'll go even easier on the black pattent malt (maybe 1/8#?) and add the spices (sans rasins this time) with the finishing hops. In all, I'm glad I got the experience, but next time I'll go for something less extravigant that won't act some-like prune juice!

Cheers,
John

Date: Mon, 4 Jan 93 09:40 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: CO2 Utilization

I am getting tired of waiting till my tank runs dry to report back on a discussion of about a year ago.

Here is what I have gotten thus far out of the last one, filled in Dec 1991:

49 kegs force carbonated and dispensed

Hundreds of bottles counter-pressure filled

There are still a few pounds in the tank and I think it is safe to say that the CO2 is in the noise, as an expense in the force vs natural carbonating argument.

I should point out that I always turn off the tank when not dispensing and thereby eliminate losses from leaks.

js

Date: Mon, 4 Jan 93 18:56:47 GMT
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)
Subject: Sources of Supplies

YEE HAA !!

Santa came through this year and brought me a Microbrewery kit (by Billingtons of Kirklands, WA). Included in the kit is everything a newcomer needs for the first brew. I'm not sure of exactly what the syrup was I added (my guess is that is a blended extract of barley, hops and malt) to the water along with the sugar and yeast, but want to make more when this batch is bottled. Enclosed is an order form for resupplies. The supplier is Coopers Brewery, (Australian) handled through Billingtons catalog sales (of Portland, OR).

Being as novice as one can be to the brewers art, I don't want to get into messing with the actual grains yet, and am content to experiment with the syrupy extract (exactly what is in the stuff anyway), but I would like to see what else is available out there through other suppliers. I live in the Jackson, MS metro area, and there are no HB Supply stores, or other (known) establishments that stock associated items.

Would someone please be so kind as to send me an address or list of reputable supply company addresses so I can get catalogs and/or additional info. I found and quickly perused Miller's book, but as far as suppliers, he merely suggests joining some association, subscribe to Zymurgy, and obtain addresses from the advertisers.

Thanks in advance. Any and all help appreciated.
M ELLIOTT TELNET u4imdmre@cpc41.cpc.usace.army.mil

Date: Mon, 4 Jan 1993 16:38:06 -0500 (EST)
From: TAYLOR@sbchml.chem.sunysb.edu
Subject: Homebrewers as fodder for TV cop shows

Did anyone happen to catch the TV show COPS? I walked in on the middle of a segment from Washington state, where they had taken someone into custody for running a home still -- where it looked to me that what he was doing was making home brew.

The numbskulls put up a photo of the cover of THE COMPLETE JOY OF HOME BREWING just to show what a really dangerous criminal they were dealing with. There was also a "detective" making comments about people going blind and so on and so forth.

I bring this up because it will be that much more difficult to get my friends to try my (quite drinkable) home brew. I am also not thrilled by the spectre of having to explain that it's not illegal to make home brew -- no matter what you see on TV.

Date: Mon, 4 Jan 93 15:57:59 CST
From: Jacob Galley <gal2@midway.uchicago.edu>
Subject: Low OG

Last night we whipped up an Ad Hoc Weiz-Steam-Bock from some old extract and grain that was lying around, and the OG is surprisingly low. Here's the details:

For 5 gallons, mash at ~165°F:
~3 lbs English 2-row
3 lbs American wheat
.5 lb Barley flakes

Add to:
~10 lbs Munton & Fison LMX
~3/4 oz N. Brewer hop pellets (90+ minute boil)
~1/2 oz Fuggles hop pellets (30 minutes)
~1/2 oz Tettnang hop pellets (2 minutes)

Pitch:
California Lager Wyeast slurry

We had to boil all this for at least 2 hours because we started with much more water than we should have. I'm talking 10 gal down to 5 gal. This is also the first time I've used my chiller, which is just 25 feet of copper tubing that lies in my bathtub submerged in cold water. It works great!

Anyway, this brew produced some amazing cold break. After it settled overnight, there was about 4-5 inches of trub. While I racked this off, I measured a gravity of 1037 or so, which seems very low considering how much extract we put in. Can anyone explain why? Would the amount of trub be related in any way? Might this have been a poor reading because it was taken from the top of the carboy (even if this was a full boil, ie not water on top of wort), ie would the heavier sugars & stuff settle to the bottom of the carboy overnight?

Another question: We siphoned the wort into the chiller with a J-cane and generic plastic tubing. We couldn't help but notice that our J-cane became very limp in the boiling hot wort and is now sort of an S-cane (or maybe a xi-cane). How nasty/toxic will this make my beer?

Thanks,
Jake.

"JUST DO IT yourself." <----- Jacob Galley / gal2@midway.uchicago.edu

Date: Mon, 4 Jan 93 16:51:22 PST
From: Bruce Mueller <mueller@sdd.hp.com>
Subject: Light and the fermentor

In HBD #1046, reference was made to UV light in the 'frig with a 15W bulb to keep the temperature up a bit in very cold weather. Well, to really cut the UV down, why not use a higher wattage bulb and dimmer? You know that 15W of mostly heat is what you need; by shifting the bulb's output from the visible towards the IR, UV will drop dramatically. If you run a bulb which only glows a dull red, UV will be virtually nonexistent. In fact, why not use the built-in (presumably) light socket in the 'frig? I suppose a screw-in dimmer might be a bit tough to come by.

Bruce Mueller
Chemist and Tinkerer

Date: Mon, 4 Jan 1993 16:47:32 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: What is Victory Malt?

My homebrew shop just started carrying Briess Victory malt. The owner doesn't know what it is, he just got a sack because the salesman at Great Western says "It's good to put in Ales." It looks like six-row that's been toasted. What is this stuff? What sort of beers does it go in? How much do you use? I said "What the heck!" and put a pound and a half in a recent porter and reduced the other roast malts slightly. Tastes OK at bottling. What am I dealing with here?

Paul (narrow bandwidth) deArmond

End of HOMEBREW Digest #1048, 01/05/93

Date: Tue, 5 Jan 1993 14:29:57 +0000 (GMT)
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>
Subject: The infamous tv-homebrewer...

The saddest thing about the whole story of the homebrewer being arrested on the "COPS" television show, is how many homebrewers watch that ridiculous show!

- - -

Kurt Swanson, Dept. of Computer Science,
Lunds universitet. Kurt.Swanson@dna.lth.se

Date:Tue, 5 Jan 1993 08:52 EST
From: JCHISM%HSSCAM.decn@NETVAX.MIS.SEMI.HARRIS.COM
Subject: Stealing Soda Kegs?

>Questions:

> If you obtained soda kegs via a deposit are you stealing from the
>beverage company? His kegs had warning labels on them. What if you
>buy refurbished kegs, do these have the names of beverage companies
>stamped on them? Mine do. I meant to say that the kegs in the first
>sentence were obtained from a redemption center.

I bought refurbished soda kegs (I have 2 of the stubbies) also, and the
refurbisher was carefull enough to remove the names of the beverage
companies using an electric engraver to scratch them out.

| Jami Chism - The Party Line BBS - 717-868-5435 - 4 Lines, ALL 14.4 |
| FREE Access to all callers from 1/8 to 1/18 |

Date: Tue, 5 Jan 1993 10:05:35 -0600 (CST)
From: VANAGS@ADCALC.FNAL.GOV
Subject: Alternate homebrew club in Chicago area

Hi!

I don't remember who asked about the Chicago Homebrew Club, but I thought you might want to know about another club. It's located in the west suburbs, near Aurora.

It's the Headhunters Homebrew Club. Yes, I'm a member. We meet once a month. The next meeting is coming up on Friday, Jan 8. Future meetings are Feb 5 and March 5. Our founder is Greg Lawrence. You can contact him at (708) 557-2523. He also sells homebrew supplies.

We usually have a pretty good turnout. Some of our members (including Greg) have won awards in homebrew competitions. But there are also plenty of novice brewers. Everyone is welcome to come, taste, and enjoy.

Cheers ->>Laura

Date: Tue, 5 Jan 93 11:24:17 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: Munich malt, COPS, CO2

Hi All,

In HBD #1048, Cush Hamlen writes:

>...My source for
>Munich malt states that the malt is enzymatic, with sufficient enzymes
>to convert starch without using pale malt.

This differs from my understanding. Munich malt is kilned to a degree sufficient to produce about 10L/lb/gal. I've always believed that moderate to high levels of kilning inhibit or destroy subsequent enzyme activity during mashing. I use Munich malt frequently for Euro-lagers, but always mash it along with several pounds of pilsner malt. Most of the literature I've read recommends handling Munich malt in this manner, i.e., mash it along with high enzyme malt such as pale or pilsner.

Lots of discussion regarding recent episode of "COPS". From Rick Hapanowicz:

>The guy had a keg setup
>for mashing the grains and the Liquor board guy said thats what was needed
>to make the whiskey or grain alcohol.

>The Liquor Board guy stated that if copper tubing was found it was part of a still.

It doesn't surprise me in the least that some pinheaded minion from a government beaurocracy would be so totally clueless, even given that the agency involved was the Liquor board and the agent should presumably be able to differentiate between legal brewing and illegal distillation.

>It seemed as if all the legal authorities involved had no clue on the chemistry or engineering involved with homebrewing beer.

Does anybody else find this a little scary? The marijuana cultivation not withstanding, when this man answers to the illegal distillation charge, he will find himself in the position of having to prove his innocence, rather than the prosecutor having to prove his guilt. In view of the "evidence", how many of us could find themselves in the same situation?

Sorry to turn this into soc.our.legal.system.sucks.bigtime, I'll come down off the soapbox now, and get back to discussions of brewing.

Also in HBD #1048, Jack Schmidling writes:

>Here is what I have gotten thus far out of the last one, filled in Dec 1991:

>49 kegs force carbonated and dispensed

>Hundreds of bottles counter-pressure filled

>There are still a few pounds in the tank and I think it is safe to say that

>the CO2 is in the noise, as an expense in the force vs natural carbonating

>argument.

I bought a filled 5 pound tank this spring, and so far I've carbonated and dispensed 25 kegs, counter-pressure filled several dozen bottles, and there is still some left in the tank. I've called around, it would cost me about \$7 to get it re-filled, so I consider the cost as trivial.

Cost aside, the degree of control over carbonation levels that force carbonation gives is just great! By keeping the beer re-fridgerated at a constant temperature, I can carbonate the beer to a level appropriate for any given style, just by adjusting the regulator.

>I should point out that I always turn off the tank when not dispensing and

>thereby eliminate losses from leaks.

Ditto, there's no such thing as a 'leakproof' system.

Cheers,
Jim

Date: Tue, 5 Jan 93 17:06:35 GMT
From: baker@dfwdsr.SINet.SLB.COM (James Baker - Schlumberger-GeoQuest -
Dallas)
Subject: cloudy brew.

I've just brewed my third batch (my second batch exploded), and the
brew is cloudy. It's been two weeks since I've bottled, and I've
opened a couple - they seem ok, carbonation and taste is good. What
did I do to cause the cloudiness?!?

jb

Date: Tue, 5 Jan 93 10:40 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: OVERNIGHT MASH

Just for drill, I tried something new with the last batch. I doughed it in before I went to bed and mashed it in the morning. My thoughts were along the lines of, the longer it sits in the water, the more likely to soften and saturate all the starch and hence, improve the extract yield. I used water below room temp instead of the usual 90F so as to discourage bacterial action.

I got my usual 30 pts/gal/lb so it didn't help a bit and I may have only proved that my mill does a good job but it would be interesting to know if it helps others who use Coronas or poorly crushed grain.

It is still in the primary but I can not detect any obvious difference in the taste at this point.

js

Date: Tue, 5 Jan 93 14:41 EST
From: gcw@granjon.att.com
Subject: PH color test kits

>Date: Thu, 31 Dec 92 07:53:38 EST
>From: Jim White <JWHITE@MAINE.maine.edu>
>Subject: My extract rate woes, your responses.

> I went to an aquarium store and picked up a pH test kit, (one of these where you drop x drops of this stuff into a measured amount of water, than note the color).

> Results

> Source pH

> Water fresh (cold) from tap. 7.0 (Water district said it'd be 8.3)
> Same boiled with cover off(20mins) 8.0
> Same boiled with cover on(20mins) 8.0
> Same raised to 180F 7.0
>> Same raised to 200F 7.3 (approx)

> I noted absolutely no mineral precipitation in my boiler after a 1/2 hour boil. I had also expected the pH to drop as a result of the boil, but the opposite occurred. Adding 1t of Gypsum to about 2 gals of boiled water did not lower the pH a measurable amount (still looked the same color).
> I suppose it's near enough to neutral so as to expect little help from the gypsum.

> What seemed odd was that the pH started to raise between 180 and 200F.

The temp of the water does effect the color drop PH test. I know this because of testing my spa - if I leave the test water in the tester overnight the results (colors) will be different then when I first tested at 100F. Why this is true - I don't have a clue.

Another thing that effects the color drop PH test is chlorine - this can be corrected with chlorine neutralizer drops. I don't remember off hand which way the chlorine effects the PH test.

The PH in my area is so high it is off the scale - the highest listing on the tester is 8.0 and is a medium dark red color and my water turns almost purple. Since I only do partial mash's, I have not worried about lowering the PH to an exact level (just throw some gypsum in), but when I start to I'll have to buy the acid stuff by the gallon!

Geoff Woods | It's not just slugin' gorms neemer! |
| (not just for breakfast anymore |

Date: 05 Jan 93 15:21:59 EST
From: CHUCKM@PBN73.Prime.COM
Subject: hop questions

Having just read Continental Pilsener (xmas gift) I have a few questions/comments that may spark some discussion.

1. Miller indicates that pellet hops yield a greater utilization than whole hops , thus, less ounces of pellets are required than whole hops.

2. Miller indicates that pellets need only be boiled for 15 minutes.

3. Miller indicates that extract brews need not be boiled for more than 45 minutes and maybe as little as 15 minutes.

Did I misinterpret.... Does anyone have any comments on these Items as they seem to be somewhat contrary to what I have previously believed. But, far be it for me to contradict Miller.

Happy Brewing
Chuckm

Date: Tue, 5 Jan 93 12:13:34 PST
From: humphrey!cr@uunet.UU.NET (C.R. Saikley)
Subject: Light Protection

Tom Kaltenbach asks about protecting his beer from light produced by a 15W bulb in the fridge. Here's my two cents.

Some plastics are good UV absorbers, and others are fairly transmissive. Untreated polycarbonate lenses (commonly used in spectacles) transmit less than 0.1% in the UVB region, and around 3% in the UVA. I've seen other plastics transmit up to 30% in UVB and 75% in UVA. While I'm only about two feet from a transmittance spectrophotometer, I don't have any plastic fermenters handy, so I can't say what their transmittance properties are.

On the other hand, the visible part of the spectrum may cause harm to your beer as well. I've seen references stating that 520nm light (green) is particularly effective at making beer go skunky, although this magic number of 520nm seems to be steeped in a certain amount of mystery. The point is, to be on the safe side, you want to protect your beer from visible light as well as UV. Here's the low tech solution:

Take a standard grocery bag and cut an airlock sized hole in the bottom center. Invert the bag and place it over your standard 5 gallon glass carboy, with airlock protruding thru the airlock sized hole. Your carboy will be neatly jacketed, and protected from light. This should be more than enough protection from a 15W bulb.

Date: Tue, 5 Jan 93 15:20:48 EST
From: Joe Rolfe <jdr@wang.com>
Subject: Belgian Ale Book - Comments wanted

hi all

just a short reminder to all those who noted problems, misunderstandings or any thing of positive or negative nature dealing with Pierre Rajotte and his Belgian Ale Book.
Several people have commented that the book was not hitting the mark...

I will be traveling to Montreal - probably in late Febuary/ early March, of which I will be spending a majority of the time with Pierre. I have talked to him about this and he agreed to clarify any points of confusion. These responses will either be mailed back via email, posted or snail-mail, depending on how many I receive (so far very few...).

I will send one more reminder out a couple of weeks before I leave..
So take your shots now or forever hold your books ;)

All comments can be sent to the address below, I will print them and deliver to Pierre.

- - -
joe rolfe
jdr@wang.com
508-967-5760

Date: Mon, 4 Jan 1993 10:31 EST
From: "Chris Ext.7037" <CDAVID@LANDO.HNS.COM>
Subject: "COPS" episode I saw this past weekend

Did anyone see the segment in which they got a search warrent on a guys house who they suspected of growing marijiana and operating a whiskey still... anything for ratings, but this one might have harmed the homebrewers...

yea, the guy was growing marijuana (being a Libertarian, this does not bother me, and is his right) but the real clincher on this ine was that the STUPID cop thought he was operating a still... he had all the goodies most of us have in our homes... wort chiller, CO2 tanks, kegs, coolers, and get this... a copy of "The Complete guide to Homebrewing..." was shown, and it never even dawned on these guys that this guy just MIGHT be brewing beer... nope, guilty until proven innocent is their motto. In later comment, the cop who made the bust what saying that "sure, this guy may make 10 or so good batches of liquor, but sooner or later he'd make a batch that would blind someone.. ."

What a Maroon!
Chris David

Date: Tue, 5 Jan 93 13:18:43 PST
From: humphrey!cr@uunet.UU.NET (C.R. Saikley)
Subject: Lambiks, HSA, Spiders

From: gjfix@utam.uta.edu (George J Fix)

>Negative effects due to HSA are usually reflected in a flavor the
>Germans call "Herbstoffe." Roughly translated this means "grain bitter"
>or "grain astringency." Although, I do not have Martin's vast tasting
>experience with Lambiks, the ones I have tasted in Europe have never
>shown any indication of Herbstoffe. Sometimes I pick up astringent
>tones in bottled Lambiks which have been imported to the U.S. I
>believe, however, these flavor tones are artifacts, i.e., resulted
>from the beer's long journey across the Atlantic, and are not intrinsic
>to this beer style.

Does this so called "grain bitterness" taste anything like the usual
flavor defects we associate with oxidation? (sherry==>cardboard) Or is
it a different beast? If I wanted to taste this flaw, where could I
find a clear example? Would an old bottle of Anchor suffice?

As far as lambiks go, traditional brewers go to great lengths to avoid
oxidizing their aging beers. It is considered very important to not
disturb the pellicle that forms on aging beer, because it provides some
protection from the air in the ullage. Furthermore, oxidized or metallic
tastes are definitely not the norm for a lambik. I suspect that they
don't suffer from the effects of HSA, but can't be certain until I've
found a clear example of Herbstoffe.

>we have in the Southwest a number of really
>dedicated Lambic brewers. A couple of these have gone to great
>lengths to simulate the actual Lambic brewing environment, including
>both splashing hot wort as well as having cob webs in their brewing
>area.

[snip]

>If I were given a vote, I would
>place as No. 1 on the list the removal of the cob webs; removal of
>splashing comes further down on the list!

In Belgium, there are different schools of thought regarding the presence
of cob webs in a lambik brewery. There are those who consider them a
valuable asset. The Cantillon brewery for example has quite a large
spider
population. The pro spider camp points out (as did Martin) that spiders
are useful in reducing the number of fruitflies, which harbor acetic acid
critters.

On the other hand, when I was visiting Timmerman's, they were in the
process of scrubbing down the walls. I questioned my host, Mr. Jack
VanAntwerpen, about the possibility of disturbing friendly biota. His
reply was something to the effect of "BUNK!" His feeling was that
although the image of a cob web laden brewery was poetic, there are
better ways of controlling fruitflies than with spiders!

There are certainly some very picturesque breweries in Belgium, and the
cob webs definitely add to the ambiance. But if you're interested in
making psuedo lambiks, there are many more important things to consider
than your spider population!

Cheers,
CR

Date: Tue, 5 Jan 93 16:20:01 PST
From: tpm%wdl158@wdl11.wdl.loral.com (Tim P McNerney)
Subject: Fear for Homebrewers

The last couple of issues of HBD have brought up what I consider a very dangerous trend among homebrewers. Yes, they are watching the TV show COPS.

Maybe the cops' fears that the 'brew' in question would cause blindness or death was not far off the mark. It could have even worse side effects, watching braindead television shows (redundancy if I ever heard it). Better to be blind or dead.

But did you see the episode from Las Vegas where...

I need a homebrew.

- --Tim

Date: Tue, 05 Jan 93 16:37:57 -0800
From: "Stephen E. Hansen" <hansen@Sierra.Stanford.EDU>
Subject: Changes at the Archives

Over the holidays I spent some time reorganizing the Homebrew Archives at Sierra.Stanford.EDU. The first change that you will notice is that almost all files have been placed in subdirectories such as "docs", "programs", "digests", etc. The most significant change however is that the issues of the Hombrew Digest are now stored as individual files rather than shar files or tar files. The Digest index files now cover a whole year and the index for the current year is updated with each new issue. New issues will also be placed directly in the appropriate subdirectory (i.e. digests/1933) as they are received.

Storing the digests in individual files was done primarily for those who must access the archives via the listserver, as the monthly shar had gotten too big for most mailers, but it also seemed that most of the ftp access was for only one or two issues.

Those of you who don't follow the rec.crafts.brewing newsgroup might be interested in the contents of the "images" directory. It currently has about 70 files containing pictures of various beer labels and coasters in GIF and JPEG format.

Stephen Hansen
homebrewer, archivist

Stephen E. Hansen - hansen@sierra.Stanford.EDU | "The church is near,
Electrical Engineering Computer Facility | but the road is icy.
Applied Electronics Laboratory, Room 218 | The bar is far away,
Stanford University, Stanford, CA 94305-4055 | but I will walk
carefully."
Phone: +1-415-723-1058 Fax: +1-415-725-7298 | -- Russian Proverb

Date: 5 Jan 93 16:18:46 U
From: "Michael Blongewicz" <esri!mailgate.noname!mblongewicz@uunet.UU.
NET>
Subject: None

Subject: Time:5:17 PM
OFFICE MEMONoneDate:12/18/92
To whom it may concern:

Please include me in your distribution of the Homebrew Digest [HBD]. My
address is mblongewicz@esri.com

If you are in need of more information, or I need to do something more
inorder
to start receiving HBD, then please let me know at the above address.

Thank you

Michael

Date: Tue, 5 Jan 93 23:09:48 -0500
From: cook@uars.DNET.NASA.GOV (Chris Cook, NMOS Quality Engineer - (301) 386-7807)

Subject: Small Batches, Wort Starters

I don't know who remembers, but a few months ago I started trying to brew small, 1-gallon batches of experimental beer. I got a lot of advice from people through the HBD, so I thought I'd post a status report.

As a quick recap, I started playing around with small, all-grain batches so that I could try many different grain bills without the cost and alcoholism that lost of 5-gallon batches would require. I'd just bought a slew of Belgian malts and, as always, patience was the resource in short supply. What flavor would biscuit malt add? How Aromatic? Should I use 1 or 2 pounds? Despite several letters that implied disaster, I figured, what the hell.

The first two batches were basically 1/5 scaled versions:

Recipe 1	Recipe 2
Belgian Pale Malt	2.5 1.5
Belgian Caravienne	-1.0
Gypsum	1/4 tsp 1/4 tsp
Cascades (boil)	1/4 oz 1/4 oz
Cascades (aroma)	1/4 oz 1/4 oz
Irish Moss	~1/4 tsp ~1/4 tsp

Mash-in @ 122 degrees (30 min), heat to 155 til done, mash out at 170. I did the best on measuring the hops using a little postal scale.

I ended up using every pot that I owned, but brewing two small batches was less work than one 5-gallon batch. The only difference was that the boil was better for the small batches; I'll have to scale the boil back to duplicate my 5-gallon capabilities.

The people who said that I would have trouble with hop rates and measuring hops were correct. Maybe it was the active boil. The small batches had hops like I've never brewed before! One week after bottling, the hops flavor would have been classified as 'caustic' for both batches, although at this point the hops have relaxed a bit and the beer is damn good, with a pleasant lemon/citrus flavor that I expect came from the Cascades. My wife loved it too, puzzling me (as always) me no end. Unfortunately, the subtle differences in malts were completely lost.

People said that, with the small thermal inertia of 1 gallon, the old cooler/lauter-tun wouldn't work well and that infusion mashing was probably out of the question. Well, nyah nyah nyah-nyah nyah! I converted a 1-gallon cooler to a mash/lauter-tun and (to my chagrin) it worked better and more efficiently than my big 44-quart, slotted-copper-pipe rectangular one. It held temperature quite well for hours. I liked it enough that I got a two-gallon cooler for small high-gravity batches, but I haven't tried it yet.

Given the hops overload, I made batches 3, 4 and 5 this way:

Recipe 3	Recipe 4	Recipe 5
Belgian Pale Malt	2 #	1.5 # 1.5 #
Belgian Caravienne	1 #	

Belgian Aromatic 1 #
Cascades (boil) 1/8 oz 1/8 oz 1/8 oz
Cascades (aroma) ~1/16 oz ~1/16 oz ~1/16 oz
Irish Moss ~1/4 tsp ~1/4 tsp ~1/4 tsp

The aroma hops weights were more by eye than weight. I bottled them a week ago, but I haven't tried them yet. We'll see how these go, but I'm having fun so far.

On another note, yesterday I was brewing a medium-high gravity ale (14# of grain) and, as expected, after I got my 6+ gallons the runoff was still reading about 1.020. I let the lauter-tun empty into the spare pot and I got about a gallon of weak wort, all dressed up with nowhere to go. I had also just used up my last quart of starter. Some time ago I started canning yeast starter wort in mason jars, and it's a great time-saver. Just boil some wort, pour it into hot jars, put on new lids and boil in water a few minutes. The jars are sterile and ready whenever I need them. So after thinking about the added hassle of looking for my last pound of DME, I actually had a good idea and used the runnings to make 4 yeast starters.

I do have a question: does canning the wort (sometimes stored for months) introduce any problems that anyone can think of? I know cooling a wort slowly is supposed to allow DMS to build up, but I hope the concentrations in a quart will hurt much. The jars are clear, but they're in the dark with the rest of my preserves. Any other considerations I've missed? I hope not, since it's really handy.

Chris Cook cook@uars.dnet.nasa.gov

Date: Wed, 6 Jan 93 00:59:38 CST
From: bliss@csrd.uiuc.edu (Brian Bliss)
Subject: e-mail test

ignore... bb.

End of HOMEBREW Digest #1049, 01/06/93

Date: Wed, 6 Jan 93 8:32:16 EST
From: Jim Grady <jimg@hpwarga.wal.hp.com>
Subject: Charcoal Water Filters

Back in HBD #1040 (24 Dec. - I just caught up from the holidays!) Darryl Richman says:

> There is no need to boil all your water before you brew. If your water
> comes with a lot of chlorine, an activated charcoal filter will remove
> it. You need only boil and decant your water if you have a lot of

This is true but I misread it at first and thought I would emphasize that if you use a charcoal filter you should boil all of your brewing water either before or while you are brewing. Many of us extract brewers boil only part of the wort and I must confess that when I lived in a town with better tap water, I made up the 5 gallons straight from the tap. I have since moved to a new town that has a lot of chlorine in the water (0.7 ppm) so I bought a chlorine water filter for the house thinking this means I don't need to boil the water from the tap. Well, according to Miller (I think it's his new book, "Brewing the World's Great Beers") and my backyard neighbor (who sells filters & such to industry) active charcoal filters are great breeding grounds for bacteria. In addition to collecting all sorts of organics for them to munch on, the media itself promotes growth.

- - -
Jim Grady | "Talent imitates, genius steals."
Internet: jimg@wal.hp.com |
Phone: (617) 290-3409 | T. S. Eliot

Date: Wed, 6 Jan 1993 8:00:18 -0600 (CST)
From: SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh)
Subject: Gas leaks in keg systems

>From: dipalma@banshee.sw.stratus.com (James Dipalma)
>>From: arf
>>I should point out that I always turn off the tank when not dispensing
and
>>thereby eliminate losses from leaks.
>Ditto, there's no such thing as a 'leakproof' system.

Okay, dumb question. If you turn off the gas at the tank and let the system sit for a while, and you have (the inevitable) leaks, won't the beer go flat? Or do soda kegs have check valves built in? I have a tapper-fridge with a Sankey tap, which is hooked up to a half-barrel which sits there for up to 2 months before it gets finished; my 5-lb CO2 cylinder has lasted through 3 1/2 half-barrels but I think it's getting low....

Not so dumb question: anyone know of a cheap source for a gas check valve?

| James W. Smith, NASA MSFC EP-53 | SMITH@epvax.msfc.nasa.gov |
|"Don't ever tell anybody anything. If you do, you start missing
everybody."|
|--J. D. Salinger |
|Neither NASA nor (!James) is responsible for what I say. Mea culpa. |

Date: Wednesday, 6 Jan 1993 10:08:36 EST
From: ml4051@mwvm.mitre.org (John DeCarlo)
Subject: % alcohol by weight vs. by volume

>From: mfetzer@ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzer)

>How do I compute %alcohol by weigh in terms of %alcohol by volume.

OK, the simplistic answer is that alcohol weighs roughly 80% of what water does for the same volume, so you can translate 5% alcohol by volume into 4% by weight (or use the inverse of 1.25 to go from 4% by weight to 5% by volume).

For the particularly picky among you, this simplistic approach would mena that if the beer were 100% alcohol by weight, it would be 125% by volume, clearly ridiculous.

So, here is the complete approach, with percentage stated as 70%, not .7 (you can substitute 1 for the 100s if using 0-1 values):

$$\begin{aligned} & (\%AbV * .8) * 100 \\ \%AbW = & \frac{\hspace{1.5cm}}{(100 - \%AbV) + (\%AbV * .8)} \end{aligned}$$

Which has 5% AbW converted to 4.04% AbV.

$$\begin{aligned} & (\%AbW * 1.25) * 100 \\ \%AbV = & \frac{\hspace{1.5cm}}{(100 - \%AbW) + (\%AbW * 1.25)} \end{aligned}$$

Which translates 4% AbW into 4.95% AbV.

Internet: jdecarlo@mitre.org (or John.DeCarlo@f131.n109.z1.fidonet.org)
Fidonet: 1:109/131

Date: Wed, 6 Jan 93 08:27:59 -0700
From: dinsdale@chtm.eece.unm.edu (Don McDaniel)
Subject: cheapest soda kegs

Time for the periodic "where to get kegging equipment" post.
Rumor has it that as the soda industry is abandoning SS kegs for
plastic-lined cardboard boxes, kegs are available really cheap.
For those on the list that have been at it for a while, is there
any validity to this assertion?

What is the best source of tanks, kegs, regulators and gauges at
the moment for someone who is mechanically inclined enough that
he/she doesn't need a turnkey kit from a homebrew supplier?

Thanks,

Don McDaniel

Date: Wed, 6 Jan 93 09:49:26 EST
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)
Subject: re PH vs color test kits

The variation of color (of pH tests) with temperature may be caused by the fact that acidity/alkalinity is temperature-sensitive. pH is the \log_{10} of the reciprocal of the concentration (moles/liter) of H^+ ions; thus pH 7 is a concentration of 10^{-7} .]In sufficiently pure water[the H^+ can come largely from the (very slight) tendency of H_2O itself to dissociate into H^+ and OH^- ; pH 7 is "neutral" (at room temp) simply because the concentration of OH^- is also 10^{-7} . Not surprisingly, H_2O dissociates more readily at higher temperatures; "neutral" at $\sim 100C$ is pH ~ 6 . Without knowing just what is in the test solutions I wouldn't begin to guess the effect of a higher concentration of both ions, except that I wouldn't expect it to be the same as at room temperature; the behavior of the active compound(s) in the solution itself could also change.

I don't know what the standard is in professional brewing, but based on the above I would /expect/ that they read pH only in samples cooled to room temperature, or possibly via probes and equipment that correct for the effect of high temperature.

Date: Wed, 6 Jan 93 11:08:00 EST
From: davehyde@tecnnet1.jcte.jcs.mil
Subject: Kegged!

Several people wrote and asked for forwards of the stuff I received on kegging. Rather than forward everything, I've summarized it here. Hope its helpful. BTW, credits follow. Sorry if I missed anyone, but I don't keep mail very long and I didn't expect the number of requests for info that I got.

Where to get equipment:

I can't be of much help here. I got my taps and CO2 bottle from our neighborhood association (?!) since we rarely use them anymore, and the keg came from a friend who is on excellent terms with a distributor. Several people have recommended scrap metal yards, though.

removing that dang ball tap!:

There's a leaf spring at the top of the tap between the tap and the keg neck. I worked the end of the spring back to one of the bayonette slots in the neck where I pried it out with a screwdriver. Once the spring is out lift then twist the tap up and out of the neck. This was the hardest part because it was stuck and there's not much to get a grip in. Re-installing is just the reverse.

carbonation, racking, pressurizing:

Some people recommended priming with 1/4-1/2 c corn sugar before pressurizing. Another recommendation was to pressurize and let the beer set a day or 2 in the fridge. I didn't want to wait, so I force carbonated and agitated the beer. I racked the beer straight from the carboy to the keg with no priming. I put the tap back in and pressurized it to ~25 psi. I didn't get any guidelines as to pressure vs. style, so this was a guess based on a recommendation of 20-40 psi. I removed the lines and rolled the keg around for 10 min or so on the basement floor and tapped it. Stand Back! The first few pints were well carbonated but slightly cloudy. This disappeared over the next day or so.

Comments:

Unfortunately I didn't bottle any of this batch to do a taste comparison. It is, IMHO, my best batch by far. The raspberries aside (see below) the beer has a wonderful color, is crystal clear, and the head is incredible. Same feel and consistency as Guinness Draft cans with that nitrogen thingy in them. Lasts forever too.

The only problem:

I can't bottle any to give away. I tried quietly filling a bottle for a friend, but when he opened it it was flat. So...keg party time, perhaps.

Many thanks to:

bobc@Eng.Sun.COM: removing that dang ball tap!
sag5004@yak.ca.boeing.com (Ford Prefect): carbonation
Jonathan Butt <jbutt@cs.mun.ca>: carbonation
dipalma@banshee.sw.stratus.com (James Dipalma): carbonation, racking,
pressurizing

and to davet@ncsa.uiuc.edu (Dave Thompson), who asked about my raspberry lager: I didn't want to mess with fruit, so I used a recipe from a supply place near Baltimore, MD that was basically an amber lager with 3/4 tbsp of raspberry soda extract added to boil for 15 min. At bottling (or kegging, as in my case), another 4 tbsp were added to the (now) finished beer. I wouldn't recommend this unless you really like raspberry beer. STRONG! But I like it.

Dave Hyde davehyde@tecnnet1.jcte.jcs.mil

Date: Wed, 6 Jan 93 09:39:14 -0700
From: cbacco@ursa5.cs.utah.edu (Corby Bacco)
Subject: Brewing supplies in Conn.

Hello all,

I have an older brother who is interested in getting into homebrewing. He lives in Norwalk, Conn.. Can anyone recommend any homebrew suppliers in the general area.

Thanks,
Corby

Date: Wed, 6 Jan 93 11:18:44 CST
From: tony@spss.com (Tony Babinec)
Subject: hops,extracts,pilsners

(1) Miller is not alone in talking about different utilization of whole (leaf) hops versus pelletized hops. However, it seems that there are a lot of variables involved, such as: how were whole and pellet hops handled? were they kept bagged and chilled as much as possible? does the pelletizing break the resin glands, thereby altering the bittering potential of the hops? what is the boil length? what is the vigor of the boil? what is the gravity of the boiling wort? In the end, aim at a style, try a recipe, taste the result, and modify your process accordingly!

(2) Whether the hops are whole or pellets, the same general rules apply: boil 45 to 90 minutes for bittering, 20 minutes or so for flavoring, and 10 minutes or less for aroma.

(3) In all-grain brewing, a 90-minute boil is probably a reasonable minimum. There are various chemical reactions occurring that require that length of boil, plus you are typically boiling your wort down from 7 or more gallons to 5 gallons at the finish. With extracts, in part the concern is that longer boils darken the wort, and other things equal, it's more difficult to make a very pale beer such as a pilsner with extract. You should probably aim for a 45-60 minute boil so that hop bittering occurs. Although it is bad practice, you hear stories about how some recipes recommend stirring malt extract syrup into water without a boil and then racking to primary.

A pilsner is a pale, bitter lager of conventional strength. An extract brewer could make a decent pilsner:

- use unhopped extra-light or light malt extract,
- hop with noble hops (Saaz, Hallertauer, etc.) and hop for appropriate bitterness,
- Boil for 45 to 60 minutes,
- Use a lager yeast (Wyeast has good ones) and ferment at an appropriate temperature (48 to 50 degrees F).

Miller has some other good pointers in his pilsner book in the text preceding the recipes, which summarizes points made earlier in the book.

Date: Wed, 6 Jan 93 9:25:01 PST
From: Dave Sheehy <dbsh@hprnd.rose.hp.com>
Subject: Re: brewing Munich Dunkels

R. Cushing Hamlen writes:

> This last weekend I tried my hand at brewing a true Munich Dunkel.
After
> reading Miller, I decided to do so using all Munich malt. My source
for
> Munich malt states that the malt is enzymatic, with sufficient enzymes
> to convert starch without using pale malt.
>
> Well, to make a long story short, I ended up with about three gallons
of
> starchy barley malt porridge....it did not even begin to convert! ...
>
> So, the question is this: has anyone out there make a Munich Dunkel
using
> all Munich malt, and had success doing so?

Long ago I made a Maerzen based on Miller's recipe which calls for 9 or
10
pounds of Munich malt. I asked the same sort of question on the HBD (i.
e.
will it convert all by itself) and a few people stated they couldn't see
how
it could convert. I said "what the h*ll" and went for it. Well, it
converted
and fermented just fine. Then the problems began. Most of the batch
wouldn't
carbonate (I added the priming sugar, honest!). It was a lager so after
bottling I lagered as much of it as would fit in the fridge (as per
Miller's
recommended method of lagering). None of the beer ever had any kind of
head
whatsoever either. Now here's the weird part. The few bottles that did
carbonate were from the portion that was lagered in the fridge. None of
the
bottles that were stored at room temperature ever carbonated to any
significant degree. That was a real bummer because other than the lack of
carbonation the beer tasted pretty good. I used Wyeast #2308 on this
batch.

If I were to do this again I think I would at least add a pound of wheat
malt to improve the head potential. Since Munich malt is kilned at a high
temperature I believe much of the head producing proteins are gone.

> > Cush Hamlen | cush@msc.edu

Dave Sheehy

Date: 6 Jan 93 09:59:00 +1000
From: KRUSE_NEIL@Tandem.COM
Subject: Yeast question

- ----- REPLY ATTACHMENT -----
SENT 01-06-93 FROM KRUSE_NEIL

I have a yeast question...

My usuall recipe is 6# Alexanders amber syrup extract, willamette hops, boil around 45 mins. Put carboy with the five gals. of wort in bathtub to cool, pitch ale yeast. The next morning the carboy is bubbling like crazy and the beer always turns out great. BUT... Last night I helped a friend follow my award winning recipe with one difference, we used 6# of DRY malt extract. This morning he called me to tell me it was not bubbling at all...nada, nonthing. My question is why? Should he add more yest? Is the temperature off? I thought my recpie was idiot proof, I guess I was wrong ;)
Thanks

KRUSE_NEIL@tandem.com

Date: Wed, 6 Jan 93 09:00 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: KETTLE MASHING

The following article was rejected by Zymurgy's editorial department for some obscure reason, so I will post it here in serial form.

KETTLE MASHING

By Jack Schmidling

Mashing and sparging in plastic buckets of one form or another has become so universal that the method I am going to discuss might seem like something new. However, it is more or less the way beer had been made since time immemorial. Until that is, a certain very popular book on home brewing appeared.

Kettle mashing, as I call it, has some advantages and some disadvantages over the now "traditional" plastic bucket method and until one understands both approaches, a commitment to one or the other can lead to a good deal of unnecessary frustration.

Kettle mashing is simply using a kettle with an appropriate screening device and spigot to "cook" the mash in and once the mashing is complete, the same kettle becomes the lauter tun. After sparging in the lauter tun, the kettle is used for boiling and if it has a close fitting cover, can be used as the primary fermenter.

The most fundamental advantage of the approach is the ease with which the transition from extract to all grain can be made. The only new requirement is a straining device in the kettle already used for boiling extract beer. The investment required to "give it a try", is quite minimal and if you decide you don't like the program, you end up with a great brew kettle that sports a spigot that won't get clogged up with hops and specialty grains.

The other advantages are a bit more technical and I will point them out when we get to them.

The key to the system is the screening device and the spigot for the kettle. The first one I made was to be used in conjunction with an overlaying false bottom. The false bottom was a stainless steel plate the size of the kettle bottom with a zillion holes laboriously punched into it. It created no end of problems on the very first batch. Mash got under it and scorching was just about impossible to control. So in disgust, I pulled it out, continued the mash and assumed a disaster was at hand.

Much to my incredulous delight, when I opened the spigot, the wort ran clear after less than a cup of turbid runoff. I have since made about 30 batches using only the screen

device and get very consistent and respectable extract yields.

We will begin the discussion, by describing the screening device and spigot that is installed in the brew kettle. The first one I made was made from galvanized pipe fittings and window screen, installed in a 32 qt enameled canning kettle.

The current version is all brass, copper and stainless installed on two stainless kettles, a ten gallon for mashing and fermenting and a sixteen gallon for boiling. Having two kettles allows one to be prepared for the next operation while the other is doing its thing.

Fig. 1 shows an exploded view of the spigot and strainer. The strainer is simply a 2 x 6 inch piece of screen, rolled into a six inch tube and clamped to the copper tube. The last half inch is bent over itself to seal it off. The copper tube has a slight bend in it to allow it to be rotated so that the end is right on the bottom leaving almost no wort behind. It is easily removed for cleaning.

The spigot passes through a clearance hole drilled in the kettle and is retained by the female connector and a washer to take up the treads and make a tight fit.

All the parts are available at a good hardware store. For those not inclined to hunt down the parts, a complete kit is available from the author.

Once the spigot/strainer device is installed in the brew kettle, you are ready for the plunge. If you are shopping for a kettle, my only advice is the bigger the better. I consider the 32 qt canner about the minimum for a 5 gal batch.

Continued.....

Date: Wed, 6 Jan 93 11:12:07 -0800
From: sag5004@yak.ca.boeing.com (Ford Prefect)
Subject: What to see, barley wine help needed.

Sorry about posting one of those "I'll be in your neighborhood where should I go" posts... but

I am getting married in the end of July. For a honeymoon the general plan is to start in Seattle, head to the coast take a left goto california take a left head through painted desert and goto colorado, take another left and head home. If I sell my 911 in time we may make the trip in a miata (with no luggage room). Or use my fianceses ford explorer (ie room to pick up a six pack here and there :-)

I am interested in interested places and brews to see along the way. (Note: places may or may not include some non beer related places like cannon beach OR). I am interested in two beer styles in particular: alt, and barleywine. A recent trip to Levenworth WA revealed a new brewpub and I want to see how their alt compares with others. Also I have been interested in finding commercial examples of real barley wine (not barleywine like style). I tried to make some myself, but the results are very sweet and not what I expected.

Any help/flames/etc would be helpful. As far as places to see "Check out the Whomper Inn a couple of little towns south of tillamok on 101" would be sufficient (I know how to use a phone book, If I could just get the paper ones to grep :-). Also I would be glad to meet some of you electronic people, maybe we could quaff one in your favorite spot.

Also, I would like some feed back on "my" barleywine recipe. I stole it from somewhere (sorry I don't remember where) so it isn't really mine, but I would be happy to hear how to improve it. Also how long is it supposed to age? When I made this recipe (twice) I was just starting to go all grain, I have been making slow incremental improvements as I go, but still have along way to go. BTW, the small beer made with the second runnings was quite tasty.

May 10, 1991 and May 25 1991

9 gal water
2 tsp gypsum
32 lbs Klages
2 lbs Crystal
1/4 lb Chocoalte malt

throw in grains at 170F stir...temp drops to 152F...wait 90 minutes sparg until 6.5 gallons collected (8 the second time).

2oz Cascade 60 minutes
2oz Centenial 60 minutes
1 tsp Irish moss 20 minutes
2oz Fuggles 5 minutes

boil 60 minutes, OG 1.106 (1.095 2nd batch)
used whitbred ale yeast + redstar champagne
after ~3 weeks I transfered to another carboy
and another 3 weeks later I kegged with a FG of 1.038 (1.028 2nd batch)

I have not tasted the second batch (yet), but the first one is very sweet and almost no hops. Again any advice would be appreciated. If

you are local, maybe we can arrange a tasting.

thanks

stuart galt boeing computer services
sag5004@yak.boeing.combellvue washington
(206) 865-3764 or home (206) 361-0190
#include <standard/disclaim.h>
I don't know what they say, they don't know what I say...

Date: Wed, 6 Jan 1993 16:21 EST
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>
Subject: need help kegging

Hello everyone,

I have now made the jump to kegging my beer and now I have a question or 2.

I bought a generic regulator from a welding shop and it works great, one problem though, the second gauge is scaled for liters per minute and cubic feet per hour. It is the same as a pressure guage but the scale is set up for unrestricted flow, as in MIG welding.

Does anyone have a conversion table for this scale?
[ie when the pressure equalizes at 7 lpm, what would that equal in psi]

Thanks
Carlo Fusco g1400023@nickel.laurentian.ca

Date: Wed, 6 Jan 93 13:47:24 PST
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>
Subject: [Resend] HSA & Lambix

In HOMEBREW Digest #1047, George Fix made my day:

> The temptation to join a conversation which on the one hand
> involves hot-side aeration (HSA), and on the other Martin Lodahl &
> Lambic, is too great to pass up ...

Gosh, George <blush!> ... I wrote up a reply and submitted it that evening, but it was too huge for HBD by any conceivable standard, and was bounced, as it should have been. I'll make it more brief this time.

> Negative effects due to HSA are usually reflected in a flavor the
> Germans call "Herbststoffe." Roughly translated this means "grain
> bitter" or "grain astringency." Although, I do not have Martin's
> vast tasting experience with Lambics, the ones I have tasted in
> Europe have never shown any indication of Herbststoffe. Sometimes I
> pick up astringent tones in bottled Lambics which have been
> imported to the U.S. I believe, however, these flavor tones are
> artifacts, i.e., resulted from the beer's long journey across the
> Atlantic, and are not intrinsic to this beer style.

I've run across astringency in some of the best lambiks I've had, and most especially in some of the young (vos) lambiks served from casks in specialty cafes. I don't have your experience of German beers and wouldn't recognize true Herbststoffe, but the astringency I'm thinking of in this instance is of the husky, grainy sort we often associate with hot sparges, and as lambik brewers frequently sparge hot, I've been assuming that was the cause. "Nutty", "sherry-like" and even "cigar-like" oxidation products are frequently named in my tasting notes. These could well be HSA products, couldn't they? Oddly, these flavor notes seem altogether appropriate to the beers I've found them in -- not a defect, but part of their character, even their charm. Many lambiks, whether insipid (Belle Vue), regrettable (Lindeman's) or splendid (Frank Boon) don't have identifiable astringency, but many seem to.

> ... Herbststoffe arises from the presence of
> what could be called HSA aldehydes ...
> ... most Saccharomyces will ignore them. ... It is
> conceivable, although definite proof is lacking, that some of
> these [microbes] might find the HSA aldehydes inviting targets,
> and reduce them to alcohols. Given the large fatty acid
> composition of Lambics, the alcohols would probably be converted
> to esters, and form a small part of the very large ester pool in
> Lambics. If true, this would mean that all of the splashing of hot
> wort that takes place in Lambic brewing does no harm.

This is to say the least, intriguing! It's true that despite wild splashing of the hot wort into the cooling trays and subsequent storage in gas-permeable containers (barrels) for two or more years the results are nothing like what you'd get if you treated a pale ale the same way. The remaining identifiable oxidation products actually add to the character of the lambik. And I've never tasted the paperlike or cardboard notes in a lambik that we often associate with oxidation. Most lambiks have a very substantial ester component. One gueuze (St. Louis) was so fruity that I first thought I'd been served a fruit lambik by mistake!

> What bothers me (slightly) are the implications of this for North
> American Lambic brewers. At the present time they will not be
> dealing with a "full deck" with respect to the relevant microbes,
> and this conceivably could be an important issue.

I believe you're right. There are definite flavor differences between the synthetic products some of us have been experimenting with, and the "real thing" made the traditional way.

[...]

> they consistently have a flavor tone which I will oversimplify and
> call "metallic." I do not remember ever tasting anything like
> this in Europe, although I have tasted something like it in
> selected bottles which were imported to the U.S.

My experience has been just the same, though right offhand I can't pin down any Stateside encounters with that flavor in lambiks either, but if CR Saikley's reading this, perhaps he can jump in? Exactly that note is coming through like gangbusters in the pseudo-lambik I brewed 18 months ago that I'm sipping as I write this. The biological spectrum in it was limited (as far as I know) to *S. cerevisiae* (Wyeast 1007, in fact), *Pediococcus damnosus*, and a not particularly aggressive strain of *Brettanomyces bruxellensis*. Sparge temperature was allowed to rise to 190F, and I splashed the wort some, but hadn't yet concluded that it would be helpful to the development of the Brett. flavor profile.

> ... But, assuming for the moment that they are artifacts and
> not intrinsic to Lambics, this raises the issue of the possible
> need for brewers in North America to modify the traditional
> process. If I were given a vote, I would place as No. 1 on the
> list the removal of the cob webs; removal of splashing comes
> further down on the list! However, in general which of the rules
> we use for normal beer (whatever that might be!), should be
> followed, and which should be rejected in favor of traditional
> Lambic practice?

I'm struggling with exactly that question, and lack both the background and data to reach a satisfactory answer. Conference attendees could hardly forget Mike Matucheski's remarkable paean to *Brettanomyces*. Mike is a strong believer in following the traditional processes in hopes that the local microflora will be suitable, and while his creations don't have a lot in common with most of the Belgian products they're certainly similar to the hardest available lambiks. "Hardness" in a lambik is a descriptor of the acetic acid contribution to the flavor, and while the Belgian spiders help to keep hardness under control by taking fruit flies to lunch, their American counterparts may not be so helpful. Some of the test batches of J-X Guinard, "father" of the "pure cultures" method of home lambik brewing, tasted more like the "real thing" than mine, and the biggest difference between his process and mine is that he fermented in plastic water carboys, while I stayed with the glass I usually use. Mike Sharp's experiments using an oak cask were even closer to optimal, and what Mike's and J-X's flavor profiles had that mine didn't was primarily a major improvement in the flavor contribution of the *Brettanomyces*. What does all of that have to do with HSA? Well, just that it raises the question of whether there is a relationship between *Brettanomyces*, which seems to contribute more to the final flavor when exposed to (some) air, and the lack of the degree of staling one would normally expect in beers that don't harbor *Pediococcus* and *Brettanomyces*.

I must be crowding the size limit by now. Thanks for asking,

George!

= Martin A. Lodahl Pacific*Bell Systems Analyst =
= malodah@pbmoss.Pacbell.COM Sacramento, CA 916.972.4821 =
= If it's good for ancient Druids, runnin' nekkid through the wuids, =
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

Date: 06 Jan 1993 19:31:24 -0500 (EST)
From: Sandy Cockerham <COCKERHAM_SANDRA_L@LILLY.COM>
Subject: lost in the wood

Not long ago I bottled my first attempt at an oat pale ale. I made a blunder though. I added 2 oz. of toasted oak chips to the secondary. Needless to say, the oak character is QUITE pronounced. I was really bummed. The carbonation is great, nice head retention, it is very clear (gee, I remember someone getting flamed for saying their beer was clear, oh well...), and it is a deep golden color (golden oak, I'd say.).
The moral of the story? Be aware of those evil oak chips!
I hope this mellows, it has only been in the bottle since Thanksgiving.

Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)
To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

Date: Wed, 6 Jan 93 16:30:12 -0800
From: Carl.Hensler@West.Sun.COM (Carl Hensler)
Subject: Re: Light Protection

To protect wort in a fermenter in a refrigerator from light from a small light bulb, I suggest simply wrapping the bulb with aluminum foil.

Date: 06 Jan 93 23:28:16 EST
From: Bill Crisafulli <73750.2427@compuserve.com>
Subject: Lights in the fridge

I have a little different scenario that ultimately leaves me in the same boat wrt light bulbs. I have a fridge used during the Chicago summer for temp control, but since fridge is in a detached, unheated garage, things get pretty nippy in the winter. Since I like to store beers in the fridge year round (both kegs and some bottles to savor), I did the following.

I salvaged a cheap, plastic mechanic's light (you know, the kind in a little cage that has a long cord coming out the end and a switch on the handle under the light). I cut the cord a few feet off the lamp, and attached a new plug. I then plugged that into a \$12 thermo switch dohickey (technical) that powers its outlet when temps drop to 35F, and powers off at 45F. This seems to be doing the trick and keeping the temp stable when outside temperatures are hitting 0F.

I'm not sure how long the light is on, or exactly what the relationship is wrt the outside temp. Also, I have a 70W bulb in there, facing a wooden inner fridge door to try to reduce direct light and reflection. The plastic lamp says don't exceed 75W, so I don't feel too comfortable enclosing the thing inside anything else for fear of a blazing fridge (and cars, etc) if it overheats. I certainly don't worry about the kegs (stainless), but the bottles of my Belgians and Hardy's and monthly Beer Across America specials (light as they have been) are making me wonder what the danger is?

Bill
I kinda like the idea of using a brown bottle to cover it. I could take a 750ml beer/wind bottle and do something with that, I think. But really, what is the danger? I protect from direct light via shelving, but what of indirect?

Distribution:
>INTERNET:homebrew@hpfcmi.fc.hp.com

End of HOMEBREW Digest #1050, 01/07/93

Date: Thu, 7 Jan 93 08:32:49 -0500
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Stuck fermentation?

I am a new homebrewer working on my first batch. I used 3.25 lbs of Edme Bitter Hopped Malt Extract and 3 lbs of Laaglander Amber DME for 5 gallons.

I started the yeast (1 package Edme Ale Yeast) in one cup of water boiled with 2 Tablespoons DME, at 80 degrees. 1 oz of Fuggles pellets were boiled

for 30 minutes, 2/3 oz of Hollertau for 10 minutes, and 1/3 oz Hollertau for 5 minutes. The yeast was pitched at 90 degrees (is this too high? -- I

followed the online beginners guide from Rob Gardner, but have since read that pitching should occur closer to 75-80 degrees).

A fermentation lock was placed on the primary (bucket) and the fermentation

began in a 62 degree room. The OG was measured as 1.048. Bubbling began within 5 hours and was vigorous the following day. My concern is that on the second day the bubbling in the fermentation lock has completely stopped. This seems too soon. Bubbling fermentation only occurred for 36 hours. As the bubbling had stopped, I opened the primary and measured a SG

of 1.022. This seems too high. My question is: what should I do now? Should

I rack to the secondary and wait for fermentation to restart? Is this the fault of the Laaglander DME, which is apparently notorious for high TG's? Do I need to add yeast nutrient? Do I need to add more yeast? Should I rack

to secondary and then bottle after a week? How will this high TG affect the taste of the final product?

Thanks in advance for any advice.

Steve Zabarnick
steve@snake.appl.wpafb.af.mil OR
zabarnic@udavxb.oca.udayton.edu

Date: Thu, 7 Jan 93 09:12:33 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: gas leaks

Hi All,

In HBD #1050, James Smith writes:

>Okay, dumb question. If you turn off the gas at the tank and let the
>system sit for a while, and you have (the inevitable) leaks, won't the
>beer go flat? Or do soda kegs have check valves built in?

Not such a dumb question, I think it's just that James has a much different setup than mine. I use soda kegs, not 1/2 barrels, and I don't have taps installed in the fridge as he does. I keep about 12-15 psi on the kegs as a "maintainence pressure". When not in use, I don't leave the hose barbs connected to the keg. Both the gas "IN" and liquid "OUT" fittings on soda kegs have a check valve in them, which is closed when the hose barbs are removed, keeping the keg sealed. If the hose barbs are left on, the check valve is open, and the only remaining seal is between the small rubber gasket on the fitting and the inside of the hose barb. IMHO, this is a primary candidate for both gas and (shudder) liquid leaks, not to mention the wear and tear on the valve spring from keeping it compressed continually.

Cheers,
Jim

Date: Thu, 7 Jan 1993 9:14:22 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: CO2 pressure

Someone asked this before, and I don't remember seeing an answer, so here it is again. After beer has been carbonated in a keg, say to 2 volumes (or something like 20 lbs. at 50 degF), what pressure should be kept in the keg to retain that level of carbonation all the way to the last pint? (the last pint being quaffed a couple/few weeks later, and assuming no change in temperature)

Russ

Date: Thu, 07 Jan 93 09:13:43 EST
From: jfunk <jfunk@MAIL.CASI.NASA.GOV>
Subject: Growing Hops

I need some advice from some of you who have successfully grown your own hops. I live in the Mid-Atlantic region (Northern Maryland), and would like to know what time of year is best for growing, harvesting. Also things like soil composition, fertilizer, composting, etc would be helpful to know.

Thanks!
Jim.

Date: 07 Jan 1993 11:19:07 -0500 (EST)

From: LEONH001@mc.duke.edu

Subject: Beer Camp

Hi All,

Has anyone been to the "Beer Camp" at Oldenberg Brewery? My wife gave me a gift of it for Christmas and I am wondering if it is worth the \$600. (Camp is \$341 rest is airfare). Please contact me at leonh001@mc.duke.edu. Thanks! Dave Leonhard

Date: Thu, 07 Jan 93 08:20:36 -0800
From: mcnally@wsl.dec.com
Subject: cold plate question

Many HBD's ago, Jack S. described a wonderful-sounding contraption called a "cold plate", I think. I have the impression that the thing is some sort of in-line rapid-chilling device that chills beer from a room-temperature pressurized keg on the way to the glass. Is that correct? If so, can these things be bought for not much money (i.e., less than the cost of a spare fridge to keep the kegs in)?

-
Mike McNally mcnally@wsl.dec.com
Digital Equipment Corporation
Western Software Lab

Date: Thu, 7 Jan 93 08:25:56 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Cops are after you from Micah Millspaw

About this search for the still. This greatly concerns me, many times I have had people who know that I homebrew, ask if I have a still (with which I make the beer) I say no. When people come over and ask if they can see my brewing equipment, they look at it and say, so this is the still. This line of questioning bothers me a great deal and I often make efforts to explain. The problem is, that per BATF regs (a vestige from the Volstead Act) it is not legal to possess a still (in the USA) for any reason or use.(it is possible to obtain a permit from the BATF but this requires a bond and so on) In the USA the possession of a still can result in forfeiture of the property that the still was found on as well as other punishment. The Volstead Act was the enforcement aspect of Prohibition. The precedents set by this Act are the basis for the narcotics seizure and property forfeiture laws. Start looking at the BATF regulations and you will start to wonder if prohibition was actually repealed.

The rubb is that homebrewing equipment is basically the same as the larger part of the stuff need to distill. It will most likely be proven in court that the homebrewing equipment could be used for illegal distillation wither it was or not. Be concerned this could happen to you. Also discourage people from going around saying so and so has a still and he makes beer. Because some, over zealous cop will break down your door and arrest you and your will have to get a lawyer to prove (at your expense) that you are innocent, if possible. It could be proven, by an expert of course, that your homebrewing equipment is in fact potential distilling equipment and then what do you do, say yes it could be used for that, but I didn't do it. Remember if your innocent can't be convicted.

It seems that many people beleive that brewing and distillation are the same. All that it could take is for someone to say that so and so has a still (which you don't) and next thing you know the police are breaking down the door. Most are ignorant of the laws concerning the production of alcoholic beverages. I've encountered people who make their own wine and brandy (making brandy is illegal) but were shocked at my making beer because they were certain that homebrewing is illegal. These same individuals later told me that it was legal for ethnic Portuguese only to make their own brandy in California (and they actually beleive this).

I've even had the pleasure of being grilled by the FBI over my homebrewing. The FBI agent asked if I knew that I had admitted to committing an illegal act by naming homebrewing as one of my hobbies. There was also concern that if I was making beer that I was probably making other drugs as well. Make beer and your in bad company. They also annoyed my neighbors about this as well, which did little to improve my standing in the area. Also there is an article in the latest issue of American Brewer that tells of the state of Georgias efforts to stamp out homebrewing by busting home beer and wine making shops for selling illegal parphen-
alia, such as yeast.

I guess that the point that I am trying to get across is that this could happen to any homebrewer. And that educating the public, ie.. friends, neighbors,etc...,is the only way to prevent such an incident. Misinformation can be very hazardous to you.

micah
1/6/93

Date: Thu, 7 Jan 1993 12:20 EST
From: Mark Cronenweth <CRONEN@vms.cis.pitt.edu>
Subject: Lab Grade >= Food Grade ?

My biology teacher buddy just acquired an unused 5-gallon container which we think might be useful somewhere in the brewing process. It's a heavy-duty opaque plastic "jug" with a screw-on lid about 6" diameter, with a spigot near the bottom. My friend believes that, since this vessel was intended for lab experiments, the plastic is inert and free from bad chemicals, since these might ruin the data. He says it's "Lab Grade". I have 2 questions:

Do any of you scientists out there know how a "lab grade" container compares with "food grade"? Would it be OK to consume beer that has come in contact with a lab grade container, assuming it was clean to begin with?

Also, since the spigot is about 1.5" from the bottom of the container, I thought it would make an ideal vessel for secondary fermentation, since we could tap the beer right off the trub into bottles. Also, if we left the screw-on cap in place, we might be able to use it to carbonate or maybe lager a batch in the fridge. Any ideas about this?

Mark Cronenweth, University of Pittsburgh

Date: Thu, 7 Jan 93 11:46:41 CST
From: bliss@csrd.uiuc.edu (Brian Bliss)
Subject: kegging

> I racked the beer
>straight from the carboy to the keg with no priming. I put the
>tap back in and pressurized it to ~25 psi. I didn't get any
>guidelines as to pressure vs. style, so this was a guess based
>on a recommendation of 20-40 psi. I removed the lines and rolled
>the keg around for 10 min or so on the basement floor and tapped it.

First of all, you need to get the beer cold before you agitate it,
and secondly, do not disconnect the pressure lines before agitation-
the beer will absorb the CO2 in the headspace and more is needed
from the tank after agitation begins. How much pressure you need
depends upon how cold the beer is-you need less when it is colder.

bb

Date: Thu, 7 Jan 93 11:41:08 CST
From: gjfix@utammat.uta.edu (George J Fix)
Subject: Herbstoffe and Spiders

Many thanks to Martin Lodahl for fielding the questions sent to him. Boy, did we get our money's worth with his responses. To wit:

>I've run across astringency in some of the best lambiks I've had, and
>most especially in some of the young (vos) lambiks served from casks
>in specialty cafes. I don't have your experience of German beers and
>wouldn't recognize true Herbstoffe, but the astringency I'm thinking
>of in this instance is of the husky, grainy sort we often associate
>with hot sparges, and as lambik brewers frequently sparge hot, I've
>been assuming that was the cause. "Nutty", "sherry-like" and even
>"cigar-like" oxidation products are frequently named in my tasting
>notes. These could well be HSA products, couldn't they? Oddly, these
>flavor notes seem altogether appropriate to the beers I've found them
>in -- not a defect, but part of their character, even their charm.
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>or splendid (Frank Boon) don't have identifiable astringency, but
>many seem to.

Many people, and yours truly is as guilty as they come, detect astringency very easily, and then consciously or unconsciously consider it a flaw. It has been reported that overconcentration of one's brewing activities on Viennese style beers can do this to one's palate! Nevertheless, as Martin's comments suggest, with Lambik these issues are far more subtle. By the way, I did fly the term "Herbstoffe" by some language experts and they noted that the translation "grain astringent" was correct but incomplete. This term also conveys a "unpleasant" feature as well. Thus, if "common use" rules are used, then astringent tones like those cited above should not be cited as examples of "Herbstoffe". Great point Martin. C.R. Saikley's comments in HBD#1049 were, as always, dead on target as well.

I have also received some really witty e-mail from members of the Spider Appreciation Society. They correctly point out, as did C.R. and Martin, that spiders provide protection against fruit flies and other bugs. They also make the excellent point that this is natural protection and does not involve chemical cleaners, etc. Anyone with even the slightest social conscious will be sensitive to and applaud that point. Nevertheless and alas, I remain a hopelessly unreconstructed reactionary on this point, and if given a vote, it would go toward removal of the cob webs. Perhaps this is related to the severe emotional trama received upon walking into a room with an open fermenter in high kraeusen, and with everything (including the sides of the fermenter) being adorned with cob webs. Surely there is a better way to go. One that is natural, yet one that is less stressful to those who worry about what it is that spiders do after lunch.

Martin > Outstanding post.
Spider Society > You folks seem like a really fun group. When and where
do
 you meet?

George Fix

Date: Thu, 7 Jan 93 10:20 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: KETTLE MASHING

KETTLE MASHING, Part 2

The following procedure is intended only as a starting point that I know works well enough to assure a successful, first, all-grain experience. I do not want to get into endless discussions about the pros and cons of the procedure at this time nor do I even claim that I brew beer this way. There are an infinite number of variations that could be fodder for future articles but the object of this one is to introduce the approach and brew a simple batch of all grain beer.

MASHING

The first step is to dump 8 lbs of crushed pale malt into the kettle. Don't forget the screen! Add 3 gallons of warm tap water and mix thoroughly.

Apply heat and raise temp to 155F. Stir frequently to avoid caramelizing and to distribute the heat. Hold this temp for 30 minutes by adding heat and stirring as necessary.

After 30 mins at 155F, crank up the heat and continue stirring until 178F is reached. This step is known as "mashout" and is difficult or impossible to do with the plastic bucket approach. It is my opinion that it eliminates one source of a common problem with first all grain batches known as a "set mash."

Hold this temp for 10 minutes, then turn off the heat and let it rest while heating water to a boil on another burner. Use a pan that holds at least two quarts of water.

SPARGING

The level of wort in the kettle should be about an inch above the grain when it settles. Lay a small bowl on top of the grain to distribute the sparging water and minimize the disturbance of the grain.

Open the spigot just a trickle and run the wort into a cup until it runs clear. Pour the turbid runoff back into the kettle. With this setup, it will run clear after a few ounces. Again, as comparison, it sometimes takes gallons with the other system and this must be recycled back into the mash till it does run clear.

The object of sparging is to extract as much sugar from the grain as possible. The longer it takes, the more efficient the extraction. Adjust the outflow so that it takes at least 10 mins to fill a gallon jug. Pour the boiling water into the bowl as available or necessary to keep about an inch of water over the grain. The availability of boiling water will probably be the limiting factor on sparge rate.

Most brewers will tell you that the sparge water should not exceed 170F but if you use boiling water in this system, the average temp will be far below 170F and you will be lucky to keep it above 150F. You can fiddle on your next batch. Trust my on the first.

The first runoff should be about 1.080 and you quit when it gets below 1.010. The total blend will produce 6 to 7 gallons at about 1.035 which, after boiling will yield 5 to 6 gals at 1.040. Collect the wort in gallon jugs or five gallon plastic buckets (can't get away from them).

Continued.....

Date: Thu, 7 Jan 93 11:26:15 PST
From: Richard Childers <rchilder@us.oracle.com>
Subject: Re: COPS, homebrewing, and the WOD

Regarding the recent thread about the busted homebrewer, I see three possibilities ... in order of likelihood :

- (1) The cops were using the home brewing equipment in bad faith, since they knew he wasn't running a still but knew that the judge wouldn't know that and that the situation could be safely misrepresented, to get the warrant to bust him for marijuana cultivation - which, as others have noted, is far more a service to his community ... like homebrewing, it is being independent and productive and creative and nurturing - than a threat or anything that might damage the commonwealth that the COPS allege to represent.
- (2) The cops were as stupid as the judge, and misled by the informant, who had a grudge, or a bias against marijuana.
- (3) The guy was genuinely running a still ... which does not, prima facia, seem to be the case, although, off hand, I'm not sure it would be possible to prove this, since the equipment needed for both is essentially identical, and a wort cooler could probably be used as a distillation coil. This means this could happen to any of us, and anything you have that is illegal on the premises will be used to justify their action - anything. Unregistered gun, for example, they could and probably would parley it into a federal case if they could, before they'd admit that they had made a mistake and owed you compensation / apologies.

Personally, I don't see the difference between brewing beer, wine, and other alcohol so long as you are neither selling it nor creating a threat to the wellbeing of your neighbors.

What this sort of implies is that if they're going to break down your door when you're not distilling, and try to make it look like you are ... you may as well, anyway.

I think the circumstances suggest that marijuana was the target and home-brewing was used to justify it, no thought given to the thousands of well-meaning and generally law-abiding homebrewers. This is consistent with War On Some Drugs thinking. How do y'all like it when it returns to roost ?

- -- richard

=====

- -- richard childers rchilder@us.oracle.com 1 415 506 2411
oracle data center -- unix systems & network administration

... whatever remains, however improbable, must be the truth.

Date: Thu, 7 Jan 93 14:17:01 MST
From: Rick Myers <rcm@col.hp.com>
Subject: Ninkasi Beer

I have scanned the complete July/August 1991 Archaeology magazine article about the Anchor brewery's adventures in brewing their "Ninkasi" brew, into uuencoded GIF format files. I will make them available to anyone who requests them via email. Be warned, however, the entire 10 pages consume a little over 2Mb, and if your mailer cannot handle the file sizes, I will NOT break them down into smaller pieces...

I will mail each page separately, however. The largest file size is 437Kb. I will NOT entertain questions such as "How do I decode these files", "How do I display them on my Sun workstation", etc.

Enjoy.

--
Rick Myers rcm@col.hp.com
Information Technology Specialist
Hewlett-Packard
Network Test Division
Colorado Springs, CO

"I don't drink milk. Milk is for babies. I drink BEER!!!
- Arnold Schwarzenegger

Date: 07 Jan 1993 14:47:58 -0700
From: Bruce Given <SCN146@WACCVM.corp.mot.com>
Subject: OAT POST

A request for the HBD. I am in the process of collecting Oatmeal stout recipes, If anybody has a favourite can you post it on the Net or to me privately , I promise that I will post them when I have a good amount collected. (recipes in the Cats Meow don't count.)

Cheers !!!

Bruce ...

Date: Thu, 7 Jan 93 15:41:18 MST
From: "Ray Brice" <ray@hwr.arizona.edu>
Subject: great beers of belgium

My boss recently saw a book by Michael Jackson
entitled: "Great Beers of Belgium".

Can anyone give me a brief review of it and/or
a place to purchase this? You can email me
directly.

Thanks!

ray@hwr.arizona.edu

Date: Thu, 7 Jan 93 17:52:08 EST
From: strasser@raj2.tn.cornell.edu (Tom Strasser)
Subject: Stand up to COPS!

I am writing in hopes of convincing a large number of you to voice your opinion in defense of homebrewed beer, a subject near and dear to most of our hearts. I figure that that many of us (including myself) do not watch shows such as COPS, however the rumblings heard here weren't as bad as my personal rumbling when I read the transcription of the segment sent to me by Rick Hapanowicz (after he reviewed the video he mentioned here on Tuesday). As discussed earlier the show COPS broadcast an episode where they allegedly arrested a man for distilling liquor, while in actuality all they showed was homebrewing kegs, immersion chillers, being confiscated and referred to these as illegal equipment. The show was so disturbing to me personally that I have written a letter to both the local Fox station and the producers of the COPS show, and would like to very strongly encourage you to get as many letters sent as possible from your own contacts. I have already sent out mail to club contacts throughout the country, which includes the transcript of the show segment detailing what I personally feel are misrepresentations in the show. I am willing to send this transcript to anyone who wishes it, to encourage you to voice your opinion to your local fox affiliates, and to the COPS producers at the address I have given below.

A small number of brewers here have been apathetic about the negative exposure, saying that the people who watch a show of this nature aren't worth trying to educate. I would like to point out that this may not seem so trivial as some ignorant neighbor results in your arrest and the confiscation of your brewing equipment.

So if each of you could take some time to voice support for homebrewing I feel it would be to the benefit of all involved. I feel this is one point most all of us should agree on, and hope we can make our voice well heard. If anyone would like a copy of the transcript, or the letters I sent to COPS, and the local affiliate, I would be happy to forward them in hopes that this would induce more response from homebrewers around the country. Thanks in advance for your efforts

COPS Address (Thanks Rick):
COPS
c/o STF Productions
P.O. Box 900
Beverly Hills, CA 90213

Auf ein neues,

Tom Strasser...strasser@raj5.tn.cornell.edu...strasser@crnlmsc2.bitnet

Date: Thu, 7 Jan 1993 16:53:16 -0800 (PST)
From: "Hank E. Eggers" <heggers@eis.CalState.EDU>
Subject: **Maibock Recipe**

Fellow brewers...Just wanted to know if anyone has or has seen a recipe for a brew similar to EKV Kulmbacher Maibock? This is my favorite brew but it is 1) expensive 2) hard to find (if at all)..Currently, I am only a lowly extract brewer but if my only choice is a grain recipe, it may be enough encouragement to give it a shot. Thank you!

Hank Eggers Internet: heggers@eis.CalState.edu

Date: Fri, 7 Jan 93 17:40:58 PST
From: Darryl Richman <darrylri@microsoft.com>
Subject: RE: Charcoal Water Filters

Jim Grady <jimg@hpwarga.wal.hp.com> writes:
> Back in HBD #1040 (24 Dec. - I just caught up from the holidays!)
Darryl
> Richman says:

Hope you got all you wanted at Xmas!

> > There is no need to boil all your water before you brew. If your
water
> > comes with a lot of chlorine, an activated charcoal filter will
remove
> > it. You need only boil and decant your water if you have a lot of
>
> This is true but I misread it at first and thought I would emphasize
> that if you use a charcoal filter you should boil all of your brewing
> water either before or while you are brewing. Many of us extract
brewers
> boil only part of the wort and I must confess that when I lived in a
> town with better tap water, I made up the 5 gallons straight from the
> tap. I have since moved to a new town that has a lot of chlorine in
the

This is an excellent point. Even though one may have had success in
the past relying on tap water, there is no guarantee that the tap
itself has not become contaminated by some food particle or other vector.

> water (0.7 ppm) so I bought a chlorine water filter for the house
> thinking this means I don't need to boil the water from the tap. Well,
> according to Miller (I think it's his new book, "Brewing the World's
> Great Beers") and my backyard neighbor (who sells filters & such to
> industry) active charcoal filters are great breeding grounds for
> bacteria. In addition to collecting all sorts of organics for them to
> munch on, the media itself promotes growth.

This is another good point. You can, however, buy charcoal filters
that are impregnated with silver, which acts as a bacteriostat. These
will eventually grow bacteria when they get near their usage limits.

--Darryl Richman

End of HOMEBREW Digest #1051, 01/08/93

Date: Fri, 08 Jan 93 11:41:23 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Botulinum in canned malt extract?

I just got a 1.5 kg can of a malt extract "with hopps added". It must have been sitting for a couple of years in this guys store. I took it to a friend who has some experience in homebrewing. As we opened the can the malt started oozing out and some air/gas came out. We figured it might be the result of some bacterial growth, but the malt looked and smeled just normal. We autoclaved the malt for 20 minutes. We used it for making 25 lit. of what would hopefully become beer. Questions:
Has anyone seen bacterial growth in canned malt extract?
Can C. botulinum grow in the presence of hopps?
If there was any botulinum toxin in the malt extract do you know if we have inactivated it by the 20 min autoclaving.
In short, should we not take the risk, dump this batch and start all over with fresh malt extract (which will take me another month to get)???

Nir

Date: Fri, 8 Jan 1993 07:56:06 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: kegging

With respect to the pressure--carbonation level--temperature discussion:
In
Miller's new book Brewing the World's Greatest Beers, he gives a set of
guidelines on carbonation level for various styles, and a table of
temperature
vs. pressure that yields a given level. And this past week, I borrowed
a
kegging system from my local homebrew supplier, IMO (Thanks, Roy), looked
up IPA
to get a carbonation level, and dialed-in 17 lbs on the pressure gauge
because
of the cold temperature. Voila, perfectly carbonated beer. Gallons of
it. So,
the table is really what you need. The book has other things to
reccommend it
too -- I'd say its worth the price. And I want a kegging system now. Of
course, I'll need a regerigerator too...

t

Date: Fri, 8 Jan 93 09:05:53 est
From: mtavis@gemini.hyperdesk.com (Mike Tavis)
Subject: Diminishing Yields

I have just bottled my third attempt at all-grain brewing. I've been very happy with the results so far, but I have noticed a disturbing trend -- my extract rates are plummeting with each batch. My first batch yielded 29 pts/lb/gal (a number I never expected to get the first time). My second batch dropped to 22 pts/lb/gal and my third batch was a miserable 18 pts/lb/gal.

All three of these batches had different grains bills, but the technique was pretty consistent. In fact, I tried to do everything the same as the first batch in order to recreate the results. Everything seemed close to that first batch -- the crush was the same, the pH was the same, the temperatures and times were the same -- but my yields are still going in the wrong direction.

After many different discussions, one of my brewing buddies asked, "Has the temperature of the wort coming out of the lauter tun been the same?"

I said, "I never take that temperature. I just make sure that the sparge water is about 168-170."

He said, "Well depending on the size of the grain bed, the sparge water will be lowered and if it gets too low it won't be effective at rinsing the sugars from the grain."

I said. "That makes some sense because in each successive batch I have used more grain -- specifically, the first batch used 8 lbs, the second batch 10 lbs, and the third batch 12.5 lbs."

So what do you guys think? Should my sparge water temperature depend on the size of my grain bed or do I need to go back to the drawing board? Thanks.

- -- Mike

o o | Michael Tavis, HyperDesk Corporation
o o | Suite 300, 2000 West Park Dr., Westboro, MA 01581
----+ E-mail: mike_t@hyperdesk.com (508) 366-5050

Date: Fri, 8 Jan 93 9:08:37 EST
From: twilloug@brynmawr.webo.dg.com (Tony Willoughby)
Subject: 152 year old Porter yeast

I'm posting this for a friend of mine, John Reed.
His e-mail address is: johnr@ci.com

=====

I read an excerpt from the December 17 issue of "Nature" which describes ancient microbes. The article mentions a *152 year old Porter yeast* which was discovered in a shipwreck from 1825. The divers recovered a bottle of porter which still contained yeast. The yeast was cultured and now is supposedly used in a commercial porter!

I would love to try that Porter!

Does anyone have a clue what porter uses this 152 year old yeast?

Thanks!

=====

- - -

Tony Willoughby | He that buys land buys many stones.
twilloug@brynmawr.webo.dg.com | He that buys flesh buys many bones.
| He that buys eggs buys many shells,
| But he that buys good beer buys nothing else.
| - An Old English Saw

Date: Fri, 08 Jan 93 09:43:52 EST
From: "Mark Rich-mpr8a@acadvm1.uottawa.ca" <MPR8A@acadvm1.uottawa.ca>
Subject: COPS and the still

At the risk of supporting gung-ho policemen...

For those of you unfamiliar with marijuana culture, yes; dope and a still go hand in hand. If you take high percentage grain alcohol and soak marijuana in it; the oils from the plant dissolve into the liquid. If you then evaporate the alcohol you are left with a very sellable product- pot oil. (I have a friend who does this). I do not defend the cops in their actions on that particular bust (they did seem pretty ignorant of what they stumbled onto), but if this guy was growing large quantities of grass and had brewing equipment around, the odds are pretty good he was distilling for oil producing purposes.

Date: Fri, 8 Jan 93 07:13:40 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Cops don't know hops

Maybe those plants growing in the guys closet were HOPS! Don't they look the same when very young plants? Lets give this poor innocent brewer every break possible.

Bob Jones

Date: Fri, 8 Jan 93 10:01:53 -0500
From: rogers%scsd.dnet@gte.com (JOHN - GTE - (617) 466-3681)
Subject: Storage / shelf life of Crushed Malt

I would like to start mashing. I also would like to save some money and buy the grain in bulk (55 pound sack). Since I do not own a grinder I would be interested in information on storing crushed grain.

Should I Freeze or refrigerate it or ??? ?

Zip lock bags or a plastic bucket or ??? ?

What is the shelf life of crushed malt? (i.e what age / storage conditions will affect mash results, flavor or any other important characteristics?

How does the storage / shelf life of crushed malt compare with uncrushed malt?

Does the benefit of crushing your own grain outweigh the possible negative affect of pulverizing (rather than grinding) the grain by using a "non-optimized" home crusher?

Thanks in advance for any info !!!

John

Date: Fri, 8 Jan 93 10:22:20 EST
From: kstiles@alux1.att.com
Subject: growing hops

jfunk@MAIL.CASI.NASA.GOV asks about growing hops:

Jim,

It's not too early to start thinking about starting hops in the Mid-Atlantic region. Last year was my first hop harvest, so naturally I feel free to consider myself an authority on hop growing. I'm in SE Pennsylvania, not so different from N Maryland. I got my hop rhizomes in March from Freshops in Philo, Oregon. I planted them immediately in 1-gallon plastic pots and set them in a sunny window until after the last heavy frost. This was late April, and the hop shoots were about 1-2' high. I gave them a dowel-string contraption to climb. Hops like rich, well drained soil, so if you have brick-like clay like I do, you're best off making mounds of soil-compost mixture to plant the shoots in. Choose a sunny spot if possible. Once they start growing, hops are like a weed, and don't really need much fertilizer. The real work is to give them something to climb. I made 7' trellises from a frame made of furring strips and a random network of string. This was OK for the first season, but will clearly not be adequate for established hops.

Harvest is in August and September, varying with hop variety. Figuring out when to pick the hops is the trickiest part, but once you have the knack, it's easy. They turn from hard to springy, get a "papery" look to them, and display orange globules at the base of the petals. If the petals turn brown, you waited too long, but you have a fair amount of leeway, so don't worry. The hops do not all ripen at once, so the harvest is spread out over several weeks. After the frosts kill the vine in the fall, I covered the mounds with copious amounts of compost.

Limited probing under the mounds has shown an amazing network of rhizomes. I'm offering cuttings to interested parties within driving distance of Allentown (Varieties: Mt. Hood, Chinook, Cascade, Willamette and Nugget).

Here's a harvest summary that I sent to another Digest member by email:

First year Freshops rhizomes, planted in April in eastern Pennsylvania

Variety	Dried weight (oz)	Comments
===== Cascadel2	===== Yow!	=====
Mt. Hood	5/8	Meager
Nugget	3/8	Maybe next year
Willamette	3/8	Ditto
Chinook	1/2	Mutant giant cones

All the vines were vigorous, but the Mt. Hood didn't grow very high despite the fact that it took a dramatic early lead over the other varieties. I suspect that I should have taken seriously the advice to thin the shoots to 2 or 3.

Picking Cascades and Chinooks is a sensory experience to say the least.

I had no pests to speak of. A few leaves with holes, and a (very) few cones that something bored through, and a couple of Japanese Beetles that were really much more interested in other things in my yard. My theory is that hop-loving pests may give a 1-year grace period before they gather in number to devastate your hop yard.

For any hop flavor profile experts who have read this far: how would you describe Chinook flavor/aroma? What other hop varieties are similar? I find it a bit odd (though not unpleasant).

Kevin Stiles

Date: Fri, 8 Jan 93 10:53:01 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: re: Mettalic notes in Belgium Ales

I have been following the discussion between Dr. Fix and Martin Lodahl concerning Herbstoffe and general flavor profiles found in Belgium Ales/Lambics with interest. The question that I have relates to my experiances of detecting distinct metallic notes in Belgium ales during my travels to Belgium. This metallic flavor seemed especially pronounced in many of the Tripples that I sampled. The metallic notes would usually diminish as the beer became warmer. Martin and/or George: Do you feel this is a product of HSA techniques that seem so prevelent in Belgium brewing or do you suspect another cause in particular with respect to Tripples?

Jim Busch

PS: There are spiders on the ceiling above my "open fermenter" but I keep the lid on so they cant crawl in!

Date: 08 Jan 93 11:26:38 EST
From: Charlie Papazian/Boulder <72210.2754@compuserve.com>
Subject: All

We've been having a lively discussion on compuserve regarding COPS (the television program). I understand you have as well. If you don't have this information already, here it is:

The address of the producers of COPS:

Malcom Barbour
COPS/ Barbour/Langley Productions
13900 Tahiti Way Suite 124
Marina Del Rey, CA 90292

Telephone: 310 827-2116
FAX: 310 821-4166

fermently,

Charlie P.

p.s. I had written them in response to their airing of this program in late November. I got a response from the producers and am awaiting a response from the police department that exercised the search warrant. still waiting.

Date: Fri, 8 Jan 1993 12:13 CDT
From: Tom Clark -- COMNET 435-5045 <TCLAR@HOBBS.CCA.CR.ROCKWELL.COM>
Subject: Proper Sparging Technique

Hello to all,

The college where my wife works is currently between semesters and is offering a class on homebrewing during their "interim" schedule. It is being taught by a team of two instructors, one a philosophy professor/20 year homebrewer and the other a chemistry/microbiology professor. In general the class is pretty good with nightly tastings of the various beer styles, and three MANDATORY brewery tours, (like I wouldn't go!) Anyway, a question came up in class last night that I volunteered to pose to the net for "the real answer".

The chemistry professor asked why the homebrew professor didn't totally drain the mash tun before adding any sparge water. She said that we would get the best possible extraction rate if we followed this "two-part" sparge. There was no definitive answer presented so I made my offer to post to this group.

Thanks for your help in advance,
Tom

Date: Fri, 8 Jan 93 09:10 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: Leaky Kegs

>From: SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh)
>Subject: Gas leaks in keg systems

> If you turn off the gas at the tank and let the system sit for a while, and you have (the inevitable) leaks, won't the beer go flat? Or do soda kegs have check valves built in?

The disconnect is a check valve but only if disconnected from the line and they too can leak. One of the most common leaks is around the large gasket of the opening and the check valve doesn't help any.

In the unlikely event that one would leave a keg sit around so long that it goes flat, one only has to repressurize the keg to drink it. On the other hand, an empty CO2 tank is real depressing, especially if it is on the first keg.

js

Date: Fri, 8 Jan 93 13:34:22 EST
From: casagran@gdstech.grumman.com (Lou Casagrande)
Subject: Lab Grade plastics

Regarding the question of whether lab grade plastics are of equal or better quality than food grade: when I was a grad student (I'm a chemist), we used a jug that sounds just like the one described to hold our supply of deionized water. As Mark surmised, we had to keep our water free of impurities. However, we were careful not to keep it around for too long. One of the reasons has to do with acidification by absorbing carbon dioxide, obviously not a concern here. We may have been concerned about leaching of "plasticizers" into the water, too. Although I'm not a plastics chemist, my understanding is that all plastics are made with them, although some might contain less than others. My point is that your food grade fermenter was made similarly, so it's probably worth trying the lab grade jug for one batch. Just don't keep the wort in it for too long (i.e. no lagering). Also, be sure to attach a tube to the spigot in order to drain it so as not to aerate your brew.

On your second question, DO NOT use the jug for a keg or for anything that becomes pressurized. I'm sure you would come home some day to find five gallons of your latest all over your floor, besides which you would have to store the brew in it for too long, giving what plasticizers there are a chance to leech into it.

Hope this helps.

Lou Casagrande

Date: Fri, 08 Jan 1993 12:34:12 EST
From: connell@vax.cord.edu
Subject: Alsan sterilizer

I recently received a bottle of Alsan sterilizer from the James Page Brewery (which also sells homebrewing supplies). Their catalog identified Alsan as the sanitizer they use in the brewery so I thought I'd give it a try. But when it came, I was a bit intimidated by the label. It warns of permanent eye damage etc and recommends gloves and goggles. I called the brewery, but the guy I spoke with couldn't tell me what sort of stuff this is. It doesn't smell like a chlorine and it suds a bit. Can anyone out there tell me what this stuff is and whether it is a good thing for homebrewers to use?

A second information request: I recently acquired a keggung setup (5 gal soda keg) but I'm having trouble with carbonation. I've seen several thank yous for good info on kegs appear on HBD recently so I ask for help too. I put 3 gals of hefewiezen under 20psi at 45F. What I get is tons of foam but absolutely no carbonation. When I tried aggitation at these pressures, I just got more foam but still no carbonation. Any advice will be received gratefully.

Date: Fri, 8 Jan 93 11:56:30 MST
From: Rick Myers <rcm@col.hp.com>
Subject: Ninkasi article

I have had moderate interest in the Ninkasi article GIF's - great!
There have been several requests for ftp access, but I cannot offer
that because I am on a closed subnet. There have also been
suggestions to put them on the archive machine at Stanford, which
I also will not do because of copyright issues - thus, the email
offer, for private use only. If somebody does happen to put them
on the archive, make sure I am not associated with them in any way
(put YOUR name there, not mine)!

Brew on,
Rick

- - -

Rick Myers rcm@col.hp.com
Information Technology Specialist
Hewlett-Packard
Network Test Division
Colorado Springs, CO

Date: Fri, 8 Jan 93 09:20 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: KETTLE MASHING

KETTLE MASHING, Part 3

BOILING THE WORT

When the wort is collected, dump the spent grain on the compost pile and rinse out the kettle. I always save a few pounds in freezer containers for beer bread. The seven gallons of wort will barely fit into the kettle for the boil so it is best to bring a smaller portion to a boil initially to avoid boilover. After evaporating some and getting the boil under contro, the rest can be added. A minimal one hour boil will evaporate about a gallon so you can play with the volumes in various ways. You can increase the gravity by more boiling or boil less and have more beer.

Add half of your hops as soon as boiling begins. Save one forth for the end and the remainder at regular intervals during the boil. If you need a suggestion, try 1.5 oz of Chinook for your first batch.

CHILLING AND FERMENTING

After the boil, the wort is cooled, either overnight or with a wort chiller if you have one. I draw it off, after chilling, a gallon at a time so that I can shake it vigorously and "glug" it into the primary to oxygenate it prior to pitching yeast.

If you hold the chilled wort in a carboy or gallon jugs, you can clean out the kettle and use it again as the primary fermenter if the lid fits well. Just boil a cup of water in it with the lid on for about 5 minutes to sterilize it.

The kettle seems to be universally available for about \$35 and the rest of the stuff can be had for under \$20, making it a pretty inexpensive system.

So, that's what kettle mashing is all about. Try it, you may like it.

js

Addenda.....

Here is the list of parts required:

1. Brass "air cock", 1/8" male pipe thread at one end, bibb spout at the other and lever on top.
2. Brass "female connector", 1/8" female pipe thread at one end, 3/8" copper tubing compression fitting at other end.

3. 6" length of 3/8" copper tubing flared at one end and bent so the end rests on bottom.

4. 4 X 6 inch screen (window, brass, copper or ss) rolled into tube and clamped to flared end of copper tube. (flare prevents it from falling off at inconvenient times)

All it takes is a 3/8" hole in your kettle, near the bottom. If you run a 1/8" pipe tap into the hole, you can screw on the air cock and it will not leak. However, as most kettles are too thin to provide enough threads for a safe and permanent fit, I modify the fittings by rethreading the aircock and connector with STRAIGHT pipe threads. This allows the connector to be screwed on to the aircock in such a way that you achieve a snug fit by compression instead of relying on the tapered pipe threads.

Aside from the brass screen, you can find this stuff at a good hardware store. I used window screen for months and see nothing wrong with it.

js

Date: Fri, 8 Jan 1993 10:50:19 -0800
From: rpeck@pure.com (Ray Peck)
Subject: Homebrew Digest #1051 (January 08, 1993)

>Date: Thu, 7 Jan 93 17:52:08 EST
>From: strasser@raj2.tn.cornell.edu (Tom Strasser)
>Subject: Stand up to COPS!

>

> I am writing in hopes of convincing a large number of you to
>voice your opinion in defense of homebrewed beer, a subject near and
>dear to most of our hearts.

Below is a letter I am sending to the COPS people. Does anyone have the address for FOX?

COPS
c/o STF Productions
P.O. Box 900
Beverly Hills, CA 90213

Hello.

I am writing regarding your recent program which concerned a man getting arrested for growing marijuana. In that program, several pieces of homebrewing equipment were depicted as distilling equipment.

As I'm sure you are aware, home beer brewing is very much legal, and is a quickly growing hobby (just as microbrewed beers are the quickest growing segment of the beverage industry). Distillation, on the other hand, is a Federal crime.

I'm sure you are also aware of the current civil forfeiture laws. Under these laws, anyone possessing any equipment similar to distillation equipment can have all of their property seized, without being charged for a crime: the police simply need to show "just cause" (i.e., an "informant"). By blurring the line between perfectly legal home beer making and home distillation, you have done a *great* disservice to home brewers. You have greatly increased the possibility of "midnight raids" and civil forfeiture against law-abiding people.

As you may guess, I am a homebrewer. In my experience (I communicate with hundreds of other homebrewers), homebrewers are beer connoisseurs and professional people. They are not beer-guzzling yokels. By connecting homebrewers with bootleggers, you have insulted and endangered a large number of your viewers and others. I belong to a computer mailing list on the worldwide Internet computer network. This mailing list consists of hundreds of professional people (mostly computer engineers). There has been a lot of fear expressed on the list since your show aired. People worry about a disgruntled neighbor telling the police that they are distilling, and then having their house raided by armed men at night. This is not a pleasant prospect, to say the least. Many have expressed the opinion that they should now keep their brewing secret, to avoid this possibility.

I strongly urge you to air a segment on an upcoming show to clear up this issue. You should make it clear that home beer making is perfectly legal. You should also make it clear that the equipment that was shown being seized on your program was not, in fact, distillation equipment, but homebrewing equipment, and that while much homebrewing equipment can be used for distilling, that it is the *use*

of distilling equipment that is illegal, and not the possession of something that *looks* like distilling equipment.

If you do not air such a segment, you are further endangering a large and growing population of law-abiding people.

Ray Peck
498 Bush
Mountain View, CA 94041

Date: Fri, 8 Jan 93 20:30:36 GMT
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)
Subject: Sediment in Carboy

First, thanks to all of you who responded to my inquiry of mail order sources of brewing supplies. I've got ten names on the list in just a few days.

Every supplier that I have contacted so far has said they would send a catalog.

You home brewers seem to be an OK crew. If anyone is interested in getting the compiled list, drop me a line. Not having purchased any reference books yet,

I have a couple of questions which are probably easily answered . . .

I eagerly await my first batch to stop fermenting so I can bottle and try it. Lately in the HBD there has been talk of culturing one's own yeast.

Not

that I as a rank amateur want to attempt anything as exotic as that, but the

subject brought a couple of questions to mind regarding the sediment in my carboy.

First question: Is this sediment (trube, correct?) the source of the yeast culture base, or is the sediment which will settle in the bottles after secondary fermentation the source? Why use one and not the other?

As I anticipate being able to bottle the batch somewhere between Monday and Thursday, should I save this precipitate for anything? I recall when one of my

older sisters returned from school in Britain many years ago, she introduced the

rest of the family to a product called VEGEMITE. The container stated that it

was a by-product of the brewing process, but I forget if it was a grain or a yeast based product.

At any rate, it was like a pate or paste which you spread on toast or crackers. Malty & salty, and you couldn't eat too much in a single sitting/snack. A few years ago I was stationed in Huntsville, Al, and there was

a real-life Australian restaurant in town called The Down Under. As well as

Australian brews and wines, kangaroo steaks and other exotics, they sold at the

cash register a similar product called MARMITE. Again the container stated it

was a by-product of the brewing process (grain ? yeast ? I can't remember).

My sister (now working at Univ. GA) has always told me to keep an "eye out"

for it, and my wife likes the stuff too, but we never see it in any stores.

Just as a matter of curiosity, does anyone out there know exactly what these

products are made from and how? Would it be possible/viable to make
one's own
"HOMEBREWMITT" ? How?

PROST!! M R Elliott

Date: Fri, 8 Jan 93 15:24:14 CST
From: jay marshall 283-5903 <marshall@sweetpea.jsc.nasa.gov>
Subject: Re: cold plate question

Mike McNally writes:

>Many HBD's ago, Jack S. described a wonderful-sounding contraption called a "cold plate", I think. I have the impression that the thing is some sort of in-line rapid-chilling device that chills beer from a room-temperature pressurized keg on the way to the glass. Is that correct? If so, can these things be bought for not much money (i.e., less than the cost of a spare fridge to keep the kegs in)?

Superior Products at (800)328 9800 carries the cold plates. A single product plate costs \$37. I can not yet comment on how they work since mine hasn't arrived yet, but I'll be able to do so in a week or two.

I've already got the spare fridge, but I can't ferment ales and keep kegs at drinking temp at the same time so I decided to go ahead and get the plate for use when the fridge is being used for fermenting.

Incidentally, it was Jack who turned me on to Superior Products.
Thanks arf!

Jay

Date: Fri, 08 Jan 93 17:27:12 -0500
From: David Arnold <davida@syrinx.umd.edu>
Subject: Germany suggestions?

Hello all,

I've found out I'll be travelling to Germany shortly, and was wondering if you might be willing to offer suggestions on places to go & beers to try?

I'll be over there from 1/18 until 1/25, and will be flying into Munich, then going north, staying about 1/2 way between Bamberg and Regensburg. (A little town named Vilseck (sp?).) We'll be staying with a friend, and will have a rental car, so I'm interested in suggestions around Bamberg, Nuremberg, Regensburg and Munich. I'd read in M.J.'s book about a monestary near Munich (Andechs monastery?); is it as alluring as he makes it sound? We'll also be (hopefully) taking a day trip to Pilzen & Prague, so suggestions for there are also helpful.

I'd posted about a year ago for my friend who was in Germany then; some of the suggestions I got then were:

Rauchbier - This is availble in the spring
Any beer ending in -ator. Kulminator, Pirminator are two
If you're into the ales, try an Alt beir.
Eisbock. Kick-butt thick like molasses heavy duty beer. Mondo alcohol,
Pilsners, especially Czech BudVar
Hefe-weizen dunkeles & helles

I'm not terribly thrilled with wheat beers, especially in the winter. I lean more towards ales generally. I've had one alt beer (Schlosser Alt) and loved it; should I have any problem finding it, or am I in the wrong area?

Lastly, I see the literature mentions limit of 2 l. per person. Is that a hard limit, or do I just have to declare it if I bring more than that back? I've gotten conflicting answers from people on this one.

Any/all suggestions welcome. PLEASE email them to me (also) if you decide to post back here, I don't want to miss a scrap of info! :-)

Thanks in advance,
David Arnold

Inet:davida@syrinx.umd.edu
Bitnet: davida@syrinx.umd.edu@cunyvm
UUCP:uunet!syrinx.umd.edu!davida
NeXTmail: davida@anagram.umd.edu

Date: Fri, 8 Jan 93 15:52:05 -0700
From: lager!wtm@hellgate.utah.edu (Tom McCollough)
Subject: counter-pressure bottle fillers

I am in the market for a counter-pressure bottle filler. Before constructing my own, as it seems many HBDers have done, I would like to find out about commercially available fillers. All I could find in the 1992 archives were just a few comments about commercially available fillers, mostly negative, and not enough to guide someone in a purchase. If you are an owner of a commercially available filler, could you please post a review?

Thanks,
Tom

Date: Fri, 8 Jan 1993 16:53:37 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: re: COPS

Things are actually a little bit worse than Micah puts them. <shudder>

Property siezures place the burden of proof on the owner to PROVE that the seized items were not used in the commission of a crime. Since possession of some things is itself a criminal offense, a vehicle can be contributing to the possession of anything found inside of it.

As a former distiller, I would point out that the essential element of a still is the vaportight still-head, not the condensor. A copper tubing coil is not sufficient evidence of a still, without some other supporting parts, such as a head, slobber-box etc. So if all that poor guy in Tacoma had was a wort chiller, he should get that charge dropped.

What's the AHA doing about this travesty? I would think that Charlie P. has an interest in defending his good name, never mind helping out all of us dues-paying members.

Paul.

Date: Sat, 09 Jan 93 22:25:00 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Botulinum in malt extract

Sorry folks, I already got the answer for the question I've posted above (took me a day). I was a bit worried so I started reading my microbiology books.

Well the answer as to the potential danger of the botulinum toxin is that although it might be present in this malt extract which I've used, the 20 min in autoclave are supposed to completely inactivate the toxin. Actually, even 10 minutes of 100 C will do the job.

Date: Sat, 09 Jan 93 22:35:39 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Homebrewing supplies in Munich

A friend of mine will be in Munich a couple of weeks from now. Can someone recommend a place to which I could send him to, where he'll be able to find home-brewing supplies. I'm going to be using whatever he brings back to make my second batch ever (first one just started foaming) should I ask for anything special but hops, yeast (which one?) and some malt extract (Light or Dark / Wet Dry)??
Thanks in advance
Nir

Date: 09 Jan 93 17:49:15 EST
From: Jim Bayer <72416.1044@compuserve.com>
Subject: Cat's Meow

I've been poking around on the Internet for the first time.
What is this "Cat's Meow" section that I see? Is it recipes?

Jim

* I gott'a get me a snappy ending!!!

Distribution:
homebrew >internet:homebrew@hpfcmi.fc.hp.com

Date: Sun, 10 Jan 93 08:59:44 -0800
From: mark@verdix.com
Subject: Our image as brewers

Folks, I am concerned about the image that we project to new readers of r.c.b and the Digest.

As devotees of this noble passion, we naturally want to inspire those who are new to brewing, and to imbue them with our enthusiasm for this most salutary of crafts. Unfortunately, I am afraid we may fall short of this aim.

Yes, I'm talking about the fact that two of the regular posters to these forums have the usernames "gak" and "arf". Are these the words that we want others to associate with homebrewing and homebrewed beer? I am sure you will agree that they aren't very appealing. "Hey, would you like to try some of my homebrew?..." "Gak!! Arf!"

Who knows how many times a reader might be exposed to these words in just a single issue of the HBD? All the worse if they don't actually read the 'From:' header fields, because then these unwholesome sounds are transmitted *subliminally*. And who knows how many other crude and obnoxious usernames have escaped my notice?

Just something to think about.

Happy brewing!
- --mark

Date: Sun, 10 Jan 93 12:15 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: Homemade yeast hulls?

I traveled to my favorite homebrew supply outlet in search of some yeast nutrient in the form of yeast hulls. The store was currently out but assured me that they would get some in by mid-week. All well and good but it meant that I had to postpone my mead-making plans until next weekend.

During the drive home it hit me [boink!]. Here I am buying yeast hulls while at the same time dumping large quantities of yeast slurry down the drain.

Is there an easy way for the homebrewer to make yeast hulls from yeast slurry ?

chris campanelli

End of HOMEBREW Digest #1052, 01/11/93

Date: Mon, 11 Jan 93 04:07:49 CST
From: bliss@csrd.uiuc.edu (Brian Bliss)
Subject: sparging

> The chemistry professor asked why the homebrew professor didn't totaly
> drain the mash tun before adding any sparge water. She said that we
would get
> the best possible extraction rate if we followed this "two-part" sparge.
There
> was no definitave answer presented so I made my offer to post to this
group.

Unfortunately, when the liquid is drained entirely from the grains,
gravity compacts the grain bed, leading to stuck sparges. Keeping the
water leve above the grain bed helps keep the grain bed loose, and
facilitates the circulation of sparge water while preserving the
filtering properties of an undisturbed grain bed.

Indeed, Some brewers sparge this way (Pierre Roujette (sp?) for one, if
you've read his book.) Now that my Zapap lauter is on its final leg, I
just may adopt the method if it works well with the picinic cooler/
slotted
copper pipe manifold style lauter which will replace it (apparently,
such a sparge system is less prone to "sticking" than a Zapap lauter)

bb

Date: 11 Jan 93 08:10:59 EST
From: CHUCKM@PBN73.Prime.COM
Subject: Pilsener head

Hello everyone,

Having just talked with a Polish friend of mine who has frequented Pilzn (and U Fleku) many times.... We were talking about the thick head the pilseners have. M. Jacksons video (beer hunter) shows this and he actually floats a coin on the head. My friend attests to this as he has actually done it.

My question is..... Has anyone out there been able to brew a pilsener with such a dense head. I have read Miller's book on pilsener, but I don't remember it discussing this point very much. Any feedback will be welcome.

Thanks in advance,
chuckm

Date: Mon, 11 Jan 1993 10:23:19 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: COPS again

Well, which address is correct wrt. the COPS program? Is it STF productions or Barbour/Langley productions?

As someone mentioned, there's more to a still than copper tubing, and homebrewing chillers always have one end that has a faucet attachment. I picture the tubing on a still as being used in a different manner.

And, the people who watch shows like COPS are **exactly** the ones who need to be educated. We might have bumped into an iceberg here folks...

.

Russ G.

Date: Mon, 11 Jan 93 10:35:12 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: re:kettle mashing pt 3

In the last digest:
<From: arf@ddsw1.mcs.com (Jack Schmidling)
<Subject: KETTLE MASHING
<Add half of your hops as soon as boiling begins. Save one
<forth for the end and the remainder at regular intervals
<during the boil.

This is not recommended for infusion mashing. The wort should be boiled a minimum of 30 minutes prior to the first hopping. This is due to the need to break down and make floc large proteins that carry over into the kettle. After the 20-30 minutes of boiling, there will be large amounts of flocs that can be skimmed off the top. Then add the first hops for a minimum boil of 60 minutes, adding finishing hop as desired. If you hop immediately upon boiling you will quickly coat the hops surface with the proteins thereby considerably reducing the hop efficiency. If you don't care about efficiency, I guess it doesn't matter as long as you account for the reduced efficiency. 1.5 oz of chinook is a lot of hops so I guess this works for Jack. Also, if you are adding hops at 30 min. to end of boil, these will contribute significantly to the overall IBUs, so this should be taken into account.

Jim Busch

Date: Mon, 11 Jan 93 08:35:48 -0700
From: Jon Binkley <binkley@beagle.Colorado.EDU>
Subject: Lab Grade vs. Food Grade

I agree with Lou Casagrande that the Lab Grade plasticware will probably be okay to use for brewing. However, this does not apply for chemicals or additives. Use Food Grade or USP (pharmaceutical) Grade chemicals ONLY!! Other grades of chemicals, e.g. reagent grade, contain significant (read above EPA and FDA limits) of various nasties such as lead and arsenic. So stick to food grade, at least for additives.

Jon Binkley

Date: Mon, 11 Jan 93 10:41:58 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: sparge water temp, precrushed grain

Hi All,

In HBD #1052, Mike Tavis writes:

>I said, "I never take that temperature. I just make sure that the
>sparge water is about 168-170."

>So what do you guys think? Should my sparge water temperature depend
>on the size of my grain bed or do I need to go back to the drawing
>board?

IMHO, maintaining the temperature of the sparge water at 165F-170F
is less important than maintaining the temperature at the surface of
the grain bed at that level.

Many brewers use some means of diffusing sparge water as it's added
to the lauter tun. I use a Zapap system with a collander sitting on
top to diffuse the sparge water I add, which then falls 2-3 inches
before striking the surface of the liquid covering the grain bed. It
has been well reported in this forum that water that is diffused then
passed through air in this manner cools rapidly. I sparge with
water at ~190F, the temperature at the surface of the grain bed is
~165F, the temperature of the runoff ~150F, and these numbers are
consistent with grain bills that vary between 9-13 pounds of grain.
Your mileage may vary Mike, but try heating your sparge water enough to
get the grain bed to 165F-170F.

Also in HBD #1052, John Rogers writes:

>I would like to start mashing. I also would like to save
>some money and buy the grain in bulk (55 pound sack). Since I do
>not own a grinder I would be interested in information on storing
>crushed grain.

>What is the shelf life of crushed malt? (i.e what age /
>storage conditions will affect mash results, flavor or any other
>important characteristics?

I wouldn't recommend this at all. Once malt has been crushed, it
deteriorates quickly. There was a post on r.c.b a while back, wherein
someone related a conversation with the headbrewer from a well known
microbrewery. This headbrewer stated that if it was necessary to grind
the malt at night before adding it to the mash tun the next morning, he
increased the amount of the base malt in the grain bill by 10%. This was
done to compensate for the extraction lost by the grain sitting around
pre-crushed *overnight*.

>Does the benefit of crushing your own grain outweigh the
>possible negative affect of pulverizing (rather than grinding)
>the grain by using a "non-optimized" home crusher?

Yes! It's very important to get the crush right! Grinding it too
coarse
results in low extraction, grinding it too fine (and thus pulverizing the
husks, which sounds like what you're planning to do) results in poor

filtering and a hazy finished product.

Consider buying a mill. Whatever money you spend, you'll eventually recover it in the savings from bulk grain purchases. I buy 55 pound sacks, and the cost per pound is less than half of the cost of a pound of pre-crushed grain. By the second sack, I'd already saved more than what my mill cost.

Cheers,
Jim

Date: Mon, 11 Jan 93 9:02:35 MST
From: Rick Myers <rcm@col.hp.com>
Subject: Cold Plates

> Superior Products at (800)328 9800 carries the cold plates. A single
> product plate costs \$37. I can not yet comment on how they work since
> mine hasn't arrived yet, but I'll be able to do so in a week or two.

I picked one up at a local auction, along with a 10lb CO2 tank, a stainless bar sink, 3-3gal. Cornelius kegs, the faucet a bar dispenses soda/liquor/water out of (lighted, with solenoid box and hoses), and some other goodies - all for 50 bucks!!! I haven't used the cold plate yet, as I haven't found a need, but I plan on keeping it handy.

Moral: Homebrewers, check your local auctions regularly for this kind of stuff!

> I've already got the spare fridge, but I can't ferment ales and keep
> kegs at drinking temp at the same time so I decided to go ahead and
> get the plate for use when the fridge is being used for fermenting.

I'm just going to get another fridge, instead of using the plate, so I will have one fridge for serving, one for fermenting, and one in the kitchen for food!

- --
Rick Myers rcm@col.hp.com
Information Technology Specialist
Hewlett-Packard
Network Test Division
Colorado Springs, CO

Date: Mon, 11 Jan 93 9:54:40 MST
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Re: Our image as brewers

mark@verdix.com writes:

>Folks, I am concerned about the image that we project to new readers
>of r.c.b and the Digest.

>

>Yes, I'm talking about the fact that two of the regular posters to
>these forums have the usernames "gak" and "arf". Are these the words
>that we want others to associate with homebrewing and homebrewed beer?

Mark certainly is right, this isn't good. But there are so many other
homebrewing words with *good* connotations, like "sparge" and
"counterflow
wort chiller". In fact, I've had this idea for a while to write a sort
of "call to homebrewing":

Be a homebrewer!

Learn the secrets of good head.

Rack off as often as you like without being embarrassed.

Be able to say words like "sparge" and "fuggles" with a straight face.

Amaze your friends and inebriate your enemies (or the other way around)

...

If that appeal doesn't attract new brewers, I don't know what will.

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com

Hewlett Packard Co. Fort Collins, Colorado

"Midnight shakes the memory as a madman shakes a dead geranium."

- T.S. Eliot

Date: 11 Jan 93 17:57:01 GMT
From: mark@verdix.com (Mark Lundquist)
Subject: flame off, OK?

Yesterday I posted an article about the unappealing sounds of the names "arf" and "gak".

If you have read that article and are getting ready to send me some flamage over it, please stop right now and read this carefully:

IT...WAS...A...JOKE !!!

I've gotten a couple of flames already -- incidentally none from gak or js (a.k.a "arf", I know what it stands for, thank you kindly). I take full responsibility, I should have included at least one ":-)" for those who forgot to take their humor pill. Clearly, the humor wasn't as obvious as I intended, and some people actually thought I was serious, and took me to the woodshed for being uptight about other people's usernames. I just thought we could use a little injection of humor, that's all.

Date: Mon, 11 Jan 93 11:05:57 PST
From: Bruce Mueller <mueller@sdd.hp.com>
Subject: Plasticizers

Lou Casagrande was concerned about lab grade plastics for brewing. Three issues he was concerned with were:

>by absorbing carbon dioxide ...
>leaching of "plasticizers"
>DO NOT use the jug for a keg or for anything that becomes pressurized.

I am a chemist and agree 100% with the first, especially in regards to HDPE. This plastic is notorious for its permeability to CO2. However, I do not agree with the second or third.

In the second case, Lou went on to say that all plastics contain plasticizers. Not true. And in the case of lab grade plastics, plasticizer migration is unacceptable. From a safety standpoint, a few years ago Nalgene (a big manufacturer of lab plastics) had a problem with bottles cracking after long-term exposure to certain chemicals. I believe that the plasticizer they had used migrated out (either into the solution or the surrounding air), stiffening the bottle. They recalled these bottles. Well, reformulation must have occurred to alleviate this. If a plasticizer is still used, it must be much less likely to migrate. Thus, unless used for long-term storage, virtually none will be leached out. In fact, I would go so far as to say that if washed well in hot, detergent-laden water before use (a good practice anyways to remove any mold release from the outside, easing labeling), even long-term (e.g. 3 months) storage should not be a problem. In this case, I would wash between each long-term period to remove any plasticizer which can migrate from the inside surface of the bottle.

Third, these bottles tend to hold pressure reasonably well. I have used them numerous times to ship stuff which will go in an aircraft's hold, which is not well pressurized. They don't leak! Now, at higher pressures (20 psi?) the worst which would happen would likely be a slow leak at the cap (and some through the walls--remember the CO2 permeability), not the catastrophic case Lou predicts. Yes, I would definitely place the pressurized container where catastrophic failure would not be disastrous in other ways just to be safe. I'll step down from the soap box now.

Bruce Mueller

Date: Mon, 11 Jan 93 10:20 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: Carbonation, Yield, Fillers

>From: mcnally@wsl.dec.com

>Many HBD's ago, Jack S. described a wonderful-sounding contraption called a "cold plate", I think. I have the impression that the thing is some sort of in-line rapid-chilling device that chills beer from a room-temperature pressurized keg on the way to the glass. Is that correct?

Right on!

>If so, can these things be bought for not much money (i.e., less than the cost of a spare fridge to keep the kegs in)?

They start at \$37 for a single product unit and are available with up to four pathways for dispensing 4 different products simultaneously.

They are available from Superior Products. Call (800) 328 9800 for catalog or to place an order. They really are the Cat's Meow.

>From: bliss@csrd.uiuc.edu (Brian Bliss)

>First of all, you need to get the beer cold before you agitate it,

That is good advice in general but I would not want to have those without fridges to think that it is absolutely necessary. Because I use the above cold plate for dispensing and counter-pressure bottling, I do not ever refrigerate my kegs. I force carbonate at room temperature which ranges from near 80F in Summer to as low as 55F in Winter. I use the same procedure regardless of the temperature.

I start at 50 lbs and gradually reduce the pressure to around 25 lbs after the initial rush while shaking. I lower the pressure each time the drop in pressure slows down while shaking. With the cold plate, the pressure can be left at 25 lbs for normal foam free dispensing. The very narrow SS tubing in the cold plate simulates a very long feed line so there is a substantial pressure differential from keg to tap.

You can dispense at just about any pressure as long as the keg is given enough time to equilibrate. Unlike most systems, foam is usually cured by INCREASING the pressure and the post chilling is death on foam.

>From: mtavis@gemini.hyperdesk.com (Mike Tavis)

> I've been very happy with the results so far, but I have noticed a disturbing trend -- my extract rates are plummeting with each batch... After many different discussions, one of my brewing buddies asked, "Has the

temperature of the wort coming out of the lauter tun been the same?"

>I said, "I never take that temperature. I just make sure that the sparge water is about 168-170."

I think your friend may have a clue and most brewers seem to be contented if the temp of the sparge water on target. I have written many times on the importance of knowing what the mash temperature actually is and not relying on the temp of the sparge water. I find that even with boiling water going in at the top, the average temperature of the mash is around 150F. This assumes that you maintain an inch or so of water over the top of the grain bed. Take a thermometer and poke it around. I guarantee you will become a believer.

Assuming that you had complete conversion according to an iodine test before you started sparging, the fact that the yield was a function of grain quantity would indicate inefficient sparging and temp is one place to look. The other would be in the method of sparging. Make sure to maintain at least an inch of water over the grain and stir or "cut" the mash several times during the process. Use a long knife to cut through it radially and circumferentially while trying not to disturb the area near the false bottom or screen. I stir the mash thoroughly after all the sparge water is in and let it settle again for a last run. The gravity of this last run is 10 to 20 points above what was coming out before stirring.

>From: lager!wtm@hellgate.utah.edu (Tom McCollough)

> I am in the market for a counter-pressure bottle filler. Before constructing my own, as it seems many HBDers have done, I would like to find out about commercially available fillers.

In my experience, it seems that all the producers use a single probe for CO2 and beer. I am not sure how this can work but I guess it does. The one I made has a two hole stopper with separate gas and beer lines. One goes to the bottom and the other ends at the stopper. Nothing goes out the gas line till the bottle is completely full. Perhaps someone can explain how the single probe filler works and why people insist on making them that way.

>From: mark@verdix.com

>Yes, I'm talking about the fact that two of the regular posters to these forums have the usernames "gak" and "arf". Are these the words that we want others to associate with homebrewing and homebrewed beer? I am sure you will agree that they aren't very appealing. "Hey, would you like to try some of my homebrew?..." "Gak!! Arf!"

Surely, you jest? Probably not. Well, be comforted by the fact that things

could be worse. ARF stands for the Amateur Radio Forum and was at one point in my life, more important than home brewing. Your comfort should come from the fact that there is also a Better Amateur Radio Forum out there and the host of BARF is not interested in homebrewing.

js

Date: Mon, 11 Jan 1993 16:12:49 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Re: Cops!

Personally I'd rather have a list of the sponers of "COPS"
I think a letter to the sponers with the suggestion of a
boycott or an actual boycott of thier products would have a
greater effect.

You would also figure that the various homebrew suppliers in
the US would also be interested in clearing this up.

Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Mon, 11 Jan 93 15:58 CST
From: wseliger@chinet.chi.il.us (William Seliger)
Subject: Breweries in Jamaica???

Does anyone know of any Breweries in Jamaica??? I will be flying into Montego Bay and staying in Runaway Bay, but might be tempted to travel to Kingston to visit a brewery.

Thanks in advance,
Bill Seliger
wseliger@chinet.chi.il.us
W 1(708)640-2718
H 1(312)907-9686

Date: Mon, 11 Jan 93 17:09 CST
From: korz@iepubj.att.com
Subject: Belgian Malts

Chris writes (in his description of his 1-gallon test batches):

```
> Recipe 3      Recipe 4      Recipe 5
> -----      -----      -----
>Belgian Pale Malt      2 #      1.5 #      1.5 #
>Belgian Caravienne      1 #
>Belgian Aromatic      1 #
>Cascades (boil)1/8 oz 1/8 oz 1/8 oz
>Cascades (aroma) ~1/16 oz ~1/16 oz ~1/16 oz
>Irish Moss ~1/4 tsp ~1/4 tsp ~1/4 tsp
```

I'd just like to point out that Recipe 4 equates to a 5-gallon batch with 5 lbs of crystal malt in it. The DeWolf-Cosyns Belgian malts that begin with "Cara" are caramel or crystal malts. In general the DeWolf-Cosyns malts fall into four categories (I'm not sure, however, who created these categories). The comments are based upon comments provided by DeWolf-Cosyns and the degrees Lovibond are the actual results of the first test of the malts (also provided by DW-C). Although I don't think that they said anything about it, I assume that if Aromatic (at 25.7L) will convert itself (i.e. can be mashed alone), then surely their Munich should also. Note that Roasted Malt is basically Black Patent.

BASE MALTS deg L comment
Pilsner 1.83
Pale Malt 3.21
Wheat 1.75

COLOR MALTS
Munich 7.83
Aromatic 25.7 will convert itself

CRYSTAL MALTS
Cara-Pils 7.87
Cara-Munich 21.65
Cara-Vienne 77.5
Special B 221

ROASTED MALTS
Biscuit 22.5 probably not-enzymatic, i.e. won't convert itself
Chocolate 497.5
Roasted Barley 557.5
Roasted Malt 601

Al.

Date: Mon, 11 Jan 93 14:37:28 PST
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>
Subject: RE:Charcoal Water Filters

>Date: Wed, 6 Jan 93 8:32:16 EST
>From: Jim Grady <jimg@hpwarga.wal.hp.com>
>Subject: Charcoal Water Filters

IN HBD #1050 Jim Grady was concern with activated Charcoal having too much bacteria.

>Back in HBD #1040 (24 Dec. - I just caught up from the holidays!) Darryl Richman says:

>> There is no need to boil all your water before you brew. If your water comes with a lot of chlorine, an activated charcoal filter will remove it. You need only boil and decant your water if you have a lot of

> and my backyard neighbor (who sells filters & such to industry) active charcoal filters are great breeding grounds for bacteria. In addition to collecting all sorts of organics for them to munch on, the media itself promotes growth.

What you need to look for when purchasing a active charcoal filter is to see if it bacteriastatic witch means that the filter will inhibit the growth of bacteria. this is done by impregnating the active charcoal with silver oxide .This will kill all bacteria that try's to live in the filter.

Date: 12 Jan 93 02:49:08 GMT
From: mark@verdix.com (Mark Lundquist)
Subject: hose couplers

I have an idea. Have you seen these quick-disconnect gadgets for hose connectors? I think you can find them in the garden department. Anyway, you can install them on your sprinklers, spray nozzle, hose bib, &c. Each coupler has a threaded male and female half which fit together with an O-ring seal. From then on you just snap on, snap off.

When I get a few extra bucks, I'm going to pick a few up and install them on my faucet adaptor, bottle/carboy washer and wort chiller. Then I can just snap and unsnap things instead of screwing and unscrewing. It seems like I'm always screwing my bottle washer on for something and then realizing I need water, or something else like that.

You could also get one of those Y-connector things with a valve on either arm -- then you could always draw water even if something is hooked up to the faucet. Another possibility would be to get one of those kitchen spray nozzles on the end of a length of vinyl hose. That might come in handy.

- --mark

End of HOMEBREW Digest #1053, 01/12/93

Date: Tue, 12 Jan 93 04:22:08 -0500
From: bfbrown@media.mit.edu
Subject: Cider...

I am wondering wether 1.5 months is enough time
A) to bottle hard cider at

and

B) to drink hard cider at (it looks crystal clear)

It fermented very well, and I am looking forward to a clean batch of cider. Please lemme know. Also, as a beer brewer ONLY, I am wondering about how to bottle the cider, 1/2 of which I will prime with corn sugar; is bottling it in beer bottles too dangerous? And do I use the 3/4 cup per 5 gal? Does this figure change for less (i.e. is it nonlinear, like kegging beer?)

Thanks for input,

BB

Date: Tue, 12 Jan 93 11:47:54 +0100
From: dejonge@geof.ruu.nl (Marc de Jonge)
Subject: Pilsener head

In HBD #1053 chuckm asks:

>My question is..... Has anyone out there been able to brew a pilsener
>with such a dense head. I have read Miller's book on pilsener,
>but I don't
>remember it discussing this point very much.
>Any feedback will be welcome.

Just a method that seems to work ok for me:

(Using a 2-step decoction mash)

Add 5 to 10 % of unmalted barley at the beginning of the
alpha-amylase rest (around 70C).

The reason for this is that unmalted barley contains a lot of
proteines, while the protelase enzyme is no longer effective at this
temperature, so lot of large proteines will end up in your wort.

Note that this is standard practice in many German breweries

(only, since they are not allowed to use unmalted grains, they use
'legally malted' barley or cheat-:)malt)

You will need to cold-condition your beer as you are likely to get
some initial chill-haze using this method, but that's what I do for
almost every beer anyway.

Hope this may contribute to solving your head troubles.

Marc (Marc de Jonge: dejonge@geof.ruu.nl)

Date: 12 Jan 93 10:50:00 WET
From: "ONREUR::JSAMPSON" <JSAMPSON%ONREUR.decnet@onreur.navy.mil>
Subject: Community Relations

Perhaps the best way to quell this COPS paranoia would be to invite
the off-going watch over for a homebrew to thank them for their
service.

- -- John

Date: Tue, 12 Jan 93 09:07:45 -0500
From: blossomf@ttown.apci.com (Karl F. Bloss)
Subject: COPS sponsor boycotts

While in principle, this is a good idea, it won't work with the number of homebrewers around. Considering was a COPS audience, the people advertising were probably Mattel with WWF dolls or something. ;-) Anyway, even the boycott of Sam Adams because of BBC's litigations doesn't seem to be hitting Koch's pockets. Responsible letters where you're not totally flaming the producers would be appropriate. They'll maybe even take time to read them.

-K
(blosskf@ttown.apci.com)

Date: 12 Jan 1993 07:06:05 -0700
From: Bruce Given <SCN146@WACCVM.corp.mot.com>
Subject: HOPS POST

Time to start looking for Hop Plants !!
this is a Note to all Canadians On HBD.
Does anybody know where I can Purchase Hop cuttings in Canada ?
I have tried to contact CAMRA but from what I can see they don't
exist as a National body any longer ...
As for bring cuttings if from the U.S (have you ever dealt with Canada
customs/agriculture) endless paper work the cuttings would be dead by
time those guys inspected them !!
so if anybody knows where I can obtain them please let me know.
via email or phone @ 514-731-6881

Thanks !!!

Date: 12 Jan 93 12:46:02 EST5EDT
From: TSAURET@hermes.gc.peachnet.edu
Subject: Sour Beer

I would like any advice or comment from someone more experienced than I regarding a recurrent problem I am having with brewing beer with light DME. Too often when I am brewing a batch of light style beer with all dry malt, I have gotten a beer with a sour taste. This has happened with ale yeast and lager yeast.

The Joy of Home Brewing tells me that I'm not cleaning thoroughly, but I find this hard to believe. I have followed the same careful cleaning procedures with light style beers made primarily from a kit and adding only two or three pounds of adjunct malt and gotten very good results. This problem has never occurred with stouts, porters, and dark or amber ale styles that I have brewed with all dry malt. Any ideas? Thanks.

Date: Tue, 12 Jan 93 10:49:37 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Fond farewells from Micah Millspaw

I'd like to mention that I'll be leaving the HB digest and LLNL due to cuts in defense spending. Of interest is the fact that my brewery MURPHYS CREEK BREWING CO. will be open sooner because I'll have more time to spend on it. The brewery is located in historical Murphys, a gold rush town in the Sierra foothills, at the corner of Murphys grade road and French gulch road. Kegs should be available by April and bottles shortly after, tours will be available, phone 209 736 BREW. There are several wineries in the area as well, so if anyone is going to be in the area, come on up.

This digest has been very interesting and I've had a lot of fun interacting with those on it. (Thanks Bob, for the access)

Micah Millspaw
1/11/93

Date: 12 Jan 1993 14:39:43 -0500 (EST)
From: HUD_TEACHER@VAXC.STEVENS-TECH.EDU
Subject: subscription request

Could you kindly send me information re: subscription to Homebrew Digest?
My address is Hud_teacher@sitvax.stevens-tech.edu

Many thanks.

Sincerely,
Michael Feldstein

Date: Tue, 12 Jan 93 15:13:20 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Lab grade vs. Food grade

From: Jon Binkley <binkley@beagle.Colorado.EDU>
writes-

>probably be okay to use for brewing. However, this does not
>apply for chemicals or additives. Use Food Grade or USP (pharmaceutical)
>Grade chemicals ONLY!! Other grades of chemicals, e.g. reagent grade,
>contain significant (read above EPA and FDA limits) of various
>nasties such as lead and arsenic. So stick to food grade, at
>least for additives.

I am not sure if ignorance is the cause of the sentiments here, but the poster seems to have a rather deluded notion about the usefulness of the FDA and EPA, apart from their own self preservation, and defintiely a very poor idea of toxicology. I use regular lab grade phosphoric acid for pH control, and need very little of it. The 0.1 ppm arsenic and .001% heavy metals as lead really have me shaking in my boots!!! The amount I add probably has negligible influence on the level of these elements naturally occuring in my water anyway. Actually, the limits for these contaminants in food grade phosphoric acid (from Food Chemicals Codex. 3rd ed.) are not more than 3 ppm arsenic, not more than 10 ppm HM as lead and not more than 10 ppm flouride. Flouride wasn't even listed, but when chloride was 1ppm, it is safe to assume flouride is negligibile.

Lab chemicals are very pure. I suspect that the 'sacred' USP grade phosphoric acid used in tons by Coca-Cola has similar heavy metals profile as this, but it is hardly worth Fisher's while paying the FDA megabucks to have their chemicals approved for food use, so they display not for food use on their containers to cover their legal behind.

As homebrewers we produce huge quantities of poison, but we don't consume it all at once. Fearing minor quantities of heavy metals is irrational. If I broke a mercury thermometer in a batch, I'd fish out the bead and brew on. The quantitie of mercury that could dissolve would be negligible and unless you consume mercury everyday you have nothing to fear. If a child eats mercury from a thermometer, you have little to fear. The bulk of mercury will pass straight through the child. However if the child eats a bead of mercury every day, then you would have a problem. I suggest anyone with an irrational fear of very small quantities of toxins read the article on it in the Oct/Nov 92 issue of Garbage magazine.

Ulick Stafford

Date: 12 Jan 1993 15:33:26 -0400 (EDT)
From: "Wayde Nie, Eng.Phys. II" <9106857@SSCvax.CIS.McMaster.CA>
Subject: Plasticizers,CO2,O2,etc...

If these HDPE plastics are permeable to CO2 then wouldn't O2 (oxygen), being a smaller molecule, be as or more capable of passing through the plastic? Maybe Bruce Mueller can comment? If this is the case then how advisable would it be to put it to long term brewing purposes - ie. Lagering? Is the amount of permeated gas enough to worry about oxidizing your brew and other such problems (Feeding the nasties)?

I was always under the impression that Primary Ferment was done in F.G. Plastic, then transferred to a Glass Carboy to eliminate the problems of gas permeable plastics during aging/lagering, etc... If any cares to comment, please do...

Wayde Nie, Eng.PhysII I used to be indecisive.....
McMaster University, Canada But now I not so sure.
9106857@SSCvax.CIS.McMASTER.CA

Date: Tue, 12 Jan 93 15:43:14 EST
From: casagran@gdstech.grumman.com (Lou Casagrande)
Subject: Lab grade vs. Food grade again

Bruce Mueller's reply to my posting seems to have more authority behind it than my posting did--as I said, I'm not a plastic chemist, and he seems to have more experience than I. I also had never tried pressurizing these jugs, but other plastics I've used have buckled under pressure. Since Bruce has pressurized them, it sounds reasonable to use them as kegs. To set the record straight, though, I was *not* concerned about CO2 leaching *into* the brew--we produce copious amounts of that gas during fermentation. I don't know about it leaching *out* however--probably not a big concern.

Lou Casagrande

Date: Tue, 12 Jan 93 12:20:58 PST
From: grumpy!cr@uunet.UU.NET (C.R. Saikley)
Subject: Diminishing Yields

In a recent Digest, Mike Tavis says:

>>my extract rates are plummeting with each batch. My first
>>batch yielded 29 pts/lb/gal (a number I never expected to get the
>>first time). My second batch dropped to 22 pts/lb/gal and my third
>>batch was a miserable 18 pts/lb/gal.

[snip]

>>All three of these batches had different grains bills,

[snip, snip]

>>He said, "Well depending on the size of the grain bed, the sparge
>>water will be lowered and if it gets too low it won't be effective at
>>rinsing the sugars from the grain."

>>I said. "That makes some sense because in each successive batch I have
>>used more grain -- specifically, the first batch used 8 lbs, the
>>second batch 10 lbs, and the third batch 12.5 lbs."

To which Jack responds:

>I think your friend may have a clue and most brewers seem to be
contented if
>the temp of the sparge water on target. I have written many times on
the
>importance of knowing what the mash temperature actually is an not
relying on
>the temp of the sparge water. I find that even with boiling water going
in
>at the top, the average temperature of the mash is around 150F.

Some years back, I began measuring temperature profiles thru the mash
while
sparging. Like Jack, I found that my water had to be much hotter than 168
to
get the mash up to that temp. This makes sense for at least two reasons :

1) Losses in the system, especially if your sparge water is sprayed over
the
grain bed.

2) Reaching equilibrium temp. The grain bed is below the optimum temp,
thus
the water must be higher than optimum temp for the grain/water mixture to
equilibrate at optimum temp.

The effects of point #2 can be minimized by mashing out.
Note also that the temperature difference between grain bed and sparge
water
will be reduced as the sparge proceeds (ie the mash heats up). With my
system,
I found that sparging with boiling water was fine at first, but
eventually the
temp at the top of the bed got up to 185! OUCH!

Getting back to Mike's problem, increasing the amount of grains used increases the thermal mass of the mash. Thus the temp of the sparge water would have to be raised to achieve the same equilibrium temp, assuming the same amount of water is added. This is one factor in Mike's diminishing yields.

Jack also says,

>Assuming that you had complete conversion according to an iodine test before
>you started sparging, the fact that the yield was a function of grain
>quantity would indicate inefficient sparging and temp is one place to look.

Here I disagree. Yield is necessarily a function of grain quantity. Higher gravity beers suffer from reduced yields for fairly straightforward reasons. The extreme example being a barley wine that is not sparged at all. There's so much sugar left in the grains that some even make a second beer out of the second runnings.

Assuming you're consistent, one pound of grain will yield x amount of sugar when sparged with y amount of water. If sparged with y/2 per pound or 2y per pound, you will get reduced or increased yields respectively (to a point). If you use 12 pounds of grain instead of 8 for a 5 gallon batch, the ratio of sparge water to grain is reduced, and the yield is reduced accordingly. This is a second factor in Mike's results.

As Jack pointed out, getting around the first factor is pretty simple : raise the temp of your sparge water. Getting around the second problem is more of a hassle. You would sparge with more water, and collect more (weaker) wort. Then boil the *%\$# out of it to reduce the volume. Some commercial breweries do this. In Belgium there are brewers who boil for up to 6 hours! Personally, I'd rather accept lower yields than boil the day away.

Sorry for the length.

Happy Brewing,
CR

Date: Tue, 12 Jan 93 14:51 CST
From: korz@iepubj.att.com
Subject: Re: Our image as brewers

Jeff writes:

- >Be a homebrewer!
- >Learn the secrets of good head.
- >Rack off as often as you like without being embarrassed.
- >Be able to say words like "sparge" and "fuggles" with a straight face.
- >Amaze your friends and inebriate your enemies (or the other way around)

I'd like to add:

Learn the correct pronunciation (and spelling) of words such as:
wort, krauesen, gueuze, trub, willamette...

Al.

Date: Tue, 12 Jan 93 15:18 CST
From: korz@iepubj.att.com
Subject: Belgian Lovibond correction

I accidentally reversed the numbers on Cara-Munich and Cara-Vienne, so here's the correct list (technically the numbers are from Siebels not DeWolf-Cosyns):

BASE MALTS	deg L	comment
Pilsner	1.83	
Pale Malt	3.21	
Wheat	1.75	

COLOR MALTS		
Munich	7.83	
Aromatic	25.7	will convert itself

CRYSTAL MALTS	
Cara-Pils	7.87
Cara-Vienne	21.65
Cara-Munich	77.5
Special B	221

ROASTED MALTS		
Biscuit	22.5	probably not-enzymatic, i.e. won't convert itself
Chocolate	497.5	
Roasted Barley	557.5	
Roasted Malt	601	

Al.

Date: Tue, 12 Jan 93 15:59:04 EST
From: Randy Heflin <HEFLINJR@VTVM2.CC.VT.EDU>
Subject: re : Jamaica

William Seliger asked about breweries in Jamaica. I don't know the details on the brewery, but I can say there is some very fine island-brewed beer. I believe the brewer is Desnoes and Geddes in Kingston. The products are Red Stripe Lager and Dragon Stout. Red Stripe is O.K. (it has a full, if not refined, taste - it's fun to watch the frat boys' sour faces when they first taste it!), but the real treat is Dragon. It's a very enjoyable, extra malty, super potent brew that I couldn't (and still can't) get enough of. I strongly encourage you to seek it out (it won't be hard to find.) Oh, and according to local lore, Dragon has one other important quality. When a local saw me with a bottle in hand, he said while pointing to my girlfriend: "Dragon! Good for you, mon. Makes you do your homework!" ;-) ;-) nudge, nudge.

Randy

P.S. Are there any HBDers out there in the southwestern Virginia (i. e. Virginia Tech) area? I just moved here a few months ago and am feeling isolated from the good beer experience.

Date: Tue, 12 Jan 1993 14:10:52 -0800
From: rpeck@pure.com (Ray Peck)
Subject: Homebrew Digest #1053 (January 12, 1993)

>Date: 12 Jan 93 02:49:08 GMT
>From: mark@verdix.com (Mark Lundquist)
>Subject: hose couplers

>

>I have an idea. Have you seen these quick-disconnect gadgets for hose
>connectors? I think you can find them in the garden department. Anyway,
>you can install them on your sprinklers, spray nozzle, hose bib, &c.
Each

>coupler has a threaded male and female half which fit together with an
>O-ring seal. From then on you just snap on, snap off.

You can get couplers like this, but made to screw onto a kitchen
faucet. They are often used to connect portable dishwashers.

I have my (low-flow, on-off lever) aerator, Jet bottle washer, and
hose all connected to these fittings. When I got the fittings, they
tended to pop off if asked to withstand full water pressure (i.e.,
faucet turned full on, aerator valve turned off). Since they are
solid brass, and put together with spring steel C clips, I took them
apart and added shims to move the locking balls outward to facilitate
tighter locking. I've had no problems since.

Highly recommended.

Date: Tue, 12 Jan 93 16:24:35 PST
From: Robert Pulliam <pulliam@monty.rand.org>
Subject: Barley wine

I would like to take the plunge and make a barley wine. Does anyone have a tried and true recipe that they wouldn't mind sharing.

A side note:

I had the pleasure (while in San Francisco) of drinking a couple of the new canned Guinness (Mmmm). Last weekend, I made an effort to locate some of this in the Los Angeles area, and came up empty. Does anyone know if distribution has made it here and where I might pick up a few.

Date: 12 Jan 93 19:12:01 EST
From: Tim Norris <71650.1020@compuserve.com>
Subject: Re: COLD PLATES leave me cold.....

Cold plates are the most amazing things I've ever seen for serving ice cold beer from warm kegs in the middle of a Chicago August. That's what they're designed for.

BEWARE: They are not a great alternative to proper longterm/everyday serving and refrigeration of precious homebrew. At recent 'all draft' beer tasting/competitions here in The Windy City, we've had the darned things freeze up on us and it seems that the only temperature the beer comes out at is 'ICE COLD'.

Consider your uses! Think about your long term needs. Shop around at used appliance places, ask them to call when the good ones come in. Refrigerators are our friends, and a good one with a tap or three on the outside IS a great way to serve your homebrew. It's always right where you put it, and it keeps your beer from spoiling!

#1 reason not to use cold plates:
Much too difficult to decorate with refrigerator magnets.

Tim Norris
Cold Plate Hater.

Date: Tue, 12 Jan 93 18:49:00 EST
From: mcharry@freedom.otra.com (McHarry)
Subject: Re: sparging

In regard to draining the lauter tun before refilling with sparge water:
I
tried this a couple times (using an Easymash). It didn't seem to make
much
difference and was more bother. I suspect that what is going on is not a
serial dilution, but a kind of general flow from top to bottom with
minimal
mixing. I actually tried SG samples from the sparge water on top and the
outflow: there is quite a difference.

Date: Tue, 12 Jan 93 22:50 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: Head, Boiling, Disconnects

> My question is..... Has anyone out there been able to brew a pilsener with such a dense head.... Any feedback will be welcome.

I didn't have a silver dollar handy this afternoon but I had no problem floating a Costa Rican 25 Centimos piece on a glass of the World's Greatest Beer.

>From: Jim Busch <busch@daacdev1.stx.com>
<From: arf@ddswl.mcs.com (Jack Schmidling)
<Add half of your hops as soon as boiling begins. Save one
<forth for the end and the remainder at regular intervals
<during the boil.

>This is not recommended for infusion mashing.

I accept the recommendation but what does it have to do with the method of mashing?

>The wort should be boiled a minimum of 30 minutes prior to the first hopping. This is due to the need to break down and make floc large proteins that carry over into the kettle.

Don't understand this as it is already in the kettle if one is boiling.

> After the 20-30 minutes of boiling, there will be large amounts of flocs that can be skimmed off the top. Then add the first hops for a minimum boil of 60 minutes, adding finishing hop as desired. If you hop immediately upon boiling you will quickly coat the hops surface with the proteins thereby considerably reducing the hop efficiency.

This makes sense and as I do not usually skim because most of the hops is in the foam, it sounds like a good idea just on general principles. However, as my wort is entering the kettle continuously from the lauter tun, it is not obvious when to start the clock.

> 1.5 oz of chinook is a lot of hops so I guess this works for Jack.

It is a bit much even for my 7 gallon batches and I have reduced it to 1.0. I thought I changed that in the article. Thanks for the pointer.

>From: mark@verdix.com (Mark Lundquist)

>Have you seen these quick-disconnect gadgets for hose connectors? I think you can find them in the garden department. Anyway, you can install them on your sprinklers, spray nozzle, hose bib, &c. Each coupler has a threaded male and female half which fit together with an O-ring seal. From then on you just snap on, snap off.

Great idea and it just proves that you are almost as smart as me because I did all that about a month ago. However, aside from a connection to the sink, the garden size is not convenient for homebrew size hoses.

You can however, get similar type fittings that are made for plastic and copper tubing of all sizes. I have them on my wort chiller, bottle filler, lauter to kettle line and everywhere else I could think of. McMaster-Carr carries a complete line of them. (800) 833 0300

js

End of HOMEBREW Digest #1054, 01/13/93

Date: 13 Jan 1993 09:22:41 -0400 (EDT)
From: relic <JMULLER@SSCvax.CIS.McMaster.CA>
Subject: 5 gallon plastic mashing bins w/electric heating element

i am currently looking at going to full boils and/or full mashes, and was wondering how useful it would be to have this particular sort of heating unit (i.e. a five gallon plastic brewing bin, with a heating element, basic pot for power (not thermal) control, and a spigot. given that it is not likely i am going to be able to set up a gas unit/copper kettle for some time 8-), is this an adequate substitute, or should i forego such a piece of hardware and wait for my gas system to materialize?

so, i am asking for anybody's advice and/or experiences with such machines. your consideration would be greatly appreciated...with my thanks, and possiblyl a threat to compile this information (if it isn't already on a FAQ or other file).

Date: Wed, 13 Jan 93 10:06:21 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: re: boiling,skimming and hopping

In the last digest Jack asked for some clarifications of my comments:

from: Jim Busch <busch@daacdev1.stx.com>
<From: arf@ddsw1.mcs.com (Jack Schmidling)
<Add half of your hops as soon as boiling begins. Save one
<forth for the end and the remainder at regular intervals
<during the boil.

>This is not recommended for infusion mashing.

<I accept the recommendation but what does it have to do with the method of
<mashing?

A decoction mash will break down the larger proteins and gums into easier to handle products. These substances will be less detrimental to the brewing process, and will be less capable of coating the hops.

>The wort should be boiled a minimum of 30 minutes prior to the first hopping. This is due to the need to break down and make floc large proteins that carry over into the kettle.

<Don't understand this as it is already in the kettle if one is boiling.

You are doing the right thing to begin boiling the wort as soon as possible. In my process, the sweet wort will begin to boil just as I am ready to add more runoff. This will of course, cool the wort to below boiling. This procedure repeats until the kettle is full. Each time the wort comes to a boil, more of the proteins will floc and coalesce. You can skim these off with a standard strainer. Once the kettle is full and brought to a boil, it is still a good idea to boil 30 minutes prior to the first hopping. You can reduce this time if you have been boiling and straining during the kettle filling process. If you employ a decoction mash, all of this is less important. The breakdown of the large molecular weight proteins that occur during a decoction mash is also why this technique is important for trouble free lautering of wheat beers.

Jim Busch

Date: Wed, 13 Jan 93 09:42:15 EST
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)
Subject: Cold Plates

I've had some experience with these things, which was not good. I made the mistake of adding ice over the cold plate before I had beer running through it. It seems that ice crystals formed *inside* the plate's tubes, with the result being incredibly foamy beer at the tap that did not go away for days (it was a looong party! :-). The advise I was given (I'm afraid much too late!) was to get the beer running first, then chill the plate down.

Dave VI

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== Dave Van Iderstine  Senior Software Engineer ==  
==   Xerox Imaging Systems, Inc.==  
== UUCP: uunet!pharlap!orgasm!davevi   davevi@pharlap.com :INTERNET ==  
==-----  
-==  
=="I haven't got time for instant gratification!"   ==  
=====  
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Date: Wed, 13 Jan 93 10:40:50 -0500

From: ryan%phmms0.mms.smithkline.com@smithkline.com (Dominic Ryan)

Subject: Sparging with initial drain off.

I would like to again compare sparging with chromatography where there is a tradeoff between speed and efficiency. If one uses a very tightly packed support for the column (i.e. the grain bed) then one will use less 'sparge water' and get better efficiency. However the tradeoff is that it can take a *lot* longer unless forced under pressure.

Another factor that lowers efficiency and ends up requiring significantly more liquid is letting the bed drain, even partially. The problem is that

air channels develop in the bed and these can take a lot of 'sparging' to close up. This will sometimes more than double the amount of liquid required to get all the desired material out of the bed. I would therefore not expect draining the wort off of the bed initially to be a good thing. Getting as tight a bed as you can afford to spend time sparging will get you the best sparging efficiency with the least amount of sparge water used and therefore the minimum in husk astringency.

As others have pointed out keeping the grain bed hot is essential, this will really improve flow through the bed and solubility of the sugars in the water. Getting the grain bed heated up properly should be happening with mashout at 75-80oC and then dumping it all into the sparge bucket. I find that I must keep the initial runoff at least that hot if it is to be recirculated, after all that is the sparge 'water' initially. I also do not sprinkle water on top of the bed. I pour the water onto the inside of

a big spoon as I move the spoon around the top of the bed. I do this with

almost no liquid on top of the bed until there is really no extractable sugar left at the top of the bed. After that I fill up the top of the sparge bucket to the lip with water only a little hotter than ideal, say 80oC. Others have pointed out correctly that sprinkled water will cool significantly. Rather than heating to boiling and guessing at the temperature of the resulting sprinkle just pour carefully and you will have no trouble. Finally, I keep the bottom of the sparge bucket in a hot

water bath. That seems to have the greatest effect on sparge speed, presumably because the bottom would otherwise be cooling fastest.

There can be too much of a good thing with a tight grain bed, my recent 5 hr sparge was just a little too tight for liking by about 2:30AM...:-) That one was my own fault though.

M. Dominic RyanSmithKline Beecham Pharmaceuticals
(215)-270-6529 internet: ryan%phmms0.mms@smithkline.com

Date: 13 Jan 1993 09:42:50 -0600 (CST)
From: Robert Schultz <SCHULTZ@admin1.usask.ca>
Subject: Re: CABA info

Bruce Givens (Attention Canadian Brewers):

The following is an address I received through the HBD of the CABA
Hope it helps.

Robert Schultz

~~~~~  
~~~~~  
"I'm going off half-cocked? I'm going off half-cocked? ...
Well, Mother was right - You can't argue with a shotgun." - Gary Larson
~~~~~

From: IN%"71601.3357@CompuServe.COM" "Paul Dickey"

CABA is a Federally Incorporated, non-profit organization whose purpose is to promote homebrewing as an enjoyable hobby through educational publications, events and other activities.

Our Newsletter comes out every two months, we have up to three contests per year, a conference and seminars - unfortunately not west of Ontario to date. This March we are having an event in Montreal and hope to reach out to other regions as time goes on.

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Date: Wed, 13 Jan 93 11:21:20 -0500  
From: Chris Thompson <christ@sci.ccny.cuny.edu>  
Subject: AHA judging sheets

Can someone please post/email/tell me where I can find a copy of the  
sheets  
AHA uses in beer competitions? Thanks,

Chris Thompson

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Date: Wed, 13 Jan 93 09:43:44 PST  
From: I've Faulted... and I can't spin up! <fecich@csol1.enet.dec.com>  
Subject: **Beginners questions**

Could someone explain to me how to decode "beginner.Z" and other Z files  
in the homebrew repository?  
Thanks,  
Larry Fecich DEC CS

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Date: Wednesday, 13 Jan 1993 13:20:24 EST  
From: ml4051@mwvm.mitre.org (John DeCarlo)  
Subject: Misc. Stuff

1. Temperature of water as it goes into the grain.

Basically speaking, the temperature of the water on the stove doesn't make a bit of difference--it is the temperature it is when it goes into the grain. So if you carefully pour or siphon water in, it won't change temperature too much. If you splash it through the air, into a bowl, where it then splashes through the air *\*again\**, before hitting the grain, it wouldn't surprise me too much to find that the temperature of the water entering the grain has gone from 212F on the stove to 180F or less.

The point being that different methods *\*can\** produce different apparent results.

2. Someone recommended I start skimming as soon as appreciably thick foam started forming on the boiling wort, *\*then\** add the hops. I have switched to this method and it seems to result in better hop utilization and much reduced opportunity for boil over (I no longer have to *\*stop\** a boil-over in progress). Caveat-I haven't measured anything here, especially not hop utilization.

Internet: jdecarlo@mitre.org (or John.DeCarlo@f131.n109.z1.fidonet.org)  
Fidonet: 1:109/131

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Date: Wed, 13 Jan 1993 10:39:02 -0800  
From: Paul Ray <paulr@delilah.ccsf.caltech.edu>  
Subject: Mead

Hi,

I am about to brew my first batch of mead in a couple weeks.  
Does anyone have any hints that might help? I have  
a couple of specific questions as well.

I don't have any "acid blend" which is called for (but  
optional) in my recipe (which I am getting from the New Joy of  
Homebrewing).

Do I need it and does anyone know how to get it?

Also, what is a good source for 15 pounds of honey? I don't want  
to squeeze 300 little plastic bears into my pot :-> What honeys  
have people used and does the type of honey make much difference?

Thanks for any help. I hope my first batch of mead turns out as  
well as my first batch of beer (which I love).

- -- Paul

Paul S. Ray     Internet: paulr@caltech.edu  
206-49 Caltech Internet: paulr@delilah.ccsf.caltech.edu  
Pasadena, CA 91125   Bitnet : paulr@caltech.bitnet  
(818) 356-2911

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Date: Wed, 13 Jan 93 11:46:58 -0700  
From: Jon Binkley <binkley@beagle.Colorado.EDU>  
Subject: lab grade again

Ulick Spaford apparently knows exactly how much heavy metals you can consume safely (knows more about it than the Evil Government Agents who are out to subvert and control our lives, anyway). This is fine for him, and for anyone else willing to put in the years of research necessary to find out such information.

For myself, I'm still going to stick to the food grade stuff, and stick to my recommendation that homebrewers not motivated enough to be as much an expert on the subject as Ulick obviously is to also avoid reagent and lesser grade chemicals as food additives.

Ciao,  
Jon Binkley

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Date: Wed, 13 Jan 93 13:03:05 MST  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Re: Diminishing yields

In HBD #1052, Mike Travis was disappointed that his extract rates were steadily dropping for his first three all-grain batches. He himself brought up the issue of sparge temp, so all the discussion has been about that.

However, I usually make batches using anywhere from 8-10 lbs of grain, and I don't see any difference in extract rate even though I sparge with the same temp water. I don't think that 2 lbs of grain will create enough difference in the sparge efficiency (all other variables being the same) to cause a 7 pts/lb/gal decrease.

I think James Dipalma got closer when he addressed Mike's extract rate problem and someone else's question about storing pre-crushed grain in the same post (HBD #1053). He mentioned the anecdote that some brewer would increase the grain bill 10% if the crushed malt had to sit even overnight.

That 10% seems a little extreme. However, if Mike bought a large quantity of pre-crushed malt and used it to make his three batches several weeks apart, it might degrade enough to account for the loss in extract.

Also, make sure your later grain bills didn't include disproportionately high percentages of specialty malts like Munich or crystal. If you don't have enough pale malt, you won't get enough enzymatic activity to get a full conversion. (Try the iodine test next time if you're not sure -- a drop of iodine in a bit of mash liquid will turn purple/black if there are still unconverted starches.)

Just a couple more thoughts on the problem.

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Wed, 13 Jan 93 16:08:18 EST  
From: "Mark Rich-mpr8a@acadvm1.uottawa.ca" <MPR8A@acadvm1.uottawa.ca>  
Subject: Rickard's

Here in Ottawa there is a fine brew to be had called "Rickard's Red". It is by far my favorite quaff. Does anybody out there know where it comes from? Who makes it? and the big question... How to make it? I have only seen it in certain bars on tap. It does not seem to be available in bottles.

Thanx

For those of you who do not know this brand... it's a Deep-Amber/red colour with a rich creamy head that's slightly beige. Smells a bit sweet/flowery; and tastes sort of sweet with a slight bitterness in the after-taste. I highly recommend you try it.

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Date: Wed, 13 Jan 93 18:35:27 EST  
From: bickham@msc2.msc.cornell.edu (Scott Bickham)  
Subject: Bier Haus Hopped Extract

Recently, I was given a 4.75 lb. can of Bierhaus Continental Amber Hopped Extract. Note that this is not the Bierkeller brand. The ingredients are listed as: "wort (malt, barley, corn syrup, hops)", and it was imported from England for Bierhaus of Erie, PA.

I don't like the idea of using an unknown quantity of corn syrup, so I'm planning to use the can along with a mash to brew something roughly in the Old Ale style. My question is: does anyone on the net have any idea what the hopping rate is? I'm guessing something in the range of 20 IBU's - does this sound reasonable?

Thanks,  
Scott

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"Bosnia has been cleansed," said Tom acerbically.

- Geoff Miller

Scott Bickham |

LASSP and Materials Science Center | bickham@msc.cornell.edu

Cornell University, Ithaca, NY 14853 | bickham@crnlmsc2.bitnet

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Date: 13 Jan 93 19:08:44 EST  
From: Charlie Papazian/Boulder <72210.2754@compuserve.com>  
Subject: ZYMURGY IMPROVEMENTS

Howdy 'all,

I thought I'd drop in to express some encouragement to some of you who have seemed pretty dissatisfied with zymurgy as of late. I haven't caught the whole thread, in fact I only came across one comment from A. Dietz from Morristown, NJ, but I'm assuming (maybe I'm assuming a bit too much, if so let me know) that there was considerable discussion about dissatisfaction regarding the contents of the magazine.

I was thinking about this and we have really benefitted in the past from people like yourselves when you have directed your dissatisfaction to us directly, so we can consider doing something about it. But perhaps much more importantly, we know there are a lot of people like A Dietz who know far more than the average homebrewer and could really offer the membership some good information by perhaps contributing some technical articles themselves. A. Dietz and others are just the kind of guys (or gals) we're looking for as your knowledge goes way beyond the content of what zymurgy is able to presently offer. Why not help us help you and others like you and give us some outlines and ideas on some technical subjects that, perhaps, we have not covered in the past 2 or 3 years. We'd really appreciate that.

As a matter of fact all of the growth and improvements that we've been able to offer over the years have come from people more knowledgeable than the average homebrewer.

I understand that there has been some concern that we have rejected several good technical articles. If you folks could be more specific that would help us solve this problem, if indeed it is a problem. Elizabeth Gold (Editor) and I review all the manuscripts and ideas that are submitted. Neither of us are recalling any incidences where we rejected quality, accurate technical articles. But if we have done so inadvertently or otherwise, please drop us a note and we will look into things.

Thanks for listening and keep up the [constructive] griping.

Fermently,

Charlie P.

p.s. I can be reached at my CIS address, though after january 20 you should direct any messages to James Spence at the AHA at 70740,1107, as I will be on vacation for a couple of weeks and won't be checking my e-mail.

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Date: Wed, 13 Jan 1993 18:33:00 -0500 (EST)  
From: Alexander Samuel McDiarmid <am2o+@andrew.cmu.edu>  
Subject: mead

does anyone out there have a recipie for mead?  
actually I want a fast recipie, the one I have requires six months and  
one year is suggested.  
thanks

-A.

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Date: Wed, 13 Jan 93 12:57:53 -0800  
From: mark@verdix.com (Mark Lundquist)  
Subject: Can I use this keg?

My brother inherited an empty beer keg from some college roommates, who moved out without returning their keg. It just didn't seem right to throw the thing away, so he's had this beer keg in a shed in our folks' back yard for a couple of years now, probably with a bunch of other stuff that it just didn't seem right to throw away.

Anyhow, the other day he thought of me, thought of that beer keg, and gave me a call. So we visited Mom and Dad.

Much to my disappointment, the keg (a quarter barrel) was a "one-holer". From what I have heard, these aren't suitable for homebrewers, because you have to have a special machine to wash 'em out.

Is there any way that I can adapt this thing for home use, or am I stuck with a worthless piece of junk?

It seems like the filling and cleaning issues could be taken care of by cutting a bung hole, \*except\*...except I'd still need a way to clean out the internal plumbing of the keg. Any ideas?

Also, the keg is aluminum so any fittings that I might need would have to be TIG welded.

Thanks for any help!  
- --Mark

PS This keg was actually not empty, it was "almost empty", in that special way that only an almost-empty keg can be after a couple of years! Phew!!

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Date: Wed, 13 Jan 93 18:18:45 -0600  
From: "Chauncey T. Griggs" <grig0009@student.tc.umn.edu>  
Subject: Floating Coins

In HBD#1054, arf@ddsw1.mcs.com (Jack Schmidling) writes:

>I didn't have a silver dollar handy this afternoon but I had no problem  
>floating a Costa Rican 25 Centimos piece on a glass of the World's  
Greatest  
>Beer.

Is that anything like a wooden nickel??? :^)

Chauncey Griggs (grig0009@student.tc.umn.edu)

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Science is just facts; just as houses are made of stones,  
\* ^ ^ \* so is science made of facts; but a pile of stones is not  
\* ^ ^ ^ ^ ^ \* a house and a collection of facts is not necessarily  
science.  
\* ^ ^ \* -Henri Poincaire'  
\* :^ ) \* \*  
\* > < \* \* My opinions are purely my own (unless somebody agrees  
with me).  
\* \*\*\*  
\*\*\*\*\* Chauncey Griggs (grig0009@student.tc.umn.edu)

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Date: Wed, 13 Jan 93 15:37  
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)  
Subject: Sparge-O-Matic

I was wondering if anyone has tried Sparge-Magic from Scientific Brewing Systems. It's your typical two-bucket-with-grain-bag system EXCEPT that the hose coming out the bottom of the bucket goes to a carboy stopper. The stopper also has a hose running to a gizmo (pardon my use of technical jargon) that connects to a faucet which creates a vacuum in in the carboy. The wort is essentially "sucked" out of the grain rather than allowing it to slowly flow using gravity. Allegedly, this method allows one to use sparge water with no concern about temperature.

I've used it five times with varying degrees of success. Does anyone have any comments on such a system (based on experience, common sense, gut feel, conventional wisdom, or folk lore)? Should such a system produce better extraction rates (as claimed)? Would it tend to suck things out of the grain that would be best left where they were?

Thanks.

Charles Castellow  
ccastell@eldec.com

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Date: Wed, 13 Jan 1993 15:30:41 -0600 (CST)  
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)  
Subject: cleaning carboys

Hi

I'm looking for some cleaning suggestions for carboys etc. My last 3 batches of brew have had a acidic flavor in them. I have been gradually been getting into all grain brewing in these last few batches, and I attributed the off-flavor to this change. Everything else I do has remained pretty much the same. A friend suggested that maybe I wasn't cleaning things well enough. I just sorta brushed it off, until I started thinking about it. Maybe I'm getting a little lazy in my cleaning etc. I have used clorox since I started brewing. Also, I read that sometimes cleaning with clorox can add "flavor" to your brew.

Anyone out there want to take the time to let me know how they clean their brew equipment. I would especially be interested in cleansers other than clorox.

thanks ahead  
scott

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Date: Wed, 13 Jan 1993 18:01:24 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: desperately seeking help

Dear brewing experts,

I'm desperately searching for what I'm doing wrong in my extract brewing. The trouble is beer which (I think) develops a strong flavor after being in the bottle for a short while. I never had this problem while brewing using kits, where I never boiled anything, just dumping the kit directly into the fermenter.

My latest problem is a batch which I bottled 11/30 last year and tried last night, to be very disappointed in the strong flavor. It's hard to describe but is similar to one which I dislike in another brew in which I used amber extract, crystal and chocolate malts. I thought I'd used too much chocolate malt that time. The peculiar thing is that this flavor was not apparent at bottling time. I think my sanitation is good, by soaking all the bottles in bleach overnight, and the caps also. The flavor is kind-of burnt, but there were no black marks on the inside of the boiler.

This latest batch was originally brewed in a 3-gallon batch using M&F light extract, although the final product is far from light. I used 3.3 lbs and boiled this in 1.5 gallons of water for 60 minutes with 1/2 oz of Pride of Ringwood hops. The yeast was Nottingham Ale.

Can anyone give me pointers to any possible problems? Can beer oxidize in a month to produce a strong flavor? What other things can result in beer apparently changing so much. Is it maybe subjective that it's changed and the original tasting when it was flat and with cloudy yeast in suspension sort of disguised the flavor? If the wort was caramelized during the boil would this show up as a strong flavor?

Is 60 minutes too long for a "concentrated" extract boil? Should I try reducing it to 30 minutes and use more hops? The one thing this beer and the other dark one have in common is a 60 minute boil. Is an electric element and a stainless steel stock pot a risky combination?

Any advice would be much appreciated. I've had so little luck with migrating from kits that I'm almost ready to return to them, but somehow that smacks of a retrograde step and a defeatist attitude.

Yours desperately,

Peter

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Date: Wed, 13 Jan 93 19:04:07 PST  
From: Bruce Mueller <mueller@sdd.hp.com>  
Subject: HDPE--Kill it dead?

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Date: Wed, 13 Jan 93 19:49:46 PST  
From: greg@bandit.Berkeley.EDU (Greg Jesus Wolodkin)  
Subject: Physics, surface tension, and bubbles ;-)

In reading Papazian's book (I paid for my copy ;-) I came across a statement in Appendix 9 (p.375) that made me curious. To quote,

"A big explosive bubble feeling in the mouth is due to the use of fermentable ingredients other than barley malt. A beer made with all barley malt will tend to have a smaller (almost a creamy sensation) bubble feeling in the mouth. This phenomenon can be explained in terms of physics, surface tension, and bubbles, but need not be gone into here."

This reads as if it should have a few smileys at the end of it.. is there any truth to this statement? Any comments/explanations? While I have a strong physics background, I don't see how one can separate malted barley from malted wheat, corn sugar, honey, or in general from the myriad of other fermentables in terms of the bubble size which will be produced in the finished beer.

As I read it, this statement has nothing to do with priming (i.e. the common corn sugar vs. malt extract vs. gyle controversy) as far as I can tell, but seems to refer to the entire grain/adjunct bill. So Charlie, if you're reading this, explain away ;-)

Best wishes,  
Greg Wolodkin greg@bandit.berkeley.edu

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Date: Wed, 13 Jan 93 21:20 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Cold Plates

>From: Tim Norris <71650.1020@compuserve.com>  
Subject: Re: COLD PLATES leave me cold.....

>Cold plates are the most amazing things I've ever seen for serving ice cold beer from warm kegs in the middle of a Chicago August.

> BEWARE: They are not a great alternative to proper longterm/everyday serving and refrigeration of precious homebrew.

I see no reason why they are not a great alternative to everyday serving but  
I do agree that a caveat is in order regarding long term storage. Ageing and  
storing beer in a refrigerator is not the same as aging and storing at room  
temperature. I have no personal experience with what difference it makes but  
I am sure the experts have many. My only concern is that the beer not spoil  
in Summer and thus far I have had no problem but I never seem to be able to  
keep a keg for more than a month or so and it has never spoiled in that time.

I think the issue would only be the characters of a true lager. I have been  
bottling a sixer of each batch and storing them in the fridge so that in a  
few months I will have some properly aged to compare with my keg stuff.

>At recent 'all draft' beer tasting/competitions here in The Windy City, we've had the darned things freeze up on us and it seems that the only temperature the beer comes out at is 'ICE COLD'.

Not to doubt your anecdotal experience but there is nothing in my physics  
books that would explain how that could happen unless someone thought you  
were making ice cream and put salt in the ice.

It does however, make very cold beer but there is no law that says you have to  
put a ton of ice on it. For a two glass serving, I use about two cups of  
cubes and about half are still there after drawing the beer in winter. In  
Summer they are just about gone.

> #1 reason not to use cold plates:  
> Much too difficult to decorate with refrigerator magnets.

Don't want to be flamed for a commercial but I have a special this week on  
aluminum magnets and they are designed to work best on horizontal surfaces.

#10 reason TO use cold plates:

You never have to lift a full keg off the ground.

JS

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End of HOMEBREW Digest #1055, 01/14/93

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Date: Wed, 13 Jan 93 20:43:48 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: Re: Diminishing Yields

CR says (Jack says):

) I find that even with boiling water going in  
) >at the top, the average temperature of the mash is around 150F.  
)  
) Some years back, I began measuring temperature profiles thru the mash  
while  
) sparging. Like Jack, I found that my water had to be much hotter than  
168 to  
) get the mash up to that temp. This makes sense for at least two reasons  
:  
) [etc.]

I doubt that it makes much difference what the temperature of the  
mash during sparging is so long as it is relatively hot and <165-170F.  
If it's <168F, sparge slower. The sugar \*will\* diffuse out, no matter  
what the temperature is.

) [etc.]  
) 1) Losses in the system, especially if your sparge water is sprayed  
over the  
) grain bed.

This is easily avoided if you have a cover over the bed. I have a  
Zapap-type setup and have a perforated lid on my inner bucket.

Usually the stuff coming out of my sparging setup is pitifully cold  
(140-155F) but I get yields in the 30-33 points/lb range for barley  
malts,  
so it can't be hurting me. Not much, anyway!

) As Jack pointed out, getting around the first factor is pretty simple :  
raise  
) the temp of your sparge water. Getting around the second problem is  
more of a  
) hassle. You would sparge with more water, and collect more (weaker)  
wort.  
) Then boil the \*%\$# out of it to reduce the volume. [...]

Old British Beers suggests collecting wort until the gravity has fallen  
to 15 points below the target gravity (i.e., 1.085 for a beer that  
is to be pitched at 1.100), then, if you want, boiling whatever you  
collect afterward separately until it reaches 15 points below. I  
have no evidence to support my belief, but I think this should  
reduce carmelization and color changing effects.

=====  
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Date: Thu, 14 Jan 93 9:12:23 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:enzymes in pale malt

In the last digest Jeff wrote:

<Date: Wed, 13 Jan 93 13:03:05 MST  
<From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
<Subject: Re: Diminishing yields

<Also, make sure your later grain bills didn't include disproportionately  
<high percentages of specialty malts like Munich or crystal. If you  
<don't have enough pale malt, you won't get enough enzymatic activity to  
<get a full conversion. (Try the iodine test next time if you're not  
<sure -- a drop of iodine in a bit of mash liquid will turn purple/black  
<if there are still unconverted starches.

In general, this is not true. Domestic malts will contain more enzyme potential than you could ever use. Even modern continental malts will have enough enzymes for just about any all malt beer. The use of Munich and crystal malts in just about any reasonable percentage will work fine. I believe low yields are primarily related to methods of mashing and lautering. All other variables being the same, if your extract goes down when your grain bill goes up, check the lauter tun. When I was using the Zapap method, there was a breakeven point where more malt yielded the same extract. I blame this on the compaction and loss of efficient lautering due to higher grain mass.

I have a friend who uses the (IMHO) poorly designed Phils lauter tun and he has the exact same problem with compaction yielding lower extract efficiency. My complaint with the Phils system is that the tube from the false botom has to rise up out of the false bottom to then exit the bucket. This can lead to a problem with an air bubble forming inside the tube. I have seen extremely slow runoffs that I think are due to this design. Of course, anyone can correct this (and see if Im right!) by simply drilling a hole in the bottom and plugging up the normal tube outlet.

Jim Busch

-----

Date: Thu, 14 Jan 93 10:06:09 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: lab vs food grade, Krausening, and The Brews Paper

Jon Binkley responded to my article with a number of inaccuracies and an arrogant attitude. I thought that the idea of this forum was to pass brewing information of use to brewers, rather than passing old myths, like that lab grade (ACS grade) chemicals will kill you quicker than 5 ml of sodium pentathol (or whatever).

Myth 1. Food grade chemicals (Codex) are purer than lab chemicals -NOT.

ACS grade is the highest grade that can be obtained reasonably, unless it's not good enough and ACS will set a higher standard for manufacturers to aim at. ACS standards are improved as technical feasibility of production improves. Food grade is that which satisfies certain health standards for toxins. For instance, I listed certain parameters for lab and food phosphoric acid. Both have the same heavy metals as lead requirement, but for the other parameters the lab grade was much, much, better than the food grade.

Myth 2. Lab grade is cheaper than food grade -NOT

500 g of phosphoric acid costs around \$25 from Fisher or \$12 from Sigma. I am sure Coca-Cola pays much less. But the problem is that food grade phosphoric acid does not seem to be available in small quantities.

CAVEAT: While I am very happy that lab grade phosphoric acid is better than food grade, this may not be the case for all chemical you may use. However, be aware and educated. Question all statements that are not backed up by solid evidence, especially those where the reason is no better than you're not supposed to because the government say so. And beware of supposed experts wearing underpants on their arms!!

Other things. I noticed in r.c.b that many people have been defining krausening as priming with sterile wort, rather than the correct definition - priming with a small quantity of beer in the krausen stage. The source of this misinformation seems to be Charlie P.'s book. Perhaps he should write an erratum pamphlet (a sheet wouldn't be big enough).

Anyone seen a paper calle The Brews Paper?

Ulick Stafford  
ulick@bernini.helios.nd.edu

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Date: Thu, 14 Jan 93 12:09:56 -0500  
From: Michael Gerard <mgerard@engin.umich.edu>  
Subject: Homebrew supplies in the Midwest...

Does anyone know of any homebrew supply places in the midwest (specifically near Ann Arbor, MI)? I found one place here but it is still less expensive to buy the grain from St. Pat's in Texas and have it shipped up. There should be some place near the "grain belt" that sells grain. Any help would be appreciated.

Thanks

Mike

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Date: Thu, 14 Jan 93 9:33:17 PST  
From: Bruce Mueller <mueller@sdd.hp.com>  
Subject: HDPE and Lab Chemicals

Wayde writes in HBD#1054,

>If these HDPE plastics are permeable to CO2 then wouldn't O2  
>(oxygen), being a smaller molecule, be as or more capable of passing  
through  
>the plastic? Maybe Bruce Mueller can comment?

Well, you might think so. Chemistry isn't that simple :( . I had to get  
the  
numbers this time (I knew the other answer, but not quantitatively) so  
here  
they are:

Permeabilities in cm<sup>3</sup>xmm/s/cm<sup>2</sup>/cmHg (yes, pressure in cmHg) at 30C:

O2: 10.6 CO2: 35 H2O (vapor, 90% rel. hum., 25C): 130

For comparison purposes, the numbers for PET (soft drink bottles):

O2: 0.22 Wow! CO2: 1.53 H2O (same cond'ns): 1300

My reference is "Polymer Permeability" edited by J. Comyn. It's a  
British  
book I believe. Isn't that PET amazing at keeping O2 in or out?

Lou in the same issue "accused" :) me of pressurizing my HDPE jugs.  
Actually, this isn't true. I counted on the airline to do the reverse--  
the hold  
is at low pressure, the bottle filled at about sea level. But based on  
this,  
about 1/2 atm vacuum not causing any liquid leakage AND HDPE's strength,  
I extrapolated to the pressurized case. Extrapolating is sometimes  
dangerous,  
but I certainly wouldn't worry in this case, because HDPE is not brittle.  
Please DO NOT pressurize ANY water bottle style carboy, glass or plastic.  
Come to think of it, one of the British contributions to homebrewing is  
the  
polypin (see Dave Line's "The Big Book of Brewing"). These are  
polyethylene  
and used as "kegs". Probably not the best idea, in light of its oxygen  
permeability (Wayde referred to this).

On another note, Ulick had a great point about non food grade chemicals.  
I  
trust the assays on these (e.g. ACS grade) as much as or more than the  
USP  
variety--they are generally purer. In HBD#1055 Jon recommend again  
against  
these, unless one is aware of toxicology. This is a good point. Would  
some-  
one knowledgeable about toxicology enlighten us about the "real" limits  
for  
long-term consumption of e.g. lead? I think most homebrewers who would  
go to  
the trouble of obtaining lab-grade chemicals also would have sufficient  
ability to calculate their "dosage" of such nasties (simple dilution). I  
hope

so.

I hope this time more than the header gets through!

Yours in brewing,  
Bruce Mueller  
Analytical Chemist by training

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Date: Thu, 14 Jan 93 09:43:53 PST

From: rstya@mda.ca (Roy Styan)

**Subject: decoction mashing**

I have been experimenting with decoction mashes for the last 5 or 6 brews, and have been experiencing a common problem with each. The final gravities have all been very high, typically 1025. This seems to be independant of yeast strain (I've used several different ones, both lager and ale) and only somewhat dependent of mash temperature. With very low temps (64C - 65C) I have brought the gravity down to 1018, but this is not always the case.

So what gives? Does docoction destroy more of the alpha enzymes than beta, yielding full conversion, but with lots of dextrans? Is it possible to get a low final gravity with decoction?

- Roy

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Date: Thu, 14 Jan 93 11:28 CST  
From: korz@iepubj.att.com  
Subject: The Dangers of a High Temp Sparge

Recently, there's been some discussion of sparge water temperatures. At least two brewer's have suggested using very hot boiling or almost boiling water for sparging. The usual argument against using sparge water over 170F is that additional tannins are extracted from the grain above this temperature. I agree that a too-hot sparge will make your beer a bit astringent (due to the increased tannins), but there's another reason for keeping the sparge water below 170F, and that is STARCH EXTRACTION. Once you're done with the saccharification rest, you should make very sure you're not extracting any more unconverted starch from your grains. One very cloudy beer I've tried in the past was, upon further investigation, sparged with boiling water.

Finally, I've brought this up once in the past, but no one commented and I just forgot about it, but I'd like to bring it up again for the sake of discussion:

Could it be that we don't want the grain bed during the sparge to be \*AT\* 170F, rather we want the \*sparge water\* to be at 170F and we should let the grain bed (in an insulated tun) settle at whatever temperature it wants? Can someone who has "Brewing and Malting Science" please look this up? Darryl, what sparge temp is used for Pilsner Urquell?

Comments?

Al.

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Date: Thu, 14 Jan 1993 15:38:18 EST  
From: hmcook@boe00.minc.umd.edu (Hardy M. Cook)  
Subject: RE: Mead Questions

I began brewing mead this past fall. I didn't use acid blend in my first batch and it turned out just fine, and I did include it in the batch I made last week though to soften the alcohol warmth. As for honey, you can get dependable results from Clover honey. I buy mine in five pound jar at the local Price Club discount house (less than five dollars a jar).

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Date: Thu, 14 Jan 93 12:51:45 -0800  
From: arthur@chiba.esd.sgi.com (Arthur Evans)  
Subject: Cold plates, Mash tuns

-> Cold plates and other serving devices

Since there's been some discussion of cold plates for serving beer here, it might be worthwhile to mention that there's an article in one of the Zymurgy special issues (I think it's the "gadgets" issue) has instructions for building a "mini-jockey-box."

Basically, this consists of a water cooler with a beer line running through it. On one side you have a serving tap, on the other side you have a line running to your keg, and inside the cooler you have a coil of copper tubing ("look, officer! it's a condenser!" sorry--wrong show) connecting the two. Beer flows through the line and gets cooled by the ice that you cleverly placed in the cooler for this purpose.

Anyway, it sounded like it would work and not cost too much, and best of all, it's yet another excuse to play around in the garage with power tools. (And isn't that half the fun of new equipment?)

Anyway, I've seen some version of these jockey boxes at a number of events (beer festivals, outdoor concerts, etc.), and they seem to work all right, but I'd be interested to hear if anyone has tried making one at home. I'm thinking of making one for my illustrious brother's wedding (to serve beer, not as a wedding present--so don't get your hopes up, Stew).

-> Mash tuns

On a completely unrelated topic, I'm contemplating the leap into all-grain brewing after many a year of extract brewing. I'm thinking about constructing a picnic-cooler type mash tun, and I'm wondering what size I need. The local Sears sells 5-gallon coolers, but I suspect that's too small for making 5-gallon batches. Can anyone who has this kind of mash tun tell me 1) what size they have, 2) what size batches they make (how much grain, how many gallons), and 3) where they scored the damn thing?

Many thanks to anyone who can help me on this,

-arthur

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Date: Thu, 14 Jan 93 15:06:20 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: skimming

I've been following the discussion on skimming with interest. Tell me, someone, would this skimming at the beginning of the boil be recommended for extract brews as well? So far it has been discussed only in relation to all-grain procedures.

This isn't called skimmy-dipping, I suppose....?

Jonathan

-----



Date: Thu, 14 Jan 93 17:58:46 EST  
From: woessner@psych.purdue.edu (Leo Woessner)  
Subject: Pete's Wicked Ale

I would like to try to clone Pete's Wicked Ale. I would appreciate anyone who has made such a ale, to post the recipe, and/or mail me a copy. A friend of mine mine has just started to brew and very much enjoys Pete's Wicked Ale. Being a beginner I would like a extract recipe. Any sugestions on O.G., Hops, and malt will be very helpful.

Over Christmas I visited my parents in Colorado and had the fortune to visit the Walnut Street brew-pub in boulder. The served a tremendous stout called Devils Thoubm Stout. It was a mild stout (closser to a Porter) with a coffee aroma and taste. I was taken by the way in which the maltyness of the beer went with this coffe-like flavor. I asked the man who gave us a tour about the beer. He tpld me that there was no coffe in the beer but they used generous amounts of amounts of chocolate-malt to achieve the flavor. He was not teriably informativ , so I am not totally convinced that there is no coffe in the beer. Last week-end I made a porter with 3/4 pound of chocolate malt to try to get the coffee-like flavor. Recipe:

3.3# John Bull dark malt extract  
3.3# Munto and Fision light extract  
1/2# amber DME  
3/4# chocolate malt  
1oz cascade hops(60 min)(4HBU  
2oz fuggles hops(60 min(10 hbu)  
1oz cascade hops (steep 20 min while cooling)  
1/8 oz Hallertau hops(steep)(Just because I had them ;-)  
Whitebread Ale yeast

If anyone out there has made a stout or a porter similiar to Devils Thomb stout

I would appreciate a recipe. I also would apreciate any recipies, tips, hints, or magic spells that would help me make such a stuot or porter.

Thanks in advance

Estes of Manang

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Date: Thu, 14 Jan 1993 15:02:45 -0800

From: Richard Stueven <gak@wrs.com>

**Subject: COPS and Civil Forfeiture**

If you're frightened, angered, or just curious about the idea of police entering your home or car, seizing everything you own, and forcing you to sue the government to get it back, you'll be interested in a series of articles from the Pittsburgh Press. The series is called "Presumed Guilty", and I have ASCII and PostScript versions available to anyone who asks.

Being somewhat off the topic of brewing, this will be the only time I'll bring this up on HBD, but email conversations are welcome. I figured the recent uproar justified this single article.

thx  
gak

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Date: Thu, 14 Jan 93 23:10 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Cold Plates

I feel like Don Quixote on this issue but when I find something that really works, I tend to be a real crusader.....

>From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)

>I've had some experience with these things, which was not good. I made the mistake of adding ice over the cold plate before I had beer running through it. It seems that ice crystals formed \*inside\* the plate's tubes, with the result being incredibly foamy beer at the tap that did not go away for days (it was a looong party! :-).

I am not sure how or why ice crystals would form inside but they would quickly go away when the warm beer hit them and they certainly are not the reason for the foaming.

>The advise I was given (I'm afraid much too late!) was to get the beer running first, then chill the plate down.

In my case, it is always hooked up so there is always beer in the line. You do have a different situation but not likely to have anything to do with foaming.

In the likely event that THAT advise didn't work either, try mine.

Turn off your brain and crank up the pressure. Don't think about it, it causes migrains. Just DO it! Try 25 or 30 lbs.

I guarantee you, there is some pressure somewhere that will pour properly and with a cold plate it is about twice what you are used to.

>From: "Chauncey T. Griggs" <grig0009@student.tc.umn.edu>  
>In HBD#1054, arf@ddswl.mcs.com (Jack Schmidling) writes:

>>I didn't have a silver dollar handy this afternoon but I had no problem  
>>floating a Costa Rican 25 Centimos piece on a glass of the World's Greatest  
>>Beer.

>Is that anything like a wooden nickel??? :^)

Who me? No, actually it is about the size of a quarter but is made of aluminum.

You should have heard my wife when HER glass of beer had a dime and a quarter on the bottom and 25 Cetimos on the top. She politely suggested that I conduct my experiments with my glass.

Actually, I think I could float a quarter if I took the time to build up the head in the traditional way but it was an afterthought after pouring the beer.

I will report back after I try it.

js

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End of HOMEBREW Digest #1056, 01/15/93  
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Date: Fri, 15 Jan 93 08:25:34 EST  
From: Rick Michael <rmichael@sesky4102b.pl.osd.mil>  
Subject: Homebrew supplies

I have just started homebrewing, and looking for any information on  
mailorder  
suppliers, and monthly publications dedicated to homebrewing. Any  
information  
would be appreciated.  
My e-mail address is rmichael@sesky4102a.pl.osd.mil

Thank -- Rick

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Date: Fri, 15 Jan 93 9:29:26 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:decoction mashing

In the last digest:



Date: Thu, 14 Jan 93 09:43:53 PST  
From: rstya@mda.ca (Roy Styan)  
Subject: decoction mashing

<I have been experimenting with decoction mashes for the last 5 or 6  
brews, and  
<have been experiencing a common problem with each. The final gravities  
have  
<all been very high, typically 1025. This seems to be independant of  
yeast  
<strain (I've used several different ones, both lager and ale) and only  
somewhat  
<dependent of mash temperature. With very low temps (64C - 65C) I have  
brought  
<the gravity down to 1018, but this is not always the case.

I would suspect an inadequate rest time at around 64C for the  
saacharification  
rest of the decoction prior to boiling the decoction. Maybe you are  
resting  
at this temperature, it is hard to tell without more details. Possibly,  
you need to rest for a longer period prior to the actual boiling of the  
decoction. 1.018 would seem a bit high depending on style, but not out  
of range. Certainly 1.025 is quite high. My weizen decoctions have been  
ending around 1.013-1.017 but I am certain of the quality and quantity of  
viable yeast at pitching time. I assume you are pitching a large healthy  
starter? FGs of 1.012 are possible with decoctions but the rest temps  
can  
be tricky to hit and maintain.

on another subject:

From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: skimming

<I've been following the discussion on skimming with interest. Tell me,  
<someone, would this skimming at the beginning of the boil be recommended  
for  
<extract brews as well? So far it has been discussed only in relation to  
all-  
<grain procedures.

Not important since the extract manufacturer has already processed the  
wort  
for you, including the hot break which will remove many of the particles  
that would coat the hops if you were all grain brewing.

Best of luck,  
and yet another point:

From: woessner@psych.purdue.edu (Leo Woessner)  
<re coffee stouts

try using small amounts of Roasted barley and/or very small amounts of  
black patent malt to increase the coffee notes.

Jim Busch

-----

Date: 15 Jan 1993 10:03:10 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: Sears coolers

Subject: Time:9:45 AM  
OFFICE MEMOSears coolers Date:1/15/93  
Arthur Evans writes:

>The local Sears sells 5-gallon coolers,  
but I suspect that's too small for making 5-gallons  
batches. Can anyone who has this kind of mash tun  
tell me 1) what size they have, 2) what size batches  
they make (how much grain, how many gallons), and  
3) where they scored the damn thing?

I used to brew in a 5 gal Gott Water cooler (K-Mart, about 25\$). This  
was  
capable of mashing 13 lb of malt in a single infusion (1 qt H2O/lb)-  
plenty for  
a 5 gal all grain batch and even enough for the occasional 10 gal of low  
gravity beer (milds). It works great-loosing less than 1C over a 60 min  
mash.  
By draining the thin mash, heating and adding back you can hit a mash out  
temp  
prior to sparging.

I now make 10-15 gal at a time and use a 10 gal Gott of the type that  
football  
players like to dump on their coaches (sez Gatoraid on the side, but who  
cares). This big boy can do step mashes, decoctions and single  
infusions. 25  
lbs is as far as I have gone, but that's plenty for my taste.

DanMcC

---

Date: Fri, 15 Jan 93 10:45:41 EST  
From: Joe Rolfe <jdr@wang.com>  
Subject: Bottle filler info wanted

hi all,

this is not yur average request for info - what i am looking for is 2 items:

- 1) anyone know of a company in New York under the name of Prospero Equipment Company???????
- 2) that failing any one know of where i could aquire a multi spout siphon bottle filler, similar to the one offered by the Compleat Winemaker?

the specs i need to meet are:

good polished tank welds, sanitary  
1.5" triclover inlet  
floor standing  
easily cleaned  
some type of float valve or mechanism to set the liquid level in the tank  
able to fill 12 oz, 16 oz, 22 oz, 750ml bottles  
multi spouts 6 or more (up to 12) - capacity of 12+ bottle/min  
not going to cost more than a few grand

these type of contraptions are not counter pressure devices, are mainly used in the wine/champagne industry....

any help???

joe rolfe  
- --  
joe rolfe  
jdr@wang.com  
508-967-5760

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Date: Fri, 15 Jan 93 10:48:06 EST  
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)  
Subject: Re: arf's Incredible Knowledge

I posted:

>>I've had some experience with these things, which was not good. I made the mistake of adding ice over the cold plate before I had beer running through it. It seems that ice crystals formed \*inside\* the plate's tubes, with the result being incredibly foamy beer at the tap that did not go away for days (it was a looong party! :-).

Jack posted:

> I am not sure how or why ice crystals would form inside but they would quickly go away when the warm beer hit them and they certainly are not the reason for the foaming.

Well, Jack, I spent many hours talking with the owner of The Spirit Haus in Amherst, Ma, who rented it to me, as well as others, who said that was the cause. It ran foamy for three days. Now, I want to know, what makes YOU so God Damned Smart, huh?

-----

Date: Fri, 15 Jan 93 9:31:47 MST  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: enzymes in pale malt

> <Also, make sure your later grain bills didn't include  
> disproportionately  
> <high percentages of specialty malts like Munich or crystal. If you  
> <don't have enough pale malt, you won't get enough enzymatic activity  
> to  
> <get a full conversion. (Try the iodine test next time if you're not  
> <sure -- a drop of iodine in a bit of mash liquid will turn purple/  
> black  
> <if there are still unconverted starches.  
>  
> In general, this is not true. Domestic malts will contain more enzyme  
> potential than you could ever use. Even modern continental malts will  
> have enough enzymes for just about any all malt beer. The use of  
Munich  
> and crystal malts in just about any reasonable percentage will work  
fine.

Whoops, sorry if I mislead anybody. When I said "disproportionately  
high percentages" I was thinking of ridiculous percentages, like  
\*replacing\* your pale malt with Munich. I'm sure someone out there has  
tried it (no, not me :-).

> My complaint  
> with the Phils system is that the tube from the false bottom has to  
> rise up out of the false bottom to then exit the bucket. This can lead  
> to a problem with an air bubble forming inside the tube. I have seen  
> extremely slow runoffs that I think are due to this design.

So back to lautering tuns. I lauter with a slotted copper manifold  
system that drains via a ~24 inch standpipe connected to a siphon. I  
don't know exactly how the Phils system works, but I imagine my setup  
could have a similar problem. However, I almost always get >30  
pts/lb/gal yield. Perhaps the siphoning pressure removes any air  
bubbles that might get in the way.

On another note, Arthur Evans asks about picnic-cooler mash tuns. I  
believe Gott manufactures 10-gallon (40 qt) liquid coolers, the kind you  
see on the back of construction-company pickups. You can also use  
rectangular food coolers, which I've seen in sizes up to 54 qts, though  
you probably don't need anything larger than 28 qts. I mash in a 40 qt  
stainless kettle, and my mashes usually amount to no more than 20 qts or  
so for an eventual 5 to 6 gallon batch of beer.

Which brings us back to lautering. If you're moving to all-grain you  
need a way to lauter. I've used both the Zapap double-bucket setup  
and the slotted copper manifold setup, and the manifold wins hands  
down both in speed, ease of use, and efficiency. Stuck sparges due  
to grain bed compaction were common with my Zapap; I've had nary a one  
with my manifold (even when making beers with >50% wheat).

Both lautering setups have been discussed many times in the digest, so  
check back issues or email me if you want more info.

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."

- T.S. Eliot

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Date: Fri, 15 Jan 93 16:35:43 GMT  
From: Martin Wilde <martin@gamma.intel.com>  
Subject: HSA not a problem if chilled?

As a bunch of us were recently talking at a brewing club meeting the other night, the topic swung to HSA (hot side aeration). I had mentioned the talk which has been going on in HBD about this and how most people thought it was a nasty thing. I then recalled pictures I had seen of Sierra Nevada and English breweries using a hop back and watched some local brew pubs using them also. Someone came up with a reason why these breweries products do not have the nasty tastes associated with HSA.

Could it be after you dump the wort over the hops and then immediately chill it to ~70 degrees the nasty phenols do not have time to develop?

thanks

Martin Wilde | So many beers...  
martin@gamma.hf.intel.com | So little time...  
uunet!intelhf!gamma!martin |

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Date: Fri, 15 Jan 93 10:20:17 MST  
From: frank@Solbourne.COM (Frank Jones)  
Subject: Simple (low-cost) Kegging system

Greetings,

This is a long one, but useful I think...

I recently found a low-cost kegging system which I wanted to share with the Digest. It is very new to the market; I found out about it at our local brew club (The Unfermentables, Denver) when the manufacturer came and gave us a short talk on their product. (The manufacturer, QUOIN, is based in Golden, CO.) I was looking to go to a kegging system, and this caught my attention. I purchased one keg as a trial and filled it with Christmas Ale, which was consumed (decimated?) at a party the weekend before Christmas. This past weekend I filled it again, and if anything it was easier. All went as advertised, and I am very pleased with its performance. Well enough of that, but I wanted to establish that I \*had\* used this system, not just heard about it.

I've delayed announcing this for two reasons: 1) I just changed jobs, and now have a real Internet connection, and 2) I was about to use the keg a second time, and wanted to wait until that was behind me to see if anything else cropped up.

The Keg system is produced by Quoin (pronounced "coin") Systems Inc., (address below). The bottle was developed by Coors Inc. originally as a take home cheap returnable keg for their distributors (e.g. like a party ball), but the system was abandoned by them, I believe, because of the difficulty with the charging system. Quoin Systems (consisting of former Coors employees) bought the kegging system, and came up with their own charging system, which is unique (and patented). The charging system is a pouch which contains a (food grade) mild acid & sodium salts in a multi-compartmented pouch. The acid is kept separate from the salts by a pressure sensitive barrier, which is triggered once the keg is pressurized (with a small hand pump). Once the pouch is activated the chemicals mix, producing CO2, which makes the pouch expand, filling the head space in the keg. The contents of the pouch are totally isolated from the brew. The beer is primed as normal with sugar/wort. The pouch is only to keep the brew under pressure, about 15psi, and the head space filled. When the keg is empty, you simply puncture the pouch, remove it and throw it away.

The Keg is made of brown PET plastic, with removable aluminum clamp rings for the plastic valve system. These things were designed for public use, so are of very stout construction. The keg holds 10 liters total, but only about 8 liters (about half a 5 gal batch) of brew with the required head space.

Quoin is marketing the keg to home brewers and micro-breweries. They are a very small operation, but they tell me they are selling quite a few, and are staying up with the demand. I understand that the Breckenridge Brewery (a local Colorado Micro-brewery) has purchased some for take-home/returnable customer use.

I'll try and head off some of the obvious questions:

how much does it cost?

\$29.50 .. 8 liter Keg, valve assembly, horizontal stand with carrying strap (neat design) & 2 pouches

\$ 4.00 .. 2 plastic sleeves for standing the keg upright for filling

\$ 5.00 .. activation pump

\$ 3.00 .. 1 pouch (\$33.00 for 12 of them)

(normal startup requires the keg, pump, and stand \$38.95, additional kegs don't require the pump or stand)

\$ 5.00 .. shipping per keg.

Colorado residents add 4.3% tax.

They accept Master Card & Visa or checks payable to QUOIN.

\_what about contamination?\_

The pouches are pre-sterilized, and are sealed in a second pouch. The air that is introduced to activate the pouch, once the pouch is in the keg, is just outside air; however it is bled off immediately after activation, so shouldn't be much of a factor. The keg itself is easily disassembled, with the mouth opening being about 2 1/2" in diam, and is very easily cleaned. Since it is PET plastic, care should be taken not to scour/scratch it. but it cleans up quickly and easily.

\_What is it called?\_

The best part: "The Party Pig"(tm) :) When the keg is assembled with valve, and is in the horizontal stand, it does indeed look like a pig. the only things missing are ears, eyes & tail (aftermarket options???)

Where to order?

Quoin Systems Inc.

401 Violet St.

Golden, CO 80401

phone (303) 279-8731

\_Disclaimer?\_

Yeah, I guess I should. I do not have \*any\* monetary affiliation with Quoin Systems (damn it), other than being a customer.

Problems: A brew buddy of mine purchased one at the same time I did, and had a problem assembling the valve/restrictor assembly which ended up damaging the valve. After looking at it the problem appeared to be that, when the two parts are pushed together the valve was depressed (opened) in the process which pinched it between the two parts. She replaced the entire assembly for \$5 but I think that the valve itself might have fixed it. If care is taken when assembling the restrictor, e.g. pushing on the valve body itself, this shouldn't re-occur.

If you have any questions that I can answer please feel free to post either directly to me, or to the Digest, and I will answer all that I can. Also since Quoin is a local call for me I would be happy to forward any questions/queries to them that I don't feel qualified to answer.

fj..

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Franklin R. Jones National Technical Support Engineer

frank@Solbourn.COM <-Internet...snail-> Solbourne Computer Inc.

303.678.4769 1900 Pike Road

fax 303.772.3646 Longmont, CO 80501

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"If we are not supposed to play with words...  
then why do we have so many??"

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Date: Wed, 15 Jan 92 10:55:28 -0600  
From: gjfix@utammat (George J Fix)  
Subject: Computer error

During the week of 1/11-1/15, utamat, our local workstation, frequently down so the operating system could be upgraded and additional memory installed.  
To make a long story short, selected mail to gjfix@utammat.uta.edu was trashed due to a failure to properly backup the system during these changes. I was told that some of the lost mail was to me, and at least a couple had the term "HSA" in the subject title. I would be grateful if anyone who sent e-mail to this node and has not received a response could resend their message. More generally, I would be grateful to anyone who requested but has not received the original HSA article could do the same.

I believe it was either Steve Stroud or his wife who gave the following sage advice. "One can never be too rich, too thin, or have too many backups". I believe the same applies to CO2 tanks, but that is a another matter!

I hope everyone caught CP's post in HBD#1055 about Zymurgy. I believe these folks are quite sincere about these matters. This would mean that the ball is now in our court, and those interested should definitely respond.

George Fix

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Date: 15 Jan 93 10:06:25 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.EDU>  
Subject: Paul Edwards

Subject: Paul Edwards Time:10:01 AM Date:1/15/93  
Paul; I am unable to successfully contact you via the address I have,  
please  
send me some E-mail so I can try a reply, or correct my address.

Thanks, RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Fri, 15 Jan 93 14:11:43 EDT  
From: doug <doug@metabolism.bitstream.com>  
Subject: Cleaning agents, Papazian

Sorry this is a bit late, but my mail was down for a day.

C. Papazians article struck me as somewhat odd in HBD #1055. I agree with his general point that people who have problems with Zymurgy should contact Zymurgy, of course that is NOT to say that they that they shouldn't use this forum as well.... the point that struck me as odd was that it sounded like nobody on the Zymurgy staff was a regular reader of the HBD. If that's the case, they certainly are missing many great ideas for articles...

Secondly, Scott the BadAssAstronomer was looking for a new cleanser. I've been told by a local brewer that DRANO contains something that is very similar to what is used to clean hop residue out the industrial aging tanks. I've never tried it, but he suggested a teaspoon in 5 gallons really cleans up nicely. I suggest a lot of rinsing...

good luck  
doug@bitstream.com

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Date: Fri, 15 Jan 93 15:01:34 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: HBD 1056

Hi All,

In HBD #1056, Roy Styan asks:

I have been experimenting with decoction mashes for the last 5 or 6 brews, and have been experiencing a common problem with each. The final gravities have all been very high, typically 1025. This seems to be independent of yeast strain (I've used several different ones, both lager and ale) and only somewhat dependent of mash temperature. With very low temps (64C - 65C) I have brought the gravity down to 1018, but this is not always the case.

So what gives? Does decoction destroy more of the alpha enzymes than beta, yielding full conversion, but with lots of dextrans? Is it possible to get a low final gravity with decoction?

I've used decoction mashing extensively, generally for Bohemian pilsners and German festbiers. I've also experimented with styles that do not traditionally call for decoction mashing, such as pale ales. Both the pilsners and the pale ales typically finish around 1.015. I'm also aware that wheat beers are commonly brewed using decoction mashing, and can finish as low as 1.010, though I've never done this. A few suggestions come to mind, some of which you've already covered.

Yeast attenuation: Roy mentions trying several different yeast strains, I assume they had different attenuation ratings. If so, then yeast performance may be eliminated as a factor, and the discussion focused on mashing procedures.

Water/grist ratio: a higher water to grist ratio will produce a thinner mash, which favors the beta amylase enzyme. I use 1.3 - 1.5 qts/lb (I can hear the gasps from the infusion mashing crowd), which also helps reduce the darkening effect of decoction. This is very important in preserving the pale, delicate color in a pilsner.

Conversion temperature: the lower end of the sugar rest temperature range also favors the amylase enzyme. 65C is ~149F, still sounds a little too high if you're after a thinner bodied beer. Quoting from Noonan's "Brewing Lager Beer":

"temperatures below 149F(65C), on the other hand, seriously limit dextrin formation while favoring the formation of maltose by Beta amylase. Because starch granules are not gelatinized or dispersed below 149F, Beta amylase activity at lower temperatures serves only to eliminate the dextrans formed in the decoction, without further significant starch reduction."

Try a brief rest at 140F-145F, should result in a less dextrinous wort.

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Also in HBD #1056, Al. Korz on sparge temperatures:

> The usual argument against  
>using sparge water over 170F is that additional tannins are extracted  
>from the grain above this temperature. I agree that a too-hot  
>sparge will make your beer a bit astringent (due to the increased  
>tannins), but there's another reason for keeping the sparge water  
>below 170F, and that is STARCH EXTRACTION.

Point well taken, I'd agree that water that is actually in contact with the grain should never exceed 170F. My use of sparge water at ~190 is a result of the characteristics of my own brewing equipment. As stated in a previous post, I mount a collander atop the lauter tun as a means of diffusing sparge water, minimizing disturbance of the grain bed. This setup cools the water rapidly, as the temperature at the top of the grain bed is 160-165. I believe this is the hottest point in the system, and still maintain that this is the key data point. What difference does the temperature of the sparge water make when it's not in contact with the grain? Extraction of tannins and unconverted starch is not likely to occur when the sparge water is sitting in a pot on the stove.

Cheers,  
Jim

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Date: 15 Jan 93 12:15:40 EST  
From: Charlie Papazian/Boulder <72210.2754@compuserve.com>  
Subject: zymurgy

So far I've received about a dozen responses to my last posting. I'd like to say that we really appreciate the time you all have taken to send them our way.

Thanks again

Fermently,

Charlie P.

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Date: Fri, 15 Jan 93 15:28:08 -0500  
From: djt2@po.CWRU.Edu (Dennis J. Templeton)  
Subject: Re: Jack's floating coins

Jack writes

>>>I didn't have a silver dollar handy this afternoon but I had no  
problem  
>>>floating a Costa Rican 25 Centimos piece on a glass of the World's  
Greatest  
>>>Beer.

>>Is that anything like a wooden nickel??? :^)

> Who me? No, actually it is about the size of a quarter but is made of  
> aluminum.  
^^^^^^^^^

!

After all the anti-aluminum histeria to emanate from this source, I can  
only assume that he promptly deposited the tainted WGB in the nearest  
potted plant! (pity the plant :=)]

dt

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Date: Fri, 15 Jan 93 11:05:04 PST  
From: hartman@varian.varian.com (John Hartman)  
Subject: Bottle Filler

Allow me to suggest yet another counter pressure bottle filler. It's simple, inexpensive, and effective. Call it John's Cheaper Filler.

To make this filler you will need the following:

Standard 3-piece plastic airlock \$.95  
No. 2 rubber stopper w/hole (beer bottle size) \$.30  
3/8" ID vinyl tubing, 9" in length \$.30.  
3/8" ID vinyl tubing, 2" in length \$.05.

The total capital outlay for this little project is \$1.60, leaving extra fun money for the rest of the brewery. Use a saw of some sort (I used a hack saw) to turn the 3-piece airlock into a 4-piece airlock. Cut the stem of the airlock off at the top, where it meets the bleach water reservoir. Keep the stem and discard the rest of the airlock. Slid the stopper over the stem so that the stem protrudes from both the top and bottom of the stopper. Attach the 9" length of tubing to the stem below the stopper. Attach the 2" length of tubing to the stem above the stopper. You've done it. You now have your very own bottle filler and you're ready to bottle.

To bottle a beer from your keg attach the 3/8" tube on the top of the stopper to a plastic cobra/picnic tap coming from your keg. Insert the assembly into the bottle. Place 20 PSI of pressure on the keg. You may need a different keg pressure for your system, but I bet it'll be close to 20 PSI. Hold the stopper down and open the tap. Beer will fill the bottle to about 1/4 full and then the flow will stop as the pressure in the bottle reaches the keg pressure. You should see some foam. Wait about 10 seconds and the foam will subside. Now carefully loosen your grip on the stopper so that a little air escapes from the bottle. The tap should still be open and as the air escapes beer will gently fill the bottle with no additional foaming. As the beer approaches the neck slow down. There will be about 1" of foam. Loosen your grip again to allow the foam to be displaced by beer. Be careful or you'll be wearing that foam. If you do get foamed remember you're a homebrewer and you like this kind of stuff. Once the foam is displaced you can close the tap and then slowly remove the filler. If you pull it out too quickly the beer will foam and you'll loose carbonanation. You can now cap the bottle.

One obvious draw back to this filler is that the beer will potentially be oxidized by the air in the bottle when you start. For those concerned with oxidation, a second filler could be attached to a second keg filled with CO2.

Just before a bottle is filled you could blast the bottle free of O2 and then proceed as above. I haven't found this to be necessary, but I thought I'd mention it as we never seem to stop talking about the evils of oxidation.

It works for me. Try it!

Cheers,  
John

hartman@varian.varian.com

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Date: Fri, 15 Jan 1993 15:58:00 +0000  
From: "Rick (R.) Cavasin" <cav@bnr.ca>  
Subject: re: Rikard's Red

A few people have asked about Rikard's Red which is widely available in Ontario. It is brewed by MOLSON'S, and IMHO is an attempt to prevent the micro's grabbing too big a segment of the market. They try to downplay who makes it in an attempt to cash in on the microbrewery mystique. All this wouldn't be so bad except that the beer tastes more or less like generic Molson's (Canadian, Export, etc.) with a touch more flavour and body. It can't hold a candle to any of the good micro-beers like Wellington, Connors, or Hart. This is a matter of taste however, and some who like a more mainstream beer may appreciate Rikard's. Labatt's attempted to do the same thing a while back. The beer was called something like 'Duffys' and was particularly vile. Haven't seen it in quite a while. I must confess to a certain bias against such imitation micro-beers in that the big breweries have a lot of leverage (who's kidding who, they have a government sanctioned monopoly on beer sales and distribution and MAKE the rules) that they already use to make life hard for the micro's. Also, the whole thing smacks of dishonesty. Is it any wonder that many beer lovers view Molson and Labatts as the 'great satans'?

Cheers,  
Rick C.

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Date: Fri, 15 Jan 93 13:16:31 PST  
From: Mike Leclere <mssl@orca.rose.hp.com>  
Subject: GIF Files and Labels

I recall seeing a blurb somewhere about beer logos or labels having been scanned into GIF files. I think it was in the HBD, but I'm not sure. I made a note of it at the time (around New Year's so the memory is vague at best) with the promise to myself that when I had the time I'd go get them to play with. Well, I've finally gotten around to it, but I can't find the note I made as to where they are. I have tried to consult the archives, but I have a feeling it is too recent to be listed there - at least I can't seem to find it in the index. Does anyone remember the details about this? If so I would appreciate e-mail on it, or just a repost to HBD with an appropriate title line like "Where to find beer logo GIFs."

Mike (mssl@hprnd.hp.com)

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Date: Fri, 15 Jan 93 16:39:59 EST  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Under Pressure...

Bruce writes:

>Lou in the same issue "accused" :) me of pressurizing my HDPE jugs.

Okay, okay, so the airline does the actual work, but the result is the same. ;^) He says he has extrapolated from this ~1/2 atm vacuum to determine if the jugs would withstand priming pressure. But how much pressure is generated by priming? My assumption before reading his posting was that there would not be too much. However, it seems that this might not be correct: Assume 1 lb priming sugar, glucose (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>), or 454.5 g at 180 g/mol gives us 2.53 mol. Now assume that every glucose molecule gives us 2 ethanol and 2 CO<sub>2</sub> (I'm not sure about this): C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> --> 2C<sub>2</sub>H<sub>5</sub>OH + 2CO<sub>2</sub>. Now we have 5.05 mol CO<sub>2</sub>. Using the perfect gas law (imperfect, yes, but sufficient for our purposes), pV=nRT, rearranging gives p=nRT/V.

n=5.05 mol

R=0.0821 l atm/mol-K

T=298 K

V=4 l (I'm assuming you're using 5 gal of a 6 gal jug)

p=30.9 atm! Am I going bonkers, or is this a lot? Even if I'm off by a factor of 2 somewhere, there is still 15 atm of pressure generated. Is Bruce's extrapolation still good? Maybe. Is there anyone out there who knows for sure? Bruce or Ulick? Your turn.

Hopping Along,  
Lou Casagrande  
Physical Inorganic Chemist by training

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Date: Wed, 15 Jan 92 16:28:25 -0600  
From: gjfix@utammat (George J Fix)  
Subject: Sparge Temperatures

It is possible that the time honored temperature range 168-172F for sparging seen in many books on home brewing are a carry over from older commercial practice. I know from direct experience at some regionals using older brewing practices (e.g., Straubs in St. Marys, Pa. and Pittsburgh Brewing to cite two examples), considerable effort was extended to achieve this temperature range throughout the grain bed. The rational behind the procedure was to terminate all enzyme activity in a predictable way. Both breweries were sensitive to even small changes in the wort % fermentability as well as to yield.

I use to do the same until a few years ago Mark Carpenter of Anchor suggested an alternative. At Anchor, after conversion they raise the mash to only 160F, and sparge with water at 168F. (Russ, please help if my numbers are not current). I tried this and found that for most beer styles the change was positive in terms of finished beer flavors. In my system there was a drop in yield, but also less husk based material was extracted. (Russ, does Anchor have any other reasons for using this procedure?)

A very radical procedure that was discussed in the commercial literature, was to lower the mash temperature to 32F-34F, hold for a definite period, and then sparge with water at that temperature. After that the mash was heated back up and boiled as usual. The authors claimed only small reductions in yield, and at the same time a ten fold reduction in anthocyanogen levels. This article appeared in a peer reviewed journal, which means their results were likely checked with care. I have personally tried the procedure for a 5 liter batch, and the results were consistent with their findings. Having said that, let also say that I have zero interest in trying it with a 50 liter batch for obvious reasons.

I now believe that the traditional numbers should not be seen as engraved in stone. If a particular brewer finds a particular combination of temperatures which consistently gives beers to their liking, then to quote a well known personality from my neck of the woods, "end of story". ( Well, at least I didn't use the phrase "you people" in this post.)

George Fix

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Date: Fri, 15 Jan 93 16:34 CST  
From: korz@iepubj.att.com  
Subject: Dangers of a High-temp Sparge

I wrote:

- > Darryl, what sparge temp is used for
- > Pilsner Urquell?

Two brewers wrote to me suggesting that knowing the sparge temperature used to make Pilsner Urquell would probably not be as useful as I had initially theorized. For example, Spencer wrote:

>Is this a relevant question? PU is heavily decoction mashed, so it  
>seems to me that the sparge conditions wouldn't yield the same result  
>as when applied to our typical infusion mash.

My initial response to both was something like this:

- > Well, yes -- I feel we can learn and adapt from every source.
- > After you dump your mash into the lauter tun, does it really
- > matter which method of mashing was used to convert the grains?

And then I thought (in my reply to Spencer):

- > Hmmm... then again, decoction mashed grains will have much less
- > unconverted and trapped starch than infusion mashed, so they
- > could probably get away with a hotter sparge than us infusion
- > mashers. Perhaps you're right. Perhaps my earlier argument
- > is the key to the demise of my PU comparison. In any event,
- > maybe it will start some new discussions.

In Noonan's "Brewing Lager Beer," he says that the primary advantage of decoction mashing (and the reason that it yields slightly higher extract efficiencies) is because as the during the decoctions, the heat causes the starch grains burst and become available to be converted. This was the basis for my contention that too-high a sparge temperature could cause unconverted starch to be sparged out of the grains. Miller advises against high-temp sparges also (for the same reason, I believe) in his "Continental Pilsener" book from the AHA Classic Style Series.

That I asked Darryl if he knew the sparge temp for PU was a mistake, since as Spencer (and the other person (sorry)) noted, the fact that PU is decoction mashed means that its mash's grains have much less unconverted (and unavailable) starch than our typical single- or step-infusion mashes. Therefore, knowing their sparge temperature would not be as useful as I had initially anticipated (not that I'm not still interested).

Bottom line, the point I was trying to make was, that I feel that the best way to lauter is to:

1. take the mash that you have raised to 170F during mashout,
2. put it in an insulated lauter tun,
3. sparge with 170F water (acidified if necessary), and
4. if your runoff is too cold (heck, I don't know, say, below 140F), then insulate your tun better, rather than raising your sparge water temperature.

^^^^^^^^ ^^^^^ ^^^ ^^^^^^^^^ ^^^^^^^^^ ^^^^^ ^^^^^^^^^ ^^^^^ ^^^^^^^^^ ^^^^^ ^^^^^^^^^  
^^^

Comments?

A1.

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Date: Fri Jan 15 17:34:05 1993  
From: ogilvie@ficc.ferranti.com (jim ogilvie)  
Subject: Please help me convert mg/L to ppm

I recently requested and received a report from my water supplier listing all the junk in my tap water. Now I could use a little help interpreting what they sent me. What I expected was a breakdown of how much junk in parts-per-million is in the water; what I got was how much junk in MG/L is in there. Assuming MG/L means milligrams-per-Liter (bad assumption?), can I read that as being pretty close to parts-per-million? Since a liter of tap water has a mass really close to 1kg, can I say that 1 mg/L is 1mg/kg here? mg/kg looks a lot like parts-per-million, if the ratio is a mass-of-junk to mass-of-water ratio. Does "ppm" normally mean "mass-of-one-part-junk to mass-of-one-million-parts-water?"

The person that sent me the report couldn't help me convert MG/L to ppm.

Any help is appreciated.

Jim(ogilvie@ferranti.com)

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Date: Sat, 16 Jan 93 9:43:40 EST  
From: sfw@trionix.com (Scott Weintraub)  
Subject: Daytona Beach and Jacksonville FL

Im off to the land of spring break...any chance of real beer there (or in nearby Jacksonville?)

- --Scott Weintraub  
TRIONIX

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| Scott Weintraub | TRIONIX Research Laboratory, Inc. |  
| Software Engineer | 8037 Bavaria Road |  
| | Twinsburg, OH 44087 |  
| e-mail: sfw@trionix.com | Voice: 1-216-425-9055 Fax: 1-216-425-  
9059 |  
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Date: Sat, 16 Jan 1993 11:51:41  
From: Gary.Cote@leotech.MV.COM (Gary Cote)  
Subject: questions

I am looking for three receipes for brews.  
One is for "Taddy porter"  
The second is for a "New castle brown ale" and third is  
for a "corona" (not for me).  
All are for extract brews.  
Also is there any problems with the way that I cool my wort?  
Here it goes..  
I put 3.5 gollons water into a plastic fermanter and put it in my  
large  
chast freezer, Yes I cover and seal it tight.  
I boil the wort then strain it into the 33 degree water.  
It brings the temp down to around 65 degrees. then pitch the yeast

Also is there any problems with using those 5 gal. slightly tinted  
water  
bottles that spring water comes in as a secondary?

Thanks Gary Cote gcote@leotech.mv.com

- - -  
Gary Cote  
gcote@leotech.mv.com

\* Origin: Leo Technology (603)432-2517/432-0922 (HST/V32)  
(1:132/189)

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End of HOMEBREW Digest #1057, 01/18/93  
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Date: 18 Jan 1993 08:12:01 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@LILLY.COM>  
Subject: party ball revisited

Seeing the post today about the party ball system was somewhat ironic. I just purchased one yesterday at Great Fermentations, Indianapolis. The one I got is in the traditional Coors party ball configuration, that is, once the seal is punctured, the beer should be consumed within 24 hours. Hey, its only a 2.5 gal keg... shouldn't be a problem. My questions are: how much priming sugar do I add? and what is the time frame for the beer to be ready? Once primed & carbonated (and still sealed) can this keg be stored in my fridge for a month or two? Since the initial beer is pushed out of the keg by CO2, could the basic rubber stopper counter pressure bottle filler also mentioned in today's post be used to fill a couple of bottles (just in case you wanted to) ?  
Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Mon, 18 Jan 93 08:58:24 EST  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: CO2 Pressure Correction

Fellow Brewers,

Okay, I blew it big time. In the last issue I submitted what turned out to be some very premature calculations of the priming pressure for a five gallon brew. First of all, when I got home Friday night, I checked a conversion table for confectioner's sugar (the closest thing I could find to brewer's sugar) and found that there are only 4 1/2 oz in one cup, meaning that in the standard 3/4 cup priming sugar, there are only 0.21 lb, or 0.53 mol of glucose. So now my calculations were off by a factor of 5, at best.

I admit, I also forgot about that standard high school chemistry property of solubility. I checked the CRC Handbook of Chemistry and Physics, and CO<sub>2</sub> is soluble in H<sub>2</sub>O at 1.45 g/l at 25 C. Upon reflection, the brew is probably saturated from the primary fermentation, since 1.45 g/l is only 27.4 g in 18.9 l (5 gal), or 0.62 mol, less than even the 1.07 mol from priming. Even forgetting for a moment that pressure will drive this solubility higher, the 1.07 mol CO<sub>2</sub> will produce an overpressure of 6.5 atm in 4 l, or ~1/5 my original estimate. As I said, solubility will be driven higher by the pressure, and the pressure correspondingly lowered. Anyway, I'll think before I leap next time.

I still do not know, though, what the exact proportions of CO<sub>2</sub> produced by fermentation are. My gut instinct says they must be less than a simple chemical equation, otherwise where does the material to make new little yeasties come from?

Yeast-headidly,  
Lou Casagrande

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Date: Mon, 18 Jan 93 10:42:05 EST  
From: "John E. Lenz" <JELJ@CORNELLA.cit.cornell.edu>  
Subject: **Keep it private David**

David Van Iderstine,

Your posting in Monday's digest was uncalled for. If you have a such a petty gripe, with Jack or anyone else, please settle it via private e-mail.

I tried to do this privately (and less politely) but the address on your posting was as worthless as the posting.

John

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Date: Mon, 18 Jan 1993 11:01:18 EST  
From: Ming-chung Lin <MARS@suvvm.acs.syr.EDU>  
**Subject: Keep it private David**  
Subject: Coffee stouts and porters

In regards to Leo Woessner's questions about coffee beer. Late last year I made a clean out all our ingredients brew with a friend. I think we started with some kind of bitter kit, added some spraymalt, didn't have enough fermentables so we added 1-2 lbs corn sugar (boohiss), and a pot of very strong french roast coffee (along with bittering and aroma hops). I forget if we used any adjunct grains. The result was surprisingly drinkable. We brought a bottle to the local homebrew supply store and the proprietor thought it tasted like an imperial stout (we didn't tell him what it was until AFTER he tasted it). We named it BOOTPOLISH, and anybody who has tasted it and likes strong stouts has liked it. So, Leo, experiment!

Lisa St. Hilaire <MARS@SUVVM.acs.syr.edu>

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Date: Mon, 18 Jan 93 10:27:19 PST  
From: Bruce Mueller <mueller@sdd.hp.com>  
Subject: Keg priming

Lou, this isn't a flame, just trying to keep the facts straight.  
You made the following statement regarding priming the now notorious  
HDPE jug.

>meaning that in the standard 3/4 cup priming sugar, there are only 0.21  
lb, or  
>0.53 mol of glucose. So now my calculations were off by a factor of 5,  
at best.

Using 3/4 cup priming sugar sounded scary to one who kegs. I force  
carbon-  
ate, so I had to check back issues of the digest for a reference from a  
natural carbonator. In HBD#1003, Robert Haddad said 1/2 cup of corn  
sugar  
gave him about 25 psi at serving time. Unless he kegs much differently  
than  
I do, there would be very little headspace in the keg.

Lou, you correctly mentioned that CO2 is soluble in water. Using Henry's  
Law  
(ooh nooo, Chemistry!), you can calculate just how much does dissolve and  
thus  
the remaining pressure. I will leave that as an exercise for whoever  
wishes  
to, because I'm very satisfied with Robert's empirical evidence. For you  
thrillseekers, CO2's constant is  $1.64 \times 10^3$  atm at 25C. The formula you  
want  
is

$$p(\text{CO}_2) = H(\text{CO}_2) \times x(\text{CO}_2)$$

where  $p(\text{CO}_2)$  is the equilibrium pressure  
 $H(\text{CO}_2)$  is the constant above  
 $x(\text{CO}_2)$  is CO2's mole fraction; you can safely assume that water  
contains  
55.6 moles/ l (CO2 is negligible where Henry's law applies)  
thus,

$$x(\text{CO}_2) = \text{moles}(\text{CO}_2) \text{ dissolved} / 1 / 55.5$$

Have fun, don't worry!

Bruce Mueller

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Date: Mon, 18 Jan 93 11:10:52 PST  
From: Bruce Mueller <mueller@sdd.hp.com>  
Subject: The Answers, Natural Carbonation in Kegs

Hi all,

Well, I just couldn't resist the chance to do a simple theoretical chemical calculation. In a 5 gal. container, assuming all the CO2 dissolves, 1/2 cup yields 16 psi and 3/4 cup only 24 psi. Well, my fear was unfounded regarding this higher priming level. However, I bet the beer would initially gush pretty good with the latter pressure behind it.

Robert Haddad overestimated his pressure by about 55% way back in HBD#1003.

That's all folks!

Bruce Mueller

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Date: 18 Jan 1993 12:49 EST  
From: afd@hera.cc.bellcore.com (adietz)  
Subject: Beer in Aus & NZ

I'm travelling to Australia (Cairns area) and onto New Zealand (all over) in a couple weeks. Would appreciate info on the brewpub and homebrewing scene in these areas, or even talking beer with local brewers.

-A Dietz  
Bellcore, Morristown NJ USA  
afd@cc.bellcore.com

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Date: Mon, 18 Jan 93 11:28:17 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: CO2

>But how much  
>pressure is generated by priming? My assumption before reading his  
>posting was that there would not be too much. However, it seems that  
>this might not be correct: Assume 1 lb priming sugar, glucose  
>(C6H12O6), or 454.5 g at 180 g/mol gives us 2.53 mol. Now assume that  
>every glucose molecule gives us 2 ethanol and 2 CO2 (I'm not sure  
>about this): C6H12O6 --> 2C2H5OH + 2CO2. Now we have 5.05 mol CO2.  
>Using the perfect gas law (imperfect, yes, but sufficient for our  
>purposes),  $pV=nRT$ , rearranging gives  $p=nRT/V$ .  
> $n=5.05$  mol  
> $R=0.0821$  l atm/mol-K  
> $T=298$  K  
> $V=4$  l (I'm assuming you're using 5 gal of a 6 gal jug)  
> $p=30.9$  atm! Am I going bonkers, or is this a lot? Even if I'm off by a  
>factor of 2 somewhere, there is still 15 atm of pressure generated.

you're forgetting how much CO2 is dissolved in solution (over 90% of  
the CO2 in a typical bottle is in solution). It doesn't all go in the  
headspace. Also, most homebrewers don't give their beer time enough for  
all the priming sugar to ferment - if you did, you would only need about  
2-3 oz per 5 gal beer to obtain average carbonation. Anybody with a  
kegging  
setup can tell you that there is around 1-1.5 atm (14-21 psi) in (on?)  
carbonated beer at serving temps.

bb

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Date: Mon, 18 Jan 93 18:47:18 GMT  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Decoction mashing

James, quoting from Noonan's "Brewing Lager Beer", writes:

"temperatures below 149F(65C), on the other hand, seriously limit dextrin formation while favoring the formation of maltose by Beta amylase. Because starch granules are not gelatinized or dispersed below 149F, Beta amylase activity at lower temperatures serves only to eliminate the dextrans formed in the decoction, without further significant starch reduction."

My practical experience causes me to question this. I haven't read Noonan, but I have found that starch conversion often tastes as if it is 50% complete by the end of a half hour protein rest at 50C. (By the way, why does the mash effervesce? I have never seen this phenomenon even mentioned). Regarding the problem of extracting unconverted starch during sparging, I am wondering how significant this is in practice. When one considers that the brew will ferment for 1-2 weeks, then condition for at least another 3 weeks, it is worth considering how much starch will actually remain in suspension by the time of serving. My gut feel is that protein and glucan hazes are much more enduring.

- - -

Conn V Copas  
Loughborough University of Technologytel : +44 509 263171 ext 4164  
Computer-Human Interaction Research Centrefax : +44 509 610815  
Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut  
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Date: Mon, 18 Jan 1993 10:55:30 CST  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: Corona Grain Mill adjustments

I'm trying to adjust my Corona Grain Mill to minimize the uncracked grains that pass through. I ground the tip of the stem (which presses against the ball bearing in the clamp-on arm) flat, this stopped the adjustable grinding plate from changing depth during turning.

The outer grinding plate is held on by a cotter pin, and it is free-floating (i.e. it wobbles around). This would seem to allow some grain to escape. I'm wondering if I should try to affix the adjustable plate to the stem in such a way that it could not wobble and yet maintained a parallel position in respect to the other plate. Anyone tried this?

I'd also like to motorize this operation. Anyone done anything with a pully or something?

tnx!

John, The HopDevil  
john@hopduvel.uucp  
isenhour@lambic.fnal.gov

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Date: 18 Jan 1993 14:59:37 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: Phil's Phalse Bottom

In HBD # 1056, Jim Busch commented on the commercially available "Phils Phalse Bottom.":

>My complaint with the Phils system is that the tube  
>from the false bottom has to rise up out of the false  
>bottom to then exit the bucket. This can lead to a  
>problem with an air bubble forming inside the tube.  
>I have seen extremely slow runoffs that I think are  
> due to this design.

For those people who are not familiar with this piece of equipment, it consists of a circular piece of plastic shaped like an inverted dome. This sits on the bottom of an Igloo/Gott-type cooler. It is perforated with small holes, effectively operating as a false bottom by holding back the grains/husks, but permitting sweet wort to pass through unimpeded. The amount of "dead space" under the dome is reasonably small, certainly much less than with a Zapap-type of lauter tun. There is a 90 degree plastic elbow that rises up out of the center of the false bottom, and a connection can be made between this elbow and the outlet hole at the bottom of the cooler with plastic tubing or a rigid tube.

A friend of mine bought one of these this past fall and I have used his a couple of times. The first time I simply ran a piece of plastic tubing from the elbow through a rubber stopper which was wedged into the outlet hole. I then attached an adjustable tubing clamp to control flow and directed the effluent from the lauter tun directly into the bottom of the boiling kettle.

Unfortunately I ran into the exact problem described by Jim. Try as I might, I could never get a very quick flow of sparge from this setup. Like Jim, I first assumed that I had an air bubble stuck in the line that would not permit flow of liquid. However, upon examining the situation more closely (and reading the directions that came with the Phalse Bottom!), I concluded that the problem actually was due to the collapse of the plastic tubing in the lauter tun, caused by the relatively hot temperatures of the mash/sparge water.

When I used the Phalse bottom a second time, I butted a rigid plastic tube right up to the plastic elbow and connected them with a VERY short piece of plastic

tubing. The rigid tube was then run through a stopper wedged into the outlet hole in the cooler, and a piece of tubing was attached to direct the sparge into the boiling kettle.

This arrangement worked quite well, and I had no trouble with a slow runoff.

When used this way this false bottom works reasonably well and is a cheap way to quickly convert an Igloo-type cooler to an insulated lauter-tun (though there are other even cheaper ways of doing this that aren't much more work). I think that it certainly superior to the grain bag/vegetable steamer combo commonly used by many homebrewers.

I think that the holes in the false bottom are a bit large and would like to see this unit manufactured with smaller holes and more of them. It would also be easy to replace the plastic elbow with a threaded copper one, so that one could attach a piece of copper tubing to this via a compression fitting, by-passing the use of plastic tubing entirely.

Steve Stroud

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Date: Mon, 18 Jan 1993 10:42:33 CST  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: BEST iodine (idophor?)

I just got some BEST iodine type sterilant, and was wondering about the dilution of it. Handwritten on the bottle was "1 1/4 teaspoons per gallon". I cannot locate any tables that convert teaspoons to milliliters, and when I tried measuring 1.25 teaspoons with various kitchen measures, I was getting different results when I measured it in milliliters (on a 2 ml pipette). I was trying to make up a quart of solution, and I ended up adding 1.5 ml of BEST. In a mason jar, this looked like american pilsner, and I used it on my glass racking canes and carboys. When I drained it, it had left suds behind and I was concerned about not rinsing it (so I did).

Could someone with experience give some advice? How many ml's in a teaspoon?

tnx!,  
John - The HopDevil  
john@hopduvel.UUCP  
isenhour@lambic.fnal.gov

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Date: Mon, 18 Jan 93 13:55:32 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: Under Pressure

In hbd1057 Lou Casagrande did some calculation that achieved a pressure of 30 atm priming 5 gallons in 6 gallons with 1 lb sugar. The main error was a failure to allow for the amount of CO2 dissolved in the beer, which at 0C would be around 171 ml/100ml. Adjusting the calculations thus gives a pressure of around 3 atmospheres - still high, but then 1lb is a lot of priming sugar.

Ulick Stafford

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Date: Mon, 18 Jan 1993 17:18:00 +0000  
From: "Kevin (K.W.) Golka" <golka@bnr.ca>  
Subject: Grain, Volume vs Weight

On the weekend we brewed an all grain lager. The recipe was similar to a Pilsner we had made before but our intention was to increase the volume of water and end up with more beer with a lower OG.

Specifically our original Pilsner has a starting OG of 1053 for 23 L. By scaling up the grains and adding more water we were hoping to obtain an OG of 1047 for 29 L.

After the protein rest was finished and we added the mash water, my friend commented on the amount of head space we had left in the tun. We use a cylindrical drink cooler. With similar volumes of grain in the past (13 lbs) we expected to have only a 2" to 3" of head space. We ended up with about 7".

Since we were concerned about head space we ran the protein rest a bit stiffer than usual. We had overall 2 L less water in the tun. This would account for 1" to 2" of head space. We suspected that we somehow measured the grain incorrectly and had left out about 2 lbs. We decided to proceed as is and live with this since we had reached the desired strike temperature.

When we finished the collected volume of 20 L gave an SG of 1074. This was pretty close to our original target SG assuming 13 lbs of grain and an efficiency of 28 pts/lb/gal (US). So we actually did have the correct amount of grain in the tun all along!

So how did we end up with all of this head space? The grain we used came from the same 45 kg bag we have been using all along so it should have had the same volume per weight.

Is there a rule of thumb for grain volume vs weight? I suppose this depends on the moisture content but what are the extremes, 0 % moisture (if possible?) and 100 % moisture.

Any thoughts would be appreciated.

Kevin Golka, 613-763-3474

These opinions are my own and not necessarily those of NT or BNR.

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Date: Mon, 18 Jan 93 14:13:47 PST  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: RE: enzymes in pale malt

Jeff Benjamin <benji@hpfcbg.fc.hp.com> writes:  
> > <Also, make sure your later grain bills didn't include  
disproportionately  
> > <high percentages of specialty malts like Munich or crystal. If you  
  
> > In general, this is not true. Domestic malts will contain more  
enzyme  
> > potential than you could ever use. Even modern continental malts  
will  
> > have enough enzymes for just about any all malt beer. The use of  
Munich  
> > and crystal malts in just about any reasonable percentage will work  
fine.  
  
> Whoops, sorry if I mislead anybody. When I said "disporportionately  
> high percentages" I was thinking of ridiculous percentages, like  
> \*replacing\* your pale male with Munich. I'm sure someone out there has  
> tried it (no, not me :-).

Let's clear up a misconception here. Real Munich malt, whether  
domestic or imported, has enzymes. It has sufficient enzymes to  
convert itself, and perhaps just a bit more. If you want to make a  
real dark Munich lager, then use Munich malt. I've made several bocks  
with high percentages of Munich (60-80%) and it works just fine.

In particular, the imported 2 row Munich malt is far superior to the  
domestic 6 row "Munich" malt because it is prepared differently. The  
domestic is regualr pale malt that is given a final kilning at a higher  
temperature to increase the color. It does do this, but not a lot, and  
it doesn't prepare the malt to produce the malty aromas that are really  
appropriate for most of the dark lager beer styles. Read Fix's "Vienna  
\* Maerzen \* Oktoberfest" for more discussion about this. The imported  
2 row Munich malt is prepared by heating it briefly while still moist  
and then drying it. This produces the most color and malt aroma for  
the temperatures.

Crystal malts are prepared in the same general way, but rather than a  
brief heating while moist, the malt undergoes as complete a  
saccarification as possible, and then is subjected to higher heating  
temperatures for longer periods to really enhance the color formation.  
They have no enzymes left because of the higher, longer heating. They  
also have much darker color ratings than Munich malt.

--Darryl Richman

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End of HOMEBREW Digest #1058, 01/19/93

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Date: Tue, 19 Jan 93 05:49:24 CST  
From: todd@gold.rtsq.mot.com (Todd M. Williams)  
Subject: GIF / ppm<->mg/l / safe water

In HBD#1057 Mike Leclere <mssl@orca.rose.hp.com> asks...

>SNIP<

>>I recall seeing a blurb somewhere about beer logos or labels having been scanned into GIF files. I think it was in the HBD, but I'm not sure. >>"Where to find beer logo GIFs."  
>>  
>>Mike (mssl@hprnd.hp.com)

In HBD#1049 "Stephen E. Hansen" <hansen@Sierra.Stanford.EDU> wrote...  
>Subject: Changes at the Archives

>  
>Over the holidays I spent some time reorganizing the Homebrew Archives at Sierra.Stanford.EDU. The first change that you will notice is that almost all files have been placed in subdirectories such as "docs", "programs", "digests", etc. The most significant change however is that the issues of the Homebrew Digest are now stored as individual files rather than shar files or tar files. The Digest index files now cover a whole year and the index for the current year is updated with each new issue. New issues will also be placed directly in the appropriate subdirectory (i.e. digests/1933) as they are received.

>SNIP<

>Those of you who don't follow the rec.crafts.brewing newsgroup might be interested in the contents of the "images" directory. It currently has about 70 files containing pictures of various beer labels and coasters in GIF and JPEG format.

>Stephen Hansen  
>homebrewer, archivist

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-  
>Stephen E. Hansen - hansen@sierra.Stanford.EDU | "The church is near,  
>Electrical Engineering Computer Facility | but the road is icy.  
>Applied Electronics Laboratory, Room 218 | The bar is far away,  
>Stanford University, Stanford, CA 94305-4055 | but I will walk  
carefully."  
>Phone: +1-415-723-1058 Fax: +1-415-725-7298 | -- Russian Proverb  
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-

- -----AND-----

In HBD#1057 ogilvie@ficc.ferranti.com (jim ogilvie) asks....

>Subject: Please help me convert mg/L to ppm

>I recently requested and received a report from my water supplier listing all the junk in my tap water.

>SNIP<

>can I read that as being pretty close to parts-per-million?

>SNIPSNIP<

YUP...

mg/l and ppm are exactly the same.

Also... 1 ppm = 0.058 grains/US gallon or 1 grain/US gallon = 17.1 ppm

>Jim(ogilvie@ferranti.com)

While we are back to nasties in water, I looked up some MCL (Maximum Contaminant Level) for some of the goobers found in tap water that may apply to us. These numbers are per the 1986 version of the EPA's Safe Drinking Water Act...so they must be "safe"...right ;)

They are listed in ppm or mg/l...take your pick.

```
Pollutant MCL
- - - - -
Arsenic 0.05
Chloride 250.0
Copper 1.0
Cyanide 0.01
Fluoride 1.4 to 2.4
Iron 0.3 (>0.3 makes water red)
Lead 0.05
Manganese 0.05 (>0.1 forms brown-black stain)
Mercury 0.002
Nitrate 45.0
Sulfate (SO4) 250.0 (>500 has a laxative effect)
```

The list gets pretty extensive..these were the ones that looked usefull. If you want others, post or send me email...

Most people cannot tolerate drinking water that exceeds 300 ppm carbonate, or 1500 ppm chloride, or 2000 ppm sulphate.

NOTE: According to my reference "Exposures over safe limits can result in a variety of serious health problems ranging from liver and kidney damage, high cancer risk, nervous system disorders, skin discoloration, hypertension, an a variety of others."

Not to scare anyone away from brewing...i just get dangerous with a reference book sometimes...sorry

Todd  
unix systems scapegoat  
Downers Grove, IL.

todd@rtsg.mot.com

```
/-----/
-----/
/ -rwxr-xr-x 1 todd employer 69 Feb 10 1958 OPINIONS /
/ lrwxrwxrwx 1 employer other9 Jan 01 1970 OPINIONS -> /dev/null
/
/-----/
-----/
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Date: Tue, 19 Jan 93 11:55:09 +0100  
From: steve\_T@fleurie.compass.fr (Steven Tollefsrud)  
Subject: 1) right yeast for Barleywine? 2) Priming with malt extract?

I plan to make a Barleywine soon. I have two recipes. One calls for champagne yeast because it will survive above the levels of alcohol which would normally kill off regular lager or ale yeasts. The second recipe calls for lager yeast?! I am afraid of compromising the taste of the "beer" by using champagne yeast (is this a valid concern?). On the other hand, I don't want to have a sickly sweet, half fermented Barleywine because the alcohol level killed the lager yeast.

Has anybody out there got any experience with this? Is the recipe calling for lager yeast incorrect? What about fermenting it with the lager yeast and then adding the champagne yeast when the lager yeast dies? (a sort of compromise intending to benefit from the qualities of both)

I recently experimented with adding refined table sugar to a lager batch (approximately 70% malt extract to 30% sugar) to see how it would affect the taste. The result was lighter bodied, well carbonated, with an unpleasant cidery aftertaste. Now I want to avoid using sugar at all, even for priming. In order to make a completely sugar free, all malt lager, I would like to try priming with dried malt extract. Should I use the same quantites of malt extract as I would with sugar? One homebrew guide I have says to prime until the specific gravity increases by .005. Won't it be necessary to use more dried malt extract because of the unfermentables?

Steve Tollefsrud  
Valbonne, France

e-mail: steve\_T@fleurie.compass.fr

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Date: Tue, 19 Jan 93 09:53:33 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: BEST iodine (idophor?)

A teaspoon (t) is 5ml. A tablespoon (T) is 15ml. A fluid oz is 2T or  
6t or 30ml. (Well, 29.6, actually.)

=S

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Date: Tue, 19 Jan 93 09:41 CST  
From: XLPSJGN%LUCCPUA.bitnet@UICVM.UIC.EDU  
Subject: stuck fermentation?

Dear Brewers,

I have a quick question. I had such success with Papezian's recipe for Propensity Lager last year that I decided last week to give it another go. It is delicious stuff!! However, I think I might be experiencing my first stuck fermentation. I'm storing the brew in my pantry at about 47F constant (I leave the window cracked open and the door shut to help cool the room). I'm using a blow-off method (again), but this time I'm using liquid yeast. I've used liquid ale yeasts before and have had good beers, but this is my first try with liquid lagers.

I used Wyeast liquid lager (pilsen), and all was going gang-busters within 12 hrs of bursting the inside package of the yeast packet. It had swelled almost to the point of bursting itself. I made a batch of starter that night, and watched as that too grew vigorously - the smell was (for brewers anyway) heavenly! Then, after brewing the wort according to the recipe, I cooled the brew and pitched the yeast.

That was almost two days ago, and as yet, there seems to be no action through the blow off tube...Not even a kreusen yet. However, the beer does seem to be clearing (is it settling too soon?).

So my question(s) is/are: is it too soon to tell if the brew is stuck? And, if it is stuck, how can I nudge it along? Could the temperature be responsible for the (apparently) slow start? If so, should I try closing the window, opening the door, and warming the pantry/lagering closet up a bit??

Thanx, and Cheers!

John  
(ps to Jcusick@luccpua - lost yer number, but saved you a Christmas Ale!! 'Twas the season - 'tiz the last (brew, anyway). Call me or "E" me. Will try you @ Micro soon. - jn

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Date: Tue, 19 Jan 93 10:37 EST  
From: "C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com>  
Subject: Hop question?

Some time back I saw a similar question, but never read a reply.

When adding boiling hops, does the selection of the type of hop (Kent Goldings, Northern Brewer, Cascade, etc.) make any difference on the final taste profile? I am wondering if I only need to be concerned about getting the number of IBUs correct, or if it is significant to get the correct number of IBUs from a particular hop when

attempting to duplicate recipes/styles. I understand that hops added for flavor and aroma do give the beer distinct characteristics, but I am curious if anyone believes that the boiling hops do?

Christopher Lyons  
LYONS@ADC3.ADC.RAY.COM

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Date: Tue, 19 Jan 1993 11:39:55 EST  
From: Jay Hersh <hersh@expo.lcs.mit.edu>  
Subject: Re: Phil's Phalse Bottom

>When used this way this false bottom works reasonably well and is a  
cheap way  
>to quickly convert an Igloo-type cooler to an insulated lauter-tun  
(though  
>there are other even cheaper ways of doing this that aren't much more  
work). I  
>think that it certainly superior to the grain bag/vegetable steamer  
combo  
>commonly used by many homebrewers.

Well Steve I have to take exception here. My grain bag and copper coil  
works  
wonderfully. In fact I get excvellent flow, never a stuck sparge, and it  
worked  
great the first time. While I don't doubt that you have now gotten your  
Phil's  
to work well I don't think your claims of "superior"ity are founded....

Maybe we need to have a Mash Off to duke this out :-)...

JaH

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Date: Tue, 19 Jan 93 12:41 EST  
From: hjl@gummo.att.com  
Subject: Teaspoons to milliliters

3t=T

2T=one ounce liquid measure

32 ounces=1 quart

1 quart x 1.06=1 liter

1 liter/1000=milliliters

So 1 teaspoon = 4.91 ml. (most sources use 5)

Hank Luer

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Date: 19 Jan 93 12:45:20 EDT  
From: "Robert Haddad" <RHADDAD@bss1.umd.edu>  
Subject: Re: Natural Keg Carbonation: Haddad Replies

On Monday Jan 18, Bruce Mueller wrote:

> In digest #1003, Robert Haddad said  
> 1/2 cup of corn sugar gave him about 25 psi at serving time. Unless  
> he kegs much differently than I do, there would be very little  
> headspace in the keg...  
> ... I'm very satisfied with Robert's empirical evidence.

Then, after second thought, Bruce adds:

> In a 5 gal. container, assuming all the CO2 dissolves, 1/2  
> cup yields 16 psi and 3/4 cup only 24 psi. Well, my fear was  
> unfounded regarding this higher priming level. However, I bet the  
> beer would initially gush pretty good with the latter pressure  
> behind it.

> Robert Haddad overestimated his pressure by about 55% way back in  
> HBD#1003.

Well, Bruce, I must say that quoting me in such a scientific exchange did lots for my ego, even to show that I may have goofed, and, I hope, this will be taken into consideration when my tenure review takes place... :)

However, I stand by my original reading of about 25lbs of CO2 because something was omitted in the midst of all these numbers, namely that I pumped some 10lbs of CO2 in the keg at priming time to ensure an adequate seal (which, according to your numbers would make sense, 16lbs with 1/2 cup of glucose, plus some 10lbs for good seal)

Anyway, on another note, perhaps you or someone else on the line can explain to me why my "Pilsner Urquell" (Cats Meow2, Don McDaniel), which has been at 50 deg for 70 days, still registers a gravity of about 1.020 (down from 1.050). Does this qualify as stuck fermentation? Should I keg as is, with no priming, and hope that fermentation will continue during lagering? What if I want to bottle some (I have 20 gals of the stuff!).

Thanks,

Robert Haddad

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Date: Tue, 19 Jan 1993 12:51:00 +0000  
From: "Bill (W.R.) Crick" <heybc@bnr.ca>  
Subject: Windsor, Nottingham Ale yeasts

I recently tried both Windsor, and Nottingham Dry Ale yeasts made, or marketted by Leuve in Canada.

Nottingham: Pitch from a distance;-) Very fast to create a krausen and needed blowoff tube 6 hours after pitching hydrated yeast. Quick fermentation at 62F

Windsor: Not a quick as the Nottingham.  
FG ENDED UP 1.020!!! NO reason for this other than the yeast?  
A friend mentioned he had a very different recipe than mine end at 1.020 as well using this yeast.  
- ----->? Has anyone else noticed this about this yeast?  
Definite bannana smell at racking.

Bill Crick -> Brewius, Ergo Sum!

Disclaimer: These are my opinion, not those of either BNR, ot NT.

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Date: Tue, 19 Jan 1993 11:41:47 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: priming sugar and head retention

I've been having difficulty in getting a good head on my beers. I can generate a reasonable one by pouring "forcefully" but this tends to make the rest of the glass somewhat flat. Is the standard 3/4 cup supposed to be able to generate a good head and also preserve good carbonation in what remains?

One 3 gallon batch I made I inadvertently put in 3/4 cup which translates to 1.25 cups for 5 gallons. That batch has PLENTY of head- too much, but it gave me the idea of increasing priming. What are thoughts about increasing priming to around 1 cup? This should generate plenty of CO2 for head forming, but is this heresy?

Peter

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Date: Tue, 19 Jan 93 09:50 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Brews Paper, Sparging

Date: Thu, 14 Jan 93 10:06:09 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>

>Anyone seen a paper calle The Brews Paper?

Yes. It's great fun to read. Sort of like Rush Limbau on home brewing.

I loved his interview with Clinton....

What are your plans for personal brewing?

I'd like to try something with flowers.

Something like dandelion wine?

No. Genifer. She's a great little bottle washer

>From: korz@iepubj.att.com

>At least two brewer's have suggested using very hot boiling or almost boiling water for sparging.

Just for the record, and to clarify MY current view, I suggest using whatever temperature it takes to get the proper (see below) temp in the grain bed.

> Could it be that we don't want the grain bed during the sparge to be \*AT\* 170F, rather we want the \*sparge water\* to be at 170F and we should let the grain bed (in an insulated tun) settle at whatever temperature it wants? Can someone who has "Brewing and Malting Science" please look this up? Darryl, what sparge temp is used for Pilsner Urquell?

>Comments?

Excellent food for thought. My guess is that the number is a "momily" based on some particular system that has since been chipped in stone and followed blindly.

What is "proper" for a commercial sized batch is not likely to be the same for a ten gallon kettle and certainly not the same for an insulated vessel.

We need a number for the actual mash, based on chemestry and how we get there is our own responsiblity. Perhpas we can even put an end to the flame fests everytime someone uses boil and sparge in the same sentence.

Just as an aside, I make my sparge water as I use it in a small boiler, fed directly from the tap. It runs out of the boiler, and falls into the lauter

tun. The temperature loss in my system is a hidden blessing because it allows me to boil off the chlorine at a higher temp.

>From: arthur@chiba.esd.sgi.com (Arthur Evans)

> in one of the Zymurgy special issues (I think it's the "gadgets" issue)  
has instructions for building a "mini-jockey-box."

Just a point of caution on "jockey boxes". First of all, they probably are more efficient than a cold plate for continuous use because of the amount of beer in the tubing. However, for the occasional glass, all that beer in the copper tubing, is beer you probably do not want to drink if it has sat there for a day or more. You will have to dump a glass or two to flush the system and that simply would not do.

The cold plate has very thin and much less tubing along with a good aluminum heat sink to increase the efficiency. The one I have only holds an ounce or so of beer and the tubing is stainless. It is much better suited for casual and occasional use.

js

If I posted this already, file it under too much aluminum....

jjs

~.

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Date: Tue, 19 Jan 93 16:54:16 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: decoction mashing

Hi All,

In HBD #1058, C.V.Copas writes:

...Regarding the problem of extracting unconverted starch during sparging, I am wondering how significant this is in practice. When one considers that the brew will ferment for 1-2 weeks, then condition for at least another 3 weeks, it is worth considering how much starch will actually remain in suspension by the time of serving. My gut feel is that protein and glucan hazes are much more enduring.

IMHO, anytime starch makes it into the wort, either through incomplete conversion or extraction during sparging, it's a significant problem. It's not so much the aesthetics of the haze itself, but that beers with a starch haze taste slightly infected. I confess to brewing a couple of beers that had this problem while transitioning to all grain brewing, and the off-flavor got worse over time, not better. I've since tasted other brewer's beers that had this problem, same slightly infected taste. It seems to be a common problem among beginning grain brewers who are trying to learn to mash and sparge properly.

In a typical scenario, a brewer will pitch a large quantity of yeast, which multiplies and quickly metabolizes sugars in the wort, preventing any bacteria that is present from getting established and causing flavor problems. Is it possible that the presence of starch in the wort provides a growth medium for bacteria that would otherwise have none? I have no background in microbiology, so I'm not qualified to answer that question definitively. Perhaps others who are would care to comment?

Cheers,  
Jim

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Date: 19 Jan 1993 16:39:49 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: 100% munich malt

Subject: Time:4:32 PM  
OFFICE MEMO100% munich malt Date:1/19/93  
Regarding the 100% munich malt question:

A friend of mine (Jeff Renner-used with permission) recently made a 100% munich malt brew for a male-bonding-TV-football-saturday. Ohio State vs Michigan. It was made intentionally low in gravity (but not in flavor) so they could drink it all afternoon. The target beer was a Munich style dark beer. There were no problems in the mashing or conversion, perhaps because this was only 10L malt and plenty of enzymes were available.

For 7.5 gal:  
10 lb Ireks Munich malt (10L)  
mash in with 8 qts H2O at 65C to rest at 55C--30 min  
raise with 3 qts boiling H2O and heating to 67C--85 min  
remove thinnest third, boil and add back to rest at 75C--10 min  
sparge to collect 8 gal  
boil 90 min  
1st Hop addition-42 gr (3.8%) Hallertauer pellets-90 min  
2nd hop addition-10 gr (3.8%) Hallertauer pellets-20 min  
3rd hop addition-10 gr (3.8%) Hallertauer pellets-0 min  
Ferment with Bavarian Lager yeast at 60F--14 days  
2ndary at 33F-- 22 days  
OG=1.040 TG=1.012

This turned out to be very good, with nice, light malty sweetness, but certainly NOT the \*Munich\* style as was expected. I'm sorry I missed the party, but at least some was left over in the keg.

DanMcC

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Date: Tue, 19 Jan 93 15:43:37 PST  
From: Ted Barber <tbarber@ampex.com>  
Subject: History of "33" in brewing?

Howdy,

While designing the label for our latest and gratest Alt Beer my friend and I got into a twist about the requirement for a "33" somewhere on the bottle.

Where did the "33" come from and why is it used throughout the world on beer labels. As examples: 33 Export of France, Rolling Rock of the U.S., and Bom d bom of Viet Nam. One suggesting was that they all shared a common recipes. Any brew historians out there with the "real" story of the "33".

Thanks,

Ted Barber  
TBARBER@Ampex.Com

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Date: Tue, 19 Jan 93 19:25:31 EST  
From: fawcett%iron@cs.umass.edu  
Subject: Yeast nutrient

This is probably a FAQ, but what is in yeast nutrient? I bought some of it a few months ago for a stuck fermentation. The bottle says FERMAX but doesn't list the ingredient(s). Is this an enzyme? Papazian has a short section on yeast nutrients but doesn't say what they are.

-Tom

-----

Date: Tue, 19 Jan 1993 17:05:19 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: Trivia

Found this in the 12/15/88 HBD:

>Date: Thu, 15 Dec 88 12:17:48 MST  
>From: hpfcla!hpcea!hplabs!utah-cs!iwtsf!korz (Algis R Korzonas +1 312  
979 8583)  
>Full-Name:  
>Subject: Trivia  
>  
>Trivia question:  
>  
>Which Beatles song refers to homebrewing?

I searched and searched, but never found the answer!

Well?

have fun  
gak

-----

Date: Wed, 20 Jan 93 01:00 GMT  
From: "Stephen G. Pimentel" <0004876702@mcimail.com>  
Subject: Hops & Hepatitis; Polenta

I just read an article that said that research (they cited the Annals of Internal Medicine) seemed to suggest that various herbs (valerian, asafetida, HOPS, chaparral leaf, gentian, etc.) were implicated in causing hepatitis. They specifically mention that germander seemed to have caused the ill in several people who were taking it for weight loss. Germander is sometimes used to flavor beer. Should we be worried? Is our consumption of whatever it is that may be in hops too low to matter? Or is this just allopathic propaganda?

Also someone a while back posted their recipe for polenta. As I can't access the archive, could that person send the recipe to me; I thought I'd snagged it, but I didn't.

spimentel@mcimail.com

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Date: Tue, 19 Jan 93 14:54:08 MST  
From: Brian.Smithey@Central.Sun.COM (Brian Smithey)  
Subject: using steel cut oats in stout

Hi,

I'm getting ready to do an oatmeal stout, and I'm planning on using steel cut oats rather than rolled ("Quaker") oats. I was planning on cooking the oats before adding them to the mash, figuring that the cut oats would require gelatinization prior to mashing.

However, when looking through "Cat's Meow" for inspiration (and to take another look at Jay Hersh's great steel cut oat experiments), I didn't find any mention of cut oats being cooked, but rather recipes that implied adding the raw cut oats directly to the mash.

I'd like to hear any experiences with using steel cut oats in an all-grain brew -- whether you cooked or not, how much you used, how the beer turned out, etc.

Thanks,  
Brian

- - -

Brian Smithey / Sun Microsystems / Colorado Springs, CO  
smithey@rmtc.Central.Sun.COM

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Date: Tue, 19 Jan 93 19:22:23 PST  
From: Mike Leclere <mssl@orca.rose.hp.com>  
Subject: Query

Stephen,

I received the following kind reply to my query on HBD about the gif  
files of beer logos, etc...

- - - - -

Date: Tue, 05 Jan 93 16:37:57 -0800  
From: "Stephen E. Hansen" <hansen@Sierra.Stanford.EDU>  
Subject: Changes at the Archives

Over the holidays I spent some time reorganizing the Homebrew Archives at Sierra.Stanford.EDU. The first change that you will notice is that

...

Those of you who don't follow the rec.crafts.brewing newsgroup might be interested in the contents of the "images" directory. It currently has about 70 files containing pictures of various beer labels and coasters in GIF and JPEG format.

Stephen Hansen  
homebrewer, archivist

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Unfortunately, I cannot seem to access them via the listserver. Am I doing something wrong? I have tried e-mail of the following line:

```
index /pub/homebrew/images
```

I wanted to get at listing of what was there, but no luck. All I get back is the main index listing. Any suggestions?

Mike

PS: Sorry to take your time on this. If this is out of order, please let me know.

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Date: Tue, 19 Jan 93 23:57:32 -0500  
From: cook@uars.DNET.NASA.GOV (Chris Cook, NMOS Quality Engineer - (301) 386-7807)  
Subject: Questions about mashing, sweet finishes, clean burners, etc.

All right, I have a few quick questions. Or maybe not so quick...

1) In Greg Noonan's book "Brewing Lager Beer," he describes decoction mashes using phrases like "...draw off the thickest third of the mash..." Look, after all the stirring he describes, isn't the mash pretty uniform? Could someone who does this describe what the "thickest" or thinnest part is, and how you draw it off?

2) After tasting Thomas Hardy's Ale, Royal Oak Pale Ale, Samuel Smith's Oatmeal Stout and others, I've fallen in love with these beer's sweet finishes. How do they do it? Is this simply a result of mashing temperatures, or are we talking artifice here? Thinking minds want to know.

3) I have one of those Mount Saint Helens jet propane burners. It roars, jets, flames up high and almost completely contaminates every pot and pot resting place I own every time I brew. Does anyone have any tricks for making the thing burn cleaner so that it makes less soot? I remember the thread a few months ago about containing the flame around the pot, but I'm talking about avoiding the soot factor. I know the signs of an inefficient burn when I see them.

4) Oh, and finally, is everyone being honest with their grain extraction rates? I realize the pressure to talk up your extraction points and all, but are we talking reality here?

That's enough for now. I'll add more information as I learn.

Chris Cook  
cook@uars.dnet.nasa.gov

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Date: Wed, 20 Jan 1993 02:20 EST  
From: Carlo Fusco <G1400023@NICKEL.LAURENTIAN.CA>  
Subject: compiling new list

Ok, I'm getting tired of hearing the question about where to find a good brew in city X. I have decided to be the coordinator of a list that will finally tell people where to go in which city. I am hoping to produce this list so that it is accessible as a FAQ. [who can tell me where to send the final list for achiving to.I would also like to update my list about brewing online but I don't know where to send this list to, or how to archive it....any ideas?]

The way I see it, this list will be a update to the "publist" found in HBD. If you wish to submit entries into this list please send them to me. I would like the entries to be in the following format:

Country, City  
Name of establishment, what is it? [eg. restraurant, brewpub, bar, etc]  
street address and phone number, if possible.  
why should I go there?--eg. it has 1 million beers on tap  
[keep this to 4 lines or less]

I think this should take several weeks to compile but I a willing to do the work.[In other words, don't look for the list for at least a month] Remeber, tell your friends...afterall we all have a different idea of how good a place is.

Send submissions to G1400023@nickel.laurentian.ca

And a special request to all those Canadians out there, send your entries in so I know where to go when I visit your hometown...Heck, I may even call you to join me.

Carlo Fusco  
g1400023@nickel.laurentian.ca

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End of HOMEBREW Digest #1059, 01/20/93  
\*\*\*\*\*

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Date: Wed, 20 Jan 1993 21:47:16 +1030  
From: Murray Robinson <robinm@mrd.dsto.gov.au>  
Subject: Kegging.

I've finally gone and bought my self all the bits and pieces  
(mostly second hand) I need for a draught beer system. ie:

Cornellius Keg with screw top.  
Disconnect fittings  
Tubing  
Tap suitable for through fridge wall mounting  
Regulator  
Chest freezer.

COST: \$135 Australian.

The Gas bottle I rent at \$4 per month.

What I now need to know is the correct procedure for using it. This is  
what I had in mind so please let me know any problems, improvements, etc  
you can think of.

- 1) Sterilise Keg, fittings, lines, tap etc.
- 2) Purge keg of all air by sealing the lid, turning gas cylinder on,  
connecting  
the gas line from the gas cylinder and pressurising to 15 psi. Purge CO2/  
O2 mixture  
via the safety valve. Repeat.
- 3) Turn gas cylinder off and release all pressure in the keg via the  
safety valve.  
Open the lid of the keg, and gently fill the keg with beer to within 2-3  
inches of  
the top of the keg.
- 4) Reseal keg, turn gas cylinder on and pressurise to 15 psi. Purge any  
remaining O2  
in the keg using the method described in (2).
- 5) Pressurise the keg to 25 psi and place in a cold fridge for a day or  
so.
- 6) Remove keg from fridge and roll it vigorously to dissolve the CO2 into  
the beer.  
Replace keg in the fridge.
- 7) When ready to serve beer, bleed excess pressure from keg and connect  
gas line set a  
about 7 psi to push beer from the keg.

Any comments?

P.S. I have allready replaced the rubber O Rings and seals on the keg.

Cheers and Beers,

Murray.

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Date: Wed, 20 Jan 93 13:56:33 +0100  
From: Victor Reijs <Victor.Reijs@SURFnet.nl>  
Subject: sweetness of products in wine/cider/beer

Hello all of you,

I am looking for information on what the perceived sweetness (compared to sucrose) is for some products which are present in wine/cider (and perhaps also in beers). I am thinking of products like:

- alcohol (in the range of 4 to 15 % vol.)
- glycerol (in the range of 0 - 20 gr/litre)

I have some ideas about the sweetness of other products (like glucose, lactose and maltose). Perhaps other people have even more information on other products (not mentioned).

Because sweetness is not a linear scale, I have putten some info of the concentrations of the products. So if there is some info about this non-linear process, I am also very interested.

Hope somebody can help or point me to some articles/papers.

All the best,

Victor

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Date: Wed, 20 Jan 93 08:07:45 EST  
From: mlobo@sentry.foxboro.com (Michael T. Lobo)  
Subject: kudos & gripes

First I want to thank Stephen Hansen for the new structure of the HBD archive structure..very practical & quite easy to use..

On that note, I want to ask that we all get in the habit of being more specific in our \_Subject\_ comments. In the archive indexes, this is all we see, and when the topic is \_re:HBD \*\*\*\_, it makes for a useless entry. I have been guilty of this in the past, but since using the archives, I see the reason others have complained in the past.

later,

Michael T. Lobo 508 549 2487  
Foxboro Co.  
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,  
my beer speaks for me" -Monty

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Date: 20 Jan 1993 08:27:01 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: Re: Phil's Phalse bottom

IN HBD # 1058 I said, in regard to Phil's Phalse Bottom:

>>it certainly is superior to the grain bag/vegetable steamer combo  
~~~~~

and Jay Hersh replied:

>My grain bag and copper coil works wonderfully.
~~~~~

Jay,  
Note that I never mentioned a copper coil. I was specifically referring to the vegetable steamer commonly used by many brewers. This setup requires the use of a grain bag because the steamer doesn't fit tightly in the bottom of the cooler. There is also quite a bit of dead space associated with the steamer.

I have looked at your copper coil setup and am sure that it works as well or better than PPB. However, PPB is an off the shelf item that takes about 2 seconds to install :-), an advantage for some people. I still doubt that you need to use the grain bag with your setup, though it probably does make cleanup easier.

Steve Stroud

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Date: Wed, 20 Jan 93 8:55:45 CST  
From: guy@mspe5.b11.ingr.com (Guy D. McConnell)  
Subject: Re: Trivia

Richard Stueven writes:

>Found this in the 12/15/88 HBD:  
>  
>>Date: Thu, 15 Dec 88 12:17:48 MST  
>>From: hpfcla!hpcea!hplabs!utah-cs!iwtsf!korz (Algis R Korzonas +1 312  
979 8583)  
>>Full-Name:  
>>Subject: Trivia  
>>  
>>Trivia question:  
>>  
>>Which Beatles song refers to homebrewing?  
>  
>I searched and searched, but never found the answer!  
>  
>Well?

The only one that leaps to mind is "Rock and Roll Music" with the  
line  
"drinking homebrew from a wooden cup" (a song snippet I occasionally use  
in my  
.sig file) but that is actually a Beatles cover of a \*Chuck Berry\* song.

- --  
Guy McConnell guy@mspe5.b11.ingr.com or ...uunet!ingr!b11!mspe5!guy  
"All I need is a pint a day"

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Date: Wed, 20 Jan 93 10:09:54 EST  
From: Tom Dimock <RGG@CORNELLC.cit.cornell.edu>  
Subject: Goodies for the TechnoBrewer

The January catalog from American Science & Surplus (601 Linden Place, Evanston, IL 60202) has a couple of goodies which might be useful to you technically inclined brewers out there. On page 27, they have a small Bunsen Burner that is jetted for use with propane for \$4.75. Just the thing for flaming those loops, etc. Second, on page 20 they have 0-15 PSI pressure guages for \$3.00 each. These should be just the ticket for use on CO2 lines, counter-pressure bottlers, etc. I have no connection with AS&S other than as a satisfied customer etc. blah blah blah. Their catalog is a hoot, and useful stuff can be found in most copies.

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Date: Wed, 20 Jan 93 07:48:34 MST  
From: pyle@intellistor.com (Norm Pyle)  
Subject: Brews Paper / Grain mill rollers

Ulick and Jack commented on the Brews Paper. I think this thing is a piece of junk. I'm not sure why I received their first issue, but I guess it has something to do with my subscription to Zymurgy. Anyway, there are soooooo many typos in the thing, I started to believe they were there on purpose. On the front cover they have a quote something like: "We ain't too serious". When I saw it at first I thought it was a good thing. After reading the BP cover to cover, I decided they need to be a bit more serious. The writing was at a junior high school conversational level, to boot. If any BP folks are reading this digest, I suggest you work on issue #2 a little longer before it goes to press. Sorry for the long tirade but bad "journalism" bugs me... (On a lighter note, I did enjoy the jokes, etc.)

Roller mill rollers: anyone have any good sources? I have a wonderful little homemade roller mill, but the rollers are a weak point. One good suggestion I received was conveyor belt rollers from a junk yard, but I thought I'd solicit more suggestions here.

Cheers,  
Norm

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Date: Wed, 20 Jan 93 08:55 EST  
From: "C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com>  
Subject: Priming.

> I've been having difficulty in getting a good head on my beers. I can  
> generate a reasonable one by pouring "forcefully" but this tends to  
make the  
> rest of the glass somewhat flat. Is the standard 3/4 cup supposed to  
be able  
> to generate a good head and also preserve good carbonation in what  
remains?  
>  
> One 3 gallon batch I made I inadvertently put in 3/4 cup which  
translates to  
> 1.25 cups for 5 gallons. That batch has PLENTY of head- too much, but  
it gave  
> me the idea of increasing priming. What are thoughts about increasing  
priming  
> to around 1 cup? This should generate plenty of CO2 for head forming,  
but is  
> this heresy?

I too was unhappy with the level of carbonation when using 3/4 cup  
of corn sugar for priming. I have experimented with priming and  
find that I am most happy when using 1 cup of priming sugar for a  
5 gallon batch. I believe this is a matter of taste, I  
personally enjoy the carbonation I get from 1 cup, and find 3/4  
too little and 1.25 too much.

I have also experimented with the addition of sweet-n'-low during  
bottling. I use dry yeasts, and decided to try David Line's  
suggestion (p. 21, Brewing Beers Like Those You Buy, "However if  
you can only get home brew beer yeasts instead of the recommended  
commercial 'Brewer's Yeast' the flavour balance can be acceptably  
restored by adding five saccharin tablets"). I have found that 10  
packages of sweet-n'definitely adds too much sweetness (more is  
not better, in this case). I have also experimented with five  
packages of sweet-n'-low and believe this to be my best batch  
yet. Many people have enjoyed this ale, and I found that this  
batch disappeared quickly (leaving me with three earlier  
batches). Even with 5 packages of sweet-n'-low the sweetness  
could be lowered slightly. Next I will try 4 packages. Has  
anyone else using dry yeasts expermented with artificial  
sweetners? If so, I'd be interested in hearing your comments.

Christopher Lyons

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Date: Wed, 20 Jan 93 10:37:35 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: Answers

In hbd1059 Chris Cooke asks a number of questions.  
re: decoctions, there are several ways to remove thick or thin decoctions.

I personally, use a sieve to remove a thick decoction, and a small pot as a large ladle to remove thin decoction. I have one comment in general about decoctions. I have found that I need much larger decoctions than Noonan recommends for reaching strike temperatures. This is probably because I mash in a 7gallon Gott that has a large heat capacity, itself. I typically in a 2 decoction mash remove a 50% thick decoction to raise from protein rest to saccharification, and if the strike temperature is particularly high will usually need to add more boiling water. I may use 60% for the lauter decoction.

re, burner - if there is soot, the mixture is obviously too rich. Tweak down your gas flow if you can.

re extraction rates. My last batch was 3lb Munich, 6lb 2-row lager, and 1lb 6row CaraPils. I got 12B in 6+gallons. That is about 29 sg points. Just a data point.

js praises The Brews Paper. I personally think it is not that great (well OK for nothing - but personally I think the \$15 annual subscription could be better spent on Imported hops or something). It should be noted that js is not an unbiased observer as the publication carries advertisements for his products. Incidentally, does anyone know who is responsible for the ads in Zymurgy selling Coronas with the statement that it is better than the js rollermill (someone in St. Louis)?

re: slow yeast, I have a similar problem (I can't remember who posted the note). I pitched a batch of Vienna lager with a yeast (Wyeast Bavarian) that I had used several times before and washed in acidified Ammonium persulphate. I then fermented the sludge out twice with a rather stodgy 1020 wort prepared from low quality DME, but the second ferment seemed

reasonable. I then pitched it into 6 gallons of wort chilled to 40F and left it for 6 hours at 40F to settle. I then racked off the trub.

However,

I am sure I left most of the yeast behind as I doubt if much managed to get into the wort well at 40F for 6 hours. It is now been 60 hours+ at around 48-50F, without any real visible fermentation. I am not worried yet, considering my problem to be mainly due to a low cell count, and it will eventually hit krausen, but should I be??? Comments.

Ulick Stafford

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Date: 20 Jan 1993 10:48:07 -0500  
From: Chris McDermott <mcdermott@draper.com>  
Subject: bottle sediment, "partial d

bottle sediment, "partial decoction"

Since going all-grain, I've developed a problem with sedimentation in my bottled beers. The beers are crystal clear, but have a layer of loosely associated sediment at the bottom that's about 1cm thick. I don't think that this is yeast, but I'm not sure what it is. Has anyone experienced the same problem, and if so what causes it?

I've really enjoyed the recent thread on decoction. Noonan's book is a great resource, but its self-contradiction disturbs me a little. So, this additional discussion helps to sooth my nerves a bit.

Anyway, my mashing method, which I dub "partial decoction", is infusion in a 40 qt. Gott-Mash/Lauter-Tun. Hot water is added to reach the protein rest temperature. Boiling water is added to reach the saccharification temperature. And then the thinnest 3rd of the mash is removed, boiled, and returned to reach the mash out temperature. Is this method standard among a subset of us mashers, or am I and a few others (see Daniel F McConnell's post in HbD#1059) all alone out there? If there are others, I'd like to hear about your experiences with this M.O.

-----  
"Less talk; more synthale" - Worf from STTNG

-----  
Christopher K. McDermott    Internet: mcdermott@draper.com  
C.S. Draper Laboratory, Inc.    Voice:(617) 258-2362  
555 Technology Square FAX: (617) 258-1131  
Cambridge, MA 02149 (USA)

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Date: Wed, 20 Jan 93 11:16:27 EST  
From: CW06GST <CW06GST%SJUMUSIC.bitnet@CUNYVM.CUNY.EDU>  
Subject: Re: yeast, Windsor Ale; Wyeast lager

In the last exciting episode of Homebrew Digest (#1059), Bill Crick mentions Windsor Ale Yeast. Recently, I brewed a Christmas ale using this yeast with satisfactory results:

INFAMOUS CHRISTMAS GLO:GG BEER

5# LIGHT AMERICAN MALT EXTRACT SYRUP  
2# LIGHT CLOVER HONEY  
1/2 OZ SAAZ HOPS (BOIL)  
1/2 OZ SAAZ HOPS (LAST 2 MIN. THEN STEEPED 10 MIN.)  
1 25 ML ALCOHOL BASED GLO:GG SPICE  
1 package WINDSOR ALE YEAST - REHYDRATED (no starter)  
(Glo:gg spice is made up of ginger, cinnamon, cardamom and clove.)

Boiled for 30 minutes. Cooled to 70 deg. F. pitched yeast.  
Fermentation began within 8 hours. Finished within 3 days.

OG=1.053  
FG=1.008 (after 2 weeks)

This was a very quick and easy recipe; a real plus around the holidays. The beer was rather tasty, although the spices were rather pronounced (covering up any defects if present). The yeast was very fast and attenuative. I have some more of it, so I'll post the results of that brew.

Also, in the same episode, Steve Tollesfrud had some trouble with Wyeast lager yeast. I brewed a batch using the same yeast and had the same problem. After pitching I put the fermentor in a refridgerator at about 45 degrees F. I had no action for 4 days and nothing happened until I warmed the wort to 65 degrees. I kept it at that temperature until primary fermentation stopped, and then slowly eased the temperature back down to 45. Racked to secondary and kept at 45 deg for 1 month. Racked to bottling bucket, and I am now aging in the bottles at same temperature.

I tasted the beer before bottling and it is quite good.  
After bottle conditioning it should be delicious.

Has anyone else had this problem with Wyeast lager?  
Marinated minds want to know.

Erik Zenhausern

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Date: Wed, 20 Jan 1993 11:23 EDT  
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>  
Subject: Andre Pruitt 8000

FWIW here's the Andre Pruitt 8000, mashtun and lauter tun set up.

I have finally made an all grain batch and I was trying to make a set up with a combo lauter and mash tun.

Here's the set up--thanks for the tips from you folks:

Igloo 10 gallon cooler.  
Plastic Fermenter  
Bottling Spigot

OK--her'es the deal. Origianlly I was oging to hook up a Phil's False bottom to my cooler and replace the spigot with a 1 inch bottling bucket valve. My friend, Andre Pruitt, said, forget the false bottom--use a bottling bucket.

So I drilled a bazillion holes into the bottom of my original plastic fermenter. I also cut off the first "ring," the first inch or so of the fermenter.

The I drilled a bazillion holes in the lid also.

Andre drilled the spigot hole to 1 inch--but be careful--dont just use a wood bit--use the kind which drills a pilot hole first, and put osomething inside the cooler so the drill wont shake while you drill.

Now--to the brewing:

Put the fermenter into the cooler, and put the grain inside. Mash in. Then let it mash for the time specified. To sparge, we put the lid on top of the fermenter and sparged through the holes. I'm going to cut the lid so that it will sit right on top of the grain.

You can alter the speed of the sparge with the bottling bucket valve--so it was quite nice.

Over the mash--it lost 2 degrees in 50 minutes.

At the end, pull out the bucket, put it into another, and then you dump the grain!

Volia, the Andre Pruitt 8000 Mash/Lauter Tun.

Comments welcome--suggestions too!

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva  
Internet: oconnor@snycorva.cortland.edu

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Date: Wed, 20 Jan 93 11:30:43 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: HBD 1059

Hi All,

In HBD #1059, Chris Cook asks:

>All right, I have a few quick questions. Or maybe not so quick...

> 1) In Greg Noonan's book "Brewing Lager Beer," he describes decoction  
> mashes using phrases like "...draw off the thickest third of the  
> mash..." Look, after all the stirring he describes, isn't the mash  
> pretty uniform? Could someone who does this describe what the  
> "thickest" or thinnest part is, and how you draw it off?

Decoctions are generally done after some sort of rest, i.e., acid,  
protein, or saccharification, so the mash at these points is not uniform.  
The thickest part of the mash is the grist, which tends to settle on the  
bottom during rests, the thinnest part is the liquid that's atop the  
grain.

I use an Igloo cooler to hold saccharification rest temperatures. For  
thick decoctions, I tip the cooler so the liquid runs to one side, and use a  
small saucepan to withdraw the grain from the other side. To achieve mash-  
out, I use a thin decoction, scooping the liquid from the top with the same pan.  
Not very "high-tech", but effective.

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Also in HBD #1059, Steven Tollefsrud asks:

>I recently experimented with adding refined table sugar to a lager batch  
>(approximately 70% malt extract to 30% sugar) to see how it would affect  
>the taste. The result was lighter bodied, well carbonated, with an  
>unpleasant cidery aftertaste. Now I want to avoid using sugar at all,  
>even for priming. In order to make a completely sugar free, all malt  
>lager, I would like to try priming with dried malt extract. Should I  
>use the same quantities of malt extract as I would with sugar? One  
homebrew  
>guide I have says to prime until the specific gravity increases by .  
005.  
>Won't it be necessary to use more dried malt extract because of the  
>unfermentables?

Yes, I've used 1 to 1 1/4 cups of dried malt extract to prime a 5  
gallon batch versus 3/4 cup of corn sugar. It will also take a week or  
so longer to achieve good carbonation.

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Also in HBD #1059, John of the odd looking Bitnet address asks:

>I used Wyeast liquid lager (pilsen), and all was going gang-  
>busters within 12 hrs of bursting the inside package of the yeast packet  
>It had swelled almost to the point of bursting itself. I made a  
>batch of starter that night, and watched as that too grew vigorously -  
>the smell was (for brewers anyway) heavenly! Then, after brewing the

>wort according to the recipe, I cooled the brew and pitched the yeast.

>That was almost two days ago, and as yet, there seems to be no action  
>through the blow off tube...Not even a kreusen yet. However, the beer  
>does seem to be clearing (is it settling too soon?).

>So my question(s) is/are: is it too soon to tell if the brew is stuck?  
>And, if it is stuck, how can I nudge it along? Could the temperature  
>be responsible for the (apparently) slow start? If so, should I try  
>closing the window, opening the door, and warming the pantry/  
>lagering closet up a bit??

I've experienced fairly long lag times, on the order of 24-30 hours, when using liquid lager yeast, and pitching when the wort had cooled to ~50F. I've managed to cut this down to 12-18 hours by pitching when the wort is slightly warmer, ~60F, pitching a somewhat larger volume of starter than for ales, and leaving the primary fermenter in a warmer place until signs of fermentation are evident.

I'd say that 47F is a bit too cool for the yeast to get started. Try moving the fermenter to a warmer room, or closing the window. When fermentation starts, re-open the window, but try to avoid sudden, drastic temperature swings. Also, if you decide to pitch your next batch at a higher temperature, be aware that you'll get a bit more diacetyl in exchange for the faster start. Not a major problem, I've managed to deal with it by utilizing a diacetyl rest.

Cheers,  
Jim

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Date: 20 Jan 93 11:58:48 EST  
From: Charlie Papazian/Boulder <72210.2754@compuserve.com>  
Subject: gone for a brew

Thanks all for sending me notes regarding zymurgy and my new book. All comments have been very helpful. This note is to let you all know that I'll be on vacation and far far from even thinking about getting on a computer. I'll be not checking my e-mail after Thursday a.m., Jan 21 until mid February when I catch up with all the piles of stuff awaiting me upon return (vacations are like that). If you wish to e-mail the American Homebrewers Association or any other of the Association of Brewers Divisions please e-mail James Spence at Compuserve: 70740,1107. Thanks.

Charlie P.

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Date: Wed, 20 Jan 93 12:25:26 -0500  
From: hoodj@gov.on.ca (Jim Hood)  
Subject: Did tin do me in? (and ruin my beer?)

My first attempt at all-grain (10th batch overall) produced my first throw-away batch. There are no visible signs of infection, though no doubt there are bacteria which are more subtle about their presence. The beer looks and smells fine. It has a terribly bitter, almost metallic (though not all tasters agree with this description) aftertaste. One person commented "It's like you overhopped by an order of magnitude." I didn't.

The recipe was Tony B.'s version of SNPA, which he posted late last summer. Procedure pretty much ala Miller. Good sanitation observed (no problems that way from previous extract and partial mash brews).

My nomination for the culprit is my boiler. I obtained one of those old copper boilers, some folk refer to them as "jam boilers". A lot of these, I am told, were tin plated on the inside (beats me why). I'm wondering if the acidic wort reacted with the tin to produce the bad taste that this batch has. The only reference to tin I found in Miller who said keep it out.

Of course I'm open to other suggestions, if these kind of boilers haven't been a problem for other brewers. Also I'm willing to UPS a bottle to anyone who cares to run a personal diagnostic, as long as you're not too far from Mich. upper peninsula.

- - -

Jim Hood  
hoodj@gov.on.ca

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Date: Wed, 20 Jan 93 09:43:09 PST  
From: "Jim Daly, Digital Equipment Corporation, Maynard, MA" <daly@mast.  
enet.dec.com>  
**Subject: Beatles Trivia**

>Trivia question:  
>  
>Which Beatles song refers to homebrewing?

Rock and Roll Music:

"...They're drinkin' homebrew from a wooden cup, them folks are dancin'  
and  
they're all shook up. They started singin' that rock and roll music, any  
ol'  
way you choose it..."

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Jim Daly  
Digital Equipment Corporation, Maynard, MA  
daly@wrksys.enet.dec.com  
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Date: Wed, 20 Jan 93 09:26:55 PST  
From: damrowk@Thomas.COM (Kip Damrow)  
Subject: RECIPE REQUEST

Hey there,  
Does anyone out there have an extract recipe for Samuel Smith's Nut Brown Ale??  
Thanks for your help...

Kip

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Date: Wed, 20 Jan 1993 09:48:29 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: Trivia

>>Which Beatles song refers to homebrewing?  
>  
>I searched and searched, but never found the answer!

Thanks to Tony Willoughby (twilloug@brynmawr.webo.dg.com) and  
Barry\_Gillott@dgc.ceo.dg.com for the answer: "Rock and Roll Music",  
which is not strictly a Beatles song at all.

thx for playing  
gak  
107/H/3&4

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Date: Wed, 20 Jan 1993 12:54 EDT  
From: HOWED@bcvax1.bc.edu  
Subject: The Cinnamon Stopper, resolved

A while back, I posted a problem with a batch of cinnamon beer. Since then I have fiddled around with it a bit, and I seem to have figured out the problem and how to carbonate the beer.

I reprimed each bottle by hand and recapped them. This has been effective in carbonating. The best guess that has been made about why it didn't take the first time was that by adding the cinnamon to the priming sugar when bulk priming, the cinnamon turned into a syrup which collected the sugar into a few bottles, thereby turning them into gushers.

Since then, my partner and I have ventured out yet again into new combinations [for us anyway] and we have made a chocolate wheat beer. A tasty idea that has definitely panned out well for us.

HOWED@bcvms.bc.edu

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Date: Wed, 20 Jan 93 13:42 CST  
From: korz@iepubj.att.com  
Subject: Trivia/Barleywine Yeast

Gak writes:

>Which Beatles song refers to homebrewing?

Well, it's a bit of a trick question. It's actually a Chuck Berry song, redone by the Beatles: Rock & Roll Music.

Just so this post is not just trivia...

Steven writes:

>I plan to make a Barleywine soon. I have two recipes. One calls for  
>champagne yeast because it will survive above the levels of alcohol  
>which would normally kill off regular lager or ale yeasts. The second  
>recipe calls for lager yeast?! I am afraid of compromising the taste  
>of the "beer" by using champagne yeast (is this a valid concern?).  
>On the other hand, I don't want to have a sickly sweet, half fermented  
>Barleywine because the alcohol level killed the lager yeast.

If you can get a hold of some relatively fresh Sierra Nevada Pale Ale or SN Porter or Stout (I'm assuming you can't get Wyeast 1056 in France)

, you could culture it and use that exclusively. Chico Brewing Co. uses this yeast for their Bigfoot Barleywine, so you can too.

Using a beer yeast at first and then a Champagne yeast to finish off (as Steven later suggests) is a good idea if you can't get the gravity down with just the beer yeast. Make sure you pitch A LOT of yeast and AERATE THE WORT VERY WELL, so the yeast has a fighting chance. I've read that some brewers rouse the yeast on very high gravity beers, but if you do, you're probably better off doing this in the secondary so you don't stir up the trub. Also make sure to not aerate the wort during the rousing -- I just agitate the fermenter, being careful to not spill the airlock into the fermenter (note this is with glass -- you can forget about trying to not suck air on a plastic fermenter -- it's impossible).

Al.

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Date: Wed, 20 Jan 93 11:58:55 -0800  
From: mark@verdix.com (Mark Lundquist)  
Subject: Keg questions

Thanks to those who responded to my question about how I might make use of a keg that I "inherited". The keg was one of the new-style "one-holer" (Sanke?) brewery kegs. The most sensible-sounding suggestion was that I find a distributor who would be willing to trade me a Golden Gate keg for my keg.

So...now I have some questions:

- 1) Should I naturally condition my kegged beer, or should I artificially carbonate? Will there be any difference in the quality of the finished beer?
- 2) How do I keg-condition beer? (For bottled beer, I prime with 1 cup DME per 5 gal.)
- 3) How do I artificially carbonate beer?
- 4) How long can kegged beer be stored if a CO2 tapper system is used?
- 5) How can I bottle from a keg?
- 6) How do I clean my keg? What sanitizing agents can/should I use?

Is there anything else I need to know about filling, storing, serving, etc. with my keg?

Thanks!

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Date: Wed, 20 Jan 93 09:10 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Corona Adjustments, Nitrosamines

>From: "John L. Isenhour" <isenhour@lambic.fnal.gov>

>The outer grinding plate is held on by a cotter pin, and it is free-floating (i.e. it wobbles around). This would seem to allow some grain to escape. I'm wondering if I should try to affix the adjustable plate to the stem in such a way that it could not wobble and yet maintained a parallel position in respect to the other plate. Anyone tried this?

Even if you were willing to sacrifice adjustability and welded the assembly together, you could not avoid the problem you point out. It is the nature of the beast. You have a four point system with only two "bearings". It relies on the two faces rubbing against each other for alignment. When used as we use it, it relies on the grain to keep them properly spaced. If you keep it full, it will more or less do this.

What I find helpful is to set the spacing using a .055" gage on each side of the plate. Dimes are about the right thickness but a bit hard to work with. Adjust the pressure so they can just be pulled up and down. This will give you the nominal spacing used on most rollers mills as a starting point. Note that this is only true when the mill is full and cranking.

>I'd also like to motorize this operation. Anyone done anything with a pulley or something?

I defer to those who have done this but point out that the "bearings" are iron against iron and not intended for high speed or rigorous use.

>From: Darryl Richman <darrylri@microsoft.com>

>The imported 2 row Munich malt is prepared by heating it briefly while still moist and then drying it. This produces the most color and malt aroma for the temperatures.

>Crystal malts are prepared in the same general way, but rather than a brief heating while moist, the malt undergoes as complete a saccharification as possible....

I am glad you cleared that one up. It is amazing what threads can follow

from the seemingly innocent use of two words in the same sentence. In this case Munich and crystal.

I would like to use this opportunity to re-address the nitrosamine issue as these two malts are produced in exactly the way that produces the maximum precursors for this potent carcinogen.

Crystal malt is probably the worse of the two because of the time spent in the hot, moist state but as it is used in only small quantities, it may be less of a hazzard than Munich which could make up the entire batch.

My advice is, know your maltster and his process. Indirect kilning, eleviates the nitrosamine problem and I would advise against using malt, especially crystal and Munich, produced in direct fired kilns.

It can be inferred from their literature that the Munich malt produced by De Wolf - Cosyns is indirectly kilned. Inferring things from literature can be dangerous so I ask that Tim Norris or any of the other dealers reading this make the effort to find out for sure and report back.

js

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Date: Wed, 20 Jan 93 11:23:57 PST  
From: damrowk@Thomas.COM (Kip Damrow)  
Subject: Recipe Request

Hey there,  
Does anyone out there have an extract recipe for Samuel Smith's Nut Brown  
Ale ?  
Thanks in advance...  
Kip.

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Date: Wed, 20 Jan 93 15:18:04 -0600  
From: gjfix@utammat (George J Fix)  
Subject: Refractometers

Apparently many people have started using refractometers to measure gravities because they are simple and very accurate. Isn't it nice to be able to do these measurements at any temperature and with only a few drops of wort instead of the contents of an entire hydrometer jar!

One should be aware that the presence of alcohol in fermenting (or fermented) wort will skew the refractometer reading. Actually the same is true for hydrometer readings, but this is often overlooked. To get accurate results from either instrument, one needs to first boil off the alcohol from a sample and then replace the volume lost with distilled water. The reading one gets at this point is the real extract (RE), and in degree Balling (or Plato) is % sugar that is actually there (by wt.). It is different from the rather artificial number measured by a hydrometer without alcohol removal. The latter is called the apparent extract (AE), and the relation between AE and RE has been discussed in this forum. Unfortunately, the relation between refractometer measurements with and without alcohol removal is not known to me, and possibly does not exist.

This post does not mean to imply that refractometers are a "must have" item for homebrewers. There are many leading long and happy lives, and brewing sensational beer to boot, who are very content with their hydrometers. My private e-mail, on the other hand, indicates that there is a nontrivial interest in refractometers. I am often asked about where one can purchase such an instrument. I am a few years removed from this. My model comes from Cole-Palmer, but I understand their prices have soared in recent years. One of course can always count on Fisher Scientific to lead the league in high prices. If anyone has done a recent search, then a post on HBD might be helpful. It could be that there is a wide variation in prices for instruments of comparable quality.

George Fix

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Date: Wed, 20 Jan 93 14:28:05 PST  
From: The Man Who Invented Himself <stewart@sco.COM>  
Subject: Re: Trivia

>From: Richard Stueven <gak@wrs.com>  
>Subject: Re: Trivia

>

>Found this in the 12/15/88 HBD:

>>

>>Which Beatles song refers to homebrewing?

>

>I searched and searched, but never found the answer!

>

>Well?

I think it was "Spargin' Pepper's Lonely Hops Club Band", wasn't it?

- -- Stewart

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Date: 20 Jan 93 20:29:45 GMT  
From: mark@verdix.com (Mark Lundquist)  
Subject: shelf-life of grains?

How long can uncrushed grain be stored? I have some (specialty malts, etc.) in sealed plastic bags, and I'd like to know if there's some point after which I should toss 'em.

Thanks,  
- --mark

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Date: Wed, 20 Jan 93 16:54:04 -0600  
From: "Jim Ellingson" <jimme@pi28.arc.umn.edu>  
Subject: Priming, CO2, psi, Temp, Kegs. (long)

Fellow Brewthren,

I've been watching this psi vs pounds of sugar debate for a couple of days, hoping it would de-pressurize itself. Clearly it will not. My apologies for the length of this post. I normally give wonderful advice ]:~) such as this via private e-mail.

In the archives, there is a chart of volumes of CO2 in beer, versus temperature and pressure. CO2 pressure is given along the top of the chart. Temperature is given down the left side. It makes little sense to discuss pressure without also giving the temperature.

All other things being equal higher (lower) temperatures will lead to higher (lower) pressures since the CO2 gas is more soluble at lower temps. Equally, the vapor pressure of CO2 is a function of temperature.

In a corner of the chart are the following guidelines for volumes of CO2 for different styles of beer at whatever temperature and corresponding pressure (I'm guessing these are volumes of CO2 at atmospheric pressure.):

Volumes of CO2:  
British style beers = 2.0 - 2.4  
Most other beers = 2.4 - 2.85  
High-carbonation beers = 2.85 - 2.95

That is, if I'm force carbonating, I need to push between 10 and 15 gallons of CO2 gas into my 5 gallons of beer. The pressure required to do this is a function of temperature.

If I'm using natural carbonation, I need to provide enough fermentables to generate just over 10 to 15 gallons of CO2 gas in my 5 gallons of (bottle conditioning) beer. The amount depends on the style. The amount extra depends on the head space, but we always want much more beer than headspace.

While the rate at which the yeast will consume the priming fermentables and carbonate our beer is a function of temp, the volume in the finished product is not. (Yes, yes, I know, provided the temp is high enough for the yeast to work and low enough not to kill the yeast and . . . provided we wait long enough).

Let's look at a couple of examples. If our beer is kept at 50°F, then we have the following set of pressures and volumes:

|         |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| psi CO2 | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   |
| 24      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| volumes | 1.98 | 2.06 | 2.14 | 2.21 | 2.30 | 2.38 | 2.45 | 2.54 | 2.62 | 2.70 | 2.78 | 2.86 | 2.94 |
| 3.02    |      |      |      |      |      |      |      |      |      |      |      |      |      |

If I want 2.7 volumes of CO2 in my pilsner,

I set the regulator to 20 psi. If I want 2.3 volumes of CO2 in my porter, the regulator should be set to 15 psi. While this chart does give equilibrium values, it says nothing about how long it would take for 2+ volumes of CO2 to find its way into the beer. (This is where higher pressures and/or shaking the keg come into play.)

If we are priming, things get more complicated. Being very simple about it, a given volume of priming sugar/extract/gyle should yield a known amount of fermentables. For a given amount of fermentables, we can expect the creation of a known volume of CO2. (Let's keep the yeast attenuation, time to full condition, alcohol toxicity and any other favorite nits hidden for the time being)

Going back to the chart, and keeping our beer at 50°F. If priming with 1/3 cup of dextrose yields 11 psi (1.98 volumes), then priming with 1/2 cup of dextrose should yield 23-24 psi (2.94-3.02 volumes) in our keg.

I hope this helps. Sorry about the length.  
Cheers,

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\* Jim Ellingson jimme@arc.umn.edu \*  
\* AHPCRC/University of Minnesotatel 612/626-8088 \*  
\* 1100 Washington Ave. S., Minneapolis, MN 55415 fax 612/626-1596 \*

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Date: Wed, 20 Jan 93 17:05:56 MST  
From: resch@craycos.com (David Resch)  
Subject: Re: using steel cut oats in stout

>I'd like to hear any experiences with using steel cut oats in an  
>all-grain brew -- whether you cooked or not, how much you used,  
>how the beer turned out, etc.

Hi Brian,

I've made at least 2 batches of Oatmeal Stout using steel cut oats. I believe that I used on the order of 2 pounds for a 13 gallon batch, but I don't have my recipes here at work and so am not sure what percent of the grain bill the oats were, but it was less than 10%.

I gelatinized the oats prior to adding them to the mash. The steel-cut oats that I got at a health food store were quite coarse and very hard. I believe that just adding them to the mash dry would have required a MUCH longer mash time to achieve starch conversion... even boiling took quite a while to soften the oats.

I found that I had to add a LOT of water to the oats during gelatinization. They just seem to keep soaking it up. I had to reduce the amount and temperature of the rest of my mash water since I was basically adding a substantial quantity of boiling oatmeal to the mash.

The stouts made using the oats have turned out very well. They have always finished with a fairly high terminal gravity ~1.020, but I'm not sure how much of that is the result of the oats and how much is due to the other ingredients. The oatmeal stouts that I have made this way have had a very nice creamy mouth-feel to them with a bit of residual sweetness.

Let us know how your's turns out!

Dave

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Date: Wed, 20 Jan 93 19:52:15 -0500  
From: bradley@adelphi.edu (Rob Bradley)  
Subject: No lag in old Wyeast

Greetings all,

WYeast says on their package the it will take n days for an n-month-old package to puff out. I cracked a 4-month-old package of 1008 (German) yesterday. At 24 hours it was already getting fat. The ambient was 60 or even lower, so I'm sure it would have been fully puffed in 24 hours at 68-70. This is slightly inconvenient as I'd been planning to brew Sunday. Has anybody had the same experience with 1008? With other strains?

Cheers,

Rob (bradley@adx.adelphi.edu)

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Date: Wed, 20 Jan 93 22:22:42 -0500  
From: "Aaron Frost" <afrost@mailbox.syr.edu>  
Subject: Mountmellick Famous Irish Stout

Has anyone experienced a brew with Mountmellick Products, Hopped Famous Irish Stout? I used 8 lbs, finished with 3/4 oz fresh cascade that hed been lying around, and pitched the supplied yeast.

Will I get close to GUINNESS with this recipie?  
O.G. was 1.058

Thanks for your opinions, I bottle on Sunday. Andrew.

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Date: Wed, 20 Jan 1993 19:36:00  
From: Gary.Cote@leotech.MV.COM (Gary Cote)  
Subject: Milk Stout

Has anyone out there had a brew called "Tennents Milk Stout"?  
I had one when I was in St. Maartin in november but I  
have never seen it here in the states.  
It was stronger than a Guinness Stout in taste and in  
alcohol.

Just wondering...  
Thanks..... Gary  
gcote@leotech.mv.com

--  
I`d rather have a bottle in front of me  
than a frontal lobotomy....

\* SLMR 2.1a \*

\* Origin: Leo Technology (603)432-2517/432-0922 (HST/V32)  
(1:132/189)

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End of HOMEBREW Digest #1060, 01/21/93  
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Date: 21 Jan 1993 03:46:03 GMT  
From: "Chatt-Mike" <MSMAIL.CHATTM@TSOD.lmig.com>  
Subject: Out of the Office

I am out today.  
I will be back in the office Friday 1/22  
(This is a pre-recorded message.)

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From: UNIX.HOMEBRW1 on Thu, Jan 21, 1993 3:45 AM  
Subject: Homebrew Digest #1060 (January 21, 1993)  
To: HOMEBREW (UNIX.HOMEBRW1); Chatt-Mike  
File(s): MEMO 01.21.93 03.37

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Date: Thu, 21 Jan 93 09:19:44 EST  
From: mmlai!lucy!gildner@uunet.UU.NET (Michael Gildner)  
Subject: solder

Recently, I've seen some mention of lead-free solder being a bad thing for homebrewing. Evidently the tin in lead-free solder can react with beer. I didn't realize this several months ago when I made my wort chiller. I constructed the chiller with soft copper tubing. The coils didn't stay together very well so I put a spot of solder between each coil of the chiller to help keep it rigid. Now with all this recent talk of the incompatibility of solder in brewing I've starting worrying.

How does the solder react negatively with beer/wort?  
Is there some attribute I might recognize in my beers that point to solder contamination?  
Does anyone have any suggestions on how to cleanly remove the solder from the copper coils?  
What would be an efficient way to keep a soft copper coils together so they form a nice cylinder?

Thanks for any responses.

Mike Gildner  
gildner@mml.mmc.com

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Date: Thu, 21 Jan 93 08:48:17 -0600  
From: gjfix@utammat (George J Fix)  
Subject: Munich Malts

Darryl Richman writes:

>Lets clear up a misconception here. Real Munich malt, whether  
>domestic or imported, has enzymes. It has sufficient enzymes to  
>convert itself, and perhaps just a bit more. If you want to make a  
>real dark Munich lager, then use Munich malt. I've made several bocks  
>with high percentages of Munich (60-80%) and it works just fine.

Anyone who has had the good fortune of tasting Darryl's bocks know they are more than "just fine". They are sensational! His version which took 1st place in the AHA nationals a few years ago was one of the finest bocks I have ever tasted, amateur or commercial. The following is data which support his observations. D-C stands for DeWolf-Cosyns, while G-W stands for Great Western. Their 2-row malt is a Klages-Harrington blend. DP stands for diastatic power, it is a measure of the strength of the malt's enzyme system. The symbol "\_" means too low to measure.

```
DP  Yield(%)Protein(%)
-----
BASE MALTS  D-C Pale Ale60  7610.0
  D-C Pils  105  7510.0
  G-W 2-row 135  7612.5

COLOR MALTS  D-C Munich  50  77 9.9

ROASTED MALTS D-C Caravienne  _  72 8.9
  D-C Caramunich  _  7210.6
  D-C Special B  _  6610.0
```

NOTES:

1. The strength of the enzyme system of the Munich is not dissimilar to that of the pale ale. Practical experience has shown that if DP > 40, then the grains will have sufficient enzymes to convert their own starch. The roasted malts do not have much in the way of an enzyme system, but Darryl noted this in his post.

2. For those who missed the yield discussions on HBD, the following are points on the yield-gravity point line:

```
yield(%) pts./lbs./gals.
-----
60 28
65 30
70 32
75 34.5
80 37
```

3. The yields quoted were obtained under laboratory conditions. It is generally not possible, nor desirable in most circumstances, to achieve these in a practical brewing situation.

4. I have found that both the color and roasted malts have starch with a large number of 1-6 links. These will not be broken in a normal mash. Thus

these malts will always make nontrivial contributions to the dextrin pool, even if they are included at the start of the mash.

5. Many highly respected maltsters in the US claim it is impossible to make color and roasted malts from two row barley. The low protein levels of the D-C malts indicate that they indeed come from 2-row barley, and very high quality to boot. Sonja, noted as Europe's best 6-row barley, never has protein levels below 13%. Hector, a mid-western feed barley (which I sometimes fear finds other applications as well!), never falls below 14%.

George Fix

-----

Date: Thu, 21 Jan 93 9:48:50 EST  
From: roman@tix.timeplex.com (Daniel Roman)  
Subject: Re: Brews Paper

Guess I'm not the only one who got this. When I first saw it I thought it might be interesting, but that was only before got past the cover to find that most of the items listed on there were what turned out to be joke articles. The biggest teaser was "Exclusive Clinton on Homebrew Interview". I thought at first, this paper must be good if they got an interview, once you get to the "article" they state that they wrote the Clinton staff and did not get an interview so they made one up.

After that I did not know if ANY of the articles was supposed to be serious (or the ads either).

For \$15 a year they can keep it.

BTW, they even spelled George Bush --> Geroge Bush !!! :-]  
- - -

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Dan Roman GEnie: D.ROMAN1 Internet: roman@tix.timeplex.com //  
American Homebrewers Association member Only AMIGA! /X/

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Date: Thu, 21 Jan 93 8:51:51 CST  
From: jmiller@anubis.network.com (Jeff J. Miller)  
Subject: Brews Paper / Grain mill rollers

In HBD #1060 Norm Pyle writes about the Brews Paper being poorly edited and needing a bit more polish. Well, I'm glad somebody other than myself felt this way toward it! With all the material that is available I just can't see sending money to these people for a poorly published paper.

Mr. Charlie P. if your listening: If these people did get there mailing list from the Zymurgy subscription list I would like to indicate that I don't appreciate Zymurgy selling/giving my name to them.

OK... I'm done bitching now... On to grain mill rollers.

I've settled on using some 6" pipe that I got from some local pipe fitters. I figured the bigger teh diameter the better the grind. I'll be welding sides to the pipe and then welding a bar through the centers. The bar will get mounted in pillow blocks and the pipes spun by a motor with a belt. This is pretty much a nock off from the one in Zymurgy. On additional feature that I plan to add is to put a scroll on the pipe to pull the grains toward the center.

Cost.... grrr... I got the stuff from a guy that loves to swill my brew but he charged me full price for that stuff rather than simply pulling some scrap for me. Ended up being just under \$20 for 2 18" sections.

- - -  
Jeff Miller Network Systems Corporation  
Advanced Development 7625 Boone Avenue North  
jmiller@network.com Minneapolis MN 55428 (612)424-1724

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Date: Thu, 21 Jan 1993 9:54:01 -0500 (EST)

From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)

**Subject: nitrosamines**

Jack, I've asked this before, and since you brought it up, I'll ask again: What is the level of nitrosamines in fire-kilned malts, especially as compared to what one might get in a grilled entry at the local pub? It doesn't make sense to me to avoid ordering a stout when your hamburger on a toasted roll has orders of magnitude more n. amines in it anyway.

Russ

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Date: Thu, 21 Jan 93 08:23:14 MST  
From: resch@craycos.com (David Resch)  
Subject: Re: Kegging

>5) Pressurise the keg to 25 psi and place in a cold fridge for a day or  
so.  
>  
>6) Remove keg from fridge and roll it vigorously to dissolve the CO2 into  
the  
> beer. Replace keg in the fridge.  
>  
>7) When ready to serve beer, bleed excess pressure from keg and connect  
gas  
> line set a about 7 psi to push beer from the keg.  
>  
>  
>Any comments?

In my opinion, skip step 6 and just leave the beer in the fridge at 25  
psi for  
1 or 2 more days, depending on the carbonation level desired.

Shaking the keg simply increases the rate at which CO2 dissolves into the  
beer.  
By not shaking, carbonation takes a bit longer, but you don't disturb the  
yeast  
and protein sediment that precipitates when the beer is put into the  
fridge.

Dave

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Date: 21 Jan 93 10:24  
From: Michael\_Merriman@camb.intersolv.com  
Subject: Homebrew Digest #1060 (January 21, 1993)

Re: Motorizing the Corona.

I simply removed the handle, inserted a bolt into the threads, cut off the head with a hacksaw, and attach a power-drill to the bolt. I typically crush about 10-15 # at a pop, and with the drill, this takes about 10 min. I'm sure I could get that down to two minutes if I had a 10# hopper, but I haven't gotten around to that yet....maybe that old bottling bucket would be just the right size.

But...I'm not really impressed with the results of the corona overall. Anyone with a source for a reasonably priced roller mill?

mfm 617 252-4561  
Michael\_Merriman@INTERSOLV.com  
Kendall Sq, Cambridge, MA 02142

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Date: Thu, 21 Jan 93 07:46:46 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Keg pressures

Jim Ellingson's notes on kegging in the last digest were right on, I would like to point out one additional thing that most keggers overlook. Your regulator gauge may not read your real keg pressure. This is due to the pressure drop across check valves that may (should) be in your CO2 lines. I have experienced about a 2 psi drop across each check valve. I have one at the regulator output and one at each output from my gas manifold. This means I must set my regulator to 16 psi to get 12 psi at my kegs (16psi - 4psi=12psi). Your systems may vary.

Bob Jones

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Date: Thu, 21 Jan 93 08:47:26 -0700  
From: dinsdale@chtm.eece.unm.edu (Don McDaniel)  
Subject: Stuck Pilsner Urquell

Robert Haddard asked about a highish final gravity of 20 on his attempt at my Czech Pilsner recipe:

I don't recall what my final gravity was, but I know it didn't ferment out really dry. I wouldn't call 20 stuck. Depending on the yeast, that's in the normal range. However if you're kegging, there's no reason you can't forgo priming and see what develops. If it is too flat after lagering, you can always force-carbonate it then.

Don McDaniel

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Date: Thu, 21 Jan 93 11:04:51 EST  
From: neilm@juliet.ll.mit.edu ( Neil Mager )  
Subject: Re: Barleywine Yeast & questions

korz@iepubj.att.com writes:

>  
> If you can get a hold of some relatively fresh Sierra Nevada Pale Ale  
> or SN Porter or Stout (I'm assuming you can't get Wyeast 1056 in  
France),  
> you could culture it and use that exclusively. Chico Brewing Co. uses  
> this yeast for their Bigfoot Barleywine, so you can too.  
>  
>  
> Al.

What about a yeast culture from Thomas Hardy? Will that work or  
has the high alcohol content mutated the yeast. In December, Micah had  
mentioned making Barleywines when their kids were born. Anyone  
have a copy of Micah's Barleywine recipe?

On a similiar note, Miller mentions that it is difficult making  
an all-grain Barleywine and his recipes call for adding extract.  
He never fully explains what the problem is. Is the problem the  
quantity of grain needed to get the og high enough without  
adding extract? Or is there some other problem?

Neil

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Neil M. Mager  
MIT Lincoln Laboratory Lexington, MA  
Weather Radar - Group 43

Internet<neilm@juliet.ll.mit.edu>  
Voice (617) 981-4803

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=====

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Date: Thu, 21 Jan 93 10:32:35 CST  
From: tony@spss.com (Tony Babinec)  
Subject: steel cut versus rolled oats

It's been said before on the net, but can't be said enough.

Steel cut oats are not gelatinized. You might first soak them overnight. You must boil them (say, 45 min) to gelatinize them. In my experience, echoed by someone on a recent HBD, they soak up a lot of water and can be quite gummy and starchy. Once gelatinized, they must be mashed.

An easier alternative exists in rolled oats, such as are commercially available from Quaker Oats. You'll find these in 3 forms: original, quick, and instant. The original and quick differ in that they take 5 and 1 minutes, respectively, to cook into oatmeal. For homebrewers, the Original are the hulled whole oats run through rollers, and are therefore gelatinized. The quick and instant are thinner cuts. You can add rolled oats straight into the mash.

Another easier alternative is flaked oats, sold through homebrew supply shops.

Does anyone have a source for malted oats?

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Date: Wed, 20 Jan 93 10:22:19 PST  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: RE: Hop Question and others, too

"C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com> writes:  
> When adding boiling hops, does the selection of the type of  
> hop (Kent Goldings, Northern Brewer, Cascade, etc.) make any  
> difference on the final taste profile? I am wondering if I only  
> need to be concerned about getting the number of IBUs correct, or if it  
> is significant to get the correct number of IBUs from a particular hop  
when  
> attempting to duplicate recipes/styles. I understand that hops  
> added for flavor and aroma do give the beer distinct characteristics,  
> but I am curious if anyone believes that the boiling hops do?

This is a topic that doesn't get much attention. I believe that the reason is that once we engineering types (well, most of us do seem to fit that description, don't we?) have a way to hang a number on something, we feel it must be solved and move on to the next problem. If only there were a way to describe hop aroma with a number...

Anyway, it is my personal opinion that more than just bitterness is extracted from hops, even during a long boil. I feel that the low alpha hops tend to provide a cleaner, crisper flavor with a more pleasant, less cloying aftertaste in the finished beer than many of the high alpha varieties. (These were developed, after all, in order to satisfy bean counters and not brewers.) I also find that using a minority contribution from some of the high alpha hops -- sometimes exactly those varieties I don't like the most as the only bittering contributors -- can add "complexity" and interest to a beer. If this doesn't make sense, well, then I guess I'll have to renounce my membership in the ACM.

cook@uars.DNET.NASA.GOV (Chris Cook, NMOS Quality Engineer - (301)386-7807) writes:

> 1) In Greg Noonan's book "Brewing Lager Beer," he describes decoction  
> mashes using phrases like "...draw off the thickest third of the  
> mash..." Look, after all the stirring he describes, isn't the mash  
> pretty uniform? Could someone who does this describe what the  
> "thickest" or thinnest part is, and how you draw it off?

If you let the mash rest for 10 or 20 minutes, the "thickest" or heaviest part will settle to the bottom of the tun. I've seen folks use the restaurant 1 quart steel ladles to pick it up, but I use a half gallon Tupperware measuring cup. Since I use an 80 quart (yes, that's right) picnic cooler for 15 gallon batches, the grain bed is not too deep, and I can get a bottom sample pretty easily.

> 4) Oh, and finally, is everyone being honest with their grain  
extraction  
> rates? I realize the pressure to talk up your extraction points and  
> all, but are we talking reality here?

I would claim that I am getting about 30-31 pts/lb/gal, but it's also the case that my measurement may not be very accurate. Since I make 15 gallons batches -> 25-35 lbs. of malt, and since I have to weigh it out about 2 lbs. at a time, there is a great possibility for error to creep in. However, I don't believe it to be systemic in one direction, so it might be self cancelling. Or this might be the purest rationalization.

--Darryl Richman

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Date: Thu, 21 Jan 93 12:12:55 EST  
From: thutt <thutt@MAIL.CASI.NASA.GOV>  
Subject: Wyeast

Question: Where can I get information on the strains of Witbread  
The only one I can find has no number, and is simply called  
Witbread Ale Yeast.

Has anyone ever seen a German Ale yeast that comes in green 5 gram  
packets? I opened it up, and it looked and smelled like sawdust.  
I rehydrated it, but it still smelled and looked like sawdust. I  
threw it out and used something else.

I'd rather eat \$1 on yeast than \$30 on a whole batch. Was I wrong?

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Date: Thu, 21 Jan 93 12:22:50 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: No lag in old Wyeast

Hi All,

In HBD #1060, Rob Bradley writes:

>WYeast says on their package the it will take n days for an n-month-old  
>package to puff out. I cracked a 4-month-old package of 1008 (German)  
>yesterday. At 24 hours it was already getting fat. The ambient was  
>60 or even lower, so I'm sure it would have been fully puffed in 24  
>hours at 68-70. This is slightly inconvenient as I'd been planning  
>to brew Sunday. Has anybody had the same experience with 1008? With  
>other strains?

At the end of the summer, my local homebrew supplier was tossing out Wyeast packages that were more than 5 months old, and replacing them with fresh stock. I obtained some of the old packages gratis, including a 1098 culture that was 9 months old. I intended to burst the inner package, and if it swelled, to try culturing it.

I popped the package on a Wednesday night, by Friday morning, ~36 hours later, it was ready to burst. I pitched it into a starter, when I returned from work Friday night, the starter was vigorously fermenting. I ended up using it to brew that weekend, got a lag time of about 4 hours, and primary fermentation completed in 2 days. This particular culture turned out to be one of the most vigorous I'd ever used. Both of the other "outdated" packages(1084, 1338)swelled within 2 days of popping the package, I got viable yeast out of both of them.

IMHO, there is no correlation between the date code and the time required for the package to swell, as I've also had 1 month old packages take 6 days to swell. As Rob mentioned, this is inconvenient, as timing is fairly important. This inconsistency is one factor that lead me to start culturing yeast in the first place. I can reliably grow a pitchable starter from a slant in 3 days.

Cheers,  
Jim

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Date: Thu, 21 Jan 1993 13:23 EST  
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>  
Subject: Re: new publist

Hello again,

In my efforts to update the publist in the archives I have hit a snag. I spoke to John R. Mellby, who created the publist and he told me there will be an update shortly. So in order not to duplicate his work I will send him all the replies I have recieved to date. Thanks to all those who responded to my message.

Carlo Fusco    g1400023@nickel.laurentian.ca

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Date: Thursday, 21 Jan 1993 13:21:51 EST  
From: ml4051@mwvm.mitre.org (John DeCarlo)  
Subject: Re: No lag in old Wyeast

>From: bradley@adelphi.edu (Rob Bradley)

>WYeast says on their package the it will take n days for an n-month-old  
>package to puff out. I cracked a 4-month-old package of 1008 (German)  
>yesterday. At 24 hours it was already getting fat. The ambient was  
>60 or even lower, so I'm sure it would have been fully puffed in 24  
>hours at 68-70. This is slightly inconvenient as I'd been planning  
>to brew Sunday. Has anybody had the same experience with 1008? With  
>other strains?

Well, I have often wondered about this, as all my packages are ready in about 24 hours, no matter how old they were.

So let's take a step back and wonder about these instructions. If yeast double their population in about 3 hours, then in 24 hours they could increase their population by a factor of  $2^8$ , or 256. So in 4 days, they could increase their population by a factor of  $256^4$  (4,294,967,296), roughly 4 billion (US).

OK, so some of this time is spent producing CO2 and not reproducing, say 6 hours, so divide everything by 4 and get 1 billion. Does this mean that Wyeast expects only 1 yeast cell in 1 billion to be alive after 4 months? Sounds pretty unlikely to me.

Anyway, if more than 999 in 1000, say, of the yeast cells have died, you probably are going to have some problems, maybe? In which case you shouldn't ever need more than a factor of  $2^{10}$  or so, requiring 30 hours or so, plus some time for CO2, say a day and a half.

Now there are lots of unspoken assumptions, such as doubling rates being applicable at 70F or somesuch. Still, as someone who knows nothing of yeast growth, I would appreciate some feedback on this to see if I am seriously off anywhere (which I expect I am).

Internet: jdecarlo@mitre.org (or John.DeCarlo@f131.n109.z1.fidonet.org)  
Fidonet: 1:109/131

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Date: Thu, 21 Jan 93 12:35:55 CST  
From: caitrin lynch <lyn6@midway.uchicago.edu>  
Subject: Bitter Recipe

Recently I have had several bitters at various microbreweries in Chicago and Boston, and want to try to duplicate them (extract). To my mind what makes them distinctive is the malty beginning and the bitter finish. Previous attempts to make anything like this ends up as my generic pale ale. Any suggestions. Thanks.

Caity

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Date: Thu, 21 Jan 93 12:54 CST  
From: korz@iepubj.att.com  
Subject: Artificial Sweeteners

Christopher writes:

>I have also experimented with the addition of sweet-n'-low during  
>bottling. I use dry yeasts, and decided to try David Line's  
>suggestion (p. 21, Brewing Beers Like Those You Buy, "However if  
>you can only get home brew beer yeasts instead of the recommended  
>commercial 'Brewer's Yeast' the flavour balance can be acceptably  
>restored by adding five saccharin tablets"). I have found that 10  
>packages of sweet-n'definitely adds too much sweetness (more is  
>not better, in this case). I have also experimented with five  
>packages of sweet-n'-low and believe this to be my best batch  
>yet. Many people have enjoyed this ale, and I found that this  
>batch disappeared quickly (leaving me with three earlier  
>batches). Even with 5 packages of sweet-n'-low the sweetness  
>could be lowered slightly. Next I will try 4 packages. Has  
>anyone else using dry yeasts expermented with artificial  
>sweetners? If so, I'd be interested in hearing your comments.

Christopher -- I doubt you will get much support from this digest's  
subscribers for your use of Artificial Sweetener. People have commented  
on Dave Line's use of saccharin on the HBD a few years ago, and most  
posters  
said something like, "well, you do what you want, but \*I'M\* not putting  
saccharin in \*MY\* beer." The note about Brewer's Yeast that you quoted  
from Line is key to this whole issue. If you like beers with  
considerable  
residual sweetness, I suggest you try Wyeast #1338, European Ale. It  
leaves the most residual sweetness of any of the Wyeasts or dry yeasts.

To me it seems a shame to use the finest ingredients (better than most  
industrial brewers) and put in a lot of your time and then use an  
artificial sweetener. Try the #1338 -- I wouldn't be surprised if you  
stuck with the liquid yeasts and quit with the saccharin.

Al.

-----

Date: Thu, 21 Jan 93 13:07 CST  
From: korz@iepubj.att.com  
Subject: Wyeast Lager

Erik writes:

>Also, in the same episode, Steve Tollesfrud had some trouble with  
>Wyeast lager yeast. I brewed a batch using the same yeast and had  
>the same problem. After pitching I put the fermentor in a  
>refridgerator at about 45 degrees F. I had no action for 4 days  
>and nothing happened until I warmed the wort to 65 degrees. I  
>kept it at that temperature until primary fermentation stopped,  
>and then slowly eased the temperature back down to 45. Racked  
>to secondary and kept at 45 deg for 1 month. Racked to bottling  
>bucket, and I am now aging in the bottles at same temperature.  
>  
>I tasted the beer before bottling and it is quite good.  
>After bottle conditioning it should be delicious.  
>  
>Has anyone else had this problem with Wyeast lager?

I made a batch of bock that has done quite well in several competitions using Wyeast #2308. The way that I did it was, incubated the popped package at 68F, chilled the completed wort down to exactly (as close as I could) 68F, aerated very well, pitched the yeast, and put the carboy in the crawlspace which was at 57F for 12 hours. After the 12 hours, a small bead of kraeusen was forming, so I put it in the beer fridge at 50F. After two days, I lowered the temp in the beer fridge to 45F and that's where it stayed for the six weeks of primary and secondary fermentation. After bottling, I lagered the beer in the bottles at 40F for 4 months (till the perm nose went away ;^).

The recipe has been posted here before, it's called Bo^bs B. Birthday Bock.

Al.

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Date: Thu, 21 Jan 93 10:00 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Decoction, Congratualtions

>From: cook@uars.DNET.NASA.GOV (Chris Cook, NMOS Quality Engineer -

> 1) In Greg Noonan's book "Brewing Lager Beer," he describes decoction mashes using phrases like "...draw off the thickest third of the mash..." Look, after all the stirring he describes, isn't the mash pretty uniform? Could someone who does this describe what the "thickest" or thinnest part is, and how you draw it off?

Nice to know there are other critical readers out there. I simply ignore this bit of advice. Even if you let it settle, you could hardly "draw" off the thickest part.

I routinely do a partial dicoction, if for no other reason than just to have something to do while waiting.

After STIRRING, I remove 3 quarts to a separate kettle and bring to a boil. I add this back to the mash and stir till the temp is again uniform and then do it again. I can get three or four of these in during the one hour mash and it is about what is required to maintain the sacc temp and the last one starts it on the way toward mashout temp.

I make no claims about the usefulness of this but as I said, it keeps my humble brain active.  
.....

CONGRATUALTIONS to Dave Wiley for taking First Place in the First Annual Net Brew-Off. Dave scored 44 out of a possible 50 points. Yours truly was honored with 38.

We all thought the organizer, Mark Nightingale absconded with the goods as he has never responded to email since soliciting the entries. He now says they decided to wait six months to "age" the beer properly and announced the results by mail.

Don't know if excuses are necessary but considering that my entry was my 5th all grain batch, I could have done much worse. The negative comments were, over carbonated and needs more malt. Considering that I only used 8 lbs of malt in the 7 gal batch, it is not surprising and I am now using 12 lbs. I now force carbonate and CP bottle so I am ready for the next Net Brew-Off.



js

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Date: Thu, 21 Jan 93 15:40 CST  
From: korz@iepubj.att.com  
Subject: Tennents Milk Stout

Gary writes:

>Has anyone out there had a brew called "Tennents Milk Stout"?  
>I had one when I was in St. Maartin in november but I  
>have never seen it here in the states.  
>It was stronger than a Guinness Stout in taste and in  
>alcohol.

I had one somewhere between Martinique and Barbados (it helps to make friends with bartenders on cruise ships -- it was from his private stock) and saw some in a grocery store near the dock in Bridgetown, Barbados. I too, have never seen it outside of the Caribbean, but this does not mean it is not available -- just a data point.

I don't recall it being strong in alcohol, but indeed it was stronger in flavor than Guinness. It's not really fair to compare it with Guinness, however, as Guinness is a dry stout and as you can tell from the name, Tennents \*Milk\* Stout is a sweet stout. A bit drier than Dragon Stout (made by D&G in Kingston, Jamaica and \*available\* in the US), but the sweetness is up there.

An interesting note about Guinness in the Caribbean. The Guinness I had in Jamaica, was also made, under contract, by D&G. The Guinness I had in Barbados was made by Banks (again, under contract) in Barbados. I don't recall 100% percent if this was on the label, but on the cap these two beers said "GUINNESS -- FOREIGN-STYLE STOUT," I believe. The Guinness that we get in the Chicago area, is made in \*DUBLIN\* and the label and caps say "GUINNESS EXTRA STOUT." According to the AHA style descriptions, "Foreign-style Stout" is a dry stout with a higher OG and associated alcohol level. The bottled Guinness that we get in the US is definately stronger in alcohol than the Guinness in Ireland -- that's a documented fact. I seem to recall that the Guinness I had in the Caribbean was a bit sweeter than the stuff we get from Dublin, but I could not say for sure without a side-by-side comparison. I think I may have brought back one full -- we'll see.

Al.

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Date: Thu, 21 Jan 93 18:27:26 EST  
From: bickham@msc2.msc.cornell.edu (Scott Bickham)  
Subject: The Brews Paper

I received my copy of this already infamous newspaper yesterday, and in spite of the bad language and grammar, I managed to get through most of it. I was not impressed. In addition to the lack of content or humor in most of the articles, I found many of the comments to be blatantly sexist. But before someone quickly points out that several members of the Brews Paper staff are indeed women, just let me say that the same goes for many of the mens' magazines that are found at your local news stand.

The most depressing thing about it is that our names were almost certainly given to the newspaper by the AHA. I had thought the AHA was making an effort to treat homebrewers of either sex equally, and not delegate the women to the chore of bottle washing, but the support of the Brews Paper definitely convinces me that they are still mired in the 80's. I think that in the future, the AHA should do more research before handing out their mailing list to such a low-budget, low-quality publication such as this. I'm sorry to waste your time.

Scott

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Date: Thu, 21 Jan 93 16:38:50 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: re: trivia

>>Trivia question:  
>>  
>>Which Beatles song refers to homebrewing?  
>  
>I searched and searched, but never found the answer!  
>  
>have fun  
>gak

"Rock 'n' Roll Music" mentions homebrew (in one recording, at least),  
but not homebrewing.

+---

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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End of HOMEBREW Digest #1061, 01/22/93  
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Date: Thu, 21 Jan 93 23:23:45 EDT  
From: joseph@joebloes.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: We are all going to Die

J. S. says,  
) I would like to use this opportunity to re-address the nitrosamine  
issue  
    <sigh>  
) as these two malts are produced in exactly the way that produces the  
maximum  
) precursors for this potent carcinogen.  
    <sigh>

Don't you know that it's all part of a Bavarian conspiracy to kill  
YOU, Jack? And we're all in on it, too.

HH1/2K

=====  
=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebloes!joseph (609) 273-8200 day joseph%joebloes@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: 22 Jan 1993 06:01:58 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: Brews paper, WYeast date co

Subject: Time:5:56 AM  
OFFICE MEMOBrews paper, WYeast date codes Date:1/22/93  
>From Jeff J. Miller:  
>Mr. Charlie P. if your listening: If these people did get there mailing list from the Zymurgy subscription list I would like to indicate that I don't appreciate Zymurgy selling/giving my name to them.

I second that. It seems obvious that the list came from the AHA. Anyway the Pico Brewery article by Mike O'Brien and Dave West *\*IS\** genuine. No disclaimer, they are friends of mine. Mike can't spell well either, but I should think he knows how to spell his name by now! Humor is one thing (spellin is anothur), but misinformation (sugar vs malt article) is quite damaging those new to the hobby.

>From James Dipalma:  
>IMHO, there is no correlation between the date code and the time required for the package to swell, as I've also had 1 month old packages take 6 days to swell. As Rob mentioned, this is inconvenient, as timing is fairly important.

In the past I've experienced the same thing and suspect that variable lag times have more to do with retail mishandling than product date codes.

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Date: Fri, 22 Jan 93 8:51:58 EST  
From: bickham@msc2.msc.cornell.edu (Scott Bickham)  
Subject: Munich malt made me a believer

Darryl Richman writes:

>Lets clear up a misconception here. Real Munich malt, whether  
>domestic or imported, has enzymes. It has sufficient enzymes to  
>convert itself, and perhaps just a bit more. If you want to make a  
>real dark Munich lager, then use Munich malt. I've made several bocks  
>with high percentages of Munich (60-80%) and it works just fine.

I recently made a dunkelweizen with 5 pounds of malted wheat,  
3.5 pounds of Munich malt, and some crystal and black malts thrown  
in for body and color. My O.G. was 1.052, for a yield just  
under 30. So the Munich malt not only converted itself, but also the  
5 lbs. of malted wheat. Just a data point.

Scott

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Date: Fri, 22 Jan 93 8:20:34 CST  
From: jmiller@anubis.network.com (Jeff J. Miller)  
Subject: Motorizing the Corona

In Homebrew Digest #1060, Michael\_Merriman@camb.intersolv.com writes about motorizing a corona by...

> I simply removed the handle, inserted a bolt into the  
> threads, cut off the head with a hacksaw, and attach a  
> power-drill to the bolt. I typically crush about 10-15 # at  
> a pop, and with the drill, this takes about 10 min. I'm  
> sure I could get that down to two minutes if I had a 10#  
> hopper, but I haven't gotten around to that yet....maybe  
> that old bottling bucket would be just the right size.

I did this same thing but hooked it up to a large motor complete with gears to reduce the spin to 140rpm. This worked ok but I found my corona to be so sloppy in its production that the thing bounces all over. I also ended up snapping a screw and a milled setup trying to use the setup. I've pretty much given up on trying to do follow this path and am now building a roller mill.

- - -  
Jeff Miller Network Systems Corporation  
Advanced Development 7625 Boone Avenue North  
jmill@network.com Minneapolis MN 55428 (612)424-1724

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Date: Fri, 22 Jan 1993 09:43:44 -0500 (EST)  
From: "Hi, you don't know me, but I play one on T.V." <cygnus@unh.edu>  
Subject: Grape-Nuts (TM) and German Purity Law

Okay, so one day I sittin' down at breakfast eating my Grape-Nuts(tm) cereal, and I noticed the ingredients:

Malted barley, wheat, salt, yeast.

I was wondering what if I were to include yonder cereal in a mash and make a beer? It seems logical since the aforementioned ingredients are in most beers that a beer could be made from it....

Secondly, I was wondering if there are copies of the German Purity Law out there anywhere on the net or if anyone has it... just out of curiosity...

Danke in advance,  
-chris

- - -

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Date: Fri, 22 Jan 93 9:53:15 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:Barleywine yeast & high alpha hops

In the last digest, Neil Mager asks about brewing barleywines with Thomas Hardys yeast. I have done this, using a culture from a bottle of 1991 hardys. The strain was isolated on a plate, so I would assume that I was fermenting with the bottling strain, which could certainly be different from what the initial ferment strain is in the Eldrige Pope Brewery. Anyway, I grew a one liter starter, brewed a 26 degree P BW, and pitched the culture. It took off quite well, producing a large amount of blowoff. After a week or so of primary fermentation, the gravity was down to around 11 P (~1.044) and the ferment appeared to be dead. At this point I racked quietly and pitched a ton of american ale yeast slurry (~150 grams of Old Dominion Ale yeast, off a uni). This yeast happily began chewing up the remaining fermentables and the resulting finish was about 6 P (~1.024). The beer was a great BW, but I would caution anyone who intends to use this method to be prepared for a high FG or be prepared to repitch.

Neil also inquires about adding extract to produce a BW. I feel this is a fine method, depending on your equipment. When I was brewing in my older setup, getting a good volume of high gravity beer was not possible. I would max out my system to yield about 5 gallons of 20-22 P wort, and add 3 lbs of DME. Worked fine. Now that I have a larger mash tun, I just reduce my yield by 30%, increase my grain bill by 50% and make a small beer in my older kettle. Last BW made with this method yielded a BW of 23P and a small beer of 8P. The small beer was astringent from the spraging, but enough Kent Goldings took care of most of that flavor.

Darryl Richman notes his experience with high alpha west coast hops. I agree 100%, beers made exclusively with a low to medium alpha hop tend to much more pleasing on the palate. Beers made with Chinook tend to much harsher, in my experience. I do like the notes that Centennial hops can contribute, but I still try to keep the quantities added to the initial boil low. This hop does lend itself nicely to dryhopping, though.

Anyone out there tried Liberty hops?? I have used the Mt Hood hops with fine results and intend to try Liberty soon.

Jim Busch

-----

Date: 22 Jan 1993 08:07:33 -0700 (MST)  
From: Cisco <FRANCISCO@lan.ccit.arizona.edu>  
Subject: PH Adjustments

Last weekend I was brewing an all grain stout and following Miller's suggestion of a ph of 5 to 5.6 for the mash - no problem with the hard water I have. But I couldn't lower my sparge water to 6.5 from 8.1 using gypsum. After dumping in a teaspoon at a time and taking reading with a digital ph meter, I could only get the ph down to 7.6 after I used up the entire one ounce package of gypsum. The ph seemed to drop down to 7.6 after the addition of 1/2 ounce of gypsum but any further addition didn't seem to lower it any further. Does anyone have any suggestions about what I can use to lower my sparge water ph to 6.5?????

I should mention that I've been an all grain brewer for ten years. The stout that I'm brewing has the addition of one of those small bottles of coffee extract used for making Kahlua(spelling?) that I added at the end of my boil with my final addition of finishing hops. I'll let you all know well it turns out in a couple weeks.

John Francisco

-----

Date: Fri, 22 Jan 93 10:15:43 EST  
From: "John E. Lenz" <JELJ@CORNELLA.cit.cornell.edu>  
Subject: mareseatoatsanddoeseatoatsand...

Greetings all,

In HBD #1061, Tony Babinec suggests using rolled oats rather than steel cut, for the sake of convenience. Good advice, IMHO, until, after discussing the different types of Quaker oats, he got to the statement

"Another easier alternative is flaked oats, sold through homebrew supply shops."

Seems to me that the price will likely be the only difference between flaked oats sold in a homebrew supply shop and rolled oats from a grocery store. The best prices on many types of non-malt grains (whole, rolled, and otherwise) can usually be found at food cooperatives (real coops, not the yuppie natural food stores). For example, my local coop carries organic flaked barley for \$.69/lb, or I can go to the local homebrew shop and pick up a prepackaged pound of flaked barley for \$1.59. Sure, this is only one observation. But the next time you are in the market for adjuncts you might consider a stop at your local food coop. If they don't stock what you are looking for, they can probably order it.

Tony ends with

"Does anyone have a source for malted oats?"

I didn't see any last time I stopped by the coop, but I'm sure I've seen an ad for them lately, though I can't remember where. I thought it was The Malt Shop (1-800-235-0026), but the most out-of-the-ordinary thing they carry (at least according to my somewhat outdated catalog) is malted rye.

Ooogy wawa,  
John

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Date: Fri, 22 Jan 93 9:59:50 CST  
From: tony@spss.com (Tony Babinec)  
Subject: wyeast package swell/lag times

Here's another data point on Wyeasts...

In my experience, if I pop a very fresh Wyeast packet, it will swell in a day, but otherwise it can take several days. The 1 month lapsed equals 1 day "rule" is only a rule of thumb. If the freshness date is months ago, then the yeast in the packet are somewhat stressed, and upon breaking the seal, the yeast will use the sugar to replenish their glycogen reserves and other such things to get them ready for the job awaiting them in the wort.

I find it easiest to start the process several days to one week ahead of anticipated brewing. American Science Center, for example, has 250, 500, and 1000 ml flasks that can be fitted with a stopper and fermentation lock.

If your packet swells, pitch it into a flask and toss in some sterile wort and build up the yeast.

To those who pop the packet and find that it swells before they're ready to brew, you should pitch it into some starter wort and build up the yeast mass. If you don't have flasks, use a 12 oz beer bottle!

If you let the package swell up and pitch directly into your 5+ gallons of wort, you're underpitching. This is especially true for lagers. I don't have the numbers in front of me, but this has been talked about at past AHA conferences, for one. Biochemistry works more slowly at 50 degrees F than at 65 degrees F, and therefore one must pitch with proportionately more lager yeast. The compromise method of setting the wort in a somewhat cool spot until signs of fermentation begin is a way to shorten the length of the lag period. If you pitch lager yeast into your cool wort, even after one pitch into a starter, the lag can last 4 days or more. If you build up the yeast first, you'll have a much shorter lag time.

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Date: Fri, 22 Jan 93 08:18:54 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Micah's Barley Wine Recipe

Micah's Barley Wine recipe can be found in one of the recent Zymurgy issues.  
I beleive it was about 1 year ago. It took a second or third at AHA comp. He named it "Trespassers Will Be Violated".

The best Barley wine I have EVER tasted was when I judged at the recent Calif. State Homebrew Competition. The BW made by Jack Dawson took best of class and had also won best of class previously at the Calif State Fair and won the AHA Barley wine is fine. One of the things that amazes me is the how that many judges could agree! One of the judges at the All State Comp who I judged with was Steve Harrison, a long time friend and sale manager for Sierra Nevada. He made the comment about a couple of the BW's that "I hope these guys don't go into business!" Tom Altenbach's BW was just edged out, and took a second place. The first place BW was just a little more complex than Tom's. MaybeTom could post his recipe for interested parties.  
My question is "could Jack Dawson do it again"? Didn't Jack's recipe get posted here in the HBD last month?

Bob Jones

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Date: Fri, 22 Jan 93 11:21:30 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: What I did on my Christmas vacation

I spent 3 weeks in Chicago over the holidays. In the days since I left it's gotten to be a better home for homebrewers.

The most fun I had with my clothes on was at the CBS first Thursday meeting at Goose Island. This is an informal meeting held by the Chicago Beer Society every month. Chicago area homebrewers who don't attend should have their heads examined. Homebrewers bring their beer and share it around, and non-brewers are welcome too. I met a lot of great people and drank a lot of great beer. I brought some of my own, which held up well despite travelling from NY via Montreal and Ottawa. Everywhere there was good talk, good beer and goodwill to all.

Interestingly, the world's greatest brewer (tm?) didn't attend, although he threatened to do so publicly, right here in the HBD.

Another fun outing was the Chicago Brewing Company. They hold brewery tours every Saturday at 2:00. They proudly claim to be the only brewery bottling beer in Chicago. This is technically true; however, there is an excellent lager called Baderbrau bottled in the 'burbs, and good draft beer is brewed within the city limits, notably at Goose Island.

The CBC brews three fine beers. Their Legacy Lager won a gold at the GABF and their Heartland Weiss took a bronze. My favorite is a good bitter ale with lots of body called Legacy Red Ale. Before I tasted it, I thought "Irish Red Ale" was a scam perpetrated by Coors et al. I've never seen any of these beers on Long Island. >big surprise< I don't know how far afield they're distributed.

Co-owner Steve Dinehart gives good tour and he's quite knowledgeable on the subject of Chicago brewing history. The set-up is a 100 bbl system bought from the Manhattan Brewing Company when they closed shop a few years back (soon to re-open, I understand). The kettles are new: a two-kettle system with 50 bbl capacity. Kettle #1 doubles as mash tun and boiler while #2 is the lauter tun. Nice looking hunks o' copper.

Some interesting notes: the wheat beer is 2/3 malted wheat and 1/3 6-row. All beers are bittered with Chinook. Finishing: Mt. Hood for the lager, Willamette for the Ale (or was that Fuggle?), none for the wheat. The wheat beer has great clove phenols, the ale exhibited a little of the same. It was more pronounced in some of the December beer I had at the brewery than in some older bottles (Sept?) purchased in a store. They were planning to go back to a fresh slant in January.

There are plans in the works for both a porter and a cream ale. I got some bottles from an experimental batch of cream ale and was most impressed. Look for it when it comes out: smooth and quite bitter with a color similar to the red ale.

When I lived in Chicago (89-91) there were no good brewstores. This, too, has changed for the better, but perhaps I'll leave that for another time. Suffice it to say that I shared the drive back to the right coast with grains and hops.

Cheers,

Rob (bradley@adx.adelphi.edu)

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Date: Fri, 22 Jan 1993 11:33:28 CST  
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>  
Subject: Re: solder (holding wort chiller together)

Somehow this is a problem it had not occurred to me to have. My immersion chiller holds together fairly well on its own. It is made of standard 3/8" tubing. And having it as loose coils makes it easier to clean, too, since stray hop petals that get caught in it come right out while cleaning it by simply separating the coils slightly. But anyway, if you really must hold your coil together, this idea might work for you:

Just take bare solid copper electrical wire, size #14 or #12 (cheap, readily available, and pure copper) and weave it amongst the coils, at two places 180 degrees apart. If you are clever and even the slightest bit artistic, you can leave enough wire leftover at the top to fashion handles and put two of those thick fibre tubes that department stores provide for carrying string-wrapped packages home with. Then you can lift the thing out of your wort easily.

For removing the solder, go to Radio Shack, and you can get a thing called a Desoldering Wick, which comes with instructions. Heat the copper tubing with your torch, and the wick should soak up nearly all of the solder once you get it hot enough.

- --- Roger Deschner

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Date: Fri, 22 Jan 93 13:11:53 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: Old Wyeast 1008 with short lag

Thanks to all of you who replied to my posting concerning the Wyeast 1008 which exhibited no noticable lag in getting started despite being 4 months old. A significant piece of data which I had omitted was the fact that I bought the yeast the day it arrived in the brewshop -- it was 3 days old -- and brought it straight home. I kept it at a constant temperature in a bag at the back of my fridge. So it had been well cared for. It was pointed out that Wyeast probably plays it safe, assuming that the older the package is, the more often it has been mishandled.

Yeast that starts faster than expected is a whole lot better than yeast whcih starts slower than expected. Obviously! It gives you the opportunity to make a starter. If you'd been planning on making one anyway (I had) you can work it up in 2 or 3 steps, perhaps beginning as small as a cup, perhaps ending up as large as half a gallon, instead of the wimpy pint- or quart-sized starters most of us seem to use for 5 gallons.

Cheers,

Rob (bradley@adx.adelphi.edu)

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Date: Fri, 22 Jan 93 13:18:56 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: Which dregs to culture?

I'm thinking of using recultured Chico yeast for my next brew.

Plan 1: Buy some SN Pale Ale. Open 3 bottles and pour the dregs into a starter, treating them as I would a Wyeast culture.

Plan 2: Same, but with three bottles of my own pale ale, brewed from a fresh pack of Wyeast 1056.

I suppose SN's cleanliness/quality control is superior to RB's, but at least I know that my beer has been well cared for since bottling. My beer is almost 4 months old, but here on Long Island I can't be sure that SNPA will be any fresher.

Any suggestions? Musings?

Cheers,

Rob  
(bradley@adx.adelphi)

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Date: 22 Jan 93 13:34:21 EST  
From: Jeff Frane <70670.2067@compuserve.com>  
Subject: Barleywine Yeast Method

On the subject of proper yeasts for barleywines, I'd like to offer my own suggestion, having brewed a couple successfully. I make a BIG yeast starter, i.e., a whole batch of ale and get that up and running, then use the yeast from that to ferment the barleywine. The first time I did this was because the champagne yeast \_pooped out\_ after two days! Fortunately, I brewed some ale shortly after and pitched fermenting beer into the barleywine. It took off and fermented out completely.

More recently, I deliberately made of a batch of pale ale, intending to follow the same procedure. As it turned out, however, I delayed brewing for a week, racked the ale off the yeast pack (WYeast 1056), and ran the cooled barleywine wort on top of the pack. Kablooie! Those yeasts were hungry and fell on the barleywine like reporters on a free lunch.

The notion of using champagne yeast is pretty bizarre, when you thithink of it. Can you imagine any self-respecting British brewery using some Frog yeast? Part of the problem may have arisen from the homebrewer's notion that everything should be quick and easy. The British barleywines I've tasted have all required \_years\_ to reach a drinkable stage--but they \_will\_ get there.

- --Jeff Frane

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Date: Fri, 22 Jan 93 13:07:53 EST  
From: eisen@kopf.HQ.Ileaf.COM (Carl West)  
Subject: chiller construction (was solder)

I don't know how you're going to get rid of the solder you've got on there now, but, when you do:

Strip enough 16 or 14ga solid copper wire to do the job.  
Cut the wire into three or four pieces.  
Bend the pieces in half.  
'Weave' the wire into your coils.

```

$
0 (0)
 X
0 (0)
 X0 = copper tubing
0 (0)
 X ()X// = copper wire
0 /0)
 / / X
/0/ (0)
 X X
(0) (0)
```

a b

- a - wrap the wire around the bottom coil, cross over, cross again over the next coil, etcetera ad finem.
- b - when done twist the ends together well and turn the ends under so they won't snag on your sleeve.

Carl  
WISL,BM

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Date: Fri, 22 Jan 93 13:20 CST  
From: korz@iepubj.att.com  
Subject: Barleywine problems

Neil writes:

What about a yeast culture from Thomas Hardy? Will that work or has the high alcohol content mutated the yeast.

I'm not a ubiologist, but I know that Chico Brewing crops (harvests) yeast from all their beers except the Bigfoot Barleywine, the Celebration Ale and (I think) the Pale Bock (which is a lager yeast anyway). I believe the reason for not reusing yeast from the strong-alcohol beers was, just as Neil suggested, mutations.

On a similiar note, Miller mentions that it is difficult making an all-grain Barleywine and his recipes call for adding extract. He never fully explains what the problem is. Is the problem the quantity of grain needed to get the og high enough without adding extract? Or is there some other problem?

The problems are that if you only use first runnings, you have to use bushels of grain to get enough (1080+) runnings for a 5-gallon batch, or, if you do sparge, then you have to boil 20 gallons down to 5 somehow!

Al.

-----



Date: Fri, 22 Jan 93 13:07 CST  
From: korz@iepubj.att.com  
Subject: Protein levels

George writes:

>5. Many highly respected maltsters in the US claim it is impossible to  
make  
>color and roasted malts from two row barley. The low protein levels of  
the  
>D-C malts indicate that they indeed come from 2-row barley, and very  
high  
>quality to boot. Sonja, noted as Europe's best 6-row barley, never has  
>protein levels below 13%. Hector, a mid-western feed barley (which I  
sometimes  
>fear finds other applications as well!), never falls below 14%.

Just what we need for making an authentic Moobock.

Another data point:

I was at a microbrewing seminar back in 1989, at which Briess Malting Co.  
did a talk. Included was a brochure which listed the analysis of all  
their  
malts. Strangely enough, both the Briess 2-row and their 6-row had  
reported  
protein levels of 14%!

Al.

-----

Date: Fri, 22 Jan 93 13:10:51 MST  
From: Brian.Smithey@Central.Sun.COM (Brian Smithey)  
Subject: Contribution of boiling hops

> "C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com>  
writes:

> When adding boiling hops, does the selection of the type of  
> hop (Kent Goldings, Northern Brewer, Cascade, etc.) make any  
> difference on the final taste profile? I am wondering if I only  
> need to be concerned about getting the number of IBUs correct, or if it  
> is significant to get the correct number of IBUs from a particular hop  
when  
> attempting to duplicate recipes/styles. I understand that hops  
> added for flavor and aroma do give the beer distinct characteristics,  
> but I am curious if anyone believes that the boiling hops do?

> Darryl Richman <darrylri@microsoft.com> responds:

> [ ... ]  
> Anyway, it is my personal opinion that more than just bitterness is  
> extracted from hops, even during a long boil. I feel that the low  
> alpha hops tend to provide a cleaner, crisper flavor with a more  
> pleasant, less cloying aftertaste in the finished beer than many of the  
> high alpha varieties.

I seem to remember reading somewhere lately that the ratio of  
alpha- to beta-acids also plays a part in the hop bitter profile  
of the finished beer, not just the total iso-alpha acid "count",  
and that high alpha hops usually don't have correspondingly high  
beta acid levels. I wish I could remember where I read/heard this,  
perhaps this will jog the memory of somebody who can provide more  
detail (maybe it was Warner's "German Wheat" book, I was reading  
that recently). Maybe the crisp/clean vs. cloying flavors that  
Darryl describes are a result of low vs. high alpha to beta ratios?

Brian

- - -

Brian Smithey / Sun Microsystems / Colorado Springs, CO  
smithey@rmtc.Central.Sun.COM

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Date: Fri, 22 Jan 93 14:12:38 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: barleywine

> On a similiar note, Miller mentions that it is difficult making  
> an all-grain Barleywine and his recipes call for adding extract.  
> He never fully explains what the problem is. Is the problem the  
> quantity of grain needed to get the og high enough without  
> adding extract? Or is there some other problem?

My problem usually is that I can't sparge enough grain for a 5 gal batch in a Zapap lauter. Let me go out on a tangent here. Has anyone noticed a correlation between the length of the mash and the speed of the runoff? 3 weeks ago I did a sour-mash stout (15 hour mash), and the runoff was quite slow. A week later I made a partial-mash barleywine (10 lbs of grain) with a 45 minute mash (usual is 2 hours for me), and it had the fastest runoff ever. Perhaps the husks decompose some in a long mash, making for a bad filter bed.

Back to barleywines...

Miller claims that it requires an extended boil go concentrate all the wort, but I do not find this to be the case. A 2 hr boil (standard for me) easily condenses 10 gallons down to 5 with my setup. I usually wind up adding boiling water to the wort to keep it from concentrating too much.

Since I switched to hops plugs (the freshest), I find that the 5 oz + necessary in a barleywine absorbs over a gallon of the precious wort. In the last batch I squeezed 2 gallons out of the hops left in the boiler, stuck the wort in the fridge overnight and let it separate from the trub, then siphoned off the good stuff, re-boiled it, and added it to the fermenter.

I would recommend adding some sugar to a barleywine, though, even if you want a super-rich taste like Hardy's. Barleywine can be notorious for stuck fermentations, but batches where I have added brown sugar (turbinado sugar is yummiier) seem to just keep glugging away.

I always use dry Whitbread Ale yeast with barleywines. I wrap the fermenter in a towel and let the vigorous fermentation take the temperatures into the 80-90F range for 1 day, and then try to get it back down to 60-70F. I find this makes for just the right amount of esters with said yeast.

None of this is carved in stone, of course. Barleywines are kosher for experimentation - they always turn out great!

- Brian "I never drank a barleywine I didn't like" Bliss

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Date: Fri, 22 Jan 93 14:44 CST  
From: korz@iepubj.att.com  
Subject: Hop Specifications

Darryl writes:

>"C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com> writes:  
>> When adding boiling hops, does the selection of the type of  
>> hop (Kent Goldings, Northern Brewer, Cascade, etc.) make any  
>> difference on the final taste profile? I am wondering if I only  
>> need to be concerned about getting the number of IBUs correct, or if  
it  
>> is significant to get the correct number of IBUs from a particular hop  
when  
>> attempting to duplicate recipes/styles. I understand that hops  
>> added for flavor and aroma do give the beer distinct characteristics,  
>> but I am curious if anyone believes that the boiling hops do?  
>  
>This is a topic that doesn't get much attention. I believe that the  
>reason is that once we engineering types (well, most of us do seem to  
>fit that description, don't we?) have a way to hang a number on  
>something, we feel it must be solved and move on to the next problem.  
>If only there were a way to describe hop aroma with a number...

Born and bred a techno-weenie myself (BSEE/MSEE), I have the same kind  
of tendency, although I'm missing some of the information needed to  
interpret the attached hop data. Perhaps someone can post the meaning  
of all these hop fractions? Perhaps someone can massage the data  
enough to assign an AROMA FACTOR to each variety? Alas, I've drifted  
from my heritage, let my membership to the ACM and IEEE lapse, taken  
to believe that brewing is more of an art and less science than we would  
like it to be and traded my slide-rule for a penlight. The bottom line,  
I feel is still that the human senses are our most useful tools as  
brewers  
and a beer that tastes good on paper doesn't necessarily have to taste  
good in your glass. That said:

>From HOP VARIETY SPECIFICATIONS, printed by HOPUNION, U.S.A., INC.

variety Alpha Beta Co-Hum- Total Myrcene Humu- Caryo- Farne-  
Acids Acids ulone oil (% of lene phy- sene  
(%w/w) (%w/w) (% of (%v/w) whole (% of liene (% of  
AA) oil) whole (% of whole  
oil) whole oil)  
oil)

=====  
=====

CASCADE 4.5- 4.5- 33- 0.8- 45- 10- 3- 4-  
7.0 7.0 40 1.5 60 16 6 8

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CENTENNIAL 9.5- 3.5- 29- 1.5- 45- 10- 5- <1  
11.5 4.5 30 2.3 55 18 8

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CHINOOK 12.0- 3.0- 29- 1.5- 35- 20- 9- <1  
14.0 4.0 34 2.5 40 25 11

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CLUSTER 5.5- 4.5- 36- 0.4- 45- 15- 6- <1

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8.5 5.5 42 0.8 55 18 7
-----
FUGGLE 4.0- 1.5- 25- 0.7- 40- 20- 6- 4-
5.5 2.0 32 1.2 50 26 10 5
-----
GALENA 12.0- 7.0- 38- 0.9- 55- 10- 3- <1
14.0 9.0 42 1.2 60 15 5
-----
HALLERTAUER 3.5- 3.5- 18- 0.6- 35- 30- 10- <1
5.5 5.5 24 1.0 44 38 12
-----
LIBERTY 3.0- 3.0- 24- 0.6- 35- 35- 9- <1
8.0 4.0 30 1.2 40 40 12
-----
MOUNT HOOD 5.0- 5.0- 22- 1.0- 55- 12- 7- <1
6.0 7.5 23 1.3 65 25 10
-----
NUGGET 12.0- 4.0- 24- 1.7- 51- 12- 7- <1
14.0 6.0 30 2.3 59 22 10
-----
PERLE 7.0- 4.0- 27- 0.7- 45- 28- 10- <1
9.5 5.0 32 0.9 55 33 12
-----
TETTANNER 4.0- 3.0- 20- 0.4- 36- 18- 6- 5-
5.0 4.0 25 0.8 45 23 7 8
-----
WILLAMETTE 4.5- 3.0- 30- 1.0- 45- 20- 7- 5-
7.0 4.0 35 1.5 55 30 8 6
-----

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One other piece of very interesting data (there is more, but it's geared more towards growers and salespeople) that would not fit above, is storagabilty:

variety storagabilty  
(% of AA remaining  
after 6 months storage  
at 20 degrees C)

```

CASCADE 48-52
CENTENNIAL 60-65
CHINOOK 65-70
CLUSTER 80-85
FUGGLE 60-65
GALENA 75-80
HALLERTAUER 52-58
LIBERTY 35-55
MOUNT HOOD 50-60
NUGGET 70-80
PERLE 80-85
TETTANNER 55-60

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WILLAMETTE 60-65

Note that Liberty, the latest commercially available Hallertauer  
"replacement"  
seems to have hit much closer (numerically) to Hallertauer than the other  
most  
recent attempt, Mount Hood. Alas, it's storagability has suffered.

Ahhh, friday at last...  
Al.

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Date: Fri, 22 Jan 93 15:02 CST  
From: korz@iepubj.att.com  
Subject: GUINNESS in Caribbean

I checked the labels and caps yesterday night:

GUINNESS FOREIGN EXTRA STOUT

A1.

-----

Date: Fri, 22 Jan 93 12:26:08 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: All-grain barleywine

neilm@juliet.ll.mit.edu ( Neil Mager ) says:

On a similiar note, Miller mentions that it is difficult making an all-grain Barleywine and his recipes call for adding extract. He never fully explains what the problem is. Is the problem the quantity of grain needed to get the og high enough without adding extract? Or is there some other problem?

So far as I can tell, he's either 1) in too much of a hurry, or 2) reluctant to make beer in a way that doesn't give 33+ pts/lb of extract.

If you sparge to near completion, you will have a 3-6 hour boil if you want to get your wort to 1.100 or higher. The long boil means that your wort will have an orange-ruby color, which may or may not be what you want. It IS a lovely color, though!

If you begin with a fairly stiff mash and use grain to the tune of 4-10 lbs per gallon of wort desired (!), then sparge very slowly, you can collect wort at 1.085+, which will need only an hour or so of boiling--essential for making that most difficult and tedious of (non-lambic) beers, the very pale barleywine.

While it may seem ghastly to some (including me) to get only 15 or less points of extract per pound of grain, a few 8-10 hour barley wine brewing sessions involving very long boils can bring about a softening in this attitude. Anyway, when you think about it, if making 5 gallons of barleywine requires a \$35-\$50 bag of grain and you have the facilities to do it all at once ... what's the big deal? Costwise it's still competitive with extract.

Second runnings can make very good beer. I do not recommend boiling them for over a hour, though, since the result (in my experience) seems to be a bit astringent, even when my sparging water is acidified and reasonable in temperature. Don't worry--make a "light" beer. The slightly unbalanced grainy character is a positive contribution to flavor in that case, especially if you dry-hop out the wazoo.

A good reference for making very strong beers is the wonderfully succinct and matter-of-fact "An Introduction to Old British Beers and How to Make Them," by Dr. John Harrison and the Durden Park Beer Club. You can order this from Great Fermentations of Santa Rosa. For example:

(per Imperial gallon):

28 Usher's 68/~ Mild Ale (1885)  
OG 80

A high gravity mild ale virtually unique to Scotland.

2 lb Pale Malt    1 1/3 lb Carapils  
0.9 oz Goldings Hops

Mature for 4 months.

=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebloe!joseph    (609) 273-8200 day    joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East    Rt 38 & 41    Maple Shade NJ 08052



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redistribute freely over USENET and by email. Commercial use prohibited.

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Date: 22 Jan 1993 17:02:23 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: Year end report

END OF YEAR REPORT

Beverage Industry has just released beer volume sales for the US for 1992.

The top 10 selling beers in the US were:  
(name, millions of BARRELS, % market share, % change)

|                      |      |      |       |
|----------------------|------|------|-------|
| Budweiser            | 45.9 | 24.1 | -3.2  |
| Miller Light         | 18.0 | 9.5  | -7.7  |
| Bud Light            | 13.5 | 7.1  | 11.6  |
| Coors Light          | 12.8 | 6.7  | 4.1   |
| Busch                | 10.2 | 5.4  | 4.1   |
| Miller Genuine Draft | 8.9  | 4.7  | 18.7  |
| Milwaukee's Best     | 8.3  | 4.4  | -1.2  |
| Old Milwaukee        | 5.8  | 3.0  | -4.9  |
| Miller High Life     | 5.0  | 2.6  | -13.8 |
| Natural Light        | 4.8  | 2.0  | 9.1   |

Overall, sales of beer in the US grew just 0.3% in 1992, this following a 2% decline in 1991. The increase in sales is mostly attributed to a very slight increase in domestic sales and a 4% increase in imports.

The #1 beer, Budweiser, saw its sales slip 0.5 million barrels to "only" 24.1 million barrels, its lowest production since 1985. Overall, however, Anheuser-Busch continued its march towards 50% of the market because sales of several of its other brands were up significantly. A-B's overall production increased from 86.1 to 87 million barrels and its overall market share went from 45.5% to 45.7%.

The other major players all saw their sales decrease in 1992. Miller went from 42.8 to 41.9, Coors from 19.5 to 19.3, Stroh from 14.7 to 13.5, and Heileman from 10.3 to 9.5 million barrels. Pabst's sales increased from 6.7 to 7.1 million barrels, largely on increased sales of Olde English 800 (yum!).

Underscoring the importance of growing small regional brands like Rolling Rock and Sam Adams, brewers in the "other" category doubled their overall sales to 5 million barrels and a 4.5 % market share.

Imports sales were up sharply. Heineken continued by far the biggest seller, and Corona's sales were up for the first time since 1987.

The top 10 imports in 1992 were:  
(name, estimated millions of GALLONS, % of import market)

|               |      |      |
|---------------|------|------|
| Heineken      | 60.5 | 23.8 |
| Corona Extra  | 29.5 | 11.6 |
| Becks         | 23.2 | 9.1  |
| Molson Golden | 19.0 | 7.5  |
| Labatt's Blue | 13.4 | 5.3  |
| Amstel Light  | 11.0 | 4.3  |
| Tecate        | 8.6  | 3.4  |
| Foster        | 7.9  | 3.1  |
| Moosehead     | 7.0  | 2.8  |
| Bass          | 5.5  | 2.2  |
| Guinness      | 5.5  | 2.2  |

Cheers,  
Steve

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Date: Fri, 22 Jan 1993 16:20:29 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: diminishing desperation

I received a lot of suggestions about my wierd tasting beer and many thanks to all who responded. Although the problem hasn't been completely isolated I'm happy to announce that my latest batch is excellent. Since I used exactly the same procedures and equipment this tends to rule these out as a problem. What I did change is the malt, yeast and hops. The remaining common items between the two batches with this flavor are:

Nottingham Ale yeast  
Munton & Fison malt (although one used light and the other amber)

I'm wondering if anyone else has had strange flavors from using either of the above.

Peter

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Date: Sat, 23 Jan 93 13:22:56 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: brewspaper

Producing a newspaper is an enourmous task, with the overriding concern being: get it out on time. Producing the first edition is even harder, with the overriding concern beging: just get it done. As they said in their "letters" section: This is the first edition - "we don't have any letters - we're adlibbing." You guys should wait till you see the next couple of editions before you convict them of editorial negligence.

As for Zymurgy giving them a list of subscribers (if this is indeed what happened), I think you have a legitimate bitch here, but in the chance that receive something useful from their distributing my address I am grateful. As long as I don't start recieving a bunch of "BREWCARD" credit card\* (which may be used at any of my favotive mail-order shops) offers with a 21% interest rate, I will be happy.

Give 'em a break!

bb

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Date: Sat, 23 Jan 93 12:30 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Brewspaper, Super Corona

>From: pyle@intellistor.com (Norm Pyle)

>Ulick and Jack commented on the Brews Paper. I think this thing is a piece of junk. I'm not sure why I received their first issue, but I guess it has something to do with my subscription to Zymurgy. Anyway, there are soooooo many typos in the thing....

How bout the way they consistantly spelled "lauder tun"?

>Roller mill rollers: anyone have any good sources? I have a wonderful little homemade roller mill, but the rollers are a weak point.

Please be so kind to share what you find with the rest of us. I gave up looking long ago and use custom made rollers.

>From: Ulick Stafford <ulick@bernini.helios.nd.edu>

>js praises The Brews Paper.

I believe I only referred to the humor.

> I personally think it is not that great (well OK for nothing - but personally I think the \$15 annual subscription could be better spent on Imported hops or something).

It was sent out to everyone on the Zymurgy mailing list at no cost to anyone.

I think we can all gain from having another national publication promoting our hobby/business. Remember all the griping about Zymurgy rejecting articles? Well, here is another place to send them.

In addition to airing our criticism here, we should also take the time to write the editor and let him know what we want in an alternative journal.

Personally, I have no problem with humor but I do not think it should be the dominant feature and I have expressed my views to the editor.

>It should be noted that js is not an unbiased observer as the publication carries advertisements for his products.

I think my views are pretty straightforward. If nobody likes it, nobody sees my ads no matter what I say about it.

> Incidentally, does anyone know who is responsible for the ads in Zymurgy selling Coronas with the statement that it is better than the js rollermill (someone in St. Louis)?

Sure. He is the one and only person to return a MALTMILL for a refund.

However, as he is a regular contributor to this forum and r.c.b, I will give him the opportunity to identify himself and enter into the discussion so he can make his case publicly.

>From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
>Subject: nitrosamines

>Jack, I've asked this before, and since you brought it up, I'll ask again: What is the level of nitrosamines in fire-kilned malts,

I have answered this before. It is required to be less than 5 PPM.

>especially as compared to what one might get in a grilled entry at the local pub? It doesn't make sense to me to avoid ordering a stout when your hamburger on a toasted roll has orders of magnitude more n. amines in it anyway.

As I do not eat hamburgers on toasted rolls, you will have to do your own homework. You are also confusing the toxins in toast with those in malted barley and they ain't necessarily the same. The nitrosamines in malt are a result of precursors formed during the germination of the grain combined with the combustion by-products of the flame. It happens long before they come even close to being toasted.

js

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Date: Sat, 23 Jan 1993 23:57:53 -0600 (CST)  
From: brewmstr@ddswl.mcs.com (Jim Bayer)  
Subject: All-grain Red Ale recipes?

Hello All..

I'm a "beginner" at all grain and am trying to get past the Pale Ale into something a little more interesting, so I'm looking for a good Red Ale recipe A La Killian's.

Any help will be appreciated.

Jim

\*\*\*\*\*  
\* I gotta' get me a snappy ending!  
\*\*\*\*\*

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End of HOMEBREW Digest #1062, 01/25/93  
\*\*\*\*\*

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Date: Thu, 23 Jan 92 20:19:00 -0500  
From: roy.rudebusch@travel.com (Roy Rudebusch)  
Subject: diacetyl

From: roy.rudebusch@travel.com

Dear Fellow Brewers;

I would like to share with you the benefits of single infusion mashing in a picnic cooler mash/lauter tun. Mostly the time savings and not having to handle the mash. You too can "brew beer like the micros"! Typical yield is 28<sup>^</sup>/#. Good enough.

9:00 AM begin to run water for a 12.5 gal batch, 6 gal for mash and 14 for sparge.

9:05 started to crush 22# of grain, with a motorized Corona Mill. OBTW, blind side-by-side comparisons between grists crushed with a corona mill and a "you know who" rollermill have shown the corona crushed grist to be superior. The Corona Mill produced less flour and smaller starch granules and the husk was left more intact. Analysis was done by several professional brewers and scores of accomplished homebrewers.

9:10 Began to heat mash water to 180F

9:40 Added the 6 gal of 180F mash water to picnic cooler mash/lauter tun. Plastic tubing manifold system. Igloo 36 Qt.

9:45 Doughed in grist when temp of strike water is ~175F.

10:00 Mash temp is 156F. Just right!

11:00 Mash temp now 150F. Began to runoff.

1/2 bbl brewpot is on the burner closest to the tun. 1/2 bbl brewpot (hot liqour tank) with the sparge water is on middle burner. Cloudy wort is diverted to a 5 gal pot on the far burner.

11:20 Recirculated about 4 gal of cloudy wort. Wort running clear.

11:21 Started to collect clear runoff in brewpot.

12:00 Sparged to the 8 gal mark in brewpot, wort now beginning to boil. Added first hop addition.

12:51 Stopped collecting.  
Collected over ~15 gal of wort ~2 of which has boiled off.

1:05 Added finishing hops, immersion wort chiller.

1:15 Started to chill.

2:45 Finished chilling, ran chilled bitter wort into fermenters through a spigot in the bottom of the brewpot, whole hops seem to filter back the hot and cold break. The hopback is a 1" copper tee with a 12 x 8" piece of copper screen rolled up and inserted through it and then wadded scrap copper screen placed into both ends.

Prosit!

Roy Rudebusch

\* OLX 2.2 \* Corona Mill

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Date: Sun, 24 Jan 93 13:41:58 EST  
From: Jim Grady <jimg@hpwarga.wal.hp.com>  
Subject: HBU -> IBU question

I realize that this has been discussed before but could someone please e-mail or post the calculation for IBUs as a function of alpha acids, s.g., boiling time and anything else I might need to know? I am trying to compare two recipes for a Pilsener. The first is in the Traditional Beer styles issue of Zymurgy and the second is in Dave Miller's "Brewing the World's Great Beers."

The first recipe calls for:  
5.75 HBU Chinook @ 60 min.  
+ 3.5 HBU Saaz @ 15 min  
+ finishing hops and dry hopping

The second recipe calls for  
10 HBU (pellets) or 12 HBU (whole) Hallertau or Tettnanger @ 30 min.  
+ finishing hops

Both recipes are extract based. My question is, are these hopping rates roughly equivalent given the different boiling times?

Thanks!

- - -

Jim Grady | "Talent imitates, genius steals."  
Internet: jimg@wal.hp.com |  
Phone: (617) 290-3409 | T. S. Eliot

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Date: Sun, 24 Jan 93 16:32:17 CST  
From: Eugene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Homebrew Shareware suggestions anyone?

Salutations!

I'm a comp sci major and am learning the fine art of C programming. Not that you really care about my education, but I am embarking on a new adventure. I'm going to be programming and then releasing in the form of Shareware a homebrew program. I would like suggestions from anyone who has any suggestions on it's content.

So far, I'm thinking of including a database of previous brews, a DB of beer styles, DB of hops (which will be user alterable for specific tastes)

and a brewing calculator/recipehelper. This recipe thing will be able to import data from the other databases so you could work off of the classic style of say a Bock and then 'tweek' it a tad if you wish. Once declaring what kind of style you wish to emulate, the program would import

the recipe for you to alter. You could also import previous brews. I'm thinking it would calculate out the specific grav, HBUs as well as IBU's and other things. What I need from the brewing community is suggestions as

I am but one brewer and together we are many, with many needs and wishes when it comes to brewing aids. So, if you would please reply to me at :

ezimmerm@hp.uwsuper.edu

it would be greatly appreciated.

I plan on finishing the first version by spring (living in Duluth, this means late May ).

Gene in Duluth

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Date: Sun, 24 Jan 93 21:35:16 CST  
From: hopduvel!john@linac.fnal.gov (John Isenhour)  
Subject: Beer Survey - anybody seen it?

This saturday I got a beer survey - the envelope was designed like a foaming mug (the color of american pilsner) boldly stating "We'd like to tap into your thoughts on beer". Inside was a form stating 'pour out your thoughts on beer' with a bunch-o-beer mugs you were supposed use to indicate that your favorite beer was bud, bud light, miller, coors, samual adams (the contract brewer with all the lawyers), etc. I wonder if anyone else has seen this as I too got a copy of 'The Brewspaper' (not impressed if I have to pay) and I'm wondering where all this came from. BTW I circled the 'other' beer catagory and indicated Sierra Nevada Pale Ale for what this scientific study called 'most often brand'.

- - -

John Isenhour  
renaissance scientist and  
AHA/HWBTA (soon to be recognized as certified) National Beer Judge

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Date: Mon, 25 Jan 93 12:51:50 GMT  
From: des@pandora.swindon.ingr.com (Desmond Mottram)  
Subject: All grain barley wines - second runnings

Joseph Hall (amongst others) makes some good points about making barley wines. First the waste of grain if you only use the first runnings, secondly that you can make very good beer with the second runnings:

> While it may seem ghastly to some (including me) to get only 15 or  
> less points of extract per pound of grain  
...  
> Second runnings can make very good beer.  
...  
> uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.  
net

I agree totally and have successfully done it. I mashed 10# (possibly more?) pale malt in 3+ gallons of water and ran off 2 gallons without sparging at 1085 to make the barley wine. I then sparged the rest with about 4 gallons of water. This gave 5 gallons of 1040 wort and made a very good beer.

The only problems I encountered were (a) the difficulty of getting the hop rate right for only two gallons of 1085 wort, and (b) racking the wort off the trub after boiling, as it threw a huge quantity. More exact details can be supplied on request.

The barley wine was utterly revolting and undrinkable for at least six months, but carries a punch like a heavyweight boxer. I've had it now for a year and it has improved only slowly. I suspect it won't be at its best for years. Maybe I wasn't so successful after all?

Rgds, Desmond Mottram  
des@pandora.swindon.ingr.com

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Date: Mon, 25 Jan 93 09:02:18 EST  
From: mlobo@sentry.foxboro.com (Michael T. Lobo)  
Subject: keg foam fix/weast 3056

A few months ago I brewed my first batch of weizen beer using Wyeast 3056..here are my results...  
The Wyeast was 3 months old, but swelled almost to the bursting pt. w/in 24 hrs.  
I used a starter and pitched the next day. After the usual primary wait, I kegged this and let it sit in 60 deg. for 1 month. I tapped the keg Saturday, and after tasting it was VERY happy - nice flavor ( just like a "real Weizen.. who would have guessed ;^)

Up until now, I have had some foaming problems with my kegs. I force carbonate and the problem was that it took about 1/3 of the keg for the foam to subside enough so I could get a properly carbonated beer( that 1/3 keg usually ended up in the keg cooler..major bummer!). I always allow the excess pressure to bleed off via the CO2 connector on the keg before trying to draw the first few beers, because of the high pressure. Well, the first glass of Weizen looked like airport runway foam, and I was not about to go through the 1/3 keg ritual with this one. I could see the beer leaving the keg ok, but about 5" into the hose, the foam was starting and by the cobra tap - foam-a-rama. The hose was ~ 24" long. I cut my hose with the cobra tap so it was only 2 inches long, and viola! no more foam! Needless to say, this really made my weekend...so much, that we tapped a second keg ( an IPA ) on Sunday to see if it was a fluke, and it also poured great from the start...

IMHO, the keg should be allowed to settle for at least 24 hrs before tapping. This has helped my keg pressures considerably. Also, the colder the keg when you force carbonate, the easier it is to do (for the weizen I needed alot!).

enjoy,

Michael T. Lobo 508 549 2487  
Foxboro Co.  
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,  
my beer speaks for me" -Monty

-----

Date: Mon, 25 Jan 93 10:04:55 CDT  
From: smanastasi@mmm.com  
Subject: Solder and beer - whats the deal?

I've been following the thread on solder and beer. I recently made a lauter/mash tun using the slotted copper coil design (and had fun doing it). I used lead-free solder for all my joints.

Is there a valid concern with exposing lead-free solder to a liquid (wort) with PH down to 5.1 or so? Since there is some solder on the exposed surfaces of joints, my wort will come in contact with the solder (as well as smaller amounts of solder on the interior of each joint).

I realize that there is tin in the solder but I did not think that that a mild acid such as wort would cause any problem, especially since the exposure time is only a couple hours or so - albeit at elevated temperatures.

Maybe in another article, I will post my advice on making the slotted copper coil. I learned a few things.

- - -

Steve Anastasi  
St. Paul, MN  
smanastasi@mmm.com  
(612) 733-6970

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Date: Sat, 23 Jan 1993 20:59:31 -0600 (CST)

From: MEHTA01@SWMED.EDU

Subject: Brwon ALe style question

i am going to try and make an English style brown ale and would like to hear some of you experienced (AHA certified) judges, what you think the characteristics of the style are

i am thinking of using:

4 lb Light Liq Extract (Alexander's)  
2 lb English 2 row malt  
1/4 lb chocolate malt  
1/4 lb black patent malt  
1 - 3/2 lb light brown sugar  
1 oz. Golding boiling  
1/2 oz Cascade boiling hops and finishing

Ferment with ale yeast.

i would like to hear from others who have tried to make a similar beer on their ingredients and results. i have been making all kinds of arbit (rary) beers like Pumpkin ale (from a recipe on HBD) and getting very good results, but i would really like to try and see if i can get close to a good style of established beer. (and i personally like brwon ales...) SO please send me all kinds of warnings or suggestions:- i would like to hear about other's experiences in making this style of beer..

Ciao  
Shreefal

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Date: Mon, 25 Jan 1993 11:20:47 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: hops, nitrosamines

For all my recent batches, I've pulled apart the finishing hops to expose more of the good stuff at the core. Yesterday I used a coffee grinder, and the results were spectacular! Loosely load whole hops into the grinder, give it a few spins, and out comes chopped hops, with an incredible aroma. A bonus is a sort of hops-hash (for lack of a better term) that collects on the edge of the grinder. Scrape that into a vial with vodka...hops oil! Another bonus for those using immersion chillers is that the chopped hops don't cling to the copper as much as whole hops do; cleaning is easier.

Ok, so malt must be < 5ppm nitrosamines. Any nutritionists out there, or cancer specialists, with the number on grilled meat? If not, I'll find the time to look it up myself; my gut (ha!) feeling is that the quantity in malt is minute compared to that in grilled beef.

And, for the record, it *is* possible to get a stuck sparge with a 10-gallon cooler/strainer lauter tun...too fine a crush, too long a settling stage (2+ hours vs. the usual 30 minutes). It was nice to have a Zapap tun to fall back to.

Russ

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Date: 25 Jan 1993 08:55:08 PST  
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>  
Subject: Barleywine

\*\*\* Resending note of 12/30/92 09:24

I've recently read comments by Bob Jones (thank again...) for this barleywine recipe named "blind squirrel barleywine" which took a first place at the California State comps at Stern grove, SF this fall, and just recently won the AHA's Barleywine is Fine (I think) comp. I call it blind squirrel because, it's the first brew I've ever done which has won anything.... which proves only that even a blind squirrel sometimes finds the acorn :)

Cheers.Jackjdsaws1@pb1.pacbell.com

OK - as far as I can recall from the extensive records I've kept:)

Batch size: 5 gal.

Extract:6 lbs. Williams light Australian syrup

5 lbs. Williams light Australian dry

Grain: 1 lb. 10-L crystal steeped

1 lb. 40-L crystal steeped

Hops: 3 oz Chinook pellets aa%13 (60 min)

1/2 oz CFJ-90 pellets aa%9 (5 min)

1/2 oz CFJ-90 " " (dry-hopped in 2ndary)

Water 1 tsp gypsum at start of boil

1 tsp irish moss (30 min)

Yeast: 14 g. Whitbread dry

Primary fermentation - glass for 5 days at 65'

2ndary fermentation - glass for 16 days at 65'

Bottled: June 15, 1991

Note: Wort was boiled in 4 gal. pot (3 1/2 volume) with 2 gal. water added

to primary fermenter.

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Date: Mon, 25 Jan 93 12:13:23 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: wheat malt, sparge water acidification

Hi All,

In HBD #1062, Scott Bickham writes:

>So the Munich malt not only converted itself, but also the  
>5 lbs. of malted wheat.

I read somewhere that wheat malt itself contains sufficient enzymes for conversion. Does anyone know if it does or not??

\*\*\*\*\*

Also in HBD #1062, John Francisco writes:

> Last weekend I was brewing an all grain stout and following Miller's  
>suggestion of a ph of 5 to 5.6 for the mash - no problem with the  
>hard water I have. But I couldn't lower my sparge water to 6.5 from  
>8.1 using gypsum. After dumping in a teaspoon at a time and taking  
>reading with a digital ph meter, I could only get the ph down to  
>7.6 after I used up the entire one ounce package of gypsum. The ph  
>seemed to drop down to 7.6 after the addition of 1/2 ounce of gypsum  
>but any further addition didn't seem to lower it any further.  
>Does anyone have any suggestions about what I can use to lower my  
>sparge water ph to 6.5?????

Acidification of sparge water was discussed at some length in this forum about a month ago. The consensus (huh? on HBD?? :-)) was that not every brewer needs to acidify the sparge water, and that even those who do so should be careful not to overacidify.

I have very hard water as well, and had the same difficulty lowering the pH of the sparge water adequately. The symptom was a very distinct taste

of tannin in the runoff when the gravity was still over 1.020. A pale lager

I brewed was noticeably astringent. I started using acidblend, which I understand to be a mixture of citric, malic, and tartaric acid, to acidify

4 gallons of sparge water from ~7 to ~5.5. This required only 1/4 teaspoon

of acidblend, as a little goes a long way. Several others pointed out the danger of making the wort *\*too\** acidic, i.e., lack of a good hot break.

So the moral is, *\*if\** you have this problem with your brewing water, use a "food grade" acid like citric or tartaric, and be very careful. You want to deliver wort of about 5.5 - 5.7 pH to the boiler.

Cheers,

Jim

-----

Date: Mon, 25 Jan 93 09:08:15 PST  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: RE: PH Adjustments

Cisco <FRANCISCO@lan.ccit.arizona.edu> writes:  
> Last weekend I was brewing an all grain stout and following Miller's  
> suggestion of a ph of 5 to 5.6 for the mash - no problem with the  
> hard water I have. But I couldn't lower my sparge water to 6.5 from  
> 8.1 using gypsum. After dumping in a teaspoon at a time and taking  
> reading with a digital ph meter, I could only get the ph down to  
> 7.6 after I used up the entire one ounce package of gypsum. The ph  
> seemed to drop down to 7.6 after the addition of 1/2 ounce of gypsum  
> but any further addition didn't seem to lower it any further.  
> Does anyone have any suggestions about what I can use to lower my  
> sparge water ph to 6.5?????

Clearly, this bears repeating. You *\*can't\** lower your *\*sparge water\** pH appreciably by adding gypsum. The goal of water treatment is to allow your *\*mash\**, not your *\*water\**, to reach optimum pH. The reason for treating sparge water is that as you remove the wort from your mash, you are removing most of the acidifying material. If you have water with carbonates in it, it will drive the remaining material into an alkaline state. You should only be concerned with the pH of your mash, not your water.

The reason that gypsum tends to lower pH is that it dissolves and dissociates into Ca and SO<sub>4</sub>. The calcium will then combine with malt components to form a weak organic acid. If nothing else intervenes, this settles the pH of the mash at a good point. However, carbonate is somewhat basic and can overcome the acidity of this weak acid. Especially when much of the acid is removed, as it is during sparging.

--Darryl Richman

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Date: Mon, 25 Jan 93 13:50:53 EST  
From: bickham@msc2.msc.cornell.edu (Scott Bickham)  
Subject: Enzymes in malted wheat

Yesterday, I wrote:

"Munich malt not only converted itself, but also the 5 lbs. of malted wheat." Before I get flamed too badly, let me admit my mistake - I confused the malted wheat in the Weizen with the unmalted barley in my last batch - a Belgian White. Maybe someday I'll learn my lesson about posting without reviewing the facts ;-)

John Francisco wrote:

"Does anyone have any suggestions about what I can use to lower my sparge water ph to 6.5?????" I recommend investing in some food grade lactic acid, which you should be able to order from a pharmacy in your area. I found a pint bottle for \$23, and it should last many years since it only takes 1/4 tsp. to lower the pH of a gallon of sparge water from 8 to 5.5.

Rob Bradley asked about culturing Sierra Nevada dregs. Isn't there three different strains involved in the fermentation, as well as three initially in the Wyeast 1056 pouch? The first strain starts rapidly, but isn't tolerant to ethanol and settles out rapidly, and then a second strain takes over. The third strain starts very slowly, but is responsible for the bottle conditioning. I have heard of very slooow fermentations from yeast cultured from SNPA dregs, so maybe only the third strain is viable at that time. Any comments?

Scott

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Date: Mon, 25 Jan 93 13:58:23 EST  
From: bszymcz@ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: All-Grain Barleywine

In the last two issues there have been a lot of comments on the feasibility of all-grain barleywines. I recently bottled an all-grain batch of barleywine which had an initial gravity of 1.100 using my rather primitive (Zap-Pap lauter tun) equipment. To get a higher initial gravity I split the mashing of 22 lbs of pale ale malt and 2 lbs of crystal malt using 2 kettles. (Actually I needed 3 pots since my two 4 gallon pots were filled to the brim with mash). The mash was relatively stiff at 1 quart per pound of grain. Two separate sparges were done where I collected the first runnings plus enough wort to make 3 1/2 gallons from each sparge for a total of 7 gallons. I didn't have the time nor the equipment to use the rest of the runnings so I simply dumped the partially sparged mash into my compost pile.

I use a ten gallon stainless steel pot for boiling, and boiled the wort down to 6 1/2 gallons in the first half hour and down to about 5 3/4 gallons the next hour. The pre-boil gravity was 1.082, and post boil gravity was 1.100 (which is consistent) and yields  $82 \times 7/24$  or  $100 \times 5.75/24$  or about 24 pts/lb/gal. Normally I get about 27-28 pts/lb/gal with a regular strength beer.

The wort was fermented using a 3 quart starter of The Yeast Culture Kit A1 yeast (a close relative of Wyeast 1056) which took the gravity down to 1.030 in four days. I then racked to secondary, after which there was very little activity. After one week dry hopped with 1/2 oz of Kent Goldings pellets and stirred. I didn't want to pitch more yeast since my secondary (a 5 gallon carboy) was filled to within 2 inches of the brim, so I decided 1.029 was good enough and bottled after two weeks in secondary. The beer was very clear with a deep amber color, had a nice warm alcohol taste but was a little sweet (next time a little more bittering hops). I'll wait a few months to see how it ages before posting the recipe in detail.

Bill Szymczak  
bszymcz@ulysses.nswc.navy.mil

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Date: 25 Jan 1993 14:22:33 -0400 (EDT)  
From: "Wayde Nie, Eng.Phys. II" <9106857@SSCvax.CIS.McMaster.CA>  
Subject: "ISO-KLEER"

Hi all,

I have a quick qestion, Has anyone ever hear of a product for clearing brew called "ISO-KLEER"?

I inherited a couple of bottles and have no idea what it is or how it's used (except that it is a clearing agent -- I assume from the name!) This stuff comes in small (about 100mL) bottles and is a clear liquid. The bottle

is blank except for a "5" in a circle with "ISO-KLEER" under it, stamped on in black ink.

If anyone has ever used/heard of this stuff, I'd like to know what it is and how is it used. (Do you have to boil it, dilute it, how much do you use, etc...) Any help is appreciated.

Thanks,  
Wayde.

-----

Date: Mon, 25 Jan 93 11:24:09 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: credit cards

I cite myself:

>As for Zymurgy giving them a list of subscribers (if this is indeed  
>what happened), I think you have a legitimate bitch here, but in the  
>chance that receive something useful from their distributing my  
>address I am grateful. As long as I don't start receiving a bunch  
>of "BREWCARD" credit card\* (which may be used at any of my favorite  
>mail-order shops) offers with a 21% interest rate, I will be happy.

Looks like I spoke too soon. I just got 3 lbs of anti-oxidation bottle caps from the AHA today, and an application for guess what was included. Only 13.9% though.

It doesn't annoy me as much as it epitomizes the American economy.

bb

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Date: Mon, 25 Jan 93 13:37 CST  
From: korz@iepubj.att.com  
Subject: Briess/DeWolf-Cosyns protein levels

I wrote:

>I was at a microbrewing seminar back in 1989, at which Briess Malting  
Co.  
>did a talk. Included was a brochure which listed the analysis of all  
their  
>malts. Strangely enough, both the Briess 2-row and their 6-row had  
reported  
>protein levels of 14%!

Elsewhere in the literature that I got from Briess at the seminar, I  
found  
different protein levels listed. Their 6-row was 13.5% and the 2-row was  
13.0% protein.

On the other hand, the DeWolf-Cosyns Belgian malts are between 8.94 and  
10.63  
for all but the Aromatic, Chocolate, Roasted Barley and Roasted Malt,  
which  
are in the 10.75 to 11.22 range. Even their wheat malt is only 10.61%  
protein!

Al.

-----

Date: Mon, 25 Jan 93 14:56:14 EST  
From: bickham@msc2.msc.cornell.edu (Scott Bickham)  
Subject: COPS replies:

Soon after the COPS incident was discussed here, I sent a letter to the local FOX station and the producers of COPS explaining that I thought homebrewing had been misrepresented. Today, I received the following reply:

- -----  
Dear Mr. Bickham,

Thank you for your letter regarding the homebrewing episode of COPS.

Please realize that COPS is a video verite show, flimed without a script, rehearsals, narration or whatever. What we see while accompanying the police is what you see -- right or wrong.

In the episode you question, the officer does make the point that home brewing is legal, and nowhere is there any mention of beer. The suspect was, in fact, supposedly making tequila and whiskey.

We have however brought your complaint to the attention of the police, and we truly regret any misinterpretation -- which was not our intent. COPS has never professed to do anything other than reflect actual incidents while following our nation's police departments in carrying out their duties.

Sincerely,

Malcolm Barbour  
Executive Producer

- -----

It appears that COPS is aware of our feeling about this incident, and judging from this, may even respond to similar letters the receive from other homebrewers. I don't think they should be held blameless, since there is obviously a large audience for this type of journalism, but they shouldn't be held responsible for the ignorance the law enforcement officers display on camera.  
Scott

-----

Date: Mon, 25 Jan 93 15:25:20 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: Juice jar starters, squeezing out an extra quart

In hbd #1062, Tony Babinec wrote about making starters from Wyeast:

>...American Science Center, for example, has 250, 500,  
>and 1000 ml flasks that can be fitted with a stopper and fermentation  
lock.

>...

>...If you don't have flasks, use a 12 oz beer bottle!

In most supermarket, you can buy 48 and 64 ounce juices in dark  
brown bottles. Their wide mouths accept #8 and #8 1/2 stoppers.  
You can make a quart-sized starter in either of these bottles;  
almost 1/2 gallon in the larger size.

Misers (like me) will appreciate the following feature of this  
system: leave a few drops behind in the juice bottle when when you  
pitch the yeast and fill it up with trub from your cooling/settling  
vessel. It will settle and you'll get an extra quart or more of  
beer which, in my limited experience, is hardly more raunchy than  
the good stuff. [I came up with this idea in early December after  
reading the experiences of a clever person whose name escapes me.  
He used a 2 l. pop bottle.]

Cheers,

Rob (bradley@adx.adelphi.edu)

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Date: Mon, 25 Jan 1993 13:27:58 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: hop storage

Al gives us some interesting figures for hop storage which apply for, I presume, whole hops. I'm wondering what the figures would be for hop pellets stored at -18C (i.e. in the freezer).

In fact, is storing pellets in the freezer a good idea? Is any harm likely to come to them?

Peter

---

Date: Mon, 25 Jan 93 14:12:39 PST  
From: inc@tc.fluke.COM (Gary Benson)  
Subject: HOW HOMEBREW DIGEST WORKS

Please, if this article has made it to the HomeBrew Digest,  
would Rob Gardner or whoever is now moderating the list  
send me a mail message giving your correct email address?

I have been trying since last Friday to reach Rob, and I  
am not sure that the addresses at the top of each digest  
are correct.

Thank you very much.

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Date: Mon, 25 Jan 93 20:37:58 PST  
From: engebret@steer.sdsu.edu (aguado e)  
Subject: Yeast Bank

With the selection of dry yeasts being small and the choices of liquid thinning the wallet, I am looking into culturing my own yeast. Miller mentions the "Yeast Bank." This sounds like an easy way to propagate yeast, however, I don't know anyone who has used this product. Has anyone tried using a "Yeast Bank," or "freeze shield?"

Thanks,

Mark Engebretson

```
/* /****/      /* /****/ Mark Engebretson
  /*  */ /**/   /*  */ /*  */ /**/Dept. of Geography
  /*  */ *//*   /*  */ /*  */ San Diego State U.
/*  */ */**/   /*  */ /*  */ ENGBRET@UCSVAX
```

-----

Date: Tue, 26 Jan 1993 00:12:38 -0500  
From: TiM@world.std.com  
Subject: Low Pilsner Yield(?), GOTT Cooler Conversion

This year (the second year I've been brewing) I decided to try a lager since I now have a new unheated area below an addition to the house which keeps an ambient 40-45 degree temperature during the winter. (I'm in the market for a used fridge...just haven't got one yet).

My question is: I bought 'Pilsner' malt, and according several sources including the calculations in Darryl Richmond's (c) shareware spreadsheet, for brew 1 I should have received a 1.044 O.G. However I ended up with 1.038 (pilsner light?). For brew 2 I compensated and 'aimed' for 1.052 and ended up with 1.043.

Both times I rested at 130 degrees for 45 minutes, then through a combination of adding some boiling water and heating existing mash brought the temperature to 156. I mash using a GOTT water 'cooler' which tends to lose only about a degree in 30 minutes (after which I heat a little of the mash and bring it back to proper temperature). I mashed for 90 minutes, then poured the mash into a kettle, broke at 168, poured the mash into my sparging setup and did about a 45-50 minute sparge with 168-170 degree water.

I guess my question is: Is Pilsner grain typically low-yeild? Did I do something wrong (this is my first attempt at lagering).

Just for the detail, the first beer used Danish Lager Wyeast. The second used Wyeast #2206.

Every other all-grain brew I've made to date (15) hit the O.G. within .02, except both these using Pilsner malt (from the same homebrew supply shop).

Also, does anyone have info regarding converting the water-outlet in a GOTT cooler painlessly into a grommet-and-hose assembly for a combo mash/sparge bucket? The false bottom from my Phils unit fits PERFECTLY into the GOTT cooler...can I get away with simply using a big grommet to seal a piece of tubing (I've never had the problem experienced by some people on this BBS of mash crimping the plastic tubing coming from the top of the false bottom)?

Thanks.

\*\*\*\*\*

Fortunately, The Second To Last Bug Has Been Fixed.  
Tim Roaix, @ TiM.world.std.com.

\*Prodigy JXRW77A (until my one-month free trial is over on this piece-o-crap excuse for an online network).

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Date: Mon, 25 Jan 93 22:53:53 PST  
From: danforth@trinity.llnl.gov (Bill A. Danforth)  
Subject: BREW locations in San Diego, CA

Hello all,

I am in San Diego this week, and am wondering about brew locations  
(brewpubs and/or locales with great selections). Any pointers??

Thanks in advance,  
A Beerman without a beer-  
Bill Danforth

-----

End of HOMEBREW Digest #1063, 01/26/93  
\*\*\*\*\*

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Date: Mon, 25 Jan 93 19:30 CST  
From: arf@ddsw1.mcs.com (Jack Schmidling)  
Subject: World's Greatest, Barleywine

>From: bradley@adx.adelphi.edu (Rob Bradley)

>The most fun I had with my clothes on was at the CBS first Thursday meeting at Goose Island.... Interestingly, the world's greatest brewer (tm?) didn't attend, although he threatened to do so publicly, right here in the HBD.

When I found out that the World's Greatest judge of beers was unable to re-arrange his honeymoon plans, I decided that it just was not worth my effort. Had I known you were going to be there, I most certainly would have been there to frustrate you. Imagine have to pick which of my three beers really was the World's Greatest.

A WARINING to all: Do NOT trust to random luck. Phone ahead!

>From: Jeff Frane <70670.2067@compuserve.com>  
>Subject: Barleywine Yeast Method

>On the subject of proper yeasts for barleywines, I'd like to offer my own suggestion, having brewed a couple successfully.

This is probably not (maybe?) related to yeast but it is a good segue anyway.

This past Sunday, I took a customer to lunch at the Goose and we did their sample program. All the beers were interesting and worth the taste. However, the barleywine was absolutely vile. My guest says this is what barleywine tastes like and I politely dissented but did not argue. The customer is not always right but there is little to be gained by arguing with one.

I am not sure of the correct nomenclature but it tasted like the screenprinting ink I use smells. Back in the days before I cultured yeast, I had made beer with that taste, more than once. I recognize it as a defect and not just something unique to barleywine because I never have made barleywine.

Anybody have barleywine at the Goose lately?

js

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Date: Tue, 26 Jan 93 7:46:51 EST  
From: "Peter J. Burke" (FSAC-PMD) <pburke@PICA.ARMY.MIL>  
Subject: COPS

Not merely enough has been written in regards to that certain COPS episode, so here is some more. I sent a letter voicing my complaint to the producer of the show. His reply, full of vague apologies and bureaucratic bs, is enclosed:

COPS  
Barbour/Langley Productions

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Malcolm Barbour  
Executive Producer

As you can see, a truly bogus excuse. He deserves more hate mail.

PROST !!!!

-----

Date: Tue, 26 Jan 93 7:46:51 EST  
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sincerely,  
Malcolm Barbour  
Executive Producer

As you can see, a truly bogus excuse. He deserves more hate mail.

PROST !!!!

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Date: Tue, 26 Jan 93 15:13 GMT  
From: brians <brians\_+a\_neripo\_+lbrians+r%NERI@mcimail.com>  
Subject: Beer Survey

MHS: Source date is: 26-Jan-93 09:21 EDT

John Isenhour asks about the bright yellow choose-a-mug beer survey. I can report that one arrived at our house last week, and that we took a similar tack in answering it (i.e. listing "most often" brands of some obscurity rather than Xing the mug of some megasuds). However, I can't help anyone figure out where the names came from; though I've got my name on several beer related lists, the survey came addressed to my wife, who is on no such thing. Of course, we queered the results by making her name answer to my habits, but that's a risk you take when you just mail out your surveys. I should add that they promised a "free mystery gift" for completing the survey - the bait did its trick, as I would never have bothered with it if there weren't something in it for me. I just hope this isn't something to help research Zima ClearMalt, or something equally horrifying; I expect my mystery gift will be a voucher for a beverage I'd rather not have, in any case. Anyone else?

Brian Schuth  
brians%neri@mcimail.com

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Date: Tue, 26 Jan 93 09:39:02 -0600  
From: gjfix@utammat (George J Fix)  
Subject: Nitrosamines

The work that first showed that nitrosamine is a potential carcinogen is summarized in the following:

Environmental Aspects of N-nitroso Compounds, Proceedings of a Working Conference held at the NE Center for Continuing Education, Univ. of New Hampshire, 22-24 Aug. 1977, IARC Publ. No. 19 (1978)

Following this report, a technical committee was formed and headed by Dr. W.A. Harwick of Anheuser-Busch, Inc. This led to various procedures that could be used to control N-nitrosodimethylamine (NDMA) levels in malt. Their findings were published in the MBAA Tech. Qr. (Vol.17, No.4, 1980)

For the record, the highest NDMA level reported was in Bamberg Rauchbier. It contained 5-15 parts per billion, and not 5 ppm as reported in HBD. This also was the level reported in their malt. The NDMA levels of beer is typically 9-10 times lower than in the malt used.

I feel it is perfectly legitimate to raise the possibility that beer with higher than normal nitrosamine levels could be a health hazard. Nevertheless, there are many aspects of this issue I do not fully understand. For example, population data shows that Bamberg has one of the highest rates of beer consumption in Germany (no small feat!), yet its cancer and death rates are near (and in fact slightly below) the average in Germany. I conjecture if the fair citizens of Bamberg smoked cigarettes at the same rate they consume Rauchbier, and if at the same time everyone else in Germany did not smoke, then the Bamberg cancer and death rates would be 5-10 times the German average. This is a fair comparison since most German beer has very low NDMA levels. While a formal linkage between cigarette smoking and cancer has not been established, just about anyone's data shows that it is indeed real. If Rauchbier is a health hazard, why doesn't this show up in the data? People in Bamberg have been drinking this beer throughout the 20th century, and in fact even longer.

There has been a serious "social cost" associated with the ban on smoked malt. One casualty has been a beer called "Smoked Porter". It is a natural for brewpubs. For example, it and smoked salmon are a marriage made in heaven, especially if capers are added as well. It is possible for a brewpub to buy regular malt, and then smoke it themselves. Alaska Br., a micro, is doing just that, and at the same time winning all sorts of ribbons at the GABFs for their version of smoked porter. Nevertheless, the brewpubs I have been associated with have been reluctant to brew a version for fear they would be accused of poisoning their customers.

It doesn't take much of this sort of thing to totally trash a small commercial operation.

For the record, the Belgium base malts have very low NDMA levels, and in fact are lower than most US malts. Other than that, they are perfectly fine for brewing!

George "smoke malt not cigarettes" Fix

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Date: Tue, 26 Jan 93 10:24:37 EST  
From: eisen@kopf.HQ.Ileaf.COM (Carl West)  
Subject: re:Beer Survey - anybody seen it?

Six data:

Yup, I got one too, so did the wife, but I'm not  
an AHA member and neither is she.

On the other hand, neither got 'The Brewspaper'.

Carl  
WISL,BM.

-----

Date: 26 Jan 1993 10:57 EST  
From: dab@cc.bellcore.com (dave ballard)  
Subject: pvc v. copper

hey now- anybody out there have a cooler tun using a pvc manifold  
instead of  
copper? positive/negative comments? anyone? anyone?

dab

oh, btw, cans of guinness pub draft have begun popping up here in  
piscataway, nj, so keep your eyes open if you haven't seen it near  
you yet...

=====  
=  
dave ballard  
dab@cc.bellcore.com  
=====  
=

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Date: Tue, 26 Jan 93 11:30 CST  
From: korz@iepubj.att.com  
Subject: Corona versus JSP MaltMill

This post may come as a surprise to those who have followed my battles with JS over the last year, but being a BJCP beer judge teaches you the importance of being just and unbiased, which is what I feel compelled to do regarding this point also.

Roy writes:

OBTW, blind side-by-side comparisons between grists crushed with a corona mill and a "you know who" rollermill have shown the corona crushed grist to be superior. The Corona Mill produced less flour and smaller starch granules and the husk was left more intact. Analysis was done by several professional brewers and scores of accomplished homebrewers.

I find this so incredibly hard to believe, I find it difficult to avoid calling it a lie. With the proper adjustment, the Corona can, indeed, produce smaller starch granules, but contrary to Roy's statement, this will invariably produce *\*more\** flour and *\*shred\** the husks into very small pieces.

Jack and I have this on-again/off-again war going on and during one of the cease-fires, I purchased a JSP MaltMill. I have compared the crush with the MM against the crush done by various other means, including the Corona, and I must honestly say that the MM crush is *\*far\** superior to the Corona and all other methods short of a \$5500 professional rollermill. I have used the MM with over 17 different varieties of malted and unmalted barley and there has *\*never\** been any splintering of husk material by the MM as is *\*always\** the case with the Corona.

I'm not the only one who thinks this way... on March 31, 1992, George Fix wrote:

>Jack has built a first rate mill that is  
>worth every penny he is asking for it. The metal work, the  
>heart of any mill, is extremely impressive. When the mill first  
>arrived, the first thing we did was to compare the quality of the  
>crush with that obtained from the commercial mill at the Dallas  
>Brewing. For the record the latter cost between \$5000 and \$6000.  
>There was absolutely no difference between the two.

Al.

P.S.

Roy also writes:

>9:40 Added the 6 gal of 180F mash water to picnic cooler mash/lauter  
> tun. Plastic tubing manifold system. Igloo 36 Qt.  
>  
>9:45 Doughed in grist when temp of strike water is ~175F.

For the record, "doughing-in" is the addition of water to the grist (which is highly recommended) not vice versa. Adding the grist to the strike liquor will work, but will create much more balled starch than the opposite (see Noonan's "Brewing Lager Beer").

-----

Date: Tue, 26 Jan 93 12:07:08 CST  
From: tony@spss.com (Tony Babinec)  
Subject: brown ale or porter?/samuel smith's

In the last HBD, Shreefal presents the following recipe for comments:

brown ale recipe

4 # light liquid extract  
2 # english 2-row malt <--- lager or ale malt?  
1/4 # chocolate malt  
1/4 # black patent malt  
1 # light brown sugar  
  
1 oz Goldings in the boil  
1/2 oz Cascade boiling hops and finishing <--- is that 1/2 oz  
each for boiling and  
finishing?  
ale yeast

I'd like to comment on the recipe and the brown ale style. This is not a flame!

The AHA style guidelines for the english brown ale are:

1.040 - 1.050 SG  
15 - 25 IBUs  
15 - 22 color

Assuming the usual 5 gallon batch, the above recipe will produce a beer in the mid-to-high 1.050s. I played with it a bit in Chris Campanelli's BRF program, but the gravity math would go approximately as follows:

32 - 36 points of gravity for the liquid extract  
10 points of gravity for the 2 pounds of malt  
5 points of gravity for the highly roasted malts  
8 - 9 points of gravity for 1 pound of sugar

So, strictly speaking, the beer is too big to be a brown ale. In gravity and color, it is more like a porter. 1/4# each of chocolate malt and black malt will give the beer a dark brown-red color.

What about hops? As indicated, I don't know whether the hopping is intended as:

1 oz Golding in boil 1 oz Golding in boil  
1/2 oz Cascade in boil OR 1/2 oz Cascade for finish  
1/2 oz Cascade for finish

Assuming a one-hour boil, the left hop schedule will produce something like 30 IBUs, which is better suited to a porter, while the right hop schedule will produce something like 25 IBUs, which is suited to a brown ale.

A brown ale is brown in color and malt-accented in flavor. While there are different variants of brown ales, sample some Newcastle Brown Ale or Samuel Smith's Nut Brown Ale.

How about getting some color and flavor from dark crystal malt?  
For example, assuming a 5-gallon batch and 75% extract efficiency:

7-8 # pale malt (OR 5 # dry malt extract)  
1 # 80L (dark) crystal malt

should produce an appropriate flavor and body. For an attempt at  
a "nut" flavor, try instead:

7-8 # pale malt (OR 5 # dry malt extract)  
1 # 10L (light) crystal malt  
2-3 ounces roasted barley

In either of the above, you can substitute some brown sugar for the  
pale malt or dry malt extract. I wouldn't use more than 1 pound of  
sugar. While pure refined sugar will ferment perfectly, brown  
sugar has some added molasses that will leave some residual  
unfermentables and their flavors in the beer.

Samuel Smith's Nut Brown ale is very nicely hopped. To get some  
hop flavor, which I think I taste in this particular beer, try a  
hop addition at 20 minutes to end of boil. Samuel Smith's uses a  
unique yeast and fermentation setup. For a bit of diacetyl  
(butterscotchy) flavor in the beer, perhaps Wyeast Irish ale yeast  
might be tried.

-----



Date: Tue, 26 Jan 93 12:14 CST  
From: korz@iepubj.att.com  
Subject: Keg pressures/hose lengths

Michael writes:

>because of the high pressure. Well, the first glass of Weizen looked like  
>airport runway foam, and I was not about to go through the 1/3 keg ritual with  
>this one. I could see the beer leaving the keg ok, but about 5" into the hose,  
>the foam was starting and by the cobra tap - foam-a-rama. The hose was ~24"  
>long. I cut my hose with the cobra tap so it was only 2 inches long, and  
>viola! no more foam! Needless to say, this really made my weekend...so much,  
>that we tapped a second keg ( an IPA ) on Sunday to see if it was a fluke,  
>and it also poured great from the start...

It seems that many, many brewers have problems getting their keggings systems to work properly. What is often forgotten (as Michael noted) is the length of the liquid-side hose. David Miller has a great article in the 1992 AHA Conference Proceedings on keggings systems.

The CO2 dissolved in the beer will come out of solution eventually. We would like most of it to come out of solution in our mouths, not earlier. \*When\* the CO2 comes out of solution is based upon many things, including:

the temperature of the beer,  
the pressure on the gas-side of the keg,  
the length of the liquid-side hose,  
the diameter of the liquid-side hose,  
the smoothness of the walls of the liquid path  
(note this includes any gunk on the inside of the walls of the pickup tube, fittings, hose and faucet),  
the amount of constriction of flow in the faucet, and  
the cleanliness of the glass.

I dispense my 54F ales at between 7 and 12 psi (depending on the style), down a 6 foot, 1/4" ID FOXX SUPERFLEX hose and (as Michael said) let the keg cool for a good 24 hours so the force-carbonated beer can dissolve the CO2 you pressed against it.

Al.

-----

Date: Tue, 26 Jan 93 12:36:05 CST  
From: tony@spss.com (Tony Babinec)  
Subject: brown ale quick correction

Here is what a portion of the brown ale post should say:

32 - 36 points of gravity for the liquid extract  
10 points of gravity for the 2 pounds of malt  
2 points of gravity for the highly roasted malts  
8 - 9 points of gravity for 1 pound of sugar

Sorry!

-----

Date: Tue, 26 Jan 93 12:27 CST  
From: korz@iepubj.att.com  
Subject: Wyeast #1056 vs. #1098

Scott writes:

>Rob Bradley asked about culturing Sierra Nevada dregs. Isn't there  
>three  
>different strains involved in the fermentation, as well as three  
>initially  
>in the Wyeast 1056 pouch? The first strain starts rapidly, but isn't  
>tolerant to ethanol and settles out rapidly, and then a second strain  
>takes  
>over. The third strain starts very slowly, but is responsible for the  
>bottle conditioning. I have heard of very slooow fermentations from  
>yeast cultured from SNPA dregs, so maybe only the third strain is viable  
>at that time. Any comments?

I think you're talking about the Whitbread yeast. SNPA yeast and Wyeast #1056 are both single-strain yeasts, whereas Whitbread and Wyeast #1098 are three-strain yeasts. Slow fermentation from SNPA dregs might be attributed to under-oxygenation by brewers used to dry yeasts (which require a lot less oxygen than Wyeast or dreg-cultured yeasts) or by extended lag times resulting from temperature shock (be careful that your starter and wort are as close to the same temperature as possible).

Al.

-----

Date: Tue, 26 Jan 93 12:35:59 CST  
From: Jacob Galley <gal2@midway.uchicago.edu>  
Subject: **Goose Island homebrew store**

Sorry to waste bandwidth, but does anyone in Chicago know when the  
Goose Island branch of Alternative Garden Supply will be opening?

Jake.

"JUST DO IT yourself." <----- Jacob Galley / gal2@midway.  
uchicago.edu

-----

Date: Tue, 26 Jan 93 13:37:44 CST  
From: rak@mayo.EDU (Ron Karwoski)  
Subject: FAST Fermentation

I've seen articles in the past that suggested pouring a new batch of wort over the trub remaining in the fermenter after racking off for bottling. I gave this a try last weekend and recommend it if for nothing else than the entertainment value. Fermentation started in less than an hour, and after four hours the fireworks had commenced. I have never seen such a vigorous fermentation! The blowoff tube resembled flowing lava and I kept getting up during the night to see if disaster (overflowed blowoff jar) had struck. Luckily, the blowoff tub was longer than normal and the height of the bend never allowed much wort to be blown off. I'm sure that at least a gallon would have been blown off under normal conditions. Fermentation was basically complete in less than 20 hours. I'll be racking to a secondary soon and I'll let you know how it taste after bottling. Lag time is definitely not a problem with this method.

=====  
Ron Karwoski     Internet:   rak@bru.mayo.edu  
Biomedical Imaging Resource  
Mayo Foundation  
Rochester, MN 55905  
=====

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Date: Tue, 26 Jan 93 14:50:29 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: freezing pellets, low pilsner yield

Hi All,

In HBD #1063, Peter Maxwell asks:

>Al gives us some interesting figures for hop storage which apply for, I  
>presume, whole hops. I'm wondering what the figures would be for hop  
>pellets stored at -18C (i.e. in the freezer).

>In fact, is storing pellets in the freezer a good idea? Is any harm  
likely  
>to come to them?

I use pellets exclusively, and always store them in the freezer.  
Pellets  
tend to keep better than whole hops, storing them in the freezer seems to  
prolong the shelf life even further. I've used pellets that were stored  
in  
this manner for 4 to 5 months, the beers came out fine, I didn't \*  
notice\*  
any funny flavors or effect on hop utilization. On the other hand, I've  
read that sub-freezing temperatures can rupture the lupulin glands.  
Assuming for the moment that this is true, how much of a problem would  
this  
be with pellets? IMHO, the milling and pressing processes used to make  
pellets would rupture the glands anyway. Comments, anyone??

\*\*\*\*\*

Also in HBD #1063, Tim Roaix asks:

>This year (the second year I've been brewing) I decided to try a lager  
>since I now have a new unheated area below an addition to the house  
>which keeps an ambient 40-45 degree temperature during the winter.  
>(I'm in the market for a used fridge...just haven't got one yet).

>My question is: I bought 'Pilsner' malt, and according several sources  
>including the calculations in Darryl Richmond's (c) shareware  
>spreadsheet, for brew 1 I should have received a 1.044 O.G.  
>However I ended up with 1.038 (pilsner light?). For brew 2 I compensated  
>and 'aimed' for 1.052 and ended up with 1.043.

>Both times I rested at 130 degrees for 45 minutes, then through a  
>combination of adding some boiling water and  
>heating existing mash brought the temperature to 156. I mash using  
>a GOTT water 'cooler' which tends to lose only about a degree in 30  
>minutes (after which I heat a little of the mash and bring it back to  
>proper temperature). I mashed for 90 minutes, then poured the mash  
>into a kettle, broke at 168, poured the mash into my sparging setup  
>and did about a 45-50 minute sparge with 168-170 degree water.

>I guess my question is: Is Pilsner grain typically low-yield? Did I  
>do something wrong (this is my first attempt at lagering).

>Just for the detail, the first beer used Danish Lager Wyeast. The  
>second used Wyeast #2206.

>Every other all-grain brew I've made to date (15) hit the O.G. within  
> .02, except both these using Pilsner malt (from the same homebrew  
supply  
>shop).

Tim, do you know to what extent the pilsner malt was modified? I get German pilsner malt that has a very low degree of modification. On two occasions in the past, I used this malt as a base malt for light colored ales. Both times, I used a step mash with rests roughly similar in times and temperatures to what Tim described. The first batch, I got 27 pts/lb, and 26 for the second. I consistently get 30-32 pts/lb using step mashing and highly modified malts, 34 pts/lb using decoction mashing and undermodified pilsner malt. IMHO, the combination of undermodified malt and step or single infusion mashing will produce lower yields, the use of these malts calls for decoction mashing.

If the modification rating cannot be obtained from the supplier, there are a couple of other ways to determine the degree to which a malt has been

modified. Chew a few grains, if the malt is undermodified, the tips of the grain will feel hard and steel-like against the teeth. The degree of modification can also be determined by examining the length of the acrospire. Use a razor or penknife to scrape away the husk, there will be

a fibrous looking growth that's a slightly different color than the rest of the kernel. If the length of this growth is 1/2 to 3/4 the length of the kernel, the malt is undermodified. If the length of the acrospire is 3/4 or more the length of the kernel, the malt is highly modified.

There are pilsner malts available that are highly modified, I know Munton & Fison produces such a malt, I'm sure there are others.

Cheers,  
Jim

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Date: Tue, 26 Jan 1993 15:53:29 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: California Common yeast

What's the optimum temperature range for Wyeast's California Common yeast, aka. Steam (tm) beer yeast? My Wyeast profile listing must be out of date as CC yeast is not even listed; Jeff F., do you have the latest version? Fwiw, it's fermenting madly at 60 degF.

RussG.

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Date: Tue, 26 Jan 93 14:56:34 -0700  
From: Mike Zulauf <zulauf@orbit.Colorado.EDU>  
Subject: wort chiller questions

Howdy All!

I have a few questions regarding wort-chillers. I am interested in making my own chiller. The type I have decided on is a copper coil immersed in an ice-water bath. The reason for this style is the desire to conserve water (Colorado being a fairly arid state.)

I am curious if anyone else uses this type of chiller. If so, how well does it work? How long does it take to chill 5 gallons of wort to a reasonable temperature? How much ice is required? What length of what diameter tubing was used?

Anything else I should know before leaping in and just making the thing? Enquiring minds want to know!

Thanks for any and all replies,  
Mike Zulauf  
zulauf@orbit.colorado.edu

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Date: Wed, 27 Jan 1993 12:27:01 +1030  
From: Murray Robinson <robinm@mrd.dsto.gov.au>  
Subject: Colour Units

I have just found a new supplier for my grain requirements who has data sheets on the malt available. Specifically, it mentions a colour rating expressed in degrees EBC as opposed to degrees LOVIBOND. What is the conversion factor between the two units.

Also the product specification mentions the following:

SPECIFICATION PALE MALT WHEAT MALT

|                 |                      |                      |
|-----------------|----------------------|----------------------|
| Colour          | 2.7 degrees LOVIBOND | 4.5 degrees LOVIBOND |
| Total protein   | eg 11.5%             | 14.5%                |
| Soluble protein | eg 5.0%              | 8.5%                 |
| Kolbach index   | eg 43 (no units)     | 61 (no units)        |
| Diastatic power | 70 degrees L         | 160 degrees L        |
| Viscosity       | 1.65 cp              | 1.60 cp              |

Need I concern myself with any of these quantities? If so which ones are important and what do the units mean? Does the above specification indicate a malt of good or average quality?

Cheers,

Murray.

-----

Date: Tue, 26 Jan 93 23:10:58 EST  
From: bryanb10@aol.com  
Subject: Bluebonnet Brew-off

xIt's Back!...

xAnnouncing

x The Seventh Annual

x BLUEBONNET BREW-OFF

x HOMEBREW COMPETITION

xMarch 5-6, 1993

x Dallas / Fort Worth, Texas

x with

xBeer Judge Certification Program Ex

am

x

xFellow Homebrewers,

xIn Texas, the bluebonnet is a symbol of beauty and pride, especia  
lly during

xthe spring when they blanket the countryside. The coming of spring in  
1993

xis no

exception, as we usher in that time of year with this year's edition  
xof the BLUEBONNET BREW-OF

F. In a few short weeks, the judge's score sheets  
xwill be in, and the mugs and ribbons awarded.

This means that NOW is the

xtime to gather your brews and make travel plans.

x

xThis ye

ar's competition will be bigger and better than ever with an expanded  
xformat which will include sp

eakers, demonstrations, and activities to

xsupplement the greatest collection of homebrews we have  
ever known. Did I

xhear somebody say "Pub Crawl!"?

x

xWe invite homebrewers everywhere

to join the Cowtown Cappers, the Arlington

xHomebrewers, and the North Texas Homebrewers Associatio  
n for two days of

xadventure such that has not been experienced before.

x

x

Thank You,

x The 1993 Bluebonnet Committee

x

xClubs: Please make copies of th

is brochure and its enclosed entry forms

xavailable to your members.

x

xEligibility

x

The 1993 Bluebonnet Brew-off Homebrew Competition is open to all  
xnon-commercial, home- produced

beers. Beers produced on the premises of

xcommercial breweries are ineligible.

x

xEntri

es

xEach entry shall consist of three (3) bottles, free of commercial labels  
or

xother ident  
ifying markings which are not part of the entry label.  
xThe minimum size for entry bottles is 10 ounces.  
xconform to these standards will be disqualified. The preferred bottle  
for  
xentries is the 12-ounce brown longneck.  
x  
xBrewers may enter any categories, with  
the restrictions that only one entry  
xmay be submitted for any one sub-category, and that no more than two entries  
xmay be submitted for any one overall category.  
x  
xAll bottles should be  
clean, with a properly completed entry label attached  
xby rubber band. Please do not use tape or  
glue! Bottles will be presented  
xat the judging tables, and the use of any material which may cause a label  
to be difficult to remove during entry logging may cause it to be  
ineligible

xfo  
r awards. The sole purpose of the bottle label is to match an entry to a  
xrecipe form, so that we  
may assign an entry number to it. Once this is done,  
xthe label is removed.  
x  
xBe sure  
that each entry has an accompanying recipe form which is completely  
xfilled out, since this is our  
source for all information concerning that  
xentry. With the expanded category list we are using this  
is year, it is  
ximportant that you designate exactly the category and sub-category on  
this  
x  
form so that your beer will be judged according to the style you wish.  
x  
xEntry Fees and Deadlines  
xEntry Fee for entries received by 1:00 PM, Feb. 20 (Saturday) is  
\$6.00/entry.  
xLate Entry Fee for entries received by 1:00 PM, Feb. 27 (Sat.) is \$7.00/entry.  
xCurrent members of recognized homebrew clubs may discount each entry by \$1.00.  
x  
xFinal deadline for entries is 1:00 PM  
, February 27, 1993.  
xAbsolutely no entries will be accepted after this deadline.  
xThere will  
be no exceptions to this deadline!  
x  
For More information contact:  
x The Winemaker Shop  
Phone: (817) 377-4488  
x 5356 W Vickery  
x Fort Worth, TX 76107

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End of HOMEBREW Digest #1064, 01/27/93

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Date: Wed, 27 Jan 1993 00:06:05 -0800  
From: finette!tamsky@hub.ucsb.edu (Marc Tamsky)  
Subject: Propensity Pilsner Lagering Questions

I am posting for a friend, but he made the following, and has a few questions:

Propensity Pilsner (from Papazian's NCJOHB)  
Wyeast #2007 (I think it's a bavarian lager, but the # is definitely correct.)

OG: 1055

Primary Ferment for one week @ 52F.  
Racked to secondary.  
Secondary Ferment is currently on it's NINTH week @ 40F.  
Still getting glugs every 60 seconds from normal 3-piece airlock.

Bottom of carboy currently has ~1 inch of all-one-color trub.  
Color is crystal clear.

Questions:  
Is this too long of a ferment?  
Should this be re-racked into a third carboy to get it off the trub?  
With 60sec/glug does he need to wait any longer before bottling?  
If he bottles now, should he use less priming sugar since it's not finished?

Thanks  
[post replies to here or to me with cc: to pauljj@aol.com (the brewer of the batch)]  
tamsky@finette.UUCP || tamsky@crash.cts.com

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Date: Wed, 27 Jan 1993 11:14:05 +0000 (GMT)  
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>  
Subject: Cops

After reading Mr. Barbour's response to his hate mail, I tend to agree with him - up to a limit...

The TV show cannot be expected to know all the ins & outs of homebrewing, hang-gliding, tiddlywinks, and other pursuits. And "Cinema Verite" is worth preserving - BUT it should be prefaced as such. I think the show ought to begin with a disclaimer - "we show it as it is - without any justification, morally or legally, on our part."

Just my thought - if you find it distasteful you can send your hate mail to:

Kurt Swanson  
K|rb[rsv[gen 26  
S-223 55 LUND, Sweden

- --  
Kurt Swanson, Dept. of Computer Science,  
Lunds universitet. Kurt.Swanson@dna.lth.se

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Date: Wed, 27 Jan 93 08:28:01 -0500  
From: zentner@ecn.purdue.edu (Mike Zentner)  
Subject: Semi Annual Wort Chiller diatribe

Mike Zulaf asks about tubing in ice chillers.

Mike, while I haven't built one of these specifically, I have seen one work and can offer some general advice which may be of use to other readers as well.

In general, don't go with any tubing smaller than 3/8" OD unless your tubing length is very short (I built a counter flow chiller with 1/4" and was sorry I wasted my time). Because I use tap-temperature water, I have a 30' length counterflow chiller. If you are going to use ice (and keep it icy) you can get away with less. If ever in doubt about your length, install a valve at the outlet of your copper coil so you can slow down the flow if the outlet is not cold enough. A friend of mine who uses a chiller of the type you mentioned is convinced the 10' length he used is too short.

**MOST IMPORTANT!** Before you coil any tubing, take a q-tip, dip it in rubbing alcohol, and swab around on the inside of the tubing. If you get black goo on the end, you've got machining oils inside and don't want your beer to be in contact with that. You need to clean out the tubing by snaking a very stiff wire through it, lubricated with lots of dish soap. Pull a string through the tubing, tie cotton balls on the string and pull them back and forth to scour the inside of the tubing. Rinse the soap out (leaving the string in) and repeat the cotton ball exercise.

If anyone wants my plans for a counter-flow chiller, send me email.

Mike Zentner

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Date: Wed, 27 Jan 93 08:37:48 EST  
From: mlobo@sentry.foxboro.com (Michael T. Lobo)  
Subject: Weinhenstephan Wheat yeast

Can anyone tell me where I can get some Weinhenstephan Wheat yeast? My last 2 packages of Wyeast 3056 have behaved strangely, and I'd rather not waste mt time making a wheat ale...

There is probably no need to waste HBD space on a reply, so just e-mail me at

mlobo@foxboro.com

Thanks!

Michael T. Lobo 508 549 2487  
Foxboro Co.  
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,  
my beer speaks for me" -Monty

-----

Date: Wed, 27 Jan 93 08:55:44 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: Culturing Sierra Nevada Dregs

Someone says:

) Rob Bradley asked about culturing Sierra Nevada dregs. Isn't there  
three  
) different strains involved in the fermentation, as well as three  
initially  
) in the Wyeast 1056 pouch? The first strain starts rapidly, but isn't  
) tolerant to ethanol and settles out rapidly, and then a second strain  
takes  
) over. The third strain starts very slowly, but is responsible for the  
) bottle conditioning. I have heard of very slooow fermentations from  
) yeast cultured from SNPA dregs, so maybe only the third strain is  
viable  
) at that time. Any comments?

My experience with 1056 and cultured Sierra Nevada is that they both  
perform similarly (at least when neither is infected), are more  
attenuative  
than 1098 and 1028, and generally finish more quickly than less  
attenuative  
yeasts, particularly when the wort is dextrinous.

Even if your SNPA is a little old, you can still make a fine culture  
from it. The last one I did took several days to start up in a small  
culture flask. Fresh ones take only a day or two, or so they tell  
me. I've never seen a brand new SNPA out this way, although they  
still taste just fine. :-)

As another poster said, you must be confusing the Whitbread yeast  
with SNPA/Chico/1056. Now, what I remain confused on is whether the  
real Whitbread triple strain is used in the Wyeast cultures. My current  
understanding is that it is not, that 1098 is a single strain. I  
know I've heard the answer to this several times over the past year  
here, but it just doesn't sink in ... :-(

Finally, on a slightly different topic, has anyone here tried using  
1084 (Irish) for purposes other than stouts and porters? I feel like  
trying it in bitter and mild ... perhaps it might make a good alt  
yeast, too?

=====  
=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: Wed, 27 Jan 93 08:36:45 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: Diastatic Power of Wheat Malt

James Dipamla writes:

) Hi All,  
)  
) In HBD #1062, Scott Bickham writes:  
)  
) >So the Munich malt not only converted itself, but also the  
) >5 lbs. of malted wheat.  
)  
) I read somewhere that wheat malt itself contains sufficient enzymes  
) for conversion. Does anyone know if it does or not??

Well, I just made a crystal-clear beer with 100% (domestic) wheat malt,  
so I  
guess the answer must be "yes."

More on this later.

=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: Wed, 27 Jan 93 7:57:30 CST  
From: raudins@galt.b11.ingr.com (Glenn Raudins)  
Subject: Articles on Malting Methods

Does someone know of any articles on the current practices in the malting industry? I have read the Malting & Brewing Science, and Practicle Brewer.

I am looking for more up to date information, on current malting companies.

I would suspect magazines such as the New Brewer, Brewers Digest, etc would

have some. Any suggestions would be greatly appreciated.

Glenn Raudins  
raudins@galt.b11.ingr.com

-----

Date: Wed, 27 Jan 93 9:42:27 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:doughing in water onto malt

In the last digest Al Korz wrote:

<For the record, "doughing-in" is the addition of water to the grist  
<(which is highly recommended) not vice versa. Adding the grist to  
<the strike liquor will work, but will create much more balled starch  
<than the opposite (see Noonan's "Brewing Lager Beer").

This is indeed what Noonan preaches. I have always wondered about  
the importance and significance of adding water to malt as opposed  
to the converse. Ok, so one can get "balled starch", wont it then  
hydrate and become "non balled"? Cant you just stir enough to  
completely mix the mash? Since I do an upward step mash, the  
protein rest provides a 30 minute hydration period for the grains.  
Wont this hydrolyze the grains and liquify the starches? Also, who  
has ever seen a professional brewery doing this?? All of the breweries  
I can recall visiting do what most homebrewers do, raise a volume  
of water to a given temp, and add the crushed grains onto the  
water. This is one of the "Noonanisms" that I feel is rather un-  
important to the overall beer quality. There are so many other  
places for brewers to make significant improvements to quality  
in brewing like malt/hops/yeast choices and even water chemistry.

Maybe I missed something somewhere....

Jim Busch

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Date: Wed, 27 Jan 1993 9:52:23 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: n.amine,dough-in

>From George Fix:

>The work that first showed that nitrosamine is a potential carcinogen is  
>summarized in the following:

>Environmental Aspects of N-nitroso Compounds, Proceedings of a  
>Working Conference held at the NE Center for Continuing Education,  
>Univ. of New Hampshire, 22-24 Aug. 1977, IARC Publ. No. 19 (1978)  
>\*\*\*\*\*

Coincidence? I think not! (look at my e-mail address). Interesting  
about the drinkers of Rauchbier. I wonder how much their diet (other  
than beer) affects their cancer rate, ie. if a lot of beta-carotene  
vegetables (sauerkraut perhaps?) negates the effects of the n.amines.

>From Al:

>For the record, "doughing-in" is the addition of water to the grist  
>(which is highly recommended) not vice versa. Adding the grist to  
>the strike liquor will work, but will create much more balled starch  
>than the opposite (see Noonan's "Brewing Lager Beer").

Curious. I add the grist to the liquor, and get what seems to be a fine  
dough-in. It seems to allow for better mixing -> no dry spots. How does  
Noonan determine that it creates more "balled starch"? Just what is  
"balled starch"? Obviously I don't have the book.....

Russ G  
OPAL/ESP  
UNH

-----



Date: 27 Jan 1993 10:18:40 -0400 (EDT)  
From: KLIGERMAN@herlvx.rtpnc.epa.gov  
Subject: nitrosamines

To continue the thread concerning nitrosoamines (specifically N-nitrosodimethylamine), they are indeed potent carcinogens but their level in beer is relatively small (ave. 2 ppb) compared to such products as frankfurters (0 - 84 ppb), fish and fish products (4 - 26 ppb), cheeses (2 - 26 ppb), and various meat products (1 to 80 ppb). They are also found in tobacco smoke and are produced in the human body from reactions between nitrates and protein. In reality, some of the more prominent carcinogens we should worry about are tobacco smoke both main and side-stream, grilled meat and fish products which contain potent heterocyclic amines, alcohol in excess, mycotoxins found in moldy grain, and UV light.

Andy Kligerman

[These are of course my own opinions and do not represent those of any Agency

I may belong to.!!]

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Date: Wed, 27 Jan 93 11:36:04 -0500  
From: rxh6@po.CWRU.Edu (Randall Holt)  
Subject: Old trub, New wort story

Had to add my data point to the re-usable trub methodolgy.

Made a nice lager in my 50 degree basement, and decided to try out the method of trub recycling. First I dumped the trub into a sterile pot, and covered it, then washed and sterilized the fermenter (I use plastic for the first stage, but only have one usable bucket). Brewed up another batch, let cool, and pitched the wort. Okay so far.

As reported, the first stage takes off like a house afire, even at 50F, it looked like it would be ready within 5 days to rack to secondary.

But, around the fifth day, while making my customary wort check, I noticed that the whole basement smelled of dirty diapers. And when I stepped into the little side room that I keep my fermenters, the smell was overpowering.

(insert sound of sinking spirits)

Well, loathe that I am to dump \$20 of malt down the drain, I waited one more day and then racked it to secondary. And while checking the gravity, I tasted the tube full of beer, and no odd flavors! The secondary seemed to be clearing just fine, BUT, the odd smell persisted in the fermentation room.

To make a long story short, the ferment room is right next to the downstairs bathroom, which we almost never use. The p-trap in the shower had dried out, allowing sewer gas to seep out into the ferment room through the plumbing access hole. Running the shower for a few minutes solved the problem.

The end of the story, is that the final product, a bitter lager turned out beautifully, and I'm convinced that re-using trub is a viable alternative but I would recommend it only for low temperature fermentation because of the extremely fast start.

And run your basement shower every month or so to keep the p-trap primed.

Bibo ergo sum.

- - -

Randall W. Holt rxh6@po.cwru.edu

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Date: Wed, 27 Jan 93 09:41:53 -0700  
From: cbacco@ursa5.cs.utah.edu (Corby Bacco)  
Subject: Source for caps for Champagne bottles.

Greetings,

I was wondering if anyone can give me a source for caps for Champagne bottles (28 mm?). My roommate works at a restuarant and has been bringing home a nice supply of champagne bottles which I would love to be able to cap. My capper does have the proper fittings to handle the larger caps (as well as the standard ones) so all I need are the caps and I'm in business. I've checked with my local shops (all 2 of them) and with William's mail order and so far have struck out. Any ideas?

Cheers,  
Corby Bacco

-----

Date: Wed, 27 Jan 93 09:08:26 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Bay area Brewoff Results

For those that like to see their name in lights, here are the winners of the Bay area Brewoff.

Pale Ale - 32 entries

- 1 - Ray Call
- 2 - Larry & Marty
- 3 - Paul Marshall

IPA - 18 entries

- 1 - Al Branch
- 2 - Gerry Burke
- 3 - Micah Millspaw

Amber Lager - 13 entries

- 1 - David Sapsis
- 2 - John Arends
- 3 - Len Lemicip (sp)

Barley Wine - 10 entries

- 1 - Tom Altenbach
- 2 - Ray Call
- 3 - Micah Millspaw

Stout - 18 entries

- 1 - David Lose
- 2 - Kirk Ware
- 3 - Dave Rose

Porter - 29 entries

- 1 - Harry Graham
- 2 - Gary Burcell
- 3 - Scott & Siegfried Bigelow

Holiday - 31 entries

- 1 - John Hartman
- 2 - Pete Gotts
- 3 - John Leichel

Mead - 8 entreis

- 1 - Ray Call
- 2 - Bruce Brazil
- 3 - Tom Lorelle

A good time was had by all.....

Bob Jones

-----

Date: Wed, 27 Jan 93 09:12:36 -0800  
From: atl@kpc.com  
Subject: Re: pvc v. copper

> hey now- anybody out there have a cooler tun using a pvc manifold  
instead o  
f  
> copper? positive/negative comments? anyone? anyone?

I am using a six gallon Ropak bucket with a PVC manifold at the bottom for my lauter tun. There is a half inch adapter for PVC that screws directly into the small spigot sold at my local brewshop. This piece, a cross fitting, three end caps and the 12 or so inches of PVC needed cost me a grand total of about \$2.50. I slotted the bottom similarly to the copper coil method. It works fine, and seems to have improved my yields over the Zapap method. I attribute this to the elimination of the 1-1.5 gallon space between the two buckets in the Zapap system. Then again, I've only got about 6 all grain batches under my belt :-), and experience may be what is increasing my yields.

-----

Date: Wed, 27 Jan 93 12:13:07 -0500  
From: hosehead@acs.bu.edu (Michael Reinhorn)  
Subject: Double BOck anyone???

If anyone out there knows of a good recipe for a blond double bock, I would appreciate it very much if they could post it, or send it directly to me. I had a very good sample at the Chapter House in Ithaca, so if there is anyone in the Cornell area who might have a clue as to how to make this beer, I would love to try to make some myself. Thanks to all in advance.

Cheers from Boston.

Micki Reinhorn  
Hosehead@acs.bu.edu

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Date: Wed, 27 Jan 93 16:22 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: And now, a beer for cats!

HBD readers might be interested in the following, which was distributed by the Associated Press:

"Brewery Markets Energy Drink for Pets  
"Strasbourg, France: A French brewery hopes to capture the pet market with its latest product--a non-alcoholic, high energy drink for cats and dogs.  
"The Pecheur brewery's latest creation is made from ingredients left over from the beer-making process and enriched with vitamins and mineral salts, said Marc Arbogast, the brewery's technicaltechnical director.  
"The drink will be marketed in Japan. If Japanese pets give it a paws-up, it will be introduced in France in March, then in Germany.  
"The drink comes in cartons and costs about the same as mineral water.  
"Pecheur has previously experimented with a beer containing malt whisky and another promoted as an aphrodisiac."

I've seen what I believed is the last product mentioned, which is packaged in a contain I could easily have mistaken for a men's cologne.

Unfortunately I can't say which paper this appeared in or on what date. I received this clipping from a relative.

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Date: Wed, 27 Jan 93 13:12:38 -0500  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: freezing pellets, low pilsner yield

In HBD #1064 James Dipalma writes:

>  
> I use pellets exclusively, and always store them in the freezer.  
Pellets  
>tend to keep better than whole hops, storing them in the freezer seems  
to  
>prolong the shelf life even further. I've used pellets that were stored  
in  
>this manner for 4 to 5 months, the beers came out fine, I didn't \*  
notice\*  
>any funny flavors or effect on hop utilization. On the other hand, I've  
>read that sub-freezing temperatures can rupture the lupulin glands.  
>Assuming for the moment that this is true, how much of a problem would  
this  
>be with pellets? IMHO, the milling and pressing processes used to make  
>pellets would rupture the glands anyway. Comments, anyone??  
>  
In fact, Pellet hops have all the glands ruptured by the pelletization  
process. The reason pellets are more stable is that they are highly  
compressed and that naturally excludes oxygen infiltration. The  
completely ruptured glands are the reason pellets have higher utilization  
rates in the boil.

- --  
Larry Barello uunet!polstra!larryba

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Date: Wed, 27 Jan 1993 09:55:10 -0800  
From: rpeck@pure.com (Ray Peck)  
Subject: Homebrew Digest #1063 (January 26, 1993)

Verify address before sending writes:

>From: bickham@msc2.msc.cornell.edu (Scott Bickham)

>Subject: COPS replies:

>

>Soon after the COPS incident was discussed here, I sent a letter to the  
>local FOX station and the producers of COPS explaining that I thought  
>homebrewing had been misrepresented. Today, I received the following  
>reply:

Yesterday, I got an identical reply. Nice to know they don't waste  
their time with individual letters. . .

Verite by ass. Propaganda != Art.

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Date: Wed, 27 Jan 93 12:28:03 CST  
From: raudins@galt.b11.ingr.com (Glenn Raudins)  
Subject: Hop Storage; Brewers Publications

Re: Hop Storage

Hopefully, with enough data, the storage loss of alpha acid can be  
fit to a nice curve for each type ( and form: pellet, whole, plug)  
Anyone  
have enough data to make an approximation?

Re: Brewers Publications

Now, not long ago, we lost our membership discount in return for  
a wider availability of the books. Has anyone seen the books in a book  
store or any place new since this change? I haven't, and am wondering  
if  
I am the only one. Does this mean we can go to the book store and  
order  
them? What does this get us? No Shipping?

Glenn Raudins  
raudins@galt.b11.ingr.com

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Date: Wed, 27 Jan 93 13:05:04 CST  
From: gdmconn@mspe5.b11.ingr.com (Guy McConnell)  
Subject: Central Florida brewers?

Do we have any brewers in Central Florida (Orlando, Kissimmee, St. Cloud, Lake Buena Vista, etc.) who read the Homebrew Digest? If so, please contact me via email. Thanks!

- - -

Guy McConnell gdmconn@mspe5.b11.ingr.com or b11!mspe5!gdmconn  
"All I need is a pint a day"

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Date: Wed, 27 Jan 93 11:45:14 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: nitro-what?

How about this:

>>RELAX, DON'T WORRY -- HAVE SOME NITROSAMINES!<<

Works for me.....

-----

Date: Wed, 27 Jan 93 13:05 CST  
From: korz@iepubj.att.com  
Subject: Re: Colour Units

Murray writes:

>I have just found a new supplier for my grain requirements who has data  
>sheets on the malt available. Specifically, it mentions a colour rating  
>expressed in degrees EBC as opposed to degrees LOVIBOND. What is the  
conversion

>factor between the two units.

>

>Also the product specification mentions the following:

>

>SPECIFICATION PALE MALTWHEAT MALT

>

>Colour 2.7 degrees LOVIBOND 4.5 degrees LOVIBOND

>Total protein eg 11.5% 14.5%

>Soluble protein eg 5.0% 8.5%

>Kolbach index eg 43 (no units) 61 (no units)

>Diastatic power 70 degrees L 160 degrees L

>Viscosity1.65 cp 1.60 cp

I don't have a conversion, but here are some L/EBC pairs from Siebel's -

-

perhaps you can figure out your own conversion factor:

| Lov   | EBC  |
|-------|------|
| 3.21  | 8    |
| 7.83  | 15   |
| 25.7  | 55   |
| 7.87  | 15   |
| 21.65 | 45   |
| 77.5  | 155  |
| 221   | 500  |
| 22.5  | 55   |
| 497.5 | 1100 |
| 557.5 | 1400 |
| 601   | 1400 |

Looks slightly non-linear at the ends, but roughly 1:2 in the middle.

Regarding the quality of this malt, I'd say it's quite good. To compare, the DeWolf-Cosyns Pale Ale Malt is:

3.21 degrees Lovibond  
10.00% total protein  
3.94% soluble protein  
60 degrees Lintner (diastatic power)

Schreier 2-row Brewer's Malt is:

1.78 degrees Lovibond  
12.4% total protein  
5.10% soluble protein  
131 degrees Lintner

Al.

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Date: Wed, 27 Jan 1993 13:26:25 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: re-using yeast in fermenter

Ron Karwoski writes about his experiences in pouring new wort over existing yeast in the fermenter. My questions relate to doing the same thing with the secondary fermenter:

1. If the secondary has been sitting a while (say a week or two) is the sediment still viable yeast?
2. After I've racked off for bottling, how long could I safely leave the remnants? I thought of just putting back the airlock and leaving it untouched until the next brew.
3. If I do 2 above, will it be necessary to "start" the yeast by adding a small amount of sterile wort as per WYEAST starters?

Peter

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Date: Wed, 27 Jan 1993 17:04:10 EST  
From: hmcook@boe00.minc.umd.edu (Hardy M. Cook)  
Subject: Yeast Culturing Questions

I'm a new reader of HBD, and some recent discussions about culturing yeast prompt me to ask a few questions. I started culturing yeasts a few weeks ago.

I began with an ale and a lager strain that I purchased in slants from the mail order supply store I use. I then had a microbiologist make me slants and petri dishes of solidified worts as per Paul Farnsworth's culturing article in the ZYMURGY Yeast and Beer Special Issue. I inoculated two petri dishes with these strains, but of course I didn't want to stop there.

Next, I took the sediment from a Trippel I had brewed using Wyeast #1214 (Belgium Ale), cultured it, and inoculated another petri dish.

Then, I brewed a lager with a Whitbread Dry Lager Yeast and an ale with a Whitbread Dry Ale Yeast. I first inoculated slants from the starter cultures

I had made by rehydrating these two in sterile wort. I had inoculated slants of the other three strains too, but all five of these slants were not as solidified as the petri dishes and I did not like what saw, so I disposed of them. I still, however, wanted cultures of the two Whitbread varieties, so I inoculated petri dishes from the slurry I collected after the primary fermentation.

I also inoculated a petri dish from a starter culture I made from a Dry Edme Ale Yeast.

Now, my questions.

Concerning the Belgian Ale Yeast from the Trippel, what are the chances that it has mutated or was a multiple-strain yeast? (I am currently making a starter culture to use over the weekend.)

Are the Whitbread's Dry Ale and/or Lager Yeasts triple-strain yeasts, and if they are, does that mean that I have cultured only the third strain because I used the slurry from the primary fermentation?

Is there anything I should know about the Dry Edme I cultured?

I would appreciate any response from those more experienced than I in yeast culturing.

Thanks,

Hardy M. Cook

HMCook@boe00.minc.umd.edu

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Date: Wed, 27 Jan 93 20:04:43 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: turpentine/solvents

Scott in #218:

>...  
>because it tasted and smelled like turpentine.  
>...  
>Question: Will these fusel alcohols/solvents diminish with time?

Al in #219:

>It's not a failure. The higher alcohols will definately diminish with  
>time and the beer will become fruitier and more complex. Wait at least  
>4 months but it could take a year -- don't worry... the alcohol level  
>will keep nasties at bay.  
Al.

I disagree. Let me be more specific: what Al says about higher alcohols may well be true. We don't really know what's wrong with Scott's beer. I have, however, on three or so occasions over the years had awful, unexplained (unexplainable?) solvent tastes/smells. Similar to the problem that JS mentioned in the Goose Island Barleywine (I tasted the stuff in early January and agree (!!)) with arf) in today's HBD, but more pronounced. In my private lexicon, this solvent taste is "clinical". I posted about it in the HBD in 1989, wondering about possible connections with diacytel (consensus: no connection) and how to avoid it (be careful with fermentation temperature and cleanliness, I seem to recall).

At any rate, I twice bottled such beer, and the solvent never went away, not even after a year. It got worse, in fact, as the other flavors mellowed.

So keep us posted, Scott.

Cheers,

Rob (bradley@adx.adelphi.edu)

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End of HOMEBREW Digest #1065, 01/28/93

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Date: Thu, 28 Jan 93 07:48:29 EST  
From: mmlai!lucy!gildner@uunet.UU.NET (Michael Gildner)  
Subject: brewpots

After some thought I've decided to invest in all grain brewing. The problem seems to be that the start up costs for the equipment could be over \$100. I can get access to a corona through my local homebrew club and the cost of converting my cooler for mashing is minimal. The main cost remains, a large 7-10 gallon brewpot. So does anyone have any ideas on where to find a good deal on a large pot? I've been eyeing one at the local "PACE" store recently. It is a 13 gallon oval shaped "Revere" copper boiler for \$80. I was hoping to find something for under \$50.

Any ideas?

Mike Gildner

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Date: Thu, 28 Jan 93 08:20:45 -0500  
From: zentner@ecn.purdue.edu (Mike Zentner)  
Subject: COPS again...

In regard to the letter from Malcolm Barbour. While I agree that the show "shows it as it happens", I think the thing that most offends me is the big zoom-in at the end of the segment on TCJHB. That is NOT "as it happened", that is a shot done for emphasis to evoke an emotional response from the audience. If it was going to be done "as it happened", I would have expected a shot of the criminal being hauled off (if I was there, I know that's where I would have been looking). Anyhow.....

Mike Zentner

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Date: Thu, 28 Jan 93 9:14:48 EST  
From: klm@mscg.com (Kevin L. McBride)  
Subject: Nitrosamine Garbage

Sigh... OK, folks, for the N-th time:

We are all going to die some time. This fact cannot be avoided, though it appears that at least one regular contributor to this forum believes that he has found the key to eternal life through the beating of dead horses.

If a glass of Smoked Porter is going to kill me then at least I will die a happy man.

Next topic. Please.

- - -  
Kevin

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Date: Thu, 28 Jan 93 9:09:07 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: dough in correction

In the last digest I made the comment regarding dough in methods in many breweries based on adding malt to water. It occurred to me last night that many BIG breweries and small breweries with pretty high tech malt feed systems do indeed have a spray system where the malt entering the mash tun is showered with hot water mixing both as they enter the tun. This is indeed about the best way to dough in, but I still assert that for homebrewers this is a bit of overkill. But then, most of you probably were aware of this anyway.

Jim Busch

-----

Date: Thu, 28 Jan 93 09:11:27 -0500  
From: mgx@ornl.gov (Michael D. Galloway)  
Subject: instructions & gifs

Could someone point me towards the HBD issue numbers where the picnic cooler/mash tun/lauder tun with slotted copper tubing instructions are? Also, could the person making the gif and jpeg scans perhaps scan the zymurgy issue cover that has kathy ireland on it? I would be most gratefull!

Michael D. Galloway mgx@ornl.gov  
Solid State Divisionvoice -- (615) 574-5785  
Oak Ridge National Lab fax -- (615) 574-4143

Living in the Wasteland (of Beer, that is)

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Date: Thu, 28 Jan 93 9:23:41 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:blond doppelbock

In the last digest hosehead@acs.bu.edu (Michael Reinhorn) asks about making Blond DoppelBock. HE also notes that the bock from the Chapter house was pretty good. This bock used to be produced by the now defunct Clement Brewing Co. It was indeed a fantastic blond doppel, weighing in at 9.5% alcohol by Vol!! For a try at the brew: Use 100% pale pils malt, possibly adding a bit of Munich, but this is not required. Push the OG up to around 1.090. Use quality imported german hallertaur hops. A double decoction mash would be good. Keep the IBUs in the 20 range. Ferment with a very clean lager strain, keeping the ferment temp at 48F. After primary for about 1 week, rack to secondary and slowly (2F per day) drop the temp to 31F. You may want to do a 2 day diacetyl rest at 39F. LAger at 31F for at least 6 weeks, 8 is better. Prime with fresh yeast and wort, or force carbonate. This is not a simple beer to make well, but can be very rewarding.

Jim Busch

---

Date: Thu, 28 Jan 93 09:48:34 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: doughing-in

Hi All,

In the last few digests, an interesting thread on dough-in. Al Korz writes:

>>For the record, "doughing-in" is the addition of water to the grist  
>>(which is highly recommended) not vice versa. Adding the grist to  
>>the strike liquor will work, but will create much more balled starch  
>>than the opposite (see Noonan's "Brewing Lager Beer").

Jim Busch answers:

>This is indeed what Noonan preaches. I have always wondered about  
>the importance and significance of adding water to malt as opposed  
>to the converse. Ok, so one can get "balled starch", wont it then  
>hydrate and become "non balled"? Cant you just stir enough to  
>completely mix the mash? ....

>This is one of the "Noonanisms" that I feel is rather un-  
>important to the overall beer quality. There are so many other  
>places for brewers to make significant improvements to quality  
>in brewing like malt/hops/yeast choices and even water chemistry.

I tend to agree with Jim. Quoting from the source in question:

"More than 10 percent flour is undesirable because it balls or cakes readily. Balled flour results in unconverted starch that is inaccessible to enzymes; some would surely wash into the wort during sparging, causing an irreversible haze in the beer."

So, Noonan says that the problem with balled starch is that it leads to incomplete conversion, and to unconverted starch getting into the wort and causing a starch haze. While I believe this is true in general, I don't think dough-in procedure is the determining factor in creating balled starch.

I say this because I always do it "backwards", fill the mash tun with water at ~130F, add 2-3 pounds of grist, stir thoroughly, repeat until all the grist has been added. The temperature settles in at ~118F-120F, just right for the protein rest. I don't have any problems with either complete conversion or starch hazes, my lagers come out brilliantly clear.

IMHO, a too-fine crush of the malt is far more likely to cause the above mentioned problems, due to large amounts of flour and pulverized husks. Comments, please?

Cheers,  
Jim

-----

Date: Thu, 28 Jan 93 09:58:42 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: logic

Al in HBD1064:

><For the record, "doughing-in" is the addition of water to the grist  
><(which is highly recommended) not vice versa.

Jim in HBD1065:

>This is indeed what Noonan preaches. I have always wondered about  
>the importance and significance of adding water to malt as opposed  
>to the converse.

Why stop there? Let's consider the inverse: adding non-water to malt.  
How about the contrapositive: adding non-malt to non-water. :-)

-----

Date: Thu, 28 Jan 93 09:56:03 EST  
From: curt@sundc.East.Sun.COM (Curt Harpold-Sun-Vienna VA-Systems  
Engineer)  
**Subject: San Francisco BrewPubs?**

I'm leaving the relatively brewpub-dry east coast for a few weeks at headquarters. I'd like suggestions of good brewpubs to visit in the SF/Palo Alto/Berkeley area.

To avoid getting flamed for wasting bandwidth, you may want to reply to me by email.

Thanks,

.....Curt Harpold      curt.harpold@east.sun.com

-----

Date: Thu, 28 Jan 93 9:14:29 CST  
From: gdmccconn@mspe5.b11.ingr.com (Guy McConnell)  
Subject: WYeast #1084

In Digest #1065, Joseph N. Hall asks:

> Finally, on a slightly different topic, has anyone here tried using  
> 1084 (Irish) for purposes other than stouts and porters? I feel like  
> trying it in bitter and mild ... perhaps it might make a good alt  
> yeast, too?

It works great everywhere I've used it. It is my "house yeast" and I  
have used it in the following:

- a blackberry ale
- 2 English milds
- an Irish Red Ale

I have also used it in 6 different stouts and have the recipe for a 7th  
already formulated, waiting for time to brew it. I love its contribution  
to beer and all of these I mentioned have been well received by friends and  
club members as well. I say go for it!

- - -  
Guy McConnell gdmccconn@mspe5.b11.ingr.com or b11!mspe5!gdmccconn  
"All I need is a pint a day"

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Date: Thu, 28 Jan 1993 10:12:57 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: re-use slurry

Re-using yeast slurry is easy, efficient, cost effective, and taste effective; I do it often. Some things to keep in mind:

1) Sanitation - especially wrt. the very first primary (meta-primary?) ferment. Anything "bad" you introduce here will be propagated through all the successive batches. Once you get to the point of using the slurry, sanitation is \*not as\* important, because there is such a relatively enormous amount of yeast being pitched for primary ferment that other organisms cannot get a foothold.

2) Pitch a large healthy yeast starter for the meta-primary ferment.

3) Use the slurry from the secondary. The primary has trub, hops, and dead yeast that can add off flavors. However, you may use the primary slurry if it fits your brewing style. If you are unsure of your sanitation in transferring from primary to secondary, you may be better off using the primary slurry.

4) Don't overdo it. All yeasts mutate; some more (and more quickly) than others. Often the mutation is to become more attenuative (making a dryer beer). I've found this to be true of Sierra Nevada/Wyeast 1056 yeast; after 3 batches the beer is too dry for my tastes. Whitbread ale yeast, otoh, had been reported to be able to be re-used many times (20+ ?) without much change in character.

Try it, you'll like it. Oops, gotta go to work.

RG

-----

Date: Thu, 28 Jan 93 10:40:25 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: EBC to Lovibond

Hi All,

In the last HBD, Al Korz writes:

Murray writes:

>I have just found a new supplier for my grain requirements who has data  
>sheets on the malt available. Specifically, it mentions a colour rating  
>expressed in degrees EBC as opposed to degrees LOVIBOND. What is the  
>conversion>factor between the two units.

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>Also the product specification mentions the following:

>

>SPECIFICATION PALE MALTWHEAT MALT

>

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>Soluble protein eg 5.0% 8.5%

>Kolbach index eg 43 (no units) 61 (no units)

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>Viscosity1.65 cp 1.60 cp

I don't have a conversion, but here are some L/EBC pairs from Siebel's -

-

perhaps you can figure out your own conversion factor:

| Lov   | EBC  |
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| 7.87  | 15   |
| 21.65 | 45   |
| 77.5  | 155  |
| 221   | 500  |
| 22.5  | 55   |
| 497.5 | 1100 |
| 557.5 | 1400 |
| 601   | 1400 |

Fred Eckhardt's well-known book on beer styles contains an equation for converting EBC to Lovibond.

$$\text{EBC} = \text{Lovibond} * 2.65, \text{ less } 1.2$$

Implying that to convert from EBC to Lovibond, add 1.2, then divide by 2.65. Here's what I got when I ran the numbers Al provided:

|                        |
|------------------------|
| EBC = 8, L = 3.47      |
| EBC = 15, L = 6.11     |
| EBC = 55, L = 21.21    |
| EBC = 15, L = 6.11     |
| EBC = 45, L = 17.43    |
| EBC = 155, L = 58.94   |
| EBC = 500, L = 189.13  |
| EBC = 55, L = 21.21    |
| EBC = 1100, L = 415.55 |
| EBC = 1400, L = 528.75 |

EBC = 1400, L = 528.75

Hmmm, a couple of interesting observations here. First, from looking at the pairs Al provided, it would seem that whatever the conversion formula is, it's not linear, so I'm not terribly surprised the equation from Eckhardt doesn't quite hold. Second, there are three pairs where the

EBC rating is the same (15, 55 and 1400), yet the equivalent Lovibond ratings are different. What gives?

I would be very interested in an accurate method of converting these units. If anyone knows how to convert the two, please jump right in.

Cheers,  
Jim

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Date: Thu, 28 Jan 93 08:07:46 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Isolating pure yeast

Hardy M. Cook ask some questions about yeast culturing.

There exists a agar called "WL nutrient agar" that is great for isolating pure yeast from wild yeast strains. This agar is green in color. The pure yeast take up the green color when grown up on Petri dishes and the wild yeast remain white. I personally have never used the stuff, but have know about it for years and was looking at some yeasts that were grown up of the media this last weekend at the Bay Area Brewoff. A friend of mine uses it to always check his yeast and grows up yeast taken from slants on the stuff. I like these type of eyeball sort of tests. Maybe some microbio type out there could post the availablity and cost of the media for those interested.

Bob Jones

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Date: 28 Jan 93 08:20:54 U  
From: "Rad Equipment" <rad\_equipment@rad-macl.ucsf.EDU>  
Subject: Pecheur

Subject: Pecheur Time:8:06 AMDate:1/28/93  
>"Pecheur has previously experimented with a beer  
>containing malt whisky..."

I think this is a mistake. They have brewed a beer using whisky malt called Adelscott which (according to Mr. Jackson) "imparts a very light smokiness." I have spoken with the US importer about this product in the past only to learn that they do not plan to introduce it here. Some problem with the labeling.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmacl.ucsf.edu - CI\$: 72300, 61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: 28 Jan 1993 11:41:35 -0500 (EST)  
From: SSA92FAJ14@RCNVMS.RCN.MASS.EDU  
Subject: help

help

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Date: Thu, 28 Jan 93 10:16:42 -0600  
From: gjfix@utamat (George J Fix)  
Subject: Bluebonnet Brew-off

I hope everyone caught Bryan's announcement in HBD#1064 of the Bluebonnet Brew-off which will be held on 5-6 March. The organizing committee has really worked hard on this one, and it looks like it is going to be a very interesting and fun conference.

I hope to organize a tour during the conference. This will be carefully coordinated with the organizing committee so that it does not conflict with the exciting events they have planned. The conference will be held in the central part of the Dallas-Ft. Worth metroplex (better known here as the Arlington metroplex). This is within striking distance of two commercial breweries (Dallas Brewing & Miller/Ft. Worth), and I hope to include some interesting homebrewing setups as well. It would be great to have people on this network join us. Technical discussions tend to have a lot more meaning when they are done in the context of an actual brewing configuration.

Anyone interested should contact me via private e-mail.

George Fix  
gjfix@utamat.uta.edu

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Date: 28 Jan 1993 11:56:16 -0500  
From: Chris McDermott <mcdermott@draper.com>  
Subject: Repitching yeast.

Repitching yeast.  
First off lets clear up the terminology here. Several post in last few digest have mentioned repitching "trub". In most cases I assume that this was simply a mistake and what the writer meant was "yeast". However in #1065 Randall Holt says:

>Made a nice lager in my 50 degree basement, and decided to try  
>out the method of trub recycling. First I dumped the trub into  
>a sterile pot, and covered it, then washed and sterilized the fermenter  
>(I use plastic for the first stage, but only have one usable bucket).  
>Brewed up another batch, let cool, and pitched the wort. Okay so far.

While I am sure that this will give him a good quantity of viable yeast, I'm also sure that it give him of bunch of crap (trub - yeast = crap) that I wouldn't want to pitch into my beer. So before anyone takes that advise to heart unadvisably - the more accepted method, at least in my mind, is to repitch the sediment from the secondary which should be mostly yeast and should contain several orders of magnitude less crap.

Also in #1065, Peter Maxwell asks:

>1. If the secondary has been sitting a while (say a week or two) is the  
>sediment still viable yeast?

At least some portion of the yeast should still be viable.

>2. After I've racked off for bottling, how long could I safely leave the  
>remnants? I thought of just putting back the airlock and leaving it  
>untouched until the next brew.

With no food left the yeast will begin to autolyze. This is not good. My method for saving yeast in this situation is to dilute the sediment in the carboy with some sterilized water and then dump that slurry into a steril jar that gets stored it in the refridgerator. The cool temperatures slows down the autolyzation and should keep the yeast good for a week or more. I use a pressure cooker to prepare "canned" jars of yeast starters. Using the same method I make up a few jars of "canned" water that serves to produce a sterilized jar for storage as well as sterilized water.

>3. If I do 2 above, will it be necessary to "start" the yeast by adding a  
>small amount of sterile wort as per WYEAST starters?

Most of the "old" yeast may have died, but again there should remain some portion of healthy yeast. By using a starter you can insure that you will get

a large population of viable yeast for pitching. I usually assume that the portion of viable yeast is large enough that I can build up a large starter (1 - 1.5 qt) in a single step, but depending on how old the yeast is you may want to do it in stages.

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Christopher K. McDermott Internet: mcdermott@draper.com  
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Cambridge, MA 02149 (USA)

Date: Thu, 28 Jan 93 10:08:19 MST  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: re-using yeast in fermenter

> Ron Karwoski writes about his experiences in pouring new wort over  
> existing  
> yeast in the fermenter. My questions relate to doing the same thing  
> with  
> the secondary fermenter:  
>  
> 1. If the secondary has been sitting a while (say a week or two) is  
> the  
> sediment still viable yeast?  
>  
> 2. After I've racked off for bottling, how long could I safely leave  
> the  
> remnants? I thought of just putting back the airlock and leaving it  
> untouched until the next brew.

The yeast should still be viable even after a long secondary. I believe  
that many of the yeast cells go dormant, rather than die (the more  
biologically inclined can correct me on this point if I'm wrong).

I suppose you could leave the remnants in your fermenter, but once you  
remove the beer, you introduce a lot of air and accompanying microbeasts.  
My technique is to pour the sediment into a small sterilized (boiled)  
jar,  
cap it with an airlock, and put it into the fridge. The small CO2 output  
you'll get will quickly purge the smaller jar of air, and the colder  
temps  
inhibit any bacterial growth and slow down the yeast activity.

I find that my yeast stored this way will last 2-3 weeks.

> 3. If I do 2 above, will it be necessary to "start" the yeast by  
> adding a  
> small amount of sterile wort as per WYEAST starters?

I don't think so. If you have half a cup of thick yeast slurry like  
that, you already have more yeast than you would in a 1-qt starter.  
I simply let the yeast warm to room temperature until it shows signs of  
life again, and then dump it right into my wort.

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Thu, 28 Jan 93 11:27:20 -0600  
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)  
Subject: doughing in

large breweries dough in by propelling a spray of grist into another spray of water. the water is typically about 5-8 degrees C warmer than the desired mash temperature. i'm not sure which approximation by homebrewers, i.e., either adding the malt to the water or vice versa is the better alternative. intuitively, i suspect adding the grist to the water slowly would result in less dough clumps. neither approach can mirror the uniform temperature and heat exposure of the entire grist as seen in the commercial brewery. for example, the grist initially added to the water sees a higher temperature than the grist added later on. it seems from the recent posts on this subject that both methods work pretty well.

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Date: Thu, 28 Jan 93 09:37:10 PST  
From: rstya@mda.ca (Roy Styan)  
**Subject: Judges Wanted**

The Royal Canadian Malted Patrol is holding their annual "Wort You Brewin'?" competition in Vancouver B.C. on March 6, 1993. If any of you out there are interested in judging please let me know and I will send you the details.

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Date: Thu, 28 Jan 1993 11:53:24 CST  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: yeast culture media - formulations by weight

I've allways done my culturing using liquid media and I'd like to experiment with agar. I have found recipes that are formulated in units like 'tablespoons of' and, as my agar is not powdered and in several weird foamy shapes (strings, square tubes etc), I would like to request some agar recipes using english or metric measures.

Thanks!

John - The HopDevil  
john@hopduvel.UUCP  
isenhour@lambic.fnal.gov

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Date: Thu, 28 Jan 93 13:23:51 EST  
 From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
 Subject: HBU-IBU Table, Wort chillers

In HBD 1063 Jim Grady asks about calculating IBU's from HBU's for comparing recipes. Although his question was probably answered directly, I've computed the following table using Rager's article in the Zymurgy Hops edition, and I hope other hbd'ers find it useful also.

\*\*\* IBUs from 1 HBU \*\*\* (Rager)

| Gravity of Wort |       |       |       |       |       |       |       |       |       |  |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Time(min)       | 1.040 | 1.050 | 1.060 | 1.070 | 1.080 | 1.090 | 1.100 | 1.110 | 1.120 |  |
| 5               | .746  | .746  | .711  | .678  | .649  | .622  | .597  | .574  | .553  |  |
| 10              | .895  | .895  | .853  | .814  | .779  | .746  | .716  | .689  | .663  |  |
| 15              | 1.194 | 1.194 | 1.137 | 1.085 | 1.038 | .995  | .955  | .918  | .884  |  |
| 20              | 1.507 | 1.507 | 1.436 | 1.370 | 1.311 | 1.256 | 1.206 | 1.159 | 1.117 |  |
| 25              | 1.806 | 1.806 | 1.720 | 1.642 | 1.570 | 1.505 | 1.445 | 1.389 | 1.338 |  |
| 30              | 2.283 | 2.283 | 2.175 | 2.076 | 1.986 | 1.903 | 1.827 | 1.756 | 1.691 |  |
| 35              | 2.806 | 2.806 | 2.672 | 2.551 | 2.440 | 2.338 | 2.245 | 2.158 | 2.078 |  |
| 40              | 3.403 | 3.403 | 3.241 | 3.093 | 2.959 | 2.836 | 2.722 | 2.617 | 2.520 |  |
| 45              | 4.015 | 4.015 | 3.823 | 3.650 | 3.491 | 3.345 | 3.212 | 3.088 | 2.974 |  |
| 50              | 4.194 | 4.194 | 3.994 | 3.812 | 3.647 | 3.495 | 3.355 | 3.226 | 3.106 |  |
| 55              | 4.477 | 4.477 | 4.264 | 4.070 | 3.893 | 3.731 | 3.582 | 3.444 | 3.316 |  |
| 60              | 4.477 | 4.477 | 4.264 | 4.070 | 3.893 | 3.731 | 3.582 | 3.444 | 3.316 |  |

| Gravity of Wort (Extract Brewer Range) |       |       |       |       |       |       |       |       |       |  |
|----------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Time(min)                              | 1.130 | 1.140 | 1.150 | 1.160 | 1.170 | 1.180 | 1.190 | 1.200 | 1.210 |  |
| 5                                      | .533  | .515  | .497  | .481  | .466  | .452  | .439  | .426  | .415  |  |
| 10                                     | .640  | .618  | .597  | .578  | .560  | .543  | .527  | .512  | .497  |  |
| 15                                     | .853  | .823  | .796  | .770  | .746  | .724  | .702  | .682  | .663  |  |
| 20                                     | 1.077 | 1.040 | 1.005 | .972  | .942  | .914  | .887  | .861  | .837  |  |
| 25                                     | 1.290 | 1.245 | 1.204 | 1.165 | 1.129 | 1.094 | 1.062 | 1.032 | 1.003 |  |
| 30                                     | 1.631 | 1.575 | 1.522 | 1.473 | 1.427 | 1.384 | 1.343 | 1.305 | 1.269 |  |
| 35                                     | 2.004 | 1.935 | 1.870 | 1.810 | 1.754 | 1.700 | 1.650 | 1.603 | 1.559 |  |
| 40                                     | 2.430 | 2.347 | 2.268 | 2.195 | 2.127 | 2.062 | 2.002 | 1.944 | 1.890 |  |
| 45                                     | 2.868 | 2.769 | 2.676 | 2.590 | 2.509 | 2.433 | 2.362 | 2.294 | 2.230 |  |
| 50                                     | 2.995 | 2.892 | 2.796 | 2.706 | 2.621 | 2.542 | 2.467 | 2.396 | 2.330 |  |
| 55                                     | 3.198 | 3.088 | 2.985 | 2.889 | 2.798 | 2.713 | 2.634 | 2.558 | 2.487 |  |
| 60                                     | 3.198 | 3.088 | 2.985 | 2.889 | 2.798 | 2.713 | 2.634 | 2.558 | 2.487 |  |

To use this table estimate (or measure) the gravity of the wort, and find the number corresponding to the time of boil. Multiply this number by the HBU's to get IBU's. For example to compare Jim's two recipe's for an extract pilsener, let's assume a full boil with a gravity of about 1.050 (and neglect the increase in gravity as the wort is concentrated). Then recipe 1 yields

5.75 HBU @ 60 min = 5.75 \* 4.477 = 25.7 IBU  
 +3.5 HBU @ 15 min = 3.5 \* 1.194 = 4.2 IBU

-----  
 29.9 IBU (from the boil).

Recipe 2 calls for

10.0 HBU @ 30 min = 10.0 \* 2.283 = 22.8 IBU

which is less than recipe 1. Of course if you are only doing a partial boil (heaven forbid) the gravity of the boil will be about

1.125 and the IBU counts will be reduced to 21.4 and 16.6 respectively.

In Rager's article the utilization rates are based on a maximum of 30% at 60 minutes and these numbers should probably be reduced by about 20% for hop flowers.

In HBD1064 Mike Zulauf asks about immersion in ice-water chillers:

> I am curious if anyone else uses this type of chiller. If so, how  
>well does it work? How long does it take to chill 5 gallons of wort to  
>a reasonable temperature? How much ice is required? What length of  
>what diameter tubing was used?  
>Anything else I should know before leaping in and just making the  
>thing? Enquiring minds want to know!

I made such a chiller out of 25 ft. of 3/8 od copper last summer because during the summer my tap water is 80 degrees F making the counterflow or immersion in kettle type less attractive. It works great, chilling 5 gallons of boiling wort down to 60-70 degrees F in 15 to 20 minutes. When you factor in the latent heat needed to melt the ice you will find that equal amounts of 10 deg F ice and 212 degree boiling water will come to equilibrium at about 52 degrees F. So as a rule of thumb you should use about the same amount of ice as the wort you're trying to cool. I also add about 1 or 2 gallons of cold water to the ice. You should constantly stir the ice water while the wort is passing through for the ice water and wort to more efficiently equilibriate the temperature.

On the other hand since my tap water now is about 52 degrees F I have also made an immersion in kettle chiller which cools the wort to about 70 deg F in about 25 minutes. Since we don't have a water shortage in Maryland, I prefer this method because I don't have to save all that ice.

Bill Szymczak

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Date: 28 Jan 1993 13:37:55 -0400 (EDT)  
From: KLIGERMAN@herlvx.rtpnc.epa.gov  
Subject: propensity pilsner lagering

Subject: Propensity Pilsner Lagering Questions

>I am posting for a friend, but he made the following,  
and has a few questions:

>Propensity Pilsner (from Papazian's NCJOHB)

>Wyeast #2007 (I think it's a bavarian lager, but the # is definitely correct.)

>OG: 1055

>Primary Ferment for one week @ 52F.

>Racked to secondary.

>Secondary Ferment is currently on it's NINTH week @ 40F. etc...

>Still getting glugs every 60 seconds from normal 3-piece airlock.

>Is this too long of a ferment?

I have made this beer 3 or 4 times and it is excellent but the flavor depends on the source of honey. My advice to you is relax and have a homebrew. Your lagering is more than ample but you probably have a lot of dissolved CO2 which is slowly coming out of solution. I would raise the temp. 5 degrees/day until your beer is up to room temp. and let it either finish fermenting (doubtful) or degass a bit. Also it would be wise to take a gravity reading and/or measure the residual sugar to see if the gravity is low enough to bottle safely.

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Date: Thu, 28 Jan 93 13:58:03 est  
From: "Sadvary, Bill" <SADVARY@DICKINSON.EDU>  
Subject: My Shuttle Buddy

My Shuttle buddy, Dan Vosel (some of you may know him) sent me a case of Pabst Blue Ribbon today for my birthday. I thought it was a rather unusual choice of brew and thus it got me wondering...

The label states:

This is the ORIGINAL Pabst Blue Ribbon Beer. Nature's choicest products provide its prized flavor. Only the finest of hops and grains are used. Selected as America's Best Beer in 1893.

A few questions:

1. Why would they specify Original? Did they have forgery problems at one time?
2. Nature's choicest products, is choicest a word?
3. Prized flavor, would anybody know the prizes awarded? ..besides a Blue Ribbon.
4. Only the finest of hops and grains. How would I attempt to duplicate such a beer? Rice would be one, right?
5. Selected as America's Best Beer. What other american beers were around available in 1893?

If anyone can answer any of these I would greatly appreciate it. Thanks!

-Bill Skill  
sadvary@dickinson.edu

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Date: Thu, 28 Jan 1993 12:31:59 -0500 (EST)  
From: Tom Rush <trush@mhc.mtholyoke.edu>  
Subject: Scientific American: Absinthe

If anyone is interested and has access to the back issues of SA the June 1989 issue, pp 112-117, there is an article on the liqueur "Absinthe".

I know this is not a forum for discussion of distillates but bear with me :-). ... it is well researched and proposes a chilling theory on the use (abuse) of various herbs particularly *Artemisia absinthium* the common herb, Wormwood and other herbs found in herb gardens (mine) and many times in herbal outlets (herbalists?).

I understand the herbs in absinthe are distilled \*essences\* but it is food for thought when someone discovers an old beer recipe some of the herbs it could require may contain some powerful compounds which invite the cautionary phrase "more is not always better".

Other interesting sections touch on relationship of absinthe with Van Gogh, Degas, Manet, etc. - the "absinthe spoon" which I have seen but never knew why a spoon would have slots cut thru it. Also a sidelight on the invention of the alcoholmeter (works like a hydrometer), and a 19th century still. Ironically in the bibliography of the author, Prof. Wilfred Niels Arnold specializes in yeast research but his avocation is 19th century medicine and art history. Please do not consider this as "breaking new ground" it is meant to be read and taken for face value, I am not a scientist or engineer (liberal arts and MBA).

Now that I am admitted scientific layperson, would someone be kind enough to send me the method used to "wash" yeast? I would prefer a simple explanation where I don't have to put on a laboratory "white coat" :-). ... Thanks,

Tom Rush

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Date: Thu, 28 Jan 1993 18:01:36 +0000  
From: G.A.Cooper@qmw.ac.uk  
Subject: Florida Brewers

Guy McConnell asks:

> Do we have any brewers in Central Florida (Orlando, Kissimmee, St.  
Cloud,  
>Lake Buena Vista, etc.) who read the Homebrew Digest? If so, please  
contact  
>me via email. Thanks!

Please talk to (email) me also. I shall be over in Florida with my family  
for 2 weeks at Easter - Yes, Orlando for Disney World then the Gulf  
coast.  
Otherwise advice on pubs, breweries etc. would be appreciated.

Geoff

PS. sorry to those who don't like these requests but the brewlist isn't  
ready yet. Or is it?

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Date: Thu, 28 Jan 93 13:35:41 CST  
From: lencell@unmc.edu (Lance Encell)  
Subject: nitrosamines in beer

Just to add a little to the talk about nitrosamines, they are found in beer and wine, but as has been noted, they are found at very low levels.

They are formed under acidic conditions in our stomachs by the nitrosation of ingested secondary amines by nitrite (generated from nitrate). It has been shown that vitamin C prevents nitrosation by competing with the amines for the nitrite. So everyone drink their O.J. so you get your C's.

Finally, nitrosamines require metabolic activation to exert their toxic and carcinogenic effects. It just so happens that ethanol increases levels of the enzyme responsible for the activation of N-nitrosodimethylamine, the major nitrosamine found in beer. Whether increasing the metabolism by raising enzyme levels is good or bad regarding toxicity is currently being studied by a lot of people.

This is great, we all need a little chemistry now and then. Enjoy.

-Lance

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Date: Thu, 28 Jan 1993 17:18:00 +0000  
From: "Kevin (K.W.) Golka" <golka@bnr.ca>  
Subject: Mai Bock Strike Temp and Chillers

I have read a couple of recipes for Mai Bock that call for a mash temperature of 150F for 2 hours. This temperature seems too low. The Mai Bock which we made had a strike temperature closer to 156F and it turned out pretty much as expected.

With a mash temperature of 150F how do you end up with the characteristic sweetness of a Bock? There was a pound or so of crystal malt in these recipes but I wouldn't have thought that this would be sufficient on its own for the style.

I thought that a two hour mash at this temperature would give you Mai Dry :). Am I missing something here?

On another note...

I have an immersion wort chiller but a friend of mine is planning on building a counter flow chiller. Is there a FAQ with pipe diameter, length and so on?

Has anyone built a counter flow chiller that looks like a coil in a big coffee can? Advantages/disadvantages over the garden hose method?

Thanks for any info,

Kevin Golka, 613-763-3474

These opinions are my own and not necessarily those of NT or BNR.

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Date: 28 Jan 1993 16:41:28 -0600 (MDT)  
From: MARK TARATOOT <SLNDW@CC.USU.EDU>  
Subject: cyser yeast

Greetings.

I am going to give my first cider a couple of months in the bottle and I am sure it will get better. It already seems to be improving and I am less disappointed than I was at first.

In the meantime, I am in the process of starting a batch of cyser and am in need of a few comments. The basic recipe is:

~ half a gallon of snowberry honey (5-6 pounds)  
4 + gallons fresh cider (mostly macintosh and delicious)  
12 oz seneca granny smith apple juice concentrate (no preservatives)  
3 tsp acid blend  
3+ tsp yeast nutrient  
10 campdon tablets

O.G. = 1.082

I have several yeast varieties at my home, and I am wondering which I should use/start with/finish with/etc. I have:

Pastuer Champagne (red star)  
Montrachet (red star)  
Epernay 2 (red star)  
Ale (williams)

My last cider was made with Epernay 2 and it finished quite dry. I would like a sweeter beverage, but I don't know if the ale yeast will poop out too soon (I want to sparkle some of it). Also, I don't know if the ale yeast will ferment more vigorously and scrub some of the more subtle flavors from the must. If anyone has information on the characteristics of the first three yeasts above, I would like to hear it.

When I rack this, should I increase the sugar (honey) if I go with one of the wine yeasts?? My first cider started around 1.050. What about lager yeast? What are the advantages/disadvantages in using one type of yeast and adding another at a later time (or starting with more than one type)?

How about juicing some other type of apples and tossing that in at one of the rackings?

I plan on pitching late tonight or more likely tomorrow morning after the majority of SO2 has been thrown off, so timely comments would be helpful.

BTW... the Clinton Ale is Delicious!!

Thanks for the help!  
-toot

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Date: Thu, 28 Jan 93 12:25 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Nitrosamines, Dough-in

>From: gjfix@utammat (George J Fix)

>For the record, the highest NDMA level reported was in Bamberg  
Rauchbier.  
It contained 5-15 parts per billion, and not 5 ppm as reported in HBD.

Just testing to see if you read my articles as carefully as  
I read yours :)

> This also was the level reported in their malt. The NDMA levels of  
beer is  
typically 9-10 times lower than in the malt used.

One would think that it would be many orders of magnitude lower than the  
malt  
resulting from the dilution by water. Would not the fact that this one  
is an  
exception point to the possibility that they are creating new NDMA (I  
bow to  
your term) in their brewing process?

>I feel it is perfectly legitimate to raise the possibility that beer  
with  
higher than normal nitrosamine levels could be a health hazard.  
Nevertheless,  
there are many aspects of this issue I do not fully understand. For  
example,  
population data shows that Bamberg has one of the highest rates of beer  
consumption in Germany (no small feat!), yet its cancer and death rates  
are near (and in fact slightly below) the average in Germany...

A dilemma indeed. (Potentially resolved by the suggestion today that,  
maybe  
it's the saurkraut) However, someone decided that NDMA is carcinogenic  
and  
without further evidence, I am not about to waive the condemnation based  
on  
one anecdotal experience. It's a bit like the CDC claiming that  
mosquitoes  
can't spread AIDS because a study done in a swampy town in Southern  
Florida  
showed no higher incidence than the population at large.

>For the record, the Belgium base malts have very low NDMA levels, and  
in fact are lower than most US malts.

Their literature claims that all their malts are indirectly kilned and  
the  
major US supplier (Bries) still uses direct fired kilns. No doubt this  
is  
what skews the data.

Personally, I was delighted to find a source of indirect malt that  
didn't  
compromise overall quality and taste. The Belgian malts seem to be the  
best

of all options. By using them I do not have to care who is right on the NDMA issue.

>From: Jim Busch <busch@daacdev1.stx.com>

>This is indeed what Noonan preaches. I have always wondered about the importance and significance of adding water to malt as opposed to the converse.... This is one of the "Noonanisms" that I feel is rather unimportant to the overall beer quality.

>Maybe I missed something somewhere....

I think what you missed was Rudebusch's reference to "doughing-in" with water at a temperature on the order of 175 degs.

Doughing-in is the initial mixing of malt with water in such a way as to assure that it is thoroughly mixed BEFORE the water is raised to ANY strike temperature. It is done with a small quantity of water at or near room temperature and the result is what is described in the name, i.e. a dough or very thick paste. It is more easily accomplished by adding the water to the malt but the important point is to break up the starch balls before they are heated up as they can then form clumps that water will never penetrate.

The value of all this can be debated ad nauseam but one point that should be clear is that it really can not be done with a single step infusion mash.

The amount of water used to doughin, in addition to the grain itself, could never be brought to saccharification temp by adding the rest of the water, regardless of the temp. It is a concept that really only applies to kettle mashing on the stove.

This also explains why brewpubs and micros do not do it. I would also caution that as micros are in a grey area economically, between large commercial brewers and home brewers, they are not necessarily the paragons of technology or quality a homebrewer wants to aspire to. They do lots of things for reasons of cost that we do not have to be concerned with. The majors can do things that seem costly but have a positive effect on the bottom line for other reasons. They also have the option of "adjusting" the bottom line by adding more water to the "beer concentrate".

>From: KLIGERMAN@herlvx.rtpnc.epa.gov

>-nitrosodimethylamine), they are indeed potent carcinogens but their level in beer is relatively small (ave. 2 ppb) compared to such products as frankfurters (0 - 84 ppb), fish and fish products (4 - 26 ppb), cheeses (2 - 26 ppb), and various meat products (1 to 80 ppb).

Interesting numbers but so are the ranges. They all have a low end below the

FDA limit for beer. I don't know what the limits are for the other products but I think we all know that BIG Brother seems as interested in protecting the economy and big business as they are in protecting the consumer.

Having said that, I guess I have to add, so what? Only a fool would intentionally choose to eat products with higher levels of carcinogens if given reasonable choices. In malt we have a choice. If we let the industry trample our health interests and defend them in doing it, whom have we served? If we insist on the safest product they can produce, we serve ourselves.

js

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Date: Thu, 28 Jan 93 17:57:54 PST  
From: tinsethg@ucs.orst.edu (Glenn Tinseth)  
Subject: Hop\_aroma

In a recent issue Darryl Richman laments:  
>If only there were a way to describe hop aroma with a number...

Well, Darryl (choir music...) there is a way, and the good folks at O.S. U. Ag. Chem. (Gail Nickerson) and Blitz Weinhard Brewing (Earl Van Engel) have published a couple of papers on it in the Journal of the American Society of Brewing Chemists (Vol. 50, No. 3, 1992). The number you hoped for is called the hop aroma unit and is Rquantitatively measured as 1 nanoliter per gram of hops (1 ppm, v/w), of 22 hop oil compounds that have been reported to affect hop aroma.S The individual measurements of these 22 compounds make up the Hop Aroma Component Profile (HACP). The researchers hope that the hop aroma unit will end up being as useful as the alpha acid % is now.

The 22 aroma-active compounds are divided into three groups, oxidation products of humulene and caryophyllene, floral-estery compounds, and citrus-piney compounds. The oil is obtained via steam distillation and taken apart with a gas chromatograph.

What does this mean to the average homebrewer? Not a heck of a lot, unless youUve got some state of the art instrumentation hanging around the garage. I sell hops for a living and have had a \*real\* hard time getting anything but vague average values from the brokers. So for a specific lot of hops from a specific grower (which could be any of many), you are better off relying on your nose than making any assumptions based on the R1992S crop data.

In the same issue Al (Korz) asks about his hop stats and whether anything useful can come of them. Here are some common assumptions for hop RnobilityS: AA % less than 7, alpha/(alpha+beta)=.4-.6, cohumulone <25%, myrcene content low, humulene/caryophyllene >3, farnesene may or may not be present. So you can get quite a bit from the numbers you have.

I have a \*lot\* of other info on hops, hop analysis, Rhoppiness potentials, yeah I went a little crazy with my copy card at the library, heck, no one else reads those beer journals but me. Give me a yell if you want more in depth hopitude. IUm on the net only on Tues and Thurs.

Glenn Tinseth (The Hop Source)  
tinsethg@ucs.orst.edu 503-873-2879

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End of HOMEBREW Digest #1066, 01/29/93  
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Date: Fri, 29 Jan 93 02:38:20 MST  
From: Chris Kunath (Chicago) <cjk@denver.ssds.COM>  
Subject: malt mixing

Dear Hopheads,  
I've followed this reflector group for several months, and am finally motivated enough to try my first batch of homebrew. Whilst doing my homework, though, I've stumbled across a few contradictions. After I figured out the difference between a single-stage and two-stage fermentation (thanks to "Better Beer & How to Brew It") after about ten books, I have only one conceptual block (so far): mixing the malt.

Mr. Beadle ("Brew it Yourself\*"), and at least two other British 1960s-type books abhor boiling:

"Do not bring the water to a boil. You will remember from the section on commercial procedures that the malt was kept at a temperature of 153 degrees Fahrenheit to allow the diastase enzyme to convert starches to sugar for correct fermentation of the malt. If you allow the water temperature to approach the boiling point, you will upset this sugar conversion and cause it to re-fix at a stage that will not allow the yeast to convert all the malt sugar to alcohol and and carbon dioxide. The temperature of the mixing water must not exceed 153 degrees F. Every other book on home-brewing has incorrectly given instructions to boil the malt in the water to dissolve it. This will only guarantee that some of the malt sugar will not be converted. This single bit of misinformation from those who should know better has caused many beginners to become unnecessarily discouraged in their attempts at brewing."

Tenth-grade chemistry was many moons ago. Every book I've stumbled across published since then (c1971) recommends boiling, even up to an hour for porters and stouts. Since that is what I'd like to brew, I have a few questions:

1. Has brewing chemistry advanced since then, proving this guy and my library of 1950-70 homebrewing books wrong?
2. Am I treading on rwar territory? If so, don't waste bandwidth, flame me direct at cjk@denver.ssds.com.

Perhaps I should not "Don't Worry," and instead "Don't Panic!" :-)

\* Beadle, Leigh P.  
Brew it yourself, Doubleday Canada Ltd., Toronto. 1971  
Library of Congress catalog card number 79-164535

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Date: Fri, 29 Jan 93 10:18:08 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: Dough in, yeast, all Munich brew, barley wine

I have had some trouble with the mailer. My last 2 postings bounced after several days...

Congrats to js for finally giving an accurate description of dough in, i.e. adding the minimum COLD water to form a dough. This is not just to prevent dough balls, but to allow enzymes to leach into the water before the rests. It assumes a poorly converted malt. Normally the temp is raised to ACID rest with an infusion of boiling water, but who does an acid rest anyway? I will dough in for my barley wine this weekend, mostly because I don't know how thin my mash can be (24 lb in a 7ga cooler), and because I'll be using Pilsener malt.

I often reuse yeast and have had few problems, except that occasionally fermentation will start so quickly, I won't have a chance to rack off the trub before it gets dispersed. I will reuse the yeast from the primary of a stout made with yeast cultured from a Guinness bottle for my barley wine.

I made a beer with all Munich and 1 lb of Ireks-Arkady crystal. My suppliers has been having trouble getting analyses, so I was shooting in the dark. Rather than a dunkel, the beer is a Vienna. Now I am wondering what the supposed Vienna I made with 3lb Munich and 6lb lager will be - a Muenchener Helles - my attempt at the latter became an award winning Helles Bock (maybe I'll brew what I intend to sometime!).

Someone asked about agar - 1.5% is normal for slants i.e. 15g/liter. Convert from these units to those you like perhaps 1/2 oz per quart would be close.

Ulick Stafford

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Date: Fri, 29 Jan 93 11:24:25 +0100  
From: steve\_T@fleurie.compass.fr (Steven Tollefsrud)  
Subject: Old Porter Brewed using Salvaged Yeast

In response to someone's not so recent interest in this story, I dug around in my dusty archives and found a copy of an article which I clipped out of the Int'l Herald Tribune (Nov. 29, 1991). The story is written by Steven Prokesch of the New York Times Service.

It is about the successful efforts of a microbiologist, Dr. Keith Thomas, to cultivate yeasts taken from two bottles of Porter recovered from a ship that sank in the English Channel in 1825. He is now brewing Porter from this yeast with a Porter recipe from the same era taken from the archives of Whitbread. The significance of this beer is that it is an example of what true Porter was like in the early 19th century and how, over time, yeasts have changed through genetic mutation and brew recipes have changed in response to consumer mutation.

The name of this brew is Flag Porter and Bottle Green. At the time of the article, only about 4000 gallons per year were being produced. Flag Porter and Bottle Green were being wholesaled by Vinceremos Wines Ltd. and most of it was being sold through restaurants, specialty liquor stores, health food shops, and pubs in the UK, though, according to the article, they were hoping to start exporting to the U.S. in 1992.

This is a very interesting story for this forum, and I have not done it justice with the scant details I have included here, but I don't know whether it is legal to transcribe it without permission from the publication or the author. Can anybody advise me on this?

I hope that this info has been useful for the person who was asking about it.

Steve Tollefsrud  
Valbonne, France

e-mail: steve\_T@fleurie.compass.fr

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Date: Fri, 29 Jan 93 08:33:23 EST  
From: mlobo@sentry.foxboro.com (Michael T. Lobo)  
Subject: hops

Greetings:

Can anyone tell me where I can buy hop seeds/plants/whatever you need to grow hops? A mail order place would be great.

Thanks - please just email me directly-

Michael

Michael T. Lobo 508 549 2487  
Foxboro Co.  
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,  
my beer speaks for me" -Monty

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Date: Fri, 29 Jan 93 09:28:11 -0800  
From: jason@beamlab.ps.uci.edu  
Subject: Aluminum brain death?

Is there anything wrong with using an Aluminum brew pot.

I don't know if this is related, but it seems that everytime I try to make a beer with any spices or special ingredients it turns out horrible. All the simple ale's with only malt, sugar, and hops turn out great, but with the addition of even just cinnamon it turns into icky beer.

Some of the bad spiced brews seem to have the presence of another form of alcohol or solvent, that the non-spiced ones lack. The procedures are the same for both spiced and non-spiced. The only thing that could be different (besides the presence of spices) is maybe I boil longer when I add spices.

Any ideas would be greatly appreciated.  
Am I making Alzheimer brew?

J

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Date: Fri, 29 Jan 93 11:14:59 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re: reusing yeast & open fermenters

Since the yeast reuse thread has popped up again, I thought I'd add my two cents worth. I am most likely in the minority of homebrewers in that I am currently utilizing open fermentation techniques. I ferment in a SS vessal with a heavy lid that in no way could be construed as a closed system. One of the great advantages of open fermentation is the ability to skim a lot of trub junk off the fermenter during the first 8-24 hours of fermentation. The resulting krausen head can be quite strikingly clean and white. Since I brew mostly ales, my yeast tends to rise to the top of the fermenter around day 4 or 5. I skim this yeast off and since I usually have more yeast available to me than I can ever use, I throw it away, or give it to fellow brewers. Top cropping ale yeast is a more effective and viable technique to reuse yeast than waiting to harvest off the secondary. Yeast allowed to sit in the secondary will invariably be less healthy than fresh top cropped yeast. This is due to autolysis and alcohol effects on the yeast cell.

I have generally been quite pleased with the ease of open fermentation with respect to skimming and harvesting of the yeast. If you are a careful clean brewer, using quality yeast, open fermentation is great.

Jim Busch

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Date: Fri, 29 Jan 93 09:50:04 PST  
From: greg@bandit.Berkeley.EDU (Greg Jesus Wolodkin)  
Subject: EBC -> Lovibond conversion

Sorry if I've lost track of who said what in this thread.. I think it went like this:

Murray writes:

```
>>> I have just found a new supplier for my grain requirements who has
data
>>> sheets on the malt available. Specifically, it mentions a colour
rating
>>> expressed in degrees EBC as opposed to degrees LOVIBOND. What is the
>>> conversion factor between the two units.
```

Al Korz adds:

```
>> I don't have a conversion, but here are some L/EBC pairs from Siebel's
--
>> perhaps you can figure out your own conversion factor:
```

```
>> Lov      EBC
>> 3.21     8
>> 7.83     15
>> 7.87     15
>> 21.65    45
>> 22.5     55
>> 25.7     55
>> 77.5     155
>> 221      500
>> 497.5    1100
>> 557.5    1400
>> 601      1400
```

Jim Dipalma says:

```
> Hmmm, a couple of interesting observations here. First, from looking
> at the pairs Al provided, it would seem that whatever the conversion
> formula is, it's not linear [...] Second, there are three pairs where
> the EBC rating is the same (15, 55 and 1400), yet the equivalent
> Lovibond ratings are different. What gives?
```

Looks to me like the EBC has just been rounded off to the nearest convenient number -- for all intents and purposes, though, 557L and 601L are identical, no?

```
> I would be very interested in an accurate method of converting these
> units. If anyone knows how to convert the two, please jump right in.
```

Take a look at the data on a log-log scale.. the relationship

p

```
Lovibond = M * EBCp with M = 0.5 and p = 0.98
```

works well, even in the range of pale malts. I don't know if this is an "exact" conversion, but it does a good job on the data given.

```
/* In case the notation is confusing.. */
double Lovibond (double EBC)
[
double M = 4.9950570e-01;
double p = 9.8024579e-01;
```

```
return (M * pow(EBC, p));  
    1  
/* */
```

Happy brewing,  
Greg

-----

Date: Fri, 29 Jan 93 07:13:28 PST  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: re: EBC to Lovibond

Yesterday, James Dipalma expanded on Al Korzonas' observation that the conversion between EBC color units and Lovibond (SRM) is not linear. This is indeed true. Both would like to find some kind of relationship between the two. Unfortunately, there is no real conversion between the two. The problem is that they represent two different ways of measuring color in beer, and they react differently to different coloring agents. The widely quoted conversion of  $2.65 + 1.2$  does work passably for pale beers where there isn't a lot of coloring material. Even if you could work up a curve fit for readings against one set of beers, other beers might not lie on that line because their coloring comes about from different materials.

The problem stems from the fact that the EBC has specified measurements at one light frequency while the ASBC has opted for a different one, with a fudge in it to try to approximate Lovibond. Although two beers might appear to be the same color to our eyes, these differing measurement techniques might come up with strongly different numbers. To use a rough analogy, it's like watching a B&W TV; although red and green are being transmitted, to the observer they are both gray.

--Darryl Richman

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Date: Fri, 29 Jan 93 8:15:41 PST  
From: davep@cirrus.com (David Pike)  
Subject: Lagering in the Fridge

This comment is in response to the lagering question where the beer had been in the fridge for 9 weeks and still 'glugs' slowly....

Refrigerators inject cool/cold air INTO its interior while cooling. This means that the ability of CO2 to be released into the air from the beer will be less than if the beer is outside the fridge (ie. the air pressure inside the fridge is a \*bit\* higher than the outside air pressure.

Now you open the door, and the air pressure drops, but slowly. If you stand and look at your beer, perhaps a minute or two, one or two glugs may appear, so...(to repeat what we already know) the best way to tell if fermentation is done is to take an SG. Get some beer, let it stabilize re. temperature, and perhaps even release some CO2, then take the SG.

Dave Pike

-----

Date: Fri, 29 Jan 93 10:41:15 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: Isolating pure yeast

> There exists a agar called "WL nutrient agar" that is great for  
isolating  
> pure yeast from wild yeast strains. This agar is green in color. The  
pure  
> yeast take up the green color when grown up on Petri dishes and the  
wild  
> yeast remain white.

> Bob Jones

This may not be exactly a question for the Digest, but here goes.

This stuff sounds interesting and useful, but it also sounds strange.  
What is the difference in "pure" and "wild" yeast that determines  
whether they will pick up the color?

I mean, at some point they were all wild yeast.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Fri, 29 Jan 93 12:58 CST  
From: korz@iepubj.att.com  
Subject: Doughing-in

Jim writes:

>In the last digest Al Korz wrote:  
><For the record, "doughing-in" is the addition of water to the grist  
><(which is highly recommended) not vice versa. Adding the grist to  
><the strike liquor will work, but will create much more balled starch  
><than the opposite (see Noonan's "Brewing Lager Beer").

>

>This is indeed what Noonan preaches. I have always wondered about  
>the importance and significance of adding water to malt as opposed  
>to the converse. Ok, so one can get "balled starch", wont it then  
>hydrate and become "non balled"? Cant you just stir enough to  
>completely mix the mash? Since I do an upward step mash, the  
>protein rest provides a 30 minute hydration period for the grains.  
>Wont this hydrolyze the grains and liquify the starches? Also, who  
>has ever seen a professional brewery doing this?? All of the breweries  
>I can recall visiting do what most homebrewers do, raise a volume  
>of water to a given temp, and add the crushed grains onto the  
>water. This is one of the "Noonanisms" that I feel is rather un-  
>important to the overall beer quality. There are so many other  
>places for brewers to make significant improvements to quality  
>in brewing like malt/hops/yeast choices and even water chemistry.

Russ writes:

>>From Al:

>

>>For the record, "doughing-in" is the addition of water to the grist  
>>(which is highly recommended) not vice versa. Adding the grist to  
>>the strike liquor will work, but will create much more balled starch  
>>than the opposite (see Noonan's "Brewing Lager Beer").

>

>Curious. I add the grist to the liquor, and get what seems to be a fine  
>dough-in. It seems to allow for better mixing -> no dry spots. How  
>does  
>Noonan determine that it creates more "balled starch"? Just what is  
>"balled starch"? Obviously I don't have the book.....

Noonan's book is the first place I've seen this "add the liquid to the  
dry" procedure recommended regarding brewing, but I believe that most  
food cookbooks recommend adding the liquid to the dry so you can work out  
the clumps. Theoretically, I believe the problem is in that little  
"pockets" of the dry material can become encapsulated (like lumpy  
gravy). This is probably less of an issue with the relatively stiff  
mashes that we use in our infusion mashes, than with the much "watery-  
er"  
mashes that Noonan uses in his decoction mashes.

I don't agree that it is overkill -- I don't think it's that hard to add  
3/4 of your water at first, smush-out (a very good technical term... see  
DeKlerk ;^) the clumps and then add the balance of the water. I feel  
that the biggest problem may not be the loss of extract rather the  
possibility of these clumps un-clumping during the mashout and releasing  
starch into your runnings (say goodbye to any hope of crystal-clear beer)

.

Al.

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Date: Fri, 29 Jan 93 13:17 CST

From: korz@iepubj.att.com

**Subject: Spraying the grist**

Both Jim and Donald mentioned the spraying of water on the grist as it enters the mash tun. I suspect that this has the additional benefit of reducing grain dust which is explosive.

Yes, both methods (liquor-to-grist and grist-to-liquor) will work, but I, personally am always looking for ways to improve my methods -- I get a great deal of new ideas from the HBD and other digests and this is what keeps my brews constantly improving. Thanks to all!

Al.

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Date: Fri, 29 Jan 93 14:02:02 -0800  
From: arthur@chiba.esd.sgi.com (Arthur Evans)  
Subject: Wyeast #1084

In Digest #1065, Joseph N. Hall asks:

> Finally, on a slightly different topic, has anyone here tried using  
> 1084 (Irish) for purposes other than stouts and porters? I feel like  
> trying it in bitter and mild ... perhaps it might make a good alt  
> yeast, too?

I used the "Irish ale yeast" in an ESB--strong, fairly light in color,  
and aggressively hopped--pretty un-stout like. It was really tasty,  
and probably my favorite of all the batches I've brewed (it was  
rated pretty highly by a random sampling of friends too, who  
said things like "your best yet," and "can I have another?").

I can certainly recommend it for bitters--and it seems like it  
would be good for beers calling for some residual sweetness,  
like milds and Scottish ales. Go for it.

OK  
-arthur

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Date: 29 Jan 93 12:49:57 GMT  
From: mark@verdix.com (Mark Lundquist)  
Subject: Weird beer flavor

I have some extract ale that is ready to go into bottles, but it tastes wrong. I'd like some help in identifying what the wrong flavor is, and how to eliminate it!

The best way I can describe it is: have you ever tasted malt extract syrup right out of the can? There's a molasses-like malty sweetness up front, followed on by an unpleasant aftertaste (at least, I find it to be unpleasant). Well, the weird flavor component in this batch of ale is very much like that aftertaste in malt syrup.

Here's the specifics:

Two cans (8 lbs) Alexander's Pale malt extract syrup  
13 AAU (1 oz.) Chinook hops (boil)  
1 oz. Cascade hops (finish)  
W. #1098 (British), recultured from dregs of a  
homebrew (1st generation)

O.G. 1.058  
F.G. 1.017

Does this taste description ring any bells? Is it something that will go away with time? (Please don't bother with "Well you're using all this malt extract, so of course your beer is going to taste like malt extract, why don't you switch to all-grain, blah blah blah". I'm sure I'll switch to all-grain someday soon, OK? But I have never had this problem with an extract batch before, and I want to find out if anyone has had any specific experiences with it).

Thanks for any help,  
- --mark

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Date: 29 Jan 93 17:22:59 EST  
From: Jeff Frane <70670.2067@compuserve.com>  
Subject: Yeast Re-Use and Attenuation

Russ Gelinias makes an interesting observation:

> Subject: re-use slurry  
>  
> Re-using yeast slurry is easy, efficient, cost effective, and taste  
> effective; I do it often. Some things to keep in mind:  
>  
> 4) Don't overdo it. All yeasts mutate; some more (and more quickly)  
> than others. Often the mutation is to become more attenuative (making  
> a dryer beer). I've found this to be true of Sierra Nevada/Wyeast 1056  
> yeast; after 3 batches the beer is too dry for my tastes. Whitbread  
> ale yeast, otoh, had been reported to be able to be re-used many times  
> (20+ ?) without much change in character.  
>

This datapoint on WYeast 1056 is very appropriate for me right now. I've been repitching the same yeast for several batches and used some stored 1056 to ferment out the extract beer I made in my Beginning Homebrew class. When I measured the specific gravity the other night, the hydrometer dropped right through like it was in water -- and the beer doesn't taste too good. :- (Don't worry, I've got plenty of other good stuff in kegs so I won't die of thirst.) I was surprised by this, as the yeast strain I used to use regularly never performed this way; Russ' observation answers my concern.

On 'tother hand, Ballantine Brewery supposedly used this yeast strain over and over, repitching hundreds of times without any problems. So I'm still scratching my head over this one.

One thing the yeast was very good for was the barleywine I brewed on the 10th. As I mentioned previously, I ran the wort in on top of a deliberately created yeast pack (after racking out a "starter" ale); the specific gravity dropped from 1.095 to 1.030 in 15 days, which is pretty damn good. So, by the way, is the barleywine.

James Dipalma asks:

> Subject: RE: EBC to Lovibond  
>  
> Hmmm, a couple of interesting observations here. First, from looking  
> at the pairs Al provided, it would seem that whatever the conversion  
> formula is, it's not linear, so I'm not terribly surprised the equation  
> from Eckhardt doesn't quite hold. Second, there are three pairs where  
> the  
> EBC rating is the same (15, 55 and 1400), yet the equivalent Lovibond  
> ratings are different. What gives?  
> I would be very interested in an accurate method of converting these  
> units. If anyone knows how to convert the two, please jump right in.  
>

I can only reiterate what I was told by the lab folk at Great Western Malting: There is NO conversion formula, and I've told this to Fred, too. According to the lab folk, who should know, the only way to get an accurate Lovibond figure is to test the sample on equipment calibrated in Lovibond. A few years back they ran some tests for me on British

malts and the figures didn't come out anywhere near where they would have using Fred's calculations. Fred's calculations, by the way, as much as I love the man, are not always, um, completely reliable.

- --Jeff Frane

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Date: Fri, 29 Jan 1993 16:00:00 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: keeping properties of yeast slurry

There have been a few replies to my earlier questions regarding reusing the slurry from the secondary fermenter. Comments like "it should keep for a few days" or "a week or two" appeared as did something to the effect of leaving it longer would result in autolysis, which is bad.

Given that several people have indicated that they leave their brew in the secondary for months sometimes, why don't they suffer from autolysis also?  
What's the difference between leaving it in the secondary for months and leaving it in a separate bottle for months? In particular I was thinking of filling a beer bottle with the slurry, capping it (because fermentation is finished) and putting it in the refrigerator. Then all I'd have to do is warm this up to wort temperature and pitch, then wait for the fireworks.

Does this sound viable?

Peter

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Date: Fri, 29 Jan 1993 18:18:59 -0600 (CST)

From: MEHTA01@SWMED.EDU

Subject: Alternative yeast re-use method

i sp  
spoke to a fffriend here at UTSouthwestern Medical Centre where  
we are students about culturing yeast, as she is doing her Ph.D. on yeast  
genetics and is always culturing all kinds of yeast (nasty mutated ones  
though).

i had previously done the re-use slurry trick successfully and told  
her about it, asking her why it can be re-used only a few times...  
One main reason, she said, is that alcohol kills yeast or at least causes  
severe damage to the poor beasties. Thus, resuing the yeasties that have  
been  
exposed to alcohol for a long time (in the secondary) is not a good idea.  
The ones that are left are the ones that are more tolerant of alcohol  
(hence  
the fact that the Sierra Nevada culturer noticed severe attenuation after  
3  
life-times... in theprevious HBD # 1066 Jan 29).

So, the solution is to take off some yeast during the aerobic  
fermentation period and store them in a cold (0 to 5 C) fridge in  
whatever  
kind of wort they are in. They should stay well for quite a long time  
(settling  
into their cyst mode due to thte cold) and every time you make a starter,  
you can just store a little bit before you pitch, for next time.

i would recommend carryinmg out the std sanitary procs with these  
yeast viz. flaming the mout of the containers, and all other things that  
touch  
the yeasties...

Good luck. If you have any more qs, pls email me, i have a real informed  
source  
who can help me answer these qs.... :-) (for the price of a good HB, she  
says)!

Ciao

Shreefal Mehta

mehta01@utsw.swmed.utexas.edu

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Date: Fri, 29 Jan 93 16:35:28 EST  
From: mcharry@freedom.otra.com (McHarry)  
Subject: World's Worst Brewer

Sorry, Jack, this isn't a flame :)

I have a friend, who shall remain nameless to protect the guilty, who claims to be the World's Worst Brewer. I think it might be amusing to outline his process:

He is, of course, an extract brewer. He doesn't have a big enough pot to boil the whole brew, so he squirts the extract into his carboy with some of the water. Some of the rest of the water goes into his kettle with the hops, which are boiled for an hour or so. This water is then dumped into the carboy, bringing the level up to something less than full. The (dry, of course) yeast is pitched and a lock fitted. When the krausen falls, he tops up the carboy with more water, thus avoiding the need for a blow off tube and such. When fermentation is finished, he syphons the beer into plastic soda bottles primed with sucrose. The result is not too bad.

One side effect of this process is that there is no coagulation and precipitation of protein, so the brew never clears. He has two solutions to this: The first is to brew mainly dark beers so he can't tell. The second is to refer to the stuff as "high protein sports drink." I don't think the brewing supplies shop keeper likes him hanging around talking to the other customers.

He claims his next project is to use only a small amount of dark extract for color and to make up the rest of the fermentables with table sugar.

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Date: Fri, 29 Jan 93 21:50 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Growth Media,Dough-in

>From: "Bob Jones" <bjones@novax.llnl.gov>

>The pure yeast take up the green color when grown up on Petri dishes  
and the  
wild yeast remain white... I like these type of eyeball sort of tests.

Me too but this one sounds like a wet dream.

> Maybe some microbio type out there could post the availability and cost  
of  
the media for those interested.

Maybe some microbio type could tell us how it works.

.....

One more pass at dough-in. Two batches back I doughed-in a batch before  
going to bed and mashed in the morning just to see if it made any  
difference.

I thought it might improve the conversion by solubilizing the starch  
better

but did not know what effect it might have on the taste.

The conversion was at the high end of typical for me (31 pts/gal/lb) but  
it  
might be more helpful on poorly crushed malt than on properly crushed.

It is now in the keg and I have been drinking it for about a week and  
completely forgot about the experiment till this dough-in thread jogged  
my

memory. I can't find the slightest clue that the taste was affected and  
I

passed around a liter at a recent CBS meeting and at the last report, no  
one  
has died from it.

js

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Date: Sat, 30 Jan 1993 09:57 EST  
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>  
Subject: Keg problems

Hello,

I have made the leap into kegging but I can't get the thing to work properly.  
Every time I try to pour a beer there is nothing but foam. I have tried some of the ideas mentioned last week in the digest and none work.

I have chilled the beer before taping, tried a long [6ft] and short [10in] liquid out hose, bleeding off the excess pressure in the keg before pouring, let it sit for a week after force carbonating.

What I have noticed is that the beer is not losing CO2 in the liquid out hose, it remains a liquid until it gets to the cobra tap and all I get is foam coming out of the tap.

I have a few ideas what the problem is but I could use some input from the ever knowing HBD crowd. I think I might be over carbonating the beer or the beer comes out too fast and foams up when it hits the glass.....any suggestions at fixing these things or other insights to what the problem may be.

Thanks for the help  
Carlo Fusco g1400023@nickel.laurentian.ca

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End of HOMEBREW Digest #1067, 02/01/93  
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Date: Sun, 31 Jan 1993 15:53:42 EST  
From: "M. Mitchell Smith" <mms7r@ascus.micr.virginia.edu>  
Subject: W L Nutrient Medium

In HBD #1066 Bob Jones asked about WL Nutrient Agar. Here's what I could find:

"Wallerstein Laboratory Nutrient Medium" was devised by Green and Gray, Wallerstein Lab. Comm., 13:357, 1950. I couldn't find it as pre-poured plates, but you can get the powder ready to mix and autoclave from suppliers of Difco microbiology products; it is Difco catalog number 0424-01-7 and lists for \$43.00 per pound in my Curtin Matheson Scientific, Inc. catalog. From the recipe below, I'm guessing 1 pound would make about 5.5 liters of medium. That should keep you in green for awhile :-).

Here's the recipe from "Products for the Microbiological Laboratory", Baltimore Biological Laboratory, Inc. (BBL). [The book lists it as BBL product no. 01-388 but I couldn't find it in the BBL section of current suppliers.]

Formula in Grams per Liter of Distilled Water

```
-----  
Yeast Extract      4.0  
Trypticase        5.0  
Dextrose          50.0  
Monopotassium Phosphate  0.55  
Potassium Chloride  0.425  
Calcium Chloride   0.125  
Magnesium Sulfate  0.125  
Ferric Chloride    0.0025  
Manganese Sulfate  0.0025  
Brom Cresol Green  0.022  
Agar              20.0
```

Preparation

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-----  
"Suspend 80 grams of the dehydrated material in a liter of distilled water.  
Mix thoroughly. Heat with frequent agitation and boil for about 1 minute.  
If a final pH of 6.5 is desired, the pH may be adjusted with one per cent aqueous sodium carbonate, using about 30 ml. per liter of water. ...  
Dispense and sterilize the medium by autoclaving at 121C. (15 lbs. steam pressure) for 15 minutes. Avoid overheating and unnecessary remelting."
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Use

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"W L Nutrient Medium is recommended for examination of worts, beers, liquid yeast and other materials. At a pH of 5.5, reliable counts of variable brewer's yeast cells may be obtained. With the pH adjusted to about 6.5, the medium becomes suitable for obtaining counts on baker's and distiller's yeast."
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The same medium can be used for counting contaminating bacteria with the addition of cyclohexamide at 0.004 grams per liter to inhibit the growth of yeast. This then makes it "W L Differential Medium".

Caveat

- - - - -

We've never used the stuff. Proceed at your own risk! I didn't do it!!

-- Mitch

- - - - -

M. Mitchell Smith mms7r@Virginia.EDU  
Department of Microbiology (804) 924-2669  
University of Virginia  
Charlottesville, VA 22908

- - - - -

Date: 01 Feb 1993 10:47:26 -0600 (MDT)  
From: MARK TARATOOT <SLNDW@CC.USU.EDU>  
Subject: Lager...

Greetings.

I have a quick question about lagering. What are the advantages/disadvantages of lagering in "bulk" (ie in the carbouy) versus lagering in bottles?

thanks  
-toot

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Date: Mon, 1 Feb 93 10:16:13 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: WL nutrient agar update

A few additional details on the WL nutrient agar. As I understand the media it changes color primarily do to Ph reactions. Yeasts turn green and other things turn pink or white. The term "wild yeast" in my last post, wasn't the best possible description. What one would do is plate out an unknown yeast source from say a bottle of beer. Then by eyeballing the growth shapes and colors one can easily identify the different types of yeasts. Then each different type is picked up and built up and used to ferment a test batch of beer or wine. The desirable ones are saved and re-used. I have a paper from a talk given about 10 years ago by a person from The Winelab. As I recall this media was used to isolate and culture all their yeast strains.

I hope this short explanation better describes the way I think this media is supposed to be used. And JS your are welcome for the "Wet Dream".

Bob Jones

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Date: Mon, 1 Feb 93 13:17:15 -0500  
From: Brian F. Brown <bfbrown@media.mit.edu>  
Subject: Cider Sweetening...

Looking for a recipe to sweeten cider which has turned out very dry.  
I want something of the Woodchuck style, but maybe not quite as sweet.

11/21: put Camden tablets one each in four gallon jugs of cider.

11/22: pitched 2 gallons with wine yeast, 2 with champagne yeast

1/10: Racked all to secondaries. Tasted small glass of both  
styles -> too dry

Any recipes which sweeten after fermentation with something like  
apple juice concentrate or something else are requested. Please  
email reply.

Thanks a lot,

BB

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Date: Mon, 1 Feb 93 13:00 CST  
From: korz@iepubj.att.com  
Subject: Re: Beadle

Chris writes:

>Mr. Beadle ("Brew it Yourself\*"), and at least two other British  
>1960s-type books abhor boiling:

>  
> "Do not bring the water to a boil. You will remember  
> from the section on commercial procedures that the malt  
> was kept at a temperature of 153 degrees Farenheit to  
> allow the diastase enzyme to convert starches to sugar  
> for correct fermentation of the malt. If you allow the  
> water temerature to approach the boiling point, you will  
> upset this sugar conversion and cause it to refix at a  
> stage that will not allow the yeast to convert all the  
> malt sugar to alcohol and and carbon dioxide. The  
> temperature of the mixing water must not exceed 153  
> degrees F. Every other book on home-brewing has  
> incorrectly given instructions to boil the malt in the  
> water to dissolve it. This will only guarantee that  
> some of the malt sugar will not be converted. This  
> single bit of misinformation from those who should know  
> better has caused many beginners to become unnecessarily  
> discouraged in their attempts at brewing."

>Tenth-grade chemistry was many moons ago. Every book I've stumbled  
>across published since then (c1971) recommends boiling, even up to an  
>hour for porters and stouts. Since that is what I'd like to brew, I  
>have a few questions:

>  
>1. Has brewing chemistry advanced since then, proving this guy  
> and my library of 1950-70 homebrewing books wrong?

Don't confuse the MASH with the BOIL. In all-grain brewing, you MASH,  
LAUTER, BOIL, CHILL, FERMENT and PACKAGE. In extract brewing, you simply  
BOIL, CHILL, FERMENT, and PACKAGE.

Our knowledge of brewing chemistry may have advanced, but the physics  
involved and therefore the chemistry is still the same. If Mr. Beadle  
and  
your 1950-1970 homebrewing books are saying that you should not boil your  
wort, then indeed they are wrong. The passage Chris has quoted and which  
I have included here, on the other hand is referring to mashing. If you  
begin from malt extract, where the producer of the extract has already  
done  
the mashing and lautering for you, so you start the process from the boil  
onwards. It appears that Mr. Beadle is perhaps confusing infusion  
mashing  
with decoction mashing or is mis-reading "every other book on home-  
brewing."

I suggest that any beginner first read Charlie's book, "The New Complete  
Joy  
of Homebrewing." This book is all you really need to begin brewing. If  
you  
want to continue your studies, I recommend then reading Miller's "The  
Complete  
Handbook of Homebrewing" followed by Noonan's "Brewing Lager Beer,"  
followed

by George's "Principles of Brewing Science." The reason I recommend the books in this order is because Charlie's tone and language de-mystifies brewing and concentrates on stressing how easy brewing really is. I feel that the other books dive into complicated procedures and science much too early for a beginner -- they could really scare a beginner away from starting.

Once you've read the four books I mention above, you can then go back and read older books and see if you can't find little bits of useful information hidden among all the stuff you already know. Saturday night I was reading Foster's "Porter" and ran across something I had yet to read in any other book (alas, I can't remember what it was, but it's stored away in my brain somewhere and I'm sure it will come to me in the right situation).

Al.

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Date: Mon, 1 Feb 93 14:23:52 -0500  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: keeping properties of yeast slurry

In HBD #1067, Peter Maxwell writes:  
>There have been a few replies to my earlier questions regarding reusing  
the  
>slurry from the secondary fermenter. Comments like "it should keep for  
a  
>few days" or "a week or two" appeared as did something to the effect of  
>leaving it longer would result in autolysis, which is bad.  
>  
>Given that several people have indicated that they leave their brew in  
the  
>secondary for months sometimes, why don't they suffer from autolysis  
also?  
> ...

Good observation. I have recycled slurry from my primary that was  
sitting  
for over 7 months in the refer at 50f (my delivery box). Of course it  
needed  
to be rejuvenated: I added fresh wort, shaken vigorously, let settle for  
a  
day, poured off the liquid into some more fresh wort and waited until it  
took off. Easily 99% of the slurry was dead, but there were a few live  
ones  
in there that took off.

My experience is that within two weeks the slurry can be directly pitched  
into  
the fermenter and a violent start will be observed, followed by complete  
fermentation in an unbelievably short time. Good tasting beer follows.  
Longer  
than that and you need to restart the yeast by adding fresh wort, let it  
start  
to ferment and separate out the live yeast (as described above) and build  
it  
up again.

The reason yeast might survive eons in a secondary or keg or bottle is  
that  
there is lots of wort (beer) on top of it with residual sugars that the  
yeast  
can slowly work on. With reclaimed slurry, usually it is topped with  
plain water (in my case) so there is nothing but their neighbors to feed  
on.

- - -  
Larry Barello uunet!polstra!larryba

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Date: Mon, 1 Feb 93 13:28 CST  
From: korz@iepubj.att.com  
Subject: Re: Keg Problems

Carlo writes:

>Every time I try to pour a beer there is nothing but foam. I have tried  
some  
>of the ideas mentioned last week in the digest and none work.  
>  
>I have chilled the beer before taping, tried a long [6ft] and short  
[10in]  
>liquid out hose, bleeding off the excess pressure in the keg before  
pouring,  
>let it sit for a week after force carbonating.  
>  
>What I have noticed is that the beer is not losing CO2 in the liquid out  
>hose, it remains a liquid until it gets to the cobra tap and all I get  
is  
>foam coming out of the tap.

Assuming your pressure is correct for the temperature you're using, I  
have  
two suggestions: 1. Are you opening your faucet all the way? Note  
that if you only open it part-way, the constriction will cause foaming,  
so  
\*always\* open the faucet full blast. 2. Could your faucet be dirty or  
have something stuck in it? Take it apart and soak it in bleach for a  
few  
hours then rinse, reassemble, rinse, rinse and rinse again. Even though  
my faucets are stored inside my beer fridge, when I don't pour from a  
particular keg for a week or so (I can have four on-line at one time)  
sometimes  
a glob of mold forms inside the faucet (YUK!).

Al.

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Date: Mon, 1 Feb 93 12:33:16 MST  
From: frank@Solbourne.COM (Frank Jones)  
Subject: Re: Aluminum brew pot & and spices

in #1067 jason@beamlab.ps.uci.edu asks:

>Is there anything wrong with using an Aluminum brew pot.  
Yes, don't. Aluminum reacts with the acidic wort, to produce off tastes.  
I'm  
sure some of our chemists can tell you exactly what happens. The best  
rule of  
thumb is stick to Stainless Steel & or Copper equipment.

and:

>I try to make a beer with any spices or special ingredients  
>it turns out horrible. All the simple ale's with only  
>malt, sugar, and hops turn out great, but with the addition  
>of even just cinnamon it turns into icky beer.

>Some of the bad spiced brews seem to have the presence of another  
> form of alcohol or solvent, that the non-spiced ones lack. The  
>procedures are the same for both spiced and non-spiced. The only  
>thing that could be different (besides the presence of spices) is  
>maybe I boil longer when I add spices.

I have had good success with spices added to the fermenter, \*not\* during  
the  
boil, for a Christmas Ale I made last November. I put all the spices  
(cinnamon,  
clove, ginger, orange zest, and nutmeg) into about 2 quarts of water,  
boiled  
them long enough to feel confident that they were sterile, cooled to room  
temp.  
I added them to secondary, then racked wort on top, from the primary. If  
you  
use one step fermentation, I would add after pitching yeast. Beer came out  
very  
good, a bit ginger heavy, but was drinkable after two weeks (orange was  
strong,  
after about 4 weeks ginger was the winner), it is wonderful now,  
if only, I had more of it :( It was real popular with the Christmas  
Guests...

Hope this helps.

>Am I making Alzheimer brew?  
how would you know, who made this beer anyway? :)

fj..

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-----  
Franklin R. Jones National Technical Support Engineer  
frank@Solbourne.COM <-Internet...snail-> Solbourne Computer Inc.  
303.678.4769 1900 Pike Road  
fax 303.772.3646 Longmont, CO 80501  
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"If we are not supposed to play with words...  
then why do we have so many??"

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Date: Mon, 1 Feb 93 12:47:13 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Mixing beers

OK, I would like to hear peoples views on mixing beers. I used to really  
be  
rather stiff shirted about this whole affair. I figured that if the  
brewer  
made a beer certain way, then by damn it shouldn't be messed with! I have  
become a little more relaxed about these things in the recent past, and  
as  
a result have had rather good mixes. How about Sierra Nevada Celebration  
ale  
with a floater of Anchor Old Foghorn? Yum, yum. Their both great beers,  
but  
the two mixed create a third beer that is as great and different. I  
realize  
that there are a few of you that live in "the beer waste land" and this  
discussion could drive you mad. I have found some interesting mixes on my  
home draft system. I usually go through and squirt alittle beer from each  
tap into a common glass to keep the taps from sticking (this IS mandatory  
work you know). I of course drink this mix of beers, and some interesting  
combo's have come up. I remember the Vienna lager and the Scotch ale mix,  
sort of a Robust Porter. Have I gone off the deep end, or am I finally  
relaxing? One thing is for sure, when you mix about five draft beers  
while  
lubing those taps, the mix sure don't lack complexity!

Bob Jones

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Date: Mon, 1 Feb 93 15:16:19 -0500  
From: Phil DiFalco <pdifalco@fnma.COM>  
Subject: Brewing Sake

From: Japan Times, January 29, 1993 --

"Brewing fuzzy for sake's sake,  
Computer helps make up for dwindling makers' ranks"

FUKUSHIMA (Kyodo) A computer system for controlling the fermentation of malted rice, the most important process in brewing sake, has been developed by a technical center here.

Fukushima Prefectural Aizu Wakamatsu Technical Support Center spent four years working on the system, which it claims will help the industry, hit by a shortage of skilled brew masters.

A local sake brewer is now experimenting with the system to assess its feasibility for commercial use.

In brewing sake, malted rice, or "moromi," is fermented in a tank to turn starch into alcohol.

The trick is making the precise temperature adjustments during the process. This has been difficult to automate.

The center developed the technology to automatically measure the specific gravity of moromi and its alcohol content during fermentation.

The technology permits a temperature gradient to be maintained between the surface and bottom.

The center talked to many chief brewers about temperature adjustments and computerized the data collected.

The outcome has been a fuzzy-control system for adjusting temperature.

The art of brewing takes years of experience to master. A fully qualified brew master needs to spend more than 10 years in the business.

But many chief brewers are farmers who work in breweries in their spare time.

According to the Central Association of Sake Brewers Cooperatives, the average age of chief sake brewers across the country rose by about 10 years to 60 over the past 14 years.



The aging of the brewers and lack of successors have cast a pall over the future of the industry.

Tadashi Sato, chief of the Fukushima Prefectural Aizu Wakamatsu Technical Support Center's brewing department, hoped the new fermentation control system will alleviate the problems.

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email: pdifalco@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior Analyst, Advanced Technology  
FannieMae, 3900 Wisconsin Ave NW, Washington, DC 22016(202)752-2812

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Date: 01 Feb 1993 15:10:15 PST  
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>  
Subject: Homebrew Digest #1066 (January 29, 1993)

\*\*\* Reply to note of 01/29/93 00:52  
Subject: Homebrew Digest #1066 (January 29, 1993)  
I've been reading various techniques and opinions for re-pitching yeast ( trub ? ) from a previous batch to start a new one. While common sense tells me that pitching the contents of the 2ndary is better than the gunk typically found in the primary. One evening a couple weeks back I was getting ready to make a yeast starter by consuming a few SNPA's and just coincidentally killed a 3-gallon cornbellius keg of some very tasty pale ale. It occurred to me that a potentially very stable source of yeast would be the residue at the bottom of this keg, since I prime the beer before racking into the keg. I made up the starter as usual, dumped it into the keg, and pumped it back into my 500 ml flask. By morning, the contents had fully fermented. I haven't tried the resulting beer yet. The flash fermentation of the starter resulted in it going dormant but I did have active fermentation in my beer within 18 hours. I plan next time to simply hold the pressurized dregs and draw off some wort during the boil, add it to the keg, shake the s--- out of it and pump that directly into my wort. My only question is: would the cold temps which this ale yeast endures while in my refrigerator cause any off flavors, etc in a finished beer ? BTW. I've found that 1 bottle of good home brew, or 3 of fresh SNPA makes a great starter.

| If it's good enough for ancient druids runnin naked thru the woods |  
| drinkin strange fermented fluids then it's good enough for me. |  
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

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Date: Mon, 1 Feb 93 17:09:38 MST  
From: dwatson@as.arizona.edu (Dan Watson)  
Subject: BUGS!

Yo Y'all,

Not long ago, I got geared up to make a batch of I.P.A. Rummaging around in my shelves I found a tupperware bin of about two lbs of pale ale malt which I promptly added to the grain bill. This stuff had been sitting for a couple of months. Humming a happy tune, I milled all of the grain together into a big clear plastic bag (keeps the dust down), and proceeded with the preparations. With everything ready and HB in hand, I grabbed the bag and found it teeming with thousands and thousands of tiny black bugs!! Talk about a terrible sinking feeling! Horrified and discusted, I threw the whole ten lbs out to the chickens (who thought this was QUITE the treat), and went and begged some grain from a friend (thanks Ken!) and the day was saved.

These guys look like beetles and on close inspection there were tiny holes in the husks of the grains. Has anyone else had experience with these monsters? How can one avoid them? I was thinking about storing the grain under CO2 in kegs, maybe these things can't grow without O. Any tips would be appreciated.  
Thanks, Dan

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Date: Tue, 2 Feb 1993 11:40:24 +1030  
From: Murray Robinson <robinm@mrd.dsto.gov.au>  
Subject: RE: brewpots

In HBD 1066 Mike Writes:

> After some thought I've decided to invest in all grain brewing.  
> The problem seems to be that the start up costs for the equipment  
> could be over \$100. I can get access to a corona through my  
> local homebrew club and the cost of converting my cooler for mashing  
> is minimal. The main cost remains, a large 7-10 gallon brewpot.  
> So does anyone have any ideas on where to find a good deal on a large  
> pot? I've been eyeing one at the local "PACE" store recently. It is  
> a 13 gallon oval shaped "Revere" copper boiler for \$80. I was hoping  
> to find something for under \$50.  
>  
> Any ideas?

I have just gone through the process of acquiring the bits and pieces for an all setup and have found some particularly good sources for large brewpots (ie larger than 10 gallons).

1) Try your local software manufacture for secondhand kegs. Places like Coca Cola not only have the 5 gallon Cornellius Kegs that brewers use for their draft beer systems but they also have 10 gallon Stainless Steel Kegs.

These 10 gallon kegs allready have handles welded onto them so all you need

to do is cut a hole in the top of it to convert it into a pot. In Adelaide the

10 gallon SS kegs sell for \$45 secondhand.

2) Phone you local beer manufacturer and go through the same process with them.

If you can purchase secondhand kegs from them you will not only need to cut a hole in the top of it or cut it through the middle but you will also need to put some handles on it.

3) Try a few scrap yards. In Adelaide, one of the local scrap yards bought all of

the secondhand 18 gallon kegs from the Coopers Brewery for \$18 and was reselling them to the public for \$40. Quite a markup, but, still reasonably cheap for a brewpot if you can do the metal work yourself.

4) In Australia, the dairy industry used to use 10 gallon SS drums for transporting the milk. This has now changed and their are a lot of old drums to be had from local dairy farmers. As far as price goes it depends on the farmer you talk to and the condition of the keg laying around his farm. From my experience prices go from free to \$50.

Hope this helps. I chose to buy the 10 gallon kegs from Coca Cola.

Cheers ,

Murray .

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Date: Tue, 2 Feb 1993 01:42 EST  
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>  
Subject: Malted rye?

Does anyone have any idea where to get malted rye. I want to try brewing a beer with a hint of rye whiskey flavour...it also seems like a Canadian thing to do ;-)

Carlo Fusco.....g1400023@nickel.laurentian.ca

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Date: Sun, 31 Jan 1993 23:20:05 -0500 (EST)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: need bigger brewpot

Howdy,

I'm looking for a pot big enough to go all-grain with. Say, 8 gallons?

Are there any pittsburgers out there in net-land who could point me in the right direction to pick one of these babies up for a good price in or near the city?

I'd also buy a used one if I could find one.

-Steve Peters  
521-5580  
sp2q+@andrew.cmu.edu

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End of HOMEBREW Digest #1068, 02/02/93  
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Date: Tue, 02 Feb 93 12:27:45 +0100  
From: Victor Reijs <Victor.Reijs@SURFnet.nl>  
Subject: echo about beer in FidoNet

Hello all of you,

I seems there is an echo-area in FidoNet about Zymurgy? Does somebody know the real name of that echo? I would like to get that echo in Europe, or did others already try that and they did not succeed?

Hope somebody can help me.

All the best,

Victor

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Date: Tue, 2 Feb 93 05:24:22 MST  
From: stevel@chs.com (7226 Lacroix)  
Subject: Mixing beers

When I lived in Seattle (ahhhhh, the Great Northwest) there was a place.

..

T.S. McHugh's where they mixed something called a Blacksmith...a Guinness mixed with Old Nick Barleywine...it was superb! Just across the street at

Jake O'Shanassey's (may the Irish forgive me for any wrong spelling) they made something by floating Guinness on top of a Harp....again...heaven..

At home, I had a batch of Cherry Ale come up a little short on the carbonation side, so I mixed more than a few bottles with a strong bitter,

and while not particularly memorable, it did make that flat beer more than

drinkable! Bob, sounds like you're relaxin' just fine to me... ;-)

Steve Lacroix

Primitive Brewing

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Date: Tue, 2 Feb 93 08:17:27 EST  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: re: HBU-IBU table in HBD1066

In HBD1066 I submitted an HBU-IBU conversion table  
but forgot to mention any volume relationships.  
That table assumes a 5 gallon batch.  
To adjust for a volume of X gallons simply multiply the  
numbers in the table by 5/X.

Bill Szymczak

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Date: Tue, 2 Feb 93 08:09:45 -0500  
From: rogers%scsd.dnet@gte.com (JOHN - GTE - (617) 466-3681)  
Subject: recirculating runoff

I have been easing myself into all grain brewing. I have done a few batches with varying amount of grains. I have found that keeping the temp. constant during mashing is easier than I expected but that lautering is more of a pain than I expected.

My question: just how important (\*really\*) is re-circulating the runoff? I am using a grain bag with a very fine mesh, and it seems to catch everything of real substance. Also note I am not concerned with extracting every molecule of fermentable from the grain. I would be happy to get 25-27 points per pound, and add an extra pound or so of grain to reach the specified OG.

Thanks for any advice!!

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Date: Tue, 02 Feb 93 08:26:04 EST  
From: Tom Dimock <RGG@CORNELLC.cit.cornell.edu>  
Subject: Mixing beers

Mixing beers has a long history in England, where the Black and Tan, Light and Dark, or 'arf 'n 'arf are all quite common in pubs. One of my fond memories involves drinking with friends from MIT at the Muddy Charles, a graduate student hangout on campus. At that time, they only had Bud on tap :-), but they did have Guinness in bottles. Being cheap, but not quite cheap enough to drink Bud straight, I'd buy a bottle of Guinness, and use half a Guinness per pitcher of Bud to give the stuff some flavor. It worked pretty well - it made the Bud into something you could fool yourself into believing was beer....

A floater of barleywinne on a good pale ale... Hmmm....

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Date: Tue, 02 Feb 93 08:04:37 CST  
From: Doug Behm <DBEHM@UA1VM.UA.EDU>  
Subject: Re: Brew pots

I have an eight gallon and a five gallon enamel brewing pot. These pots are enameled canners found at Walmart or other similar stores. I think I paid about \$20 each for them. I had the eight gallon but it was too big for my stove, it didn't fit over three burners and one burner gave a 'hot spot. The five gallon fit a little better but is still a little large for a kitchen stove

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Date: Tue, 2 Feb 93 9:22:13 EST  
From: roman@tix.timeplex.com (Daniel Roman)  
Subject: Re: Cider Sweetening...

Brian F. Brown writes:

> Looking for a recipe to sweeten cider which has turned out very dry.  
> I want something of the Woodchuck style, but maybe not quite as sweet.

The best way I have found to achieve sweet cider is to artificially carbonate with kegging equipment after using potassium sorbate to kill off the yeast. After the yeast are dead you can sweeten to taste. I know of no yeast with low enough attenuation to achieve sweetness anywhere near something like Woodpecker (I have not had Woodchuck).

May I suggest you subscribe to the Cider Digest. Requests should be sent to "cider-request@expo.lcs.mit.edu".

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Dan Roman GENie: D.ROMAN1 Internet: roman@tix.timeplex.com //  
American Homebrewers Association member Only AMIGA! /X/

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Date: Tue, 02 Feb 93 08:46:34 CST  
From: John Callaway <OCJOHN%LSUVM.BITNET@ricevm1.rice.edu>  
Subject: Where to get good hops?

Does anyone out there know of a place to get good, fresh hops by mail order. The ones I have been getting lately from my local brew store are not so good, and I want to try a new place. THANKS

John Callaway ocjohn@lsuvm.bitnet  
Dept. of Oceanography  
Louisiana State University

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Date: Tue, 2 Feb 93 9:49:55 EST  
From: bickham@msc2.msc.cornell.edu (Scott Bickham)  
Subject: Update in solvents in homebrew

Last week, I posted (indirectly) some worries about solvent-like flavors and aromas in my latest brew - a Strong Belgian Ale. It was a mash/extract recipe, with about 45 gravity points coming from the mash and another 35 from a kit that was given to me. The wort was pitched onto the Belgian Ale yeast slurry left behind when I bottled a wit.

When I bottled the strong ale, there was a terrible flavor similar to turpentine. But now, after only one week later, this seems to have vanished, leaving behind lots of banana esters and some spicy phenolics. The finish was slightly bitter, but that should mellow with age and blend with the esters to create a nice complex balance. I did notice the solvent-like aroma when I was washing the bottle, so whatever the culprit was (maybe the yeast?), it seems to have settled out of the beer's way.

Scott

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Scott Bickham |  
LASSP and Materials Science Center | bickham@msc.cornell.edu

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Date: Tue, 2 Feb 93 07:59:22 -0700  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Cornellius kegs

>  
> 1) Try your local software manufacture for secondhand kegs. Places like  
> Coca Cola not only have the 5 gallon Cornellius Kegs that brewers use  
> for  
> their draft beer systems but they also have 10 gallon Stainless Steel  
> Kegs.  
> These 10 gallon kegs allready have handles welded onto them so all you  
> need  
> to do is cut a hole in the top of it to convert it into a pot. In  
> Adelaide the  
> 10 gallon SS kegs sell for \$45 secondhand.  
>

Working for a software company we RARELY if EVER have unused kegs  
laying around. We usually reuse them for our next release 8^)

I have heard that SOFTDRINK manufacturers are pretty good sources for  
cornellius kegs!

John "tongue firmly in cheek" Adams

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Date: Tue, 2 Feb 93 9:23:28 CST  
From: gdmcconn@mspe5.bll.ingr.com (Guy McConnell)  
Subject: Irish Red Ale

As a result of my post on using Wyeast #1084 Irish Ale yeast in an Irish Red Ale, I received several requests for the recipe. Here 'tis:

Dana's Smilin' Irish Eyes Red Ale  
5 Gallons

6 pounds Alexander's Pale Malt Extract Syrup  
1 pound Orange Blossom Honey  
1 pound ( 4 cups ) Belgian Special B ( 200 L )  
3 ounces Cascade Hop Pellets  
1 tsp Irish Moss  
1 pack Wyeast #1084 Irish Ale

Place cracked grains in 2 quarts cold water and bring temperature up to 170 degrees. Steep for 15 minutes and sparge into brewpot. Add malt extract and 1 oz. hops and boil for 45 minutes. Add Irish moss, 1 oz. hops, and honey & boil for 15 more minutes. Remove from heat & add remaining 1 oz. hops. Cool quickly, add to 3 gallons cold water in primary fermenter, and pitch yeast. Rack to secondary after vigorous fermentation subsides. Bottle when fermentation completes.

I bottled this one with gyle I saved before pitching the yeast, my preferred priming method now. I did it as a quick and easy way of making a decent Irish Red Ale and it turned out quite well. An all-grain version could be done with 2-row malt (I'd use the Belgian), a little carapils, and the special B. Maybe a little toasted victory malt would also add a nice "toasty" character. The two best commercial examples of this (non?)style IMHO are Boulevard Brewing Co. (of Kansas City MO.) "Irish Ale" and Birmingham Brewing Co. "Red Mountain Red Ale". I know the guy who started the Birmingham Brewing Co. and he gave me the details of his recipe. It has 2-row pale malt, Carapils, and Belgian Special B with "18-20" IBU of hops (he didn't tell me what type but I believe Cascades are used) and Irish Ale yeast. After trying either of these, you will realize just how pale a reflection Killian's is of this all but forgotten style. Another victim of the American Mass Brewing monster.

I was also asked for my blackberry ale recipe which used #1084 yeast:

Cat's Claw Blackberry Ale  
5 Gallons

6 pounds Alexander's Pale extract syrup  
1 pound Orange Blossom Honey

1 pound ( 4 cups )Crystal Malt, 10L  
1/4 pound ( 1 cup ) Victory Malt  
1 ounce Cascade Pellets ( bittering - 60 mins )  
1/2 ounce Cascade Pellets ( finishing )  
1 pint WYeast #1084 Irish Ale Yeast ( recultured )  
8 pounds Blackberries  
2/3 cupOrange Blossom Honey ( for priming )

Place crushed grain in cold water and steep for 45 minutes at 155 degrees. Sparge into brewpot and bring to a boil. Add extract and bittering hops and boil for 50 minutes. During the boil, mash berries through a strainer to extract the juice. Add honey and boil for 10 more minutes, skimming off any scum that forms. Remove from heat and pour blackberry juice into the hot wort. Stir well and allow to steep for 15 minutes. Cool and pour into primary containing 3 gallons cold (previously boiled) water. Pitch yeast and aerate well. Rack to secondary when vigorous fermentation subsides. When fermentation completes, make a "hop tea" with the finishing hops. Cool, add to bottling bucket along with honey priming solution, and bottle.

This brew turned out quite well too with a nice blackberry nose complimented by a floral note from the Cascade hop tea added at bottling. Enjoy!

- - -

Guy McConnell gdmcconn@mspe5.b11.ingr.com or b11!mspe5!gdmcconn  
"All I need is a pint a day"

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Date: Tue, 2 Feb 93 10:45:54 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: all-grain snobs

In HBD 1067, Mark Lundquist:  
Subject: Weird beer flavor

>I have some extract ale that is ready to go into bottles, but it tastes  
>wrong. I'd like some help in identifying what the wrong flavor is,  
>and how to eliminate it!

>

>.... Well, the weird flavor component in this batch of  
>ale is very much like that aftertaste in malt syrup.

>

>Here's the specifics:

>

>Two cans (8 lbs) Alexander's Pale malt extract syrup

>13 AAU (1 oz.) Chinook hops (boil)

>1 oz. Cascade hops (finish)

>W. #1098 (British), recultured from dregs of a

>homebrew (1st generation)

>

>O.G. 1.058

>F.G. 1.017

>

>... (Please don't bother with "Well you're using all  
>this malt extract, so of course your beer is going to taste like malt  
>extract, why don't you switch to all-grain, blah blah blah". I'm sure  
>I'll switch to all-grain someday soon, OK?

Later, McHarry sez:

>

>Subject: World's Worst Brewer

>...

>He is, of course, an extract brewer.

Well, I know McHarry couldn't have planned that, but ouch! Talk about rubbing salt into an obvious wound.

I posted about how much fun the CBS "First Thursday" meeting was last month (I wish I could be in Chicago tomorrow.... >plug< 7:30 at Goose Island). The first people I talked to were a couple who brewed a nice pale ale, and very good holiday ale and stout. And they were so apologetic about it being extract brew!

The homebrewing community is generally guilty of snobbishness when it comes to extract vs. grain. It is assumed that all extract brewers will eventually "grow up" and go all-grain. (When I was younger, it was assumed that pot leads to harder drugs....) I'm sure many do, but there's no reason they need do, and grain brewers shouldn't try to make them feel small.

That said, Mark may not like my advice. Based on many extract brews, I think the problem is not extract, but too much extract. Somewhere around 1050, I've found that the "extract tang" (Dave Line's words) becomes evident. With ~6.5 pound (3kg.) you can make VERY\_GOOD beer like OG 1045-1048, FG 1010-1012. "Ordinary strength" beer. Of course, one reason for homebrewing is to try out stronger styles. If you want to do that with extract, consider:

- partial mashes

- a pound of adjunct (brown sugar for a darker ale, brewer's corn syrup for a lighter one)
- dark malt both to boost the OG a little and to mask other flavors
- overhop :-)
- long bottle aging

Alternate versions of Mark's ale:

- replace 1.5 lb. Alexander's with a 2 lb. partial mash -- this can be done with equipment already available in most kitchens.
- Replace 2 lb. Alexander's with 1 lb crystal and 1 lb. brown sugar (darker, Bass-like ale).
- Less popular with "Enemies of BudMilLob" would be to replace 1.5 lb Alexander's with a brewer's grade corn syrup. Unlike corn sugar, these syrups have a sugar spectrum similar to wort and won't change the OG-FG balance. Of course the beer will be 80-20 malt-corn, but (heresy coming!) I'm not sure that's so bad when the amount of malt present was already sufficient to make good beer. And, your non-beer-snob friends may find it a kinder, gentler untrouction to high gravity brew.

Finally, and more practically for the present batch, Mark. Just let it age for a while in the bottle. You've used good yeast, so it won't go dry and over-carbonated. The stuff is gonna be great on Paddy's Day...just don't put any green food coloring in it!

Cheers,

Rob (bradley@adx.adelphi.edu)

,

-----

Date: Tue, 2 Feb 93 10:50:41 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: pH electrode, copper pot, rye

In hbd 1066 Michael Gildner complained that the only suitable pot he could find was a 13 gallon copper one for \$80. I drooled. Wher could I find one? I have the cheapo option - an 8gallon enameled canning pot I bought at a local housewares store called Waccamaw, but I believe they can be specially ordered at Ace hardware. Its cheaper <\$30, but I am fed up of the poor heat transfer of steel, which I would also have with stainless, so more information like manufacturers names for big copper pots would be appreciated.

I bought a chcheap pH electrode/meter from Cole-Palmer for \$30. It is called the Champ and has a resolution of .1 and an accuracy of .5 (mine reads .1 high). I am satisfied. If anyone is interested Cole-Palmer's number is 1-800-323-4340 and the "Champ pH Tester" catalog number is G-05941-10. Usual disclaimers.

Carlo Fusco wanted Rye Malt. It used to be available from the Malt Shop in Cascade Wisconsin. I don't have the phone number, but you could try 800-555-1212 for it, or email me tomorrow.

Ulick Stafford

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Date: Tue, 2 Feb 93 7:59:47 PST  
From: "Donald G. Scheidt" <dgs1300@aw101.ias1.ca.boeing.com>  
Subject: NDMAs (the last little bit)

In HOMEBREW Digest #1066, Fri 29 January 1993, a few folks kept on flogging the nitrosamine horse:

>From: lencell@unmc.edu (Lance Encell)  
>Subject: nitrosamines in beer  
>  
>Just to add a little to the talk about nitrosamines, they are found in beer  
>and wine, but as has been noted, they are found at very low levels.  
>  
>They are formed under acidic conditions in our stomachs by the nitrosation  
>of ingested secondary amines by nitrite...  
>It has been shown that vitamin C prevents nitrosation by competing with the  
>amines for the nitrite. So everyone drink their O.J. so you get your C's.  
>  
>Finally, nitrosamines require metabolic activation to exert their toxic  
>and carcinogenic effects.

Thanks for a little research on the metabolisation of NDMAs. Since I drink OJ the way caffeine-heads drink coffee - I drink it by the liter - I'm not going to worry about the NDMA levels in any of my beer, either store-bought or home-made.

>From: arf@ddsw1.mcs.com (Jack Schmidling)  
>Subject: Nitrosamines, Dough-in  
>  
> >From: gjfix@utamam (George J Fix)  
>  
> >For the record, the highest NDMA level reported was in Bamberg Rauchbier.  
> It contained 5-15 parts per billion, and not 5 ppm as reported in HBD.  
>  
> Just testing to see if you read my articles as carefully as  
> I read yours :)

Cute, but disingenuous. Given the orders of magnitude between ppm and ppb, this is important. The point is, there are plenty of sources of health risks, carcinogenic especially, that are far nastier than the few ppb's of NDMA found in, say, the California & Alaska Street Brewery's Rauchbier. These days, you stand a bigger risk from the second-hand smoke of a typical cigarette-filled pub than from any beer you'll drink.

> > This also was the level reported in their malt. The NDMA levels of beer is  
> typically 9-10 times lower than in the malt used.  
>



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Date: Tue, 2 Feb 93 8:01:12 PST  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Adelscott

>From: "Rad Equipment" <rad\_equipment@rad-ma1.ucsf.EDU>  
>Subject: Pecheur  
>  
>Subject: Pecheur Time:8:06 AMDate:1/28/93  
>>"Pecheur has previously experimented with a beer  
>>containing malt whisky..."  
>  
>I think this is a mistake. They have brewed a beer using whisky malt  
called  
>Adelscott which (according to Mr. Jackson) "imparts a very light  
smokiness." I  
>have spoken with the US importer about this product in the past only to  
learn  
>that they do not plan to introduce it here. Some problem with the  
labeling.

"Introduce" it? During the imported-beer boom of the early eighies, when  
one  
could buy, among others, Rodenbach, Saisons de Silly, and St-Louis beers  
in Seattle, bottles of Adelscott appeared on the shelves of several  
specialty beer-and-wine-retailers here. Adelscott was sold in smallish  
(25  
cl) clear-glass bottles, and mentioned the smoked-whisky malt on the  
label.  
The smoky flavour was quite subtle, and over-chilling it masked it  
completely; it was also paler in colour than the Bamberger-style  
Rauchbier.  
The closest Bamberg beer to it in flavour is the lightly smoky  
Greifenklau  
Rauchbier, with just a hint of smoke in the background. Adelscott's not  
hard to find in France and Belgium, and I've seen it in the Netherlands  
also.

As a homebrewing-related aside, the company that imports the only German  
Rauchbier (Kaiserdom) available here (Seattle / Pacific Northwest) is  
Merchant du Vin, of Seattle. The founder of MdV is also involved with  
the  
Pike Place Brewery and the Libery Malt Supply homebrewer's shop. As a  
result, Liberty Malt has Bamberger Rauch malt available, imported from  
the same company that makes Kaiserdom.

Two Seattle brewpubs have also made Rauchbiers, both top-fermented. Big  
Time Alehouse's Rauchbier was smooth, but had a curiously "slippery"  
mouth-  
feel. West Seattle's brewpub is up-front in flavour, but also has a very  
hoppy astringency to it; they serve it mixed half-and-half with a more  
conventional bitter ale, unless you ask for it "straight".

- - -  
// // | | Don Scheidt | // //  
// // | | Boeing IASL, 777 Cab Development | // //  
// // | | dgs1300@aw101.iasl.ca.boeing.com | // //  
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Date: Tue, 2 Feb 93 11:09:10 -0500  
From: rxh6@po.CWRU.Edu (Randall Holt)  
Subject: Grain Weevels

D. Watson tells a sad tale of finding weevily grain and asks for advice.

My father used to store large amounts of wheat and oats in 50-gallon drums (as part of a two year food supply in preparation for the coming nuclear holocaust, a byproduct of the Cuban missile thing).

Anyway, weevils were a problem back then, because irradiated food didn't exist. His solution was to fill up the grain barrel, then toss in a large brick of dry ice, put the lid on loosely, then seal the barrel with wax to keep airtight after the CO<sub>2</sub> had sublimated. Result - bug free after 10 years.

I guess this technique could be modified to store barley using CO<sub>2</sub>(g).

A word of warning, once you find weevils in your pantry, you will never get rid of them, short of completely replacing all dry goods, and then fumigating.

- - -

Randall W. Holt rxh6@po.cwru.edu

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Date: Tue, 2 Feb 93 11:04:16 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: malted rye source

>Does anyone have any idea where to get malted rye. I want to try brewing  
>a beer with a hint of rye whiskey flavour...it also seems like a Canadian  
>thing to do ;-)

The Malt Shop  
N 3211 Highway S  
Cascase WI 53011  
1(800)-235-0026

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Date: Wed, 3 Feb 93 12:38:43 -0500  
From: strahs%medusa@medusa.bioc.aecom.yu.edu (Dan Strahs)  
Subject: Re: BUGS!

>down), and proceeded with the preparations. With everything ready and  
>HB in hand, I grabbed the bag and found it teeming with thousands and  
>thousands of tiny black bugs!!

Sounds like you have grain beetles. These nasty suckers will eat anything: flour, spices, sugar, dried pasta, malted barley 8~)  
Your best bet for eliminating this infection is to clean EVERYTHING. If you have a second nest of these beetles anywhere near your stored grain, they'll return. To prevent entry of these beetles, you need very tight closing containers. Ordinary jars apparently don't work too well; my girlfriend had to throw away most of her spices after the beetles got to then through the threads of the lids of the screw-top jars. Clean everything; you may want to consult with an exterminator. Empty every cabinet; examine everything they could possibly eat. Don't assume that an item is uninfested just because it's closed or unopened.  
Good luck.... Terminate with extreme prejudice.

Dan Strahs

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Date: Tue, 2 Feb 93 12:37:24 EST  
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)  
Subject: Re: Bad Luck With Spices

I don't know if your trouble with spices has anything to do with an aluminum brewpot, I do know however that spices can quickly overwhelm the other flavors in your wort. It's REAL easy to go overboard, thinking such small quantities will have no effect. They do! ginger root is especially strong, I've found.

Typical quantities I use in making an excellent spiced ale are: 1/2 teaspoon (tsp.) powdered nutmeg, 1.5 tsp. powdered cinnamon, 1/2 tsp. powdered clove (all 8 minutes from end of boil), 1 tsp. liquid vanilla (5 minutes from end). Add to this 1 lb. honey, 6 lbs. light extract, a pound or two of pale-to-crystal grains, hops of your choice, and barring infection I promise you a winner. This recipe has been called "the best homebrew I've ever tasted" by anyone who's tasted it. If you get the same reaction, just give credit where due! :-)

Dave Van Iderstine

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===  
== Dave Van Iderstine Senior Software Engineer ==  
== Xerox Imaging Systems, Inc.==  
== UUCP: uunet!pharlap!orgasm!davevi davevi@pharlap.com :INTERNET ==  
-----  
-==  
=="I haven't got time for instant gratification!" ==  
=====  
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Date: Tue, 2 Feb 93 13:08:34 CST  
From: russo@carlos.sps.mot.com (Russell L. Oertel)  
Subject: brewpots

I noticed a couple of people mentioning that they need brewpots big enough for all-grain brewing, and particularly one person who was concerned about cost. My solution to this problem is to have two smaller brewpots.

When I started brewing with extracts, I used a 3.5 gallon SS pot which cost about \$15. I figured the easiest thing to do would be to buy another identical pot, so that's what I did. 3-3.5 gallons is about all my electric stove will boil on one burner, anyway, and it's easier to move around ~25 lbs. of wort than ~50 lbs. if your setup requires moving pots around.

Russ Oertel "Don't worry, Ma - I'll grow up some day... but it  
russo@carlos.sps.mot.com probably won't be in my lifetime." - Sneaky  
Pete Rizzo

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Date: Tue, 02 Feb 1993 16:07:08 EST  
From: SRIRACHA <radavfs@ube.ub.umd.edu>  
Subject: Hypercard program

I seem to remember discussion about a program that would turn the homebrew digest into a Hypercard stack, allowing the Mac users among us to sort through the digest at our leisure...anyone else remember this one? I've been nomail for a while, so forgive me if this has been beaten to death recently.

Best,  
Volker

Volker Stewart Langsdale Library, U. of Baltimore radavfs@ube.ub.umd.edu

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Date: Tue, 2 Feb 93 12:14:21 PST  
From: Mark Simpson <mark@crash.cts.com>  
Subject: H-BAIRD MALTS

Howdy HBDers

1) Is anyone out there (George Fix?) familiar with the Hugh Baird malts? I would like to know what beer they are generally used in and its characteristics such as points per pound of extract (theoretical maximum).

2) How does one go about converting Theoretical Maximum Extract (ie 82% TME for Klages malt, for example) to points per pound of extract, excluding the brewhouse efficiency factor?

If this has already been discussed in the past, maybe someone could point me in the right direction.

Thanks for the help,

Mark Simpson, The Harmonica Brew-Cat

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Date: Tue, 02 Feb 93 13:53:47 -0800  
From: atl@kpc.com  
Subject: Drew's Brew Wheat Beer

I've gotten a number of complements on my extract wheat beer, and a request for the recipe, so I thought I'd post it here.

2, 4 lb cans Alexanders 60% wheat 40% barley unhopped extract  
1 lb 80L crystal malt, crushed  
2 oz 5.3 alpha Styrian Golding hop plugs  
2 oz 6.1 alpha Cascade whole hops  
Wyeast #3056 Bavarian Weissen yeast

3 days before brewing, pop the Wyeast package.  
2 days before brewing, pitch Wyeast package contents into a starter made from 2 cups water, 1 cup light dry malt extract, and 1 Tettnanger pellet. I use this type of starter on all my batches and pitch \*after\* high krausen.

BrewDay:

- 1) "Teabag" the Crystal malt, and add to 3 gallons cold water.
- 2) Bring almost to a boil and remove the "teabag".
- 3) Add malt extract and bring to a boil.
- 4) Add Styrian Goldings hops and boil for one hour.
- 5) Add Cascade hops, return to boil and remove from heat.
- 6) Steep 15 minutes.
- 7) Chill with immersion chiller to 80F.
- 8) pour into clean fermenter and top up to 5.5 gallons total volume with cold water.
- 9) shake up starter, pitch and vigorously stir wort.
- 10) Ferment ~3 days at ~68F.
- 11) Rack to secondary.
- 12) bottle when clear (~1 week) with 1.25 cups light dry malt extract.

This is about the simplest recipe I've ever made, and it tastes great. Clean and refreshing, and a little on the light bodied side. I might lower the lovibond rating of the crystal malt to get a color that more matches the flavor. I'll be attempting to recreate this with all grain this weekend :-)

+-----+ Andrew Lynch, atl@kpc.com  
| Congratulations, Bill and Al | Kubota Pacific Computer Inc. Santa  
Clara, Ca.  
| Now, don't screw it up! | (408)748-6345  
+-----+

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Date: Tue, 2 Feb 93 16:05:55 CST  
From: acarvin@casbah.acns.nwu.edu (Andy Carvin)  
Subject: A marvelous accident

Not too long ago I brewed a five-gallon batch of beer that somehow turned into something it should never have been in the first place. Lemme explain:

In November I brewed a basic batch of John Bull Wheat Beer. Nothing really exciting -- three cups of sugar, one ounce of hallertau hops. Then, I decided to add one pound of oats, just to see what would happen. When the time came for bottling, I realized I forgot to sparge the oats, and they had swollen so much I was stuck with a gallon of beer, yeast, and wort that was unseparable.

I didn't want to throw this stuff away, so I immediately brewed five gallons of Telfords Nut Brown Ale, added 2 cups of sugar, 3 cups honey, 2 ounces cascade hops, and a quarter cup of maple syrup. Now, I honestly did not think this would amount to much, and my fears worsened when I noticed that most of the wheat beer bottles were infected. Praying for the best, I bottled the nutbrown monstrosity anyway.

Well, two weeks ago we cracked a few open, and amazingly enough, it tastes almost exactly like Chimay Premiere, except with 8% alcohol. Just to confirm my surprise, I brought samples to fellow brewers and beer afficianados, and they also said the same thing -- Chimay.

Does anyone out there have any clue what I did right to make such a great beer?

Feel free to email me directly, or post on the net. Thanks a bunch.  
acarvin@casbah.acns.nwu.edu

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Date: Wed, 3 Feb 1993 01:55 EDT  
From: KING\_MAR%BENTLEY.BITNET@mitvma.mit.edu  
Subject: SUBSCRIPTION

PLEASE SEND ME ALL INFORMATION PERTAINING TO HOME BREWING.  
THANK YOU, MARTIN KING

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End of HOMEBREW Digest #1069, 02/03/93  
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Date: Wed, 3 Feb 1993 9:39.0.53  
From: dduane@kestrel.win.net (Diane Duane)  
Subject: "Irish Red Ale"...

It may amuse (or horrify) some of you to know that at present, there are almost NO red ales sold in Ireland. Killian's, which I've seen while visiting in the US, is not sold here. Just about the only ale brewed in Ireland at the moment, to the best of my knowledge anyway, is Hilden Ale, brewed by Hilden up in the North. And it doesn't get down into the south - -- whether because of import problems, or no one here knows it exists, I'm not sure.

The most popular beers here are, by and large, Irish brewed ones: Guinness has a stranglehold on the market (and likes it that way, so that foreign beers, especially the German ones, are coming into the country only very slowly. My husband danced and sang for about a week when he was able to get some weissbier in, just before Christmas.). American beers are oozing in...heaven help us. Miller Draft is sold in bottles: so are Pabst (some places) and Schlitz. There is better news, though: Budweiser is brewed here under license by Guinness, and "Uncle Arthur's" version is two and a half times stronger than the US article. Astonishingly, it actually tastes like something.... Otherwise, the most common brews found here would be (for stouts) Guinness, Murphy's, and Beamish: for lagers, Harp, and some German ones like Kronenbourg, Carlsberg, and Louwenbrau.

PS: the weird beer called "Guinness Gold" is not sold here. They wouldn't dare. (grin)

Regards from (presently) sunny Ireland!

Diane Duane / Kestrel Ridge / Avoca, Co. Wicklow, Ireland  
Fidonet: 2:263/164 / Ci\$: 73200,3112  
Internet: dduane@kestrel.win.net  
"A little science...a little magic...a little chicken soup."

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Date: Wed, 3 Feb 93 08:53:18 -0500  
From: Paul Matulonis <paulm@sci.ccny.cuny.edu>  
Subject: WL media (extracted from the Difco Manual)

There has been some curiosity recently regarding WL media for plating out yeast. I extracted the following from the Tenth Edition of the Difco Manual; all disclaimers apply; this was done without permission; proceed at your own risk. I checked the copy for accuracy but the final word should be verified via your local copy of the Difco Manual.

Paul Matulonis  
CCNY/Biology  
paulm@sci.ccny.cuny.edu

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#### WL NUTRIENT AND DIFFERENTIAL MEDIA

##### INTENDED USE

Bacto WL Nutrient Broth and Bacto WL Nutrient Medium are recommended for the cultivation of yeasts, molds and bacteria encountered in brewing and industrial fermentation processes.

Bacto WL Differential Medium, also used in the microbiological control processes in the fermentation industry, permits the unrestricted growth of bacteria and inhibits development of yeasts and molds.

##### HISTORY/PRINCIPLES

Bacto WL Nutrient media are prepared according to the formulae described by Green and Gray. In their study of various fermentation processes, Green and Gray pointed out the inadequacy of the microscopic count in fermentation control procedures. An exhaustive study of the method of examination of worts, beers, and liquid yeast and similar fermentation products led to the development of two media; one containing no selective agent and the other, a differential medium containing the antibiotic Actidione (cycloheximide) as a selective agent.

Bacto WL Nutrient media permit the development of yeast. In those instances in which the number of yeast cells is comparatively small, certain bacteria can be detected. Green and Gray reported that counts of viable bakers' yeast may be made on the WL nutrient medium at pH 5.5. If the reaction is adjusted to pH 6.5, the count of bakers' and distillers' yeast may be made. In making microbial counts using these media, the temperature and time of incubation will vary depending on the various materials under investigation. Temperatures of 25C are generally employed with brewing materials and 30C for bakers' yeast and alcohol fermentation mash analyses. Incubating periods run from 2 to 7 days, depending on the flora encountered. Incubation periods of 10 to 14 days may be used in some cases.

Bacto WL Differential Medium has the same formula as Bacto WL Nutrient Medium, with the addition of 0.004 g of Actidione per liter. This inhibits the development of yeasts without interfering with the development of bacteria generally encountered in beers.

A reliable count of bacteria can be obtained at pH 5.5. To obtain estimations of beer cocci and lactic rods, plates should be incubated under anaerobic conditions. For estimation of acetic acid rods and termobacteria (very small rods occurring in wort as described by Linder in about 1900 as *Termobacterium lutescens*, *iridescens* and *erythrumum*) incubate under aerobic conditions. To analyze bakers' yeast and alcohol fermentation mash, the reaction is adjusted to pH 6.5. Plates containing dilutions of bakers' yeast are incubated aerobically, while those from alcoholic fermentation mash are incubated anaerobically.

FORMULAE

BACTO WL NUTRIENT BROTH  
DEHYDRATED

Ingredients per liter

|                             |          |
|-----------------------------|----------|
| Bacto Yeast Extract .....   | 4 g      |
| Calcium Chloride .....      | 0.125 g  |
| Bacto Casitone .....        | 5 g      |
| Magnesium Sulfate .....     | 0.125 g  |
| Bacto Dextrose .....        | 50 g     |
| Ferric Chloride .....       | 0.0025 g |
| Monopotassium Phosphate ... | 0.55 g   |
| Manganese Sulfate .....     | 0.0025 g |
| Potassium Chloride .....    | 0.425 g  |
| Bacto Brom Cresol Green ..  | 0.022 g  |

Final pH 5.5 + 0.2 at 25C.

One pound will make 7.5 liters of final medium.  
Rehydrate with 60 grams/liter.

BACTO WL NUTRIENT MEDIUM  
DEHYDRATED

Ingredients per liter

|                             |          |
|-----------------------------|----------|
| Bacto Yeast Extract .....   | 4 g      |
| Magnesium Sulfate .....     | 0.125 g  |
| Bacto Casitone .....        | 5 g      |
| Ferric Chloride .....       | 0.0025 g |
| Bacto Dextrose .....        | 50 g     |
| Manganese Sulfate .....     | 0.0025 g |
| Monopotassium Phosphate ... | 0.55 g   |
| Bacto Agar .....            | 20 g     |
| Potassium Chloride .....    | 0.425 g  |
| Bacto Brom Cresol Green ..  | 0.022 g  |
| Calcium Chloride .....      | 0.125 g  |

Final pH 5.5 + 0.2 at 25C.

One pound will make 5.6 liters of final medium.  
Rehydrate with 80 grams/liter.

BACTO WL DIFFERENTIAL MEDIUM  
DEHYDRATED

Ingredients per liter

|                           |         |
|---------------------------|---------|
| Bacto Yeast Extract ..... | 4 g     |
| Magnesium sulfate .....   | 0.125 g |
| Bacto Casitone .....      | 5 g     |

Ferric Chloride ..... 0.0025 g  
 Bacto Dextrose ..... 50 g  
 Manganese Sulfate ..... 0.0025 g  
 Monopotassium Phosphate ... 0.55 g  
 Bacto Agar ..... 20 g  
 Potassium Chloride ..... 0.425 g  
 Bacto Brom Cresol Green ..... 0.022 g  
 Calcium Chloride ..... 0.125 g  
 Actidione (cycloheximide) .. 0.004 g

One pound will make 5.6 liters of final medium.  
 Rehydrate with 80 grams/liter.

METHOD OF PREPARATION

1. To rehydrate suspend appropriate amount in 1 liter cold distilled water and heat to boiling to dissolve completely.
2. Sterilize in the autoclave for 15 minutes at 15 Lbs pressure (121C).
3. To obtain a final reaction of pH 6.5 add the amount specified on the product label of a 1% solution of sodium carbonate per liter distilled water used for rehydration; dissolve and sterilize as indicated above.

STORAGE

Bacto WL Nutrient and Differential media      Below 30C  
 Prepared media2 - 8C

QUALITY CONTROL

Identity Specificatlons

WL Nutrient      WL nutrient WL Differential  
 Broth MediumMedium

Dehydrated powder: light beigelight tan beige w/blue tint  
 w/blue tint,      w/blue tint,      homogeneous,  
 homogeneous,      homogeneous,      free-flowing  
 free-flowing      free-flowing

Solution: 6% solution8% solution8% solution  
 Reaction: pH 5.5 + 0.2      pH 5.5 + 0.2      pH 5.5 + 0.2  
 at 25C      at 25C      at 25C

Prepared medium: blue, clearblue-green, verygreenish-blue  
 slightly opalescentslightly  
 opalescent

Typical Cultural Response In/on Bacto WL Media  
 After 40 - 48 Hours at 30C (Bacteria at 35C)

OrganismGrowth  
 WL Nutrient WL Differential  
 Media      Medium

Escherichia coli ATCC2 25922 fair to good good  
 Lactobacillus fermentum ATCC~ 9338fair to good good  
 Proteus mirabilis ATCC~ 25933fair to good good  
 Saccharomyces cerevisiae ATCC~ 9763 good inhibited  
 Saccharomyces uvarum ATCC~ 9080 good inhibited

REFERENCES

1. Paper read at Am. Soc. of Brewing Chemists Meeting Detroit, May, 1950.
2. Wallerstein Lab. Comm. 13:357 1950.
3. Ibid., 14:169 1951.

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Date: Wed, 3 Feb 93 8:59:40 EST  
From: mcharry@freedom.otra.com (McHarry)  
Subject: Re: all-grain snobs

Sorry if I offended extract brewers with my reference to my friend, the World's Worst Brewer, as, of course, an extract brewer. He is mainly trying to produce beer by the simplest possible means.

We are all extract brewers. Some of use make our own extract. Whether that is worth the bother (it more than doubles brewing time) is a matter of what you are trying to brew and how much effort you want to put into it. Some of my better beers have been extract brews. It seems to me that one can make a lighter colored beer from all-grain, and a lighter bodied one as well, if the mash temperature is right. One can also play with adjuncts such as rice or rye with interesting results. Whether that is worth shooting a whole Saturday, I am not sure.

The World's Worst Brewer is satisfied with what he produces and the time he puts in on it. As I said, the stuff is actually quite drinkable, in fact I may drown my sorrows in a liter plastic pop bottle of the stuff this evening--I need the protein!

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Date: 3 Feb 93 07:49:37 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.EDU>  
Subject: Adelscott

Subject: Adelscott      Time:7:40 AMDate:2/3/93  
Don Scheidt says:

>"Introduce" it? During the imported-beer boom of the early eighies,  
>when one could buy, among others, Rodenbach, Saisons de Silly,  
>and St-Louis beers in Seattle, bottles of Adelscott appeared on  
>the shelves of several specialty beer-and-wine-retailers here.

Interesting. It was perhaps 2 years ago when I contacted the importer in  
Mass.

Could be that they were reluctant to bend to our ever increasing label  
requirements and withdrew it, but no mention of this was made during my  
conversation with their representative.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Wed, 3 Feb 93 08:00:50 PST  
From: greg@bandit.Berkeley.EDU (Greg Jesus Wolodkin)  
Subject: Culturing lager yeast

Greetings!

In getting ready to brew my first lager, last week I attempted to culture the yeast from a commercial brew. I've cultured SNPA (Wyeast 1056) several times without any problems, so I figured it'd be easy..

I re-read the "Yeast" chapter in Miller, and then headed down to Liquor Barn and picked up 3 pints of Paulaner Hefe-weizen. My technique was as follows:

- 1) 1.020 SG starter wort, just off the boil, cover and cool in a sink full of ice water to 80F.
- 2) Sanitize a one gallon glass jug and funnel (20 minutes with chlorine solution, then rinse).
- 3) Take a butane lighter to the exposed rim of the pot, then transfer 1/2 gallon of starter wort into the jug and fit with (sanitized) airlock.
- 4) Open a bottle of hefe-weizen, flame the mouth, decant beer into pitcher, sending the last 1/2" of dregs into starter. Repeat until beers are gone and pitcher is full ;-)
- 5) Place the starter jug at room temperature (70F) covered with a t-shirt to keep out the light.
- 6) Drink the hefe-weizen and don't worry!

Well a typical culture (at least in my experience) would be bubbling merrily within 48 hours, with visible signs of activity within 24. This one has been \*much\* slower. At four days there was \*nothing\*. At five days a very small ring of bubbles on the surface. Now at six days, it has reached kraeusen stage.

I can think of a few possible mistakes -- first the beer was chilled (it was unavailable warm at the store), and I guess that would slow things down. Second I discovered that Miller actually recommends Spaten, not Paulaner, as a stable, reculturable lager yeast. (Oops..)

Whatever I have in my starter is a bottom-fermenter. It even smells good, so after it finishes I plan to taste the result and give it another feeding. If it seems OK at that point, I will most likely brew with it. I wanted to ask those of you who culture yeast on a regular basis:

- 1) Is six days such a long lag that I should expect a wild yeast, rather than the yeast I was attempting to culture?
- 2) What behaviour can I expect from the Paulaner hefe-weizen yeast, assuming that's what I've got? Anybody ever use it?
- 3) Should I eventually move the starter to fermentation temps (~50F) or should I leave it at 75F until pitching (since I will most likely pitch at 75F)?

As always, thanks in advance for any suggestions/comments.

Greg Wolodkin

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Date: Wed, 3 Feb 93 11:20:52 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Re: BUGS!

I would think that canning jar lids, screwed down tightly, would keep the bugs out. After all, they can hold a vacuum seal for years, even without the screw band holding the lid down. Of course, there is one major difference: the vacuum seal is formed at high enough temperatures to deform the "rubber" on the lid to exactly conform to the rim of the jar.

I get bugs every summer, and consider it a good excuse to throw out the old stuff in the cupboard. If it's more than a year old, I'm not sure I want to eat it anyway. I've got too many uncontrolled insect sources entering the house to keep them all away. (Birdseed is the worst, even after freezing it at 0F for a few weeks before using it.)

=S

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Date: Wed, 3 Feb 93 11:39:53 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Lager...

Disadvantage is that you almost are required to add new yeast to get reliable carbonation when you bottle. Also, you tie up a carboy for a long time.

Advantages: you can put off bottling. A carboy takes less space than two cases of beer(?). Purportedly, you get better flavor characteristics. I've only done one (sort of) test on this -- a friend and I split 10 gallons of wort (Vienna lager), pitched the same yeast (2308, from the same starter), fermented at the same temperature (in our respective fridges) for the same length of time. He clarified with Polyclar, bottled, and lagered in the bottles. I lagered in carboy, didn't clarify, then bottled. Both were good (an understatement!), mine had a more malty flavor, but that may have been because he used polyclar and I didn't.

=S

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Date: Wed, 3 Feb 93 11:45:54 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: BUGS!

Rereading your post, it appears to me that the bugs (or, rather, their eggs) came in the grain (a not unlikely occurrence). The tightest container in the world won't prevent these suckers from growing. The CO2 idea sounds good, as I don't think they can grow without oxygen.

I've had this problem with birdseed, and sometimes with flour(!) back in the days when I bought 25lbs at a time. Freezing them for a month in my chest freezer (or even storing them there) seems to kill most of the eggs.

=S

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Date: 03 Feb 1993 11:07:19 -0500  
From: Chris McDermott <mcdermott@draper.com>  
Subject: FAQ/RFC on Recirculation.

FAQ/RFC on Recirculation.

Since many topics come up in cyclical manner it would be nice if they could be answered in a FAQ format. And since some topics have more than one accepted answer the FAQs should try to show all sides of an issue.

So to get the ball rolling here is an example:

FAQ #0000-000:

[Note that 0000 indicates the number of the FAQ and -000 indicates its version.

The version mechanism allows mistakes and inaccuracies to be corrected and newer information to be included in newer versions of the FAQ.]

\*\*\*\*

FAQ #0001-01: Recirculation: What is it, and should I do it?

Recirculation is a practice employed in the lautering of mashed grains where the turbid sweet wort is collected, as it is runoff, and recirculated through the grain bed until the runoff becomes clear.

Most sources of homebrewing information will tell you that you should employ the practice of recirculation to avoid significant amounts of chaff in the boil. Chaff in the boil is considered by these sources to lead undesirable effects in the finished beer including astringency and cloudiness. (Ref. Miller, Papazian)

However, others believe that some amount of chaff in the boil is desirable in that it helps to coagulate large protein molecules producing a better hot-break and thus a clearer finished product. Furthermore, some think that the hot side aeration (HSA), or oxidation, of the sweet wort during recirculation outweighs any benefit that may be gained by clearing the wort. (Ref. Fix)

\*\*\*\*

Please consider this FAQ as a kind of HbD Request For Comment (RFC). Please feel free to make any additions or corrections.

—  
Christopher K. McDermott Internet: mcdermott@draper.com  
C.S. Draper Laboratory, Inc. Voice: (617) 258-2362

555 Technology Square FAX: (617) 258-1131  
Cambridge, MA 02149 (USA)

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Date: Wed, 3 Feb 93 12:18:39 EST  
From: Andrius Tamulis <ATAMULIS@ucs.indiana.edu>  
Subject: Hypercard Program

I may be the person to whom you refer - I wrote a Hypercard Homebrew Digester about 2-3 years ago, and offered it to anyone who wanted it. I even send out a few copies. Soon after, however, I discovered a serious bug/problem - Hypercard fields can be only 32767 lines long, and at one line per article (as I recall) this quickly filled my index field. I've tinkered with it once or twice in the interim, but have never really got it working to my satisfaction.

I am willing to send a copy of it to anyone who cares to ask for it, send email to ATAMULIS@ucs.indiana.edu, with a request that if anyone makes it work well, they send me a copy.

andrius tamulis

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Date: Wed, 3 Feb 93 11:19:51 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: IBU table

bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak) writes:  
>In HBD1066 I submitted an HBU-IBU conversion table  
>but forgot to mention any volume relationships.  
>That table assumes a 5 gallon batch.  
>To adjust for a volume of X gallons simply multiply the  
>numbers in the table by 5/X.

Well thanks, now that I just wasted 35 oz of hops in my latest barleywine :-)

AA units = oz hops \* %AA and HBU = AA units / gal. wort (right?)

so that was really a AAU to IBU table, or do I have them backwards?  
I also noticed that the rows for 55 and 60 minute boiling times  
were identical. Was this a typo?

Nonetheless, the table is among the things that I saved from the HBD  
for future reference and is greatly appreciated.

bb

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Date: Wed, 3 Feb 93 11:36:29 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: fresh hops

The freshest hops I have found are hops plugs from GW Kent. They come vacuum packed in gold foil, in packs of 10 - 1/2 oz plugs. At around 8\$ per pack (\$1.60/oz) they are about twice as expensive as normal leaves or pellets, but they are so fresh that you will probably have to reduce your hopping rate by about 30% over "regular" leaf hops. They can survive a 60 minute boil without scrubbing out all their aromatics (which isn't always what you want).

Available from  
Alternative Garden Supply, Streamwood, IL: 1 (800) 444-2837  
The Malt Shop, Cascade, WI: 1 (800) 235-0026

bb

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Date: Wed, 3 Feb 93 13:18:38 CST  
From: rak@mayo.EDU (Ron Karwoski)  
Subject: Lager Questions

I am planning on starting a Bock soon and have a few Lager questions:

At what temperature should the wort be when the yeast is pitched and how soon should the whole thing be brought down to lagering temperatures? Do you wait for active signs of fermentation before cooling?

Should the starter be cooled?

What is a good liquid yeast for a Dopplebock?

Thanks.

Ron Karwoski      Internet:    rak@bru.mayo.edu

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Date: Wed, 3 Feb 93 16:19:09 -0500  
From: pointon@m2c.org (Joel Pointon@staff)  
Subject: How Long Is Too Long

Greetings fellow brewers. Being a fairly new convert to HB, I have a question that I realize most of you WON'T be able to relate to. Although I enjoy my HB, I'm not a big drinker, so subsequently I have a stockpile building up of my brewing efforts. The beer cellar presently contains the following extract brewed product: Porter, (3 months), Pilsner (2 months) and English Bitter (1 month old). The cellar is approximately 55 degrees F at this time of year and will increase to about 65 by the beginning of summer. How long can one expect to keep each of these before the flavor falls off? I know, I know - "drink it or loose it", but seriously if I had to focus on which would decline first I would guess Pilsner, Porter and Bitter in that order.

As long as I've tempted your wrath already - I'm heading to San Diego 2/13 - 21 for a sailing course and \*\*\*\*\* brew pubs, etc.\*\*\*\*\*.  
(Please send replies on this portion via email.) Thanks.

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Date: 3 Feb 93 16:31:59  
From: bmkinz@mail.wm.edu (Kinzie Brian Mark)  
Subject: help the pathetic beginner

I am new to homebrewing (Papazian would put me at the intermediate level) and I would like some advice on brewing a Belgian Ale, using a couple bottles of Chimay I have for their yeast (someone told me this could be done, but didn't bother to tell me how). Please e-mail me directly, and use small words so I will understand what you are talking about. Thanks in advance,  
bmkinz@mail.wm.edu

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Date: Wed, 3 Feb 93 16:15 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: A survey of the readership

Are you an all grain brewer or an extract brewer?

Lately, there have been quite a few highly technical discussions about mash techniques, kegging setups, and hopping rates, to name a few. This has been a real boon for most of us, whether advanced or beginners. Advanced brewers get an opportunity to discuss, with others at their level, the challenges that they're facing in their home breweries. Beginners can read these discussions and learn. Everyone wins.

With one exception. Beginner brewers, or even intermediate brewers, are likely being intimidated by the high level of this discussion. How many posts in the last few weeks have started with "I'm only a lowly extract brewer. . ." or "Sorry for taking up bandwidth with such a simple question..."? And, I wonder how many questions have not even been asked because the author is afraid of being labelled "not a REAL brewer" by more advanced brewers. (Remember that discussion a while back about real brewers?) I believe that Rob Bradley was referring to this in HBD #1069, when he wrote about all-grain snobs. I'll bet that the progress of many beginners is being slowed by this thought. I hate to think that people are being intimidated from asking questions, because the HBD has helped me so much in the three or so years that I've been reading it. (There used to be lots more "lower level" discussions.)

I think it would be interesting to take a poll to see how many readers are extract brewers, or all-grain brewers. I suspect that the readership consists of more beginners than are represented by the questions posed in the HBD. And I think that, if beginners realized that they make up a substantial part of the HBD community, they would be more likely to pose "lower level" questions, and therefore, improve their comprehension and brewing.

Therefore, I invite everyone reading this post to send me a brief note indicating your level of expertise. Please use the keywords:

All Grain if you rarely use extract for your brewing, other than for yeast culturing,

Intermediate if you do some mashing, partial mashing, some yeast culturing, etc., but you don't consider yourself very experienced, or

Extract if you are relatively new to the brewing process, haven't

tried mashing, or in general, consider yourself to be on the steepest part of the learning curve.

I know that this classification is too simple, but it should prove to be informative, nonetheless. (It should also give some kind of a count of the number of readers, as well as swamping my mail utility.) In about a week, I'll post the results.

Cheers,  
Chuck coronellrjds@che.utah.edu

P.S. Sorry if this gets posted twice, we're experieingnce nicaltech ultiesdiffic iwth our ermail.

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Date: Wed, 3 Feb 93 17:09:59 PST  
From: Richard Cox <rcox@hsc.usc.edu>  
Subject: Dry Malt Extract vs. Syrup Malt Extract

One of my homebrew suppliers strongly maintains that dry malt extract provides better flavor and less extract "tang" than the syrup variety. He has encouraged me to use all DME in my recipes whenever possible.

I'm too new to homebrewing to have an objective opinion on this, although my last batch -- using all DME -- does taste \*much\* better than my first, which was made with syrup extract. There may have been other factors at work in that case, though. I have wondered whether or not the syrup cans impart any detectable metal taste to the extract.

Does anyone have any advice?

) rcox@hsc.usc.edu ( )  
) ( )  
) sparkman@well.sf.ca.us ( )

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Date: Wed, 3 Feb 93 13:00 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Beadle, Open Fermenting, arf n snobs

>From: korz@iepubj.att.com

Chris writes:

>>Mr. Beadle ("Brew it Yourself\*"), and at least two other British  
>>1960s-type books abhor boiling:

>> "Do not bring the water to a boil.... This single bit of  
misinformation from those who should know better has caused many  
beginners to  
become unnecessarily discouraged in their attempts at brewing."

>Don't confuse the MASH with the BOIL. In all-grain brewing, you MASH,  
LAUTER, BOIL, CHILL, FERMENT and PACKAGE. In extract brewing, you  
simply  
BOIL, CHILL, FERMENT, and PACKAGE.

I also have this book in my library and HIS statement far better fits my  
definition of the "single bit of misinformation" that caused me no end  
of  
confusion. That page was dog eared in my book and the paragraph  
underlined.

I assure you the he was referring to extract beer as there is not a  
single  
reference to whole grains in the entire book.

Several times he describes the process of mixing extract with water  
between  
151 and 155 F and maintaining it there for the duration.

Another example of his misinformation is on page 53, also underscored  
and  
burnt into my early data base on brewing.

"If you look into the fermenter, you will see a rich foamy head bubbling  
on  
top. This head is composed mainly of resins from the hops, which are  
forced  
up ty the carbon dioxide bubbles. Some books advocate skimming off the  
head  
but this should never be done because it contains all the oils and  
resins  
that will give the beer its body, aroma and characteristic beer taste.  
"

Certainly, there is a legitimate debate on the importance of skimming  
the  
foam but no one but Beagle argues the merits of leaving it there.

I also note on reviewing the book again for this posting that there is  
no  
mention anywhere of hops. His recipes simply call for light or dark  
extract  
as though hops did not exist.

The book also has no index so it is difficult to find anything but I  
think it

is safe to say that it is one of the worst of the generally lousy books on homebrewing available in the 60's and 70's.

It is not hard to understand why homebrewing is now rapidly expanding as a hobby and why it stagnated before. I have no problem admitting that I never really made a good batch of beer till I spent several months digesting the Digest and much of the other information currently available. It's truly is a New World Order for home brewing.

>From: Jim Busch <busch@daacdev1.stx.com>  
>Subject: re: reusing yeast & open fermenters

>I am most likely in the minority of homebrewers in that I am currently utilizing open fermentation techniques.

You're in good company. The only thing you need to do to complete your joy is to add a spigot on the bottom so you can take QC samples on a regular basis to determine how it is progressing before sending it to the secondary.

I find that for some strange reason, the primary fermentation seems to take much longer this way and I always seem to come up about a half a gallon short:)

I am sure you have also figured out how simple it is to sterilize with a bit of water boiling in the bottom.

I also suspect that you, like the rest of the enlightened ones, simply yawn at all the discussions about "blow-off" tubes and related mess.

>From: korz@iepubj.att.com  
>Subject: Spraying the grist

>Both Jim and Donald mentioned the spraying of water on the grist as it enters the mash tun. I suspect that this has the additional benefit of reducing grain dust which is explosive.

I suspect that it might have a negative effect if Fix's hypothesis on HSA is correct. What say George?

>From: Tom Dimock <RGG@CORNELLC.cit.cornell.edu>  
>Subject: Mixing beers

>Mixing beers has a long history in England, where the Black and Tan, Light and Dark, or 'arf 'n 'arf are all quite common in pubs. One of my fond memories involves drinking with friends from MIT at the Muddy Charles, a graduate student hangout on campus. At that time, they only had Bud on tap :-( , but they did have Guinness in bottles. Being cheap, but not quite cheap enough to drink Bud straight, I'd buy a bottle of Guinness, and use half a Guinness per pitcher of Bud to give the stuff some flavor. It worked pretty well - it made the Bud into something you could fool yourself into believing was beer....

This is amazing. I was going to point this out in response to the original question but I could not resist noting that ARF was drinking arf 'n arf long before he gained world wide acclaim as the World's Greatest Brewer. I did this when I was stationed in Bermuda in the 60's. Guinness and Bud was the poor man's real beer.

>From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>

>From: arf@ddswl.mcs.com (Jack Schmidling)

>Subject: Nitrosamines, Dough-in

>

> >From: gjfix@utammat (George J Fix)

>

> >For the record, the highest NDMA level reported was in Bamberg Rauchbier.

> It contained 5-15 parts per billion, and not 5 ppm as reported in HBD.

>

> Just testing to see if you read my articles as carefully as

> I read yours :)

<Cute, but disingenuous. Given the orders of magnitude between ppm and ppb, this is important.

Just cute. George and I discussed the orders of magnitude issue in email and it was a private joke in public. When researching the subject, I got that sort of ambiguity from the maltsters themselves. Not one of them could tell me for sure whether it was ppm or ppb so I asked George.

>The best reason to use the Belgian malts is 'cause you like 'em - sorry if that seems a bit simple-minded, but I'm not planning on being part of this world forever...

It is not only simple minded but puts everything else you say in the same perspective. Part of being cultured and civilized is controlling our likes to conform with not only our own well being but the needs and interests of others. I may very well like the taste of smoked Scheidt on a bagle with cream cheese, but I am not simple minded enough to assume that justifies eating it.

js

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End of HOMEBREW Digest #1070, 02/04/93

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Date: Thu, 04 Feb 93 08:15:01 -0600

From: dbreiden@dsuvax.dsu.edu

**Subject: All-grain snobs**

Wasn't it Rob B. who had some remarks about all-grain snobs? Well said, Rob! I recently made the switch to all-grain -- I will admit that I was always a bit apologetic about being an extract brewer.

My friends (hi guys) had all gone all-grain long before I did, but I wouldn't call them all-grain snobs. While I do agree with Rob about keeping down the snobbishness, I also believe that all brewers should seriously consider doing the all-grain bit. I was always encouraged to take the plunge, and I'm oh so happy I did. The beer isn't orders of magnitude better (yet), but the magic of the mash is just TOO cool!

The best situation is for extract brewers to be able to dabble in all grain without purchasing the equipment (which may or may not cost a fortune). I personally believe working with an experienced person is the best way to manage all aspects of brewing though.

Brew-on!

- --Danny

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Date: Thu, 4 Feb 93 09:51:47 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: Irish Ales

Being Irish I was more than a little surprised to read a posting from Ireland saying that there was no ale sold there and began to wonder if I had grown up in and visit a different place. In hbd 1070 Diane Duane never mentioned ales in her list of beers and even said there were none apart from a minor Northern brew. While ale sales have been falling to lager (with stout relatively constant) sales of Smithwicks are still high. MacArdles is also sold nationwide in bottles and can be got on draft in local areas. In Waterford one can even get Phoenix Ale in large bottles produced at the small Cherry' brewery there. All 3 of these are sold by Irish ales, which is a group coowned by Guinness and Grand Met. Bass is also produced in Belfast and is an Irish Ale having slightly different taste than British produced Bass. Unfortunately the virtual monopoly Guinness have on the Irish market, and indeed on malt and hop industries has meant that there are fewer small brewers than elsewhere.

Another point I would question was Diane's statement that Irish Bud was 2.5 times stronger than American stuff. While it does taste a little better (It would be hard not to), it is 4.3% by vol as against US Bud which is 4.6%.

Ulick Stafford

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Date: Thu, 4 Feb 1993 10:03:09 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: beginners,extract

As one who has flooded the HBD with "beginner" questions, I have to agree with Chuck C. about the tone lately. I'm now exclusively an all-grain brewer (it's easy, really), but no less than 2 years ago I was an "extract brewer without a clue". So I asked questions, \*lots\* of questions, to the HBD. Some were really clueless; I cringe when I look through some of the HBD archives. But, hey, just \*asking\* the questions forced me to think about what I was doing, and of course the quality and depth of the answers has always been startling. So go ahead and ask "beginner" questions; they often lead to more advanced topics, so everyone wins. For instance.....

It was mentioned that extract brew tastes better if it is made from 100% dry extract. In my e.brewing days, my standard batch was 1 can of syrup with and equal amount of dry extract, which seemed tastier than 2 cans of syrup. Perhaps, as was said, the canned syrup does pick up some of the metallic flavor of the can, and might be (one of) the source(s) of the extract "tang". Those box/bags of syrup from BME always produced a nice (if expensive) brew.....HMMMMM....

Russ G.

BTW, \*HIGHLY RECOMMENDED\* - Read \*all\* the HBD archives. Yes, all. IMHO, the HBD archives are perhaps the richest source of homebrewing info available.

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Date: 4 Feb 93 09:54:12 EST  
From: "Dean Roy" <DEAN@alpha.uwindsor.ca>  
Subject: Yeast Culturing Supplies

After paying the price for packs of Wyeast, I am looking at yeast culturing.  
The problem I have encountered is in finding a source for supplies.

What I was hoping to find was a CANADIAN supplier of equipment such as petri dishes, test tubes, agar, etc. that is willing to sell retail. If anyone knows of such a supplier, I would appreciate you letting me know.

Also, American suppliers may be okay too since Windsor is only a half mile drive from Detroit Mi.

Please reply via private email!

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|                       |  |                               |  |
|-----------------------|--|-------------------------------|--|
| Dean Roy              |  | Email: DEAN@UWINDSOR.CA       |  |
| Systems Programmer    |  | Voice: (519)253-4232 Ext 2763 |  |
| University of Windsor |  | Fax : (519)973-7083           |  |

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Date: Thu, 4 Feb 93 10:22:02 EST  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: re: HB Shelflife, Irish Bud

In HBD1070 Joel Pointon asks about the shelf life of homebrews

>The cellar is approximately 55 degrees F at this time of year and  
>will increase to about 65 by the beginning of summer. How long  
>can one expect to keep each of these before the flavor falls off?

From personal experience, I've had some of my beers about one year after brewing and they were still good, with some being better than when younger. My beers are kept in similar conditions as yours, perhaps even 2 or 3 degrees warmer. Someone told me that HB will keep up to 5 years, but I've only been brewing myself a little over a year and a half. In general, beers with more alcohol, and more hops should keep longer than weaker brews.

The only danger comes from beers with an infection or wild yeast which can cause the beer to overcarbonate and gush upon opening. (This happened to me with an octoberfest last year.) In this case, which will be obvious, I would recommend drinking these fast (if drinkable) or dumping them out before any explosions occur. With my batch the beer was actually not so bad, but the caps were bulging outward and half the beer gushed out when I opened a bottle.

Also, Diane Duane writes

>(some places) and Schlitz. There is better news, though: Budweiser  
>is brewed here under license by Guinness, and "Uncle Arthur's" version  
>is two and a half times stronger than the US article. Astonishingly,  
>it actually tastes like something....

Does stronger mean greater alcohol content? If so since Budweiser is about 4.8% alcohol by volume this would put the Guinness version at about 12%, stronger than most barleywines. Maybe we should try to get the Irish Bud imported back to the US.

Bill Szymczak

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Date: Thu, 4 Feb 93 9:39:14 CST  
From: tony@spss.com (Tony Babinec)  
Subject: tap beer mix

A number of bars in the Chicago area have both Old Foghorn and Sierra Nevada Draught Ale on tap. It wasn't long before the half-and-half mixture was christened...

A Foggy Night in the Sierras

After you've imbibed a few, you know from whence the name comes :-).

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Date:Thu, 4 Feb 93 11:05:28 EST  
From: William Boyle (CCAC-LAD) <wboyle@PICA.ARMY.MIL>  
Subject: Gold Coast Brewery

Does anybody know anything about the Gold Coast Brewery, such as tours, tastings, hours they are open? Any information would make me very happy.

B^2

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Date: 04 Feb 1993 09:07:45 -0600 (MDT)  
From: MARK TARATOOT <SLNDW@CC.USU.EDU>  
Subject: more lager questions

I have two more questions regarding lagering. If I choose to lager my lager in the bottle, should I:

1. Prime, put in warm (room temp) place for a week to carbonate, put in cold place to finish lagering.

or

2. Prime, put in cold place to finish lagering, put in warm (room temp) place to carbonate.  
????

Will the latter give the beer a dicetyl rest after lagering (during carbonation)?

Second Question:

Concernig pitching extra yeast at bottling. What if I just "grab up" some of the yeast sitting on the bottom of my fermenter? What are the chances that these yeasts are mutated and what will that do to the final product? This particular batch is in a tertiary fermenter (racked from secondary to get WAY away from yeast/other stuff that flocculated out) so all the "stuff" should be yeast. This yeast will be mostly dormant, to be sure, but shouldn't it just hop back to life if more fermentables are added?

Any comments?

thanks!

-toot

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Date: Thu, 4 Feb 93 10:20:21 CST  
From: tony@spss.com (Tony Babinec)  
Subject: chimay yeast/recipe idea

I had success culturing up Chimay yeast by using a large bottle of Chimay Red. If you examine the cork closely, you'll see a date code. In the Chicago area, the currently available bottles are dated 10/92, which means that they're reasonably fresh. Perhaps you have access to this beer wherever you are. I would use Chimay Red rather than Cinq Cent or Grand Reserve because it's the lowest gravity of the three.

You can drink the beer (!) and pitch the dregs from the bottle into some starter wort. The yeast ought to take off relatively quickly, that is, within a couple days. If you get no activity or very slow activity, then discard the starter wort and start over. Once you have an active culture, you can taste and smell it to see whether it's good. At this point, you have a choice. You can either brew a beer and pitch your starter culture, or you can plate out the yeast, isolate a single cell, build it up, and then brew the beer. The advantage of the more labor-intensive approach is that you can isolate the yeast and build it up minus whatever bacteria or other stuff might be in the dregs, provided you're sanitary in your yeast culturing. On the other hand, if you're satisfied from your taste and smell test that the starter culture is good, you can pitch it straight into the beer, albeit at some slight risk.

The Chimay yeast is a very important component of making a Chimay clone. You might try to get your hands on Wyeast Belgian ale yeast, though to me it doesn't taste like Chimay's.

For recipe ideas, Rajotte's book has a recipe called St. Humulus. I don't have the book with me now. Note that Chimay Red has a starting gravity of 1.063, which, while high, is not whopping. What an incredible beer!

Here's a recipe suggestion:

Abbey Beer in the style of Chimay

9 pounds U.S. 2-row  
1.5 pounds Munich malt  
0.5 pounds 60L (or darker) crystal malt  
1-2 ounces of chocolate malt  
1 pound of honey or dark brown sugar

6 - 7 AAUs bittering hops, a mix of hallertauer and kent goldings, added at 60 minutes before end of boil. You are not looking for high hop bitterness, nor should there be noticeable hop aroma.

Chimay yeast, of course

If you're not an all-grain brewer, then don't use the 2-row or munich malt but use, say, 7 pounds light, unhopped dry malt extract instead. Use crystal and chocolate malt for color. The honey or brown sugar will boost the starting gravity as well as contribute to the flavor and body of the finished beer. You might try doing the fermentation at a relatively "warm" temperature, say, 70 to 75 degrees F. This should lead to more of that Chimay flavor in the finished beer. And, don't drink the beer all at once, as its



flavor will evolve in the bottle over time.

Good luck!

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Date: Thu, 4 Feb 93 10:31:10 CST  
From: gdmcconn@mspe5.b11.ingr.com (Guy McConnell)  
Subject: Re: "Irish Red Ale"

Diane Duane writes:

> It may amuse (or horrify) some of you to know that at present, there  
are  
> almost NO red ales sold in Ireland. Killian's, which I've seen while  
> visiting in the US, is not sold here.

Actually, that was part of the point in my posting. That is why I  
used  
the terms "(non?)style" and "all but forgotten style" when describing it.  
My  
history on Killian's is a bit foggy but I seem to recall that they were a  
brewery in Ireland (brewing an Irish Red \*Ale\*) and they experienced  
financial  
difficulty (probably due in part to the preference for stouts and  
[increasingly]  
lagers) in Ireland. A "kind-hearted" American megabrewery decided to  
help them  
out and gobbled them up. They moved production of the Irish Red over  
here and  
de-characterized it almost completely, decided it should be a \*lager\*,  
and  
kept the name. I don't intend this to be regarded as absolute fact as I  
admit  
that my recollection of the details is a bit rusty, but I think the truth  
is  
pretty close to what I remember. Anyone with access to the Real Truth,  
please  
feel free to step in.

This is another case where microbreweries and homebrewers are  
responsible  
for reviving (rescuing?) a beer style, much in the same way as Porter.  
The  
two examples I mentioned are, I'm sure, not the only ones left  
(hopefully!)  
but they are the two I am familiar with and both are microbrewed ales.  
Now,  
I love a pint o' Guinness with a passion and my tastes tend toward the  
darker,  
heavier beers but I occasionally like something a little lighter. A good  
Irish Red Ale fits the bill nicely.

- - -  
Guy McConnell gdmcconn@mspe5.b11.ingr.com or b11!mspe5!gdmcconn  
"All I need is a pint a day"

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Date: Thu, 4 Feb 93 11:04:54 CST  
From: billm@scorpio.sps.mot.com (Bill Moyer)  
Subject: idophor, rinse/reuse

I've just recently tried using idophor instead of a bleach solution for sanitizing ( .5oz idophor/gallon water, ~12.5ppm free iodine) and have 2 questions.

- 1) if a rinse is omitted at bottling time, will the brew condition properly, or will the yeast be affected? I'm assuming no air drying of the bottles.
- 2) how long will the solution remain stable, and what indication (if any exists) can be used to guage the remaining sanitization potential of the solution?

thanks,

Bill Moyer

-----

Date: Thu, 4 Feb 93 12:30:03 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: lager questions, recirculation

Hi All,

In HBD #1070, Greg Wolodkin writes:

<description of culturing yeast from Paulaner Hefe-weizen deleted>

>2) What behaviour can I expect from the Paulaner hefe-weizen  
> yeast, assuming that's what I've got? Anybody ever use it?

My understanding is that Paulaner uses a non-flocculating lager yeast to bottle condition the hefe-weizen, it's not the same yeast used to ferment the beer. I'm fairly certain a top fermenting strain is used for that purpose.

That said, I believe you'd end up with a cloudy beer due to the poor flocculation, and you would likely not get the clove phenolic/banana ester character that's desirable in a German weizen.

Disclaimer: I've never actually cultured this yeast and brewed with it, so the above comments should be taken with whatever quantity of salt seems appropriate :-).

\*\*\*\*\*

Also in HBD #1070, Ron Karwoski asks:

>At what temperature should the wort be when the yeast is pitched  
>and how soon should the whole thing be brought down to lagering  
>temperatures? Do you wait for active signs of fermentation before  
>cooling?

This seems to be a major issue, I see a lot of posts in this forum and r.c.b regarding pitching temperatures for lagers, and long lag times that result from pitching liquid yeast at reduced temperatures.

According to Miller, pitching at temperatures in excess of 50F results in increased diacetyl production. He states that the traditional method is to pitch when the wort is between 40F-48F. While this produces minimal diacetyl, it does cause longer lag times. To counteract this problem, Miller recommends pitching large amounts of yeast, 0.67 to 1.3 ounces of \*slurry\* per gallon. (Source: Miller's Continental Pilsner)

IMHO, the one pint to one quart starters that most of us use simply do not contain enough yeast to initiate lager fermentations quickly. I've been experiencing the problem of long lag times with lagers, and confess to pitching at slightly higher temperatures (~60F) in attempting to reduce lag time. For my last batch, I used a somewhat larger starter than usual, and fermentation did start more quickly. For my next batch (also a Bock), I'm going to grow the yeast in a one gallon starter, let it ferment out in order to get a large sediment of hungry yeast, pour off most of the liquid, and pitch the slurry at 50F. I'll post the results.

>Should the starter be cooled?

The starter should be as close in temperature to the wort as possible, as temperature shock is detrimental to yeast performance. I've pitched

starters into \*slightly warmer\* worts with good results, but I wouldn't recommend pitching a starter that's at 70F into wort at 50F.

\*\*\*\*\*

Also in HBD #1070, Chris McDermott writes:

FAQ #0001-01: Recirculation: What is it, and should I do it?

Recirculation is a practice employed in the lautering of mashed grains where the turbid sweet wort is collected, as it is runoff, and recirculated through the grain bed until the runoff becomes clear.

Most sources of homebrewing information will tell you that you should employ the practice of recirculation to avoid significant amounts of chaff in the boil. Chaff in the boil is considered by these sources to lead undesirable effects in the finished beer including astringency and cloudiness. (Ref. Miller, Papazian)

However, others believe that some amount of chaff in the boil is desirable in that it helps to coagulate large protein molecules producing a better hot-break and thus a clearer finished product. Furthermore, some think that the hot side aeration (HSA), or oxidation, of the sweet wort during recirculation outweighs any benefit that may be gained by clearing the wort. (Ref. Fix)

For what it's worth, I recirculate about 1 - 1.5 gallons. The runoff is still a little cloudy at this point, but it is free of any large chunks of husk or grain material. Coincidentally (or perhaps not so), 1.5 gallons is exactly the volume of "dead space" under the false bottom in my lauter tun.

Not to change the subject, but this brings to mind something I've been wondering about for some time. Exactly how much of a problem is HSA during sparging? The wort will be boiled within an hour, which will drive off the oxygen, so I guess my question could be phrased "how quickly do HSA reactions occur?" Comments, please.

Cheers,  
Jim

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Date: Thu, 04 Feb 93 12:41:12 EST  
From: WAYNE HINES <IWLH%SNYCENVM.bitnet@CUNYVM.CUNY.EDU>  
Subject: Capital Region Microbrewers Festival

Just a note to let you all know:

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Capital Region  
MICROBREWERS  
FESTIVAL

Friday Saturday  
February 26th February 27th  
6pm - 10pm 2pm - 6pm  
at the Lake Ave. at the New Scotland Ave.  
Armory, across Armory, 130 New Scotland Ave.  
from the Parting near Medical Center  
Glass  
Saratoga Springs, NY Albany, NY

Tickets Include

A commemorative beer glass to sample 40-60 different beers from more than 25 microbreweries and brewpubs from across the United States.

Tickets \$15 per person / \$18 at door if available

Tickets available at:

Holmes & Watson : Mahar's : The Parting Glass : The Market Grill  
450 Broadway : 1110 Madison Ave. : 40 lake Ave. : Million Dollar  
Mile  
Troy, NY : Albany, NY : Saratoga Springs, NY : Lake George, NY

Also available by phone or pickup at  
U.S. Brewing Supply, 815 Madison Ave., Albany, NY 12208 - (518)449-  
5787

Proceeds to benefit the Hugh O'Brien and Star Foundations  
and Saratoga Winter Club

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Insert standard disclaimer here.

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Date: Thu, 4 Feb 93 08:30 CST  
From: arf@ddsw1.mcs.com (Jack Schmidling)  
Subject: All-grain Snobs

>From: bradley@adx.adelphi.edu (Rob Bradley)  
>Subject: all-grain snobs

>The homebrewing community is generally guilty of snobbishness when it comes to extract vs. grain.

I can't speak for the "community" and you may be right but it is also worth while to put the issue into proper perspective.

Keeping in mind that lots of people stick with extract because they are lazy, paranoid or il-informed and further keeping in mind that the industry, as opposed to the "community" has a vested interest in maintaining the status quo because it would just about dry up without extract sales, it is worth noting that some extract beers are excellent beers, so I am told. One also presumes that lots of extract brewers use extract because they know how to make said excellent beers.

Having said that, I suggest it is the extract brewers' insecurity, sensitivity and paranoia that creates the image that all-grain brewers are snobs.

>Based on many extract brews, I think the problem is not extract, but too much extract. Somewhere around 1050, I've found that the "extract tang" (Dave Line's words) becomes evident.

This is an interesting point and may very well be true and important to those who wish to continue brewing with extracts.

The reality is that once a brewer makes the switch, invests in the equipment and learns the process AND becomes aware of the economies that accrue, he has little incentive to go back and try to make good extract beer.

If looked at objectively and without emotion, I see nothing wrong with the notion that brewing extract beer is a step in the overall experience of brewing beer. That is not to put a value judgement on it or to belittle it but simply to put it in proper perspective. It is by any definition, a shortcut to brewing beer and hence, not the total process.

I have been castigated in the past for comparing it with baking with cake mixes but it is hard not to draw the comparison.

Perhaps a better analogy is instant versus brewed coffee. A batch of coffee is made after which it is concentrated down to a convenient extract, to which hot water is added by the consumer and we get coffee again. Judging by all the TV commercials, ha ha... some of it may actually be good but it is a hell of a way to treat coffee. They same could be said for a nice batch of wort that gets concentrated.

The bottom line is we brew beer the way we do because it suits our needs and personalities and we brag about what we do because we are human. There is just no point in trying to impune evil motives into our hobby.

js

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Date: Thu, 4 Feb 1993 12:40:47 -0600 (CST)  
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)  
Subject: american beer

Hello all

Sorry to beat a dead horse, but if there was any prior posts about "Beer Across America" beer club, I missed them. I was thinking about joining this thing, but I'm still a bit hesitant. I was wondering if anyone is or has tried this beer club. It sure sounds good to someone in the "Southern Beer Wasteland" such as myself.

Reply to storey@fender.msfc.nasa.gov if you like. Or, post it, hell there might be someone else who wants to know :)

scott

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Date: Thu, 04 Feb 93 13:43:58 EST  
From: "Mark Rich-mpr8a@acadvm1.uottawa.ca" <MPR8A@acadvm1.uottawa.ca>  
Subject: Turpentine?

howdy all,

This "turpentine tasting beer" thread leads me to ask one simple, but burning question... How do you know what turpentine tastes like?! Am I missing out on something? Hmm... maybe it would make a good margarita...and it's cheaper than tequila! ;-)

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Date: Thu, 4 Feb 1993 11:09:12 -0800  
From: paul@melody.rational.com (Paul Jasper)  
Subject: Re: A survey of the readership

On 3 Feb, 16:15, Chuck Coronella wrote:  
> Subject: A survey of the readership  
>  
> Are you an all grain brewer or an extract brewer?  
>  
>-- End of excerpt from Chuck Coronella

I fit into your definition of "Intermediate", I guess, since I use extract and often do partial mashes. However, I've been brewing on and off for about 13 years.

I really consider myself a "beer connoisseur" - my primary reason for brewing is to understand the subtleties of flavor and appearance imparted by variations in the process, and I find HBD a valuable way to supplement this experience. Oneday I'll probably get around to doing a few all-grain brews, but I don't consider the extra effort a necessity in achieving my main aims. As a Englishman, and a member of CAMRA, I find the discussions on HBD of pressurizing beer with CO2 (e.g. in soda kegs) far more disturbing than any distinction between extract and all-grain brewing.

P.S. I've sampled Celis White a couple of times now and been very impressed. Anyone know of anywhere in San Francisco selling it that is more "comfortable" than the Toronado and Midtown (both lower Haight Street)?

P.P.S. Beer snobs can drink all-grain snobs under the table any day! ;^)

- --  
- -- Paul Jasper  
- -- RATIONAL  
- -- Object-Oriented Products  
- --

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Date: Thu, 4 Feb 93 13:23:35 CST  
From: todd@gold.rtsg.mot.com (Todd M. Williams)  
Subject: convert cooker to natural gas...

Greetings All,

I have a question about cajun cookers. I have put an addition on the ol' homestead, and moved the laundry room into the addition. I now want to turn the old laundry room into my brewery :-[>

I have a double sink, a floor drain, and the gas line and vent from the dryer. What I want to do is convert my cajun cooker from a propane unit into a natural gas unit. Can I do this?? If so, does anyone know what is involved? How much it might cost?? Where to get parts???

Any help would be very welcome!!!

Thanks,

Todd Williams | Motorola, Inc.  
Downers Grove, IL. | Radio Telephone Systems Group  
(708) 971-8692 | Cellular Infrastructure Group  
When in Chicago.... | Arlington Heights, IL.  
Gimme a call..... | (708) 632-5691  
Stop by for a HB... | todd@rtsg.mot.com

Moderation, lad....moderation is the key. 8 or 10 is reasonable refreshment. After that, and it's likely to degrade into drinking.

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/-----  
-----/  
/ -rwxr-xr-x 1 todd employer 69 Feb 10 1958 OPINIONS /  
/ lrwxrwxrwx 1 employer other9 Jan 01 1970 OPINIONS -> /dev/null  
/  
/-----  
-----/
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Date: Thu, 4 Feb 1993 14:30:18 -0500 (EST)  
From: TAYLOR@sbchml1.chem.sunysb.edu  
Subject: Soda Kegs on Tap

Anybody have advice on how (and how long) to keep soda kegs on tap? I have not tried it for more than about two weeks, and there was a noticeable change in the beer at the end. I did not take stringent measures against leaks, so I presume the deterioration was due to air getting into the keg.

I ask because the advice someone gave to shorten the line to the cobra tap worked out really well.

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Date: Thu, 04 Feb 1993 13:39:44 EST

From: connell@vax.cord.edu

Subject: homemade wine

I have noted with curiosity that while there is discussion of sidelines to beer brewing that shows up on the digest (cider, mead), there is almost no discussion of homemade wines. I have never read about or experimented with homemade wines, but I have the idea that people just dump concentrate and water in a carboy and add yeast. Is wine making discussed here so seldom because the process is uninterestingly straightforward or because the results are so inferior to commercial wines or both?

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Date: Thu, 4 Feb 93 13:41:18 MST  
From: Joe Boardman <boardman@amber.Colorado.EDU>  
Subject: cold break in or out?

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Date: Thu, 4 Feb 93 16:20:54 -0600  
From: cwvande@hwking.cca.cr.rockwell.com (Craig Vandeventer)  
Subject: Killian's Irish Red

Just a clarification on which category Killian's falls into - the last  
time  
I had one(last night) I read the label and it says that it is a "LAGER".

I, too, was suprised as I thought that it was an ale also.

Craig Vandeventer

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Date: Thu, 04 Feb 93 19:54:15 EST  
From: Joe Palermo <S91M%NMUMUS.bitnet@vmd.cso.uiuc.edu>  
Subject: subscription confirmation

hello out there. I'm a complete novice homebrewer with only one batch of beer completed, and frankly it sucked horribly. tasted worse than old mil --- i never knew that was possible. it was a tyneside brown extract kit that ended up tasting like yeasty bread water, lacking any sort of desirable qualities whatsoever. currently working on a batch of rocky raccoon's honey lager. any suggestions for success or improvements out there? remember, i'm new at this.

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Date: 5 Feb 93 03:36:28 GMT  
From: SynCAcct@slims.attmail.com  
Subject: Leaf Hops?

I've been using leaf hops from a west coast distributor for a while now, satisfied with the results. I purchased some GW Kent Saaz yesterday and mentioned the West Coaster to him and he scorned "sweep-ups!". I asked him to elaborate, he said that the hops purchased from this particular western hop vendor were bale drop offs, swept into a nice pile and sold to us as fresh from the farm hops.

I was skeptical, but was told that I could tell that they were "sweep ups" because they never came in cones, rather they come in loose petals. I rushed home, looked in one bag and would estimate that 95% of the hop volume is loose petals as I was told.

I've picked wild hops here in Ontario and they generally fall apart after kilning, which is what I attribute the "individual hop petal" phenomenon to, but I would be curious if anyone would have the "inside scoop" on leaf hops, whole cones vis-a-vis petals.

Incedently, the GW Kent foil wrapped babies are actually perfectly preserved whole cones, unadulterated and compressed into a plug. Upon re-expansion in the boil pot they look like they just fell off the vine.

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+-----+
| Internet: gande@slims.attmail.com|
| Glenn Anderson      |
| Manager, Telecom. Facilities|
| Sun Life of Canada  |
+-----+
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Date: Thu, 4 Feb 93 19:19:09 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: All-Wheat Beer

I made the following brew on 20 Dec last year. It has turned out to be a \*fine\* beer, and I recommend it to you.

All-Wheat American Pale Ale

To make 3 US gallons:

6# US Malted Wheat  
3oz toasted malted wheat -- in 350F oven until brown/dark tan through  
several pounds spent barley for sparging, boiled and drained.

Crack grains. Add hot (150F) water to make a very stiff mash at 120-125F.

Let rest 1 hr. Add infusion of boiling water, plus direct heat if necessary, to bring to 150-152F. Let rest 30 min. Add spent barley, raise to 158F for 10 min, then to 168F for 10 min.

Sparge to collect 4-1/2 gallons or so of wort at 1.035+.

Add 3/4 or 1 oz 5AAU Cascade hops (the original used 1-1/4 oz, but this is pretty darn hoppy) for 1-1/2 hr boil. Add 1/2 oz Cascade when removing kettle from heat, cover, let sit for a few minutes.

Pitch with cultured SNPA yeast or Wyeast 1056. Volume should be 3-1/2 gallons at about 1.048. Ferment at 65-70F. Rack off primary after a few days. When fermentation has dwindled in secondary, add 2-3 tbsp Polyclar in boiling water.

The finished product was bottled a little over two weeks ago. It is still not fully conditioned, but that will pass. The aroma is unique. It smells like the crust of a freshly-baked loaf of bread. (With notes of hops and the usual Chico yeast bouquet.) The beer is crystal clear, still throws a light to moderate chill haze (less than many weizens), and has a fine, fine American Pale flavor. Even an experienced sipper would have difficulty distinguishing it on the palate from barley beer. There certainly is no "tang" or overt fruitiness to it.

I offer this as food for thought to those who wonder whether American wheat malt has sufficient enzyme activity to convert itself. For the rest of us, it's just good beer ....

=====  
=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: Thu, 4 Feb 1993 19:08:28 -0600 (CST)  
From: brewmstr@ddswl.mcs.com (Jim Bayer)  
Subject: Storing crushed grain

I'm just beginning to mash and I have a question about the practical shelf life of CRUSHED grain.

Since I'm just beginning to mash, I don't have a grain mill so I order all of my grain crushed. If for some reason all of my ingrediants arrive for brewin' on Saturday but something happens and I can't get to it, how long can I store the grain and still have fresh grain and how should I store it?

So far someone told me to freeze it, but that sounds wrong to me.

BTW, I'm thinking of weeks for storage, not days. I know it's best if I don't have to store the grain, but I like to have my bases covered.

Jim

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*****  
* I'm not w*rrying, I'm having a homebrew! You should too!*  
* *  
* < Don't let your wife blame anything on your homebrewing > *  
* < Beer always tastes good, hangovers always go away (stolen) > *  
* Jim Bayer -> Chicago, IL *  
* brewmstr@ddswl.mcs.com 72416.1044@compuserve.com *  
*****
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Date: Thu, 04 Feb 1993 14:10:41  
From: doug@dottos\_plc.win.net (Douglas James Otto)  
Subject:

Please remove me from your mailing list.

Douglas OttoInternet: doug@dottos\_plc.win.net  
(916) 482-2160

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End of HOMEBREW Digest #1071, 02/05/93  
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Date: Fri, 5 Feb 93 07:48:29 EST  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: IBU table

In HBD1070 Brian Bliss first quotes me:

>>In HBD1066 I submitted an HBU-IBU conversion table  
>>but forgot to mention any volume relationships.  
>>That table assumes a 5 gallon batch.  
>>To adjust for a volume of X gallons simply multiply the  
>>numbers in the table by 5/X.

and responded

>Well thanks, now that I just wasted 35 oz of hops in  
>my latest barleywine :-)

>AA units = oz hops \* %AA and HBU = AA units / gal. wort (right?)

>so that was really a AAU to IBU table, or do I have them backwards?  
>I also noticed that the rows for 55 and 60 minute boiling times  
>were identical. Was this a typo?

Well, after Brian's note I wasn't sure myself so I looked up  
AAU's and HBU's in Papazian (TCJoHB), Miller (TCHoHB) and  
the Zymurgy Hops special edition V 13 No. 4. I don't have  
Papazian's new edition and his old one mentions alpha units  
but does not mention either HBU or AAU. Miller only defines  
AAU = oz hops \* %AA as Brian stated above.  
I found HBU mentioned twice in the Zymurgy issue. The first mention  
was at the bottom of page 44 on the AHA Guide to Hop-Flavored  
Mald Extract page where they say

"The expression "HBU" refers to homebrew bittering units.  
HBU equals the number of ounces of hops multiplied by the  
percent of alpha acids in the hops."

Also, in Jackie Rager's article he writes

"If I understand what I've read, AAU and HBU are calculated by  
multiplying the weight of hops (in ounces) by their alpha acid".

So I think HBU and AAU are the same thing, at least I assumed they  
were based on my readings. However, I think Brian's definitions  
make more sense - Why define two different terms to mean the  
same thing with neither depending on the volume?

The lines for 55 and 60 minutes of boil are identical because  
according to the utilization table I used (from Rager's article)  
the utilization of 30% for a boiling time between 51 and 60 minutes.  
Actually, my table should have listed boiling times as intervals  
<5 min, 6-10 min, 11-15 min, etc. instead of 5, 10, 15 which I  
listed for simplicity.

I think you've also invented a new beer style-barhopwine.

Bill Szymczak

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Date: Fri, 5 Feb 93 7:56 EST  
From: Gerald\_Wirtz@vos.stratus.com  
Subject: Ale ageing question.

It's cold up here in New England and I was wondering just what affects temperature have on ageing ales? My beer is aged in a room that the average temperature is around 55-60F. It's tasting Ok but the carbonation in slow to build up even after 30 days. If I were to store the beer in a warmer location (after being cool) would the carbonation increase? Or has the cooler temperatures somehow killed the yeast?

Thanks - In Advance - For any replies

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Date: Fri, 5 Feb 93 08:38:46 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: Irish Ale, lager pitching, dryer gas stove

Guy McConnell reproduces a blurb from Coor's about Killian's Red. Much of it is true other than the fact that it paints Old Adolphus and family as being something other than Ogres. Ireland has had its own ogre family dominating the brewing industry (now a largely English owned company that also produces whisk(e)y in Scotland) and throughout history has gobbled up all competition it could, blackmailed Pubs to keep Harp taps when they wouldn't have been able to give the piss away, and now that they do replacement lagers under licence (having stolen the Carlberg franchise from Beamish after they spent years building it up) are forcing pubs to retain Smithwick's taps (Smithwick's is an Irish Ale, but a pretty poor one) whose sales are slumping. Blackmail is easy. Guinness do their own distributing and own all their own taps. So they will offer to remove all their taps or none, including the Guinness stout tap. This beer represent about 1/2 of all beer sold in Ireland.

A small brewery called Dempseys who produced an ale set up a few years ago in Dublin and didn't last long. Killians decided to close down in 1955 rather than sell their property including name to the big G. Now they licence their name to Coors and Penforce (sp) in France. The latter is supposed to be good. Hell, they get money for nothing.

James dipalma discusses lager pitching rates. I always pitch much yeast, like the entire primary sediment at 40F. recently I pitched a batch at 40F with my cleaned sediment, racked off all trub including dead yeast, and I guess much of my live yeast and waited 5 days at 48-49 for Krausen. Disconcerting to some, but recently when I tasted the Vienna I was making it is was exceptionally clean and good tasting for a beer in primary. Relax, don't worry, pitch much sediment cold and wait. Remember yeast do much better at cold temperatures than bacteria, and I would much prefer to slowly build up a heawlthy yeast stock than rush things for the sake of less worry.

Todd Williams considers using a cajun cooker indoors. Best of luck! I believe the modification for propane to methane is simply replacing the flow nozzle with a narrower one, but getting the part other than from junk would not be easy because nobody will sell it to you, justifiably so, IMHO, for liability reasons. Also I would not recommend it. Cajun cookers have a 200,000 btu/h output, don't they, which is much too much for indoor use. What I use is the burner from an old water heater I picked up in a junk pile. Just remove the regulator and burner, connect it with the necessary valves and nipples to your dryer output, and get a stand for your pot that will nestle the burner nicely. I use an old table stand. This is then a 25,000 btu/h burner designed for indoor methane use with no problem. It even has a pilot light that will go out if the flame fails. 25,000 btu output is fine. I would boil 7 gallons from cold in about 15 minutes.

Ulick Stafford  
s

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Date: Fri, 5 Feb 93 9:12:45 EST  
From: Jim Grady <jimg@hpwarga.wal.hp.com>  
Subject: Diastatic Malt Powder

I don't know if this is helpful or not but I thought I would pass it on. We received a catalog from "King Arthur Flour" in the mail yesterday and on the back cover they are selling "Diastatic Malt Powder" for \$3.95/lb. They're selling it for baking bread but I was wondering if anyone had any thought about using it for brewing. As far as I know, Edme is the only supplier of diastatic malt for brewing and that in 4# cans, minimum.

- - -

Jim Grady | "Talent imitates, genius steals."  
Internet: jimg@wal.hp.com |  
Phone: (617) 290-3409 | T. S. Eliot

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Date: Fri, 5 Feb 93 9:18:48 EST  
From: Jim Grady <jimg@hpwarga.wal.hp.com>  
Subject: p.s. on King Arthur Flour

P.S. I forgot to include the phone number of "King Arthur Flour" in case anyone wanted to try it or if there are any bakers out there (yeast slurries can be reused for bread too!)

The King Arthur Flour Baker's Catalogue  
P.O. Box 876  
Norwich, VT 05055  
Phone: 1.800.827.6836  
FAX: 1.802.649.5359

P.P.S. They have the Marcato Grain Mill for \$89.00 for those of you who have been looking for one. I'm still happy with extract brewing so I have not tried any mills. Someday...

- - -

Jim Grady | "Talent imitates, genius steals."  
Internet: jimg@wal.hp.com |  
Phone: (617) 290-3409 | T. S. Eliot

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Date: Fri, 5 Feb 93 10:18:29 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: krausen,iodophor,lagers & snobs

From: Jim Busch  
Some comments regarding recent digests:

<From: MARK TARATOOT <SLNDW@CC.USU.EDU>  
<Subject: more lager questions

<Concernig pitching extra yeast at bottling. What if I just "grab up"  
<some of the yeast sitting on the bottom of my fermenter? What are the  
<chances that these yeasts are mutated and what will that do to the  
<final product? This particular batch is in a tertiary fermenter (racked  
<from secondary to get WAY away from yeast/other stuff that flocculated  
out)  
<so all the "stuff" should be yeast. This yeast will be mostly dormant,  
<to be sure, but shouldn't it just hop back to life if more fermentables  
<are added?

While it is true that the dormant cells could be revived, I have to wonder  
the rational in carrying over these cells into the bottling process.  
These  
cells are certainly not as healthy as freshly grown ones. The question  
to  
ask yourself is: are there enough residual cells in the beer to wake up  
after priming? Has the beer been lagered to the point of doubt about the  
viability of the dormant cells? I would recommend the traditional german  
technique of adding krausen beer and/or young yeast slurry. Yeasts at  
this young stage of growth will have higher glycogen levels and will be  
more able to ferment the remaining sugars without worries about  
mutations.  
If there are enough cells already, the yeast will merely die off as soon  
as the fermentables are gone.

<From: billm@scorpio.sps.mot.com (Bill Moyer)  
<Subject: idophor, rinse/reuse

<I've just recently tried using idophor instead of a bleach  
<solution for sanitizing ( .5oz idophor/gallon water, ~12.5ppm  
<free iodine) and have 2 questions.

I believe Bill meant to state 1oz per 10 gallons!!! At this level,  
I never rinse, I just pour off the fluid in whatever I am sanitizing.

That said, I DO rinse when I am kegging. A brief hot water rinse  
of the iodophor prior to kegging does the trick. So far, no problems.  
I believe if the ferment is clean, it is fairly difficult to infect the  
beer at packaging time.

<From: dipalma@banshee.sw.stratus.com (James Dipalma)  
<Subject: RE: lager questions, recirculation

<My understanding is that Paulaner uses a non-flocculating lager yeast  
<to bottle condition the hefe-weizen, it's not the same yeast used to  
<ferment the beer. I'm fairly certain a top fermenting strain is used  
for  
<that purpose.

Yes, it is lager strain in the bottle. But I do believe it is a flocculant one, that is one of the reasons lager yeast is used. If you want a Hefe-weizen poured clear, the lager yeast will tend to cling to the bottom of the bottle. Even if you pour it "correctly" the yeast tends to floc in the bottom of your glass. The top fermenting strain is filtered out prior to addition of the krausen beer.

James goes on to comment on pitching temps of lager yeasts. The important thing to remember is that once fermentation is active, the temperature will rise significantly. Thus, if one pitches at 60F, the yeast could kick in and boost the temp up to 70F! Obviously, one of the tricks is to get it in the fridge at the right time, so the temp is dropping as the yeast temp is pushing it up. You really want to be below 52F during primary fermentation, so it is important to be careful about when you pitch and when you put it in the fridge. Pitch at 55-60F with LOTS of healthy yeast, move it to the fridge and begin lowering the temp. It will take a 10 hours or so for the fridge to cool the wort below 50F, and if you have enough yeast, activity should have commenced.

RE: All grain snobs:

Very excellent beers are produced using extracts. The key is the quality of the extract (I believe dry IS better) and the yeast & hops. That said, while I will not claim to call it "cake mix" I do often refer to extract brewing as "home fermentation". Dont take offense at this, the more you know about brewing, the more you realize that fermentation is the most important part of the process. After a few hundred batches, the quality of the wort is pretty consistent, but the challenge of the fermentation remains :-).

Jim Busch

PS: to JS- My lauter tun/open fermenter does indeed have a spigot. The only problem with taking ferment SG readings is that what comes out is yeast sludge! Thats what you get when you have a bottom grant. Maybe when I have a Unitank made, I will add the side outlet, about a foot up from the cone. Of course, it is quite simple to open the lid and scoop out a sample.

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Date: Fri, 5 Feb 93 10:18:30 EST  
From: neilm@juliet.ll.mit.edu ( Neil Mager )  
Subject: Special Archive Proposal

A few months ago, I started seriously considering taking the step from extract to all-grain brewing. I downloaded the indices of the archives from the last ~15 months to find information about all-grain brewing and cooler mash-tun/lauder-tun construction. After several pleasant evenings sorting through the archives of interest, I ended up with about 70 messages (~200k) of interest.

I'm sure I'm not the only one doing this. If we create a few Special Archives, readers could download the special archive, then ask specific questions later if the needed to. Sort of like a very detailed FAQ. Since the archive contains the reasonably complete thread, the reader would get different opinions and options from which they could draw their own conclusions (and confusion).

This could also help reduce the bandwidth on the daily hbd since we wouldn't have to rehash how to build a cooler mash-tun/lauder tun or how to culture yeast, or how to brew a barley wine (I'm still sorting through that thread - thanks!). And hopefully, these wouldn't overload our current archive site since I don't foresee all that many of these...but I could be wrong!

The Special Archive could be compiled by whomever has been following a particular thread. Consider the Special Archive the HBD version of a Zymurgy special issue.

Thats the proposal...

Neil (Still an extract brewer and proud of it!)

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=====

Neil M. Mager  
MIT Lincoln Laboratory Lexington, MA  
Weather Radar - Group 43

Internet<neilm@juliet.ll.mit.edu>  
Voice (617) 981-4803

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Date: 5 Feb 1993 10:29:16 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: natural cooker, wine from c

Subject: Time:10:11 AM  
OFFICE MEMOnatural cooker, wine from conc. Date:2/5/93  
todd@gold.rtsg.mot.com (Todd M. Williams)

>What I want to do is convert my cajun cooker from a propane  
>unit into a natural gas unit. Can I do this?? If so, does anyone  
>know what is involved? How much it might cost??.....

It couldn't be easier! Just remove the brass cap from the cooker and  
drill  
the orifice to 1/8 for natural gas. Sounds like an great brewery in  
progress. If you are indoors make sure that you are **\*\*extremely\*\*** well  
vented. This will cost some cash. (A bathroom fan/vent **\*won't\*** be  
sufficient  
to provide air exchange and remove all of the steam). A couple of good  
fire  
extinguishers would not be out of the question either.

>connell@vax.cord.edu

>I have the idea that people just dump concentrate and water in a carboy  
>and add yeast. Is wine making discussed here so seldom because the  
>process is uninterestingly straightforward or because the results are  
>so inferior to commercial wines or both?

Ouch. This is a beer forum. I know that there are also cider and mead  
forums,  
and assume that there is one for homevintners. In any case, the process  
that  
you have described is a lot like the instant coffee analogy of Jack. IMHO  
you  
need (good) grapes to make (good) wine.

DanMcC

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Date: Fri, 5 Feb 93 10:59:31 EST  
From: gkushmer@Jade.Tufts.EDU  
Subject: Extract brewers are lazy?

WARNING: this is long.

Once I saw this thread reappear, I knew it was only a matter of time before Jack Schmidling would chime in with something like this:

> Subject: All-grain Snobs  
[...]

> I can't speak for the "community" and you may be right but it is also worth while to put the issue into proper perspective.  
>  
> Keeping in mind that lots of people stick with extract because they are lazy, paranoid or il-informed and further keeping in mind that the industry, as opposed to the "community" has a vested interest in maintaining the status quo because it would just about dry up without extract sales, it is worth noting that some extract beers are excellent beers, so I am told. One also presumes that lots of extract brewers use extract because they know how to make said excellent beers.  
>  
> Having said that, I suggest it is the extract brewers' insecurity, sensitivity and paranoia that creates the image that all-grain brewers are snobs.

This 'perspective' smacks exactly of the 'snobishness' that we have seen discussed here on the HBD. Lots of people extract brew because they are lazy, paranoid, or 'il-informed'? That's rich coming from a semi-retired homeowner. Why do I mention this? Because economic status is part of my personal reason for not going all-grain.

Right now I am spending many thousands of dollars going to school nights while I work during the day. Being older than me Jack, and having some savings in the bank (plus whatever revenue you derive from selling tapes of brewing and bats) you may have easily forgotten that some of us cannot immediately afford the startup costs for all-grain.

If, for a minute, we consider extract brewing to be, from one possible perspective, "training wheels" to the art of brewing, then it makes sense that someone start off by extract brewing to learn the art before moving on. But things happen - you buy the equipment and put in the time to brew and, if you are like me, you spend some money here and there to improve your beers and increase your equipment holdings.

Before you know it, you're looking at all-grain wondering when you can afford the cajun cooker and the 7 gallon Vollrath plus all these other goodies that make all-grain fly.

At this point you, Jack, would seem to argue that in the end you'll actually save money from the all-grain process. Sure you might, I respond, but this involves the concept of breaking even first. I cannot economically justify making all the purchases right now when I have tuition, rent, car, and cat food payments to make.

Oh, but am I really just scared, and not wanting to make the plunge? I think not. I spend my brewing time trying to learn more about the process.

I try things that I haven't tried yet - simple things that you have to try at some point like dry-hopping, wort-chilling, making yeast starters, or going for full-gravity boils. I read HBD looking for new techniques, and

I talk with the more experienced brewers asking them what I can do to improve my beers.

Ah, you say, but you aren't really doing anything but avoiding all-grain.

No. In the meantime I am investing piecemeal in the equipment I need to start all-grain. I've got my pot, and I'm saving up to buy my cooker. Then

I will consider all the other goodies.

So far, then, I am neither lazy nor ill-informed. And I think that my curiosity cancels out any notions of being paranoid.

Does this mean then, that you are still right and that I am really just an exception - someone on his way to reaching full enlightenment in the hallowed halls of all-grain brewers? No.

I happen to have a number of friends my age who have decided to take up brewing too. Both of them are now extract brewers. One of them was on his way to going all-grain until he suddenly found himself on academic probation and out of a job. He cut back on his brewing activities for a little while and certainly killed any notions of going all-grain.

The other friend found himself in the middle of layoffs back when DEC decided they would give him the ultimate X-mas gift. For some reason his priorities are not set on going all-grain anytime soon. Both of them still feel, BTW, that they have more to learn and enjoy in extract brewing anyway.

Quite frankly, I've never met anyone who avoids going all-grain because they are lazy, paranoid, or 'il-informed'. Usually they avoid it for the cost, time, and b/c they feel they have more to learn and enjoy from extract brewing. (Note: using time as a factor does not automatically mean you are lazy. Laziness doesn't apply when you have plenty else to do in your life.)

With this rather long diatribe on your premise in mind, lets look at your conclusion:

> Having said that, I suggest it is the extract brewers' insecurity,  
> sensitivity and paranoia that creates the image that all-grain  
brewers are  
> snobs.

Hmmmm. The only time I have ever heard extract brewers complain about all-grain brewers' snobishness is really in this forum, the HBD. I've never won over a scared extract brewer's confidence at a club meeting or at the supply store b/c we held some heavy burden of shame due to the all-grain brewing community's snobishness.

It seems to me that people are really complaining about people like you Jack, who make unfounded general statements like:

>Keeping in mind that lots of people stick with extract because  
>they are lazy, paranoid or il-informed. . .

These statements are so arrogant. You make it sound like a foregone conclusion that this is the truth. You, a middle-aged man living in Chicago who never talks about going to competitions or meeting up with fellow brewers at club meetings yet who seems to have plenty to say on this forum. Where does your experience base come from?

I've explained mine.

Finally (at last) I am not ignoring the rest of your post to HBD. I agree that brewing extract is a part of the "overall experience" but I don't agree with your premise which pretty much says that once you know extract brewing, you should move on to something else.

You see, your approach concludes that since extract brewing is nothing more than a reduced set of steps in a process, you are therefore not a legitimate brewer. This is patently false: would you suggest that C programmers are not "real" programmers and that only Assembly language programmers do "real" programming since Assembly programmers don't need reduced shortcuts like compilers? It makes about as much sense as you do in approaching brewing - fewer steps = illegitimate worker.

I don't hold you to growing your own hops. That's not unreasonable since many here have tried. By your reasoning, you are missing out on a step and cannot be the authentic brewer you keep whining about being.

Your logic is poor; your reasoning arrogant. Give it a rest.

- --gk

Greg Kushmerek

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Date: Fri, 05 Feb 93 08:13:40 PST  
From: davidr@eeecs.ee.pdx.edu  
Subject: Beginner wants to make SMALL batch...

First of all, is there a FAQ available?

Secondly, I am a beginner who has been reading for approx. two weeks now. I've never made homebrew. Hell, I hardly ever even drink beer. However, I AM interested in the process, and do enjoy a nice frosty one now and then. In the past, I have made some hard cidar, and a batch of wine... both with natural yeasts. I used a gallon jug with a piece of aquarium air tubing attached to the top. I ran the other end of the tube into a glass of water, thus establishing an air lock. Anyhow, I would like to try making some brew, but on a much smaller scale than what I've seen. Can anybody suggest \*ANY\* recipe to use for a One-Gallon batch?? (I'd like to use the same fermenting apparatus I just described.) Also, since I am a beginner, I have no idea as to the terminology. I don't know what "secondary", "pitch", etc. means! I understand "yeast" and "fermentation," and that is the limit to my technical brewing dictionary. Eventually, I would like to read some of the books described by others in HBD, but by the time I have more than 30 min. free time, I'll have obtained my MSEE. I'd like something to just get me started without having to read a great deal.

SUGGESTIONS???

Thanks,  
David Robinson  
davidr@ee.pdx.edu

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Date: Fri, 5 Feb 1993 11:02:00 +0000  
From: "Rick (R.) Cavasin" <cav@bnr.ca>  
Subject: re: iodophor, rinse/reuse

Bill Moyer asks about iodophor rinse/reuse:

I tried out iodophor for the first time last weekend. How well does it work - who knows? I found that the iodophor I purchased (brand named 'iosan') tended to foam a fair bit when agitated. Hence, bottles that were simply emptied tended to contain a fair bit of foam. I was not prepared to leave this amount of residue unrinsed (while the 12ppm concentration is considered safe when used on dairy equipment without rinsing, I should think the volumes of milk that would dilute the residue would be larger than the volumes of beer going through my brewing equipment). My incentive for using an iodophor was the hope that it could be reused more than bleach (iodine less volatile than chlorine?) and hence less would go down the drain (and into the air I'm breathing!).

It's also cheaper than the brewing sanitizers.

My jug of iosan states that the amber colour of the solution is a self-indicator. The bulk of the solution I mixed up is in a stoppered carboy and is still amber. I put about a pint in a blowoff bucket for a batch of wine. After a few days, the amber colour has disappeared. The iodine has either reacted with the plastic bucket/hose, organic gases expelled from the fermentation (no actual krausen has come down the tube), or simply evaporated (scrubbed by the constant stream of CO2 bubbles?). This would seem to verify the self-indicator feature. The iodophor quickly stained my bottle/carboy brushes and hoses, but has had minimal effect on my buckets. This doesn't worry me though.  
Cheers,  
Rick C.

-----

Date: Fri, 5 Feb 93 11:29 EST  
From: Donald\_James@vos.stratus.com  
Subject: Yeast freezing with glycerol

Homebrew,

I would like to purchase some glycerol for freezing some yeast samples.  
Could someone provide me with the address and telephone number of a  
company or  
distributor.

Sincerely,  
Don James

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Date: 05 Feb 1993 11:28:53 -0500  
From: Chris McDermott <mcdermott@draper.com>  
Subject: Re: FAQ/RFC on Recirculation

RE>FAQ/RFC on Recirculation.  
In an e-mail message, Spencer Thomas says:

>I like the idea. Now someone has to archive them specially?

Now thats a bit of a trick. I suppose that the latest version of each FAQ could be maintained as a seperate file in the archives on sierra. Then all that would have to be done would be to maintain FAQ# vs. subject index.

Might there be some concensus on this? How about other suggestions? Volunteers? Would someone like to write a FAQ on writting FAQs?

Spencer also points out:

>An addition to your FAQ: There is evidence that suggests that >recirculating for a long time can raise extraction rates. (Ref: >Miller/hearsay (via Fix, I think), personal experience, Fix)

So:

\*\*\*\* HOMEBREW Digest FAQ #0001

FAQ# 001-002  
Subj: Recirculation: What is it, and should I do it?



Date: February 4, 1993

Orig: Chris McDermott (mcdermott@draper.com)

**Subject: Re: FAQ/RFC on Recirculation**

Recirculation is a practice employed in the lautering of mashed grains where the turbid sweet wort is collected, as it is runoff, and recirculated through the grain bed until the runoff becomes clear.

Most sources of homebrewing information will tell you that you should employ the practice of recirculation to avoid significant amounts of chaff in the boil. Chaff in the boil is considered, by these sources, to lead undesirable effects in the finished beer including astringency and cloudiness. (Ref. Miller, Papazian) Recirculation may also contribute to increased extract efficiency.

However, others believe that some amount of chaff in the boil is desirable in that it helps to coagulate large protein molecules, producing a better hot-break and thus a clearer finished product. Furthermore, some think that the hot side aeration (HSA), or oxidation, of the sweet wort during recirculation may outweigh any benefit that may be gained by clearing the wort. (Ref. Fix)

\*\*\*\*

—  
Christopher K. McDermott Internet: mcdermott@draper.com  
C.S. Draper Laboratory, Inc. Voice:(617) 258-2362  
555 Technology Square FAX: (617) 258-1131  
Cambridge, MA 02149 (USA)

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Date: 05 Feb 1993 10:42 -0600 (CST)  
From: Kevin Krelwitz <IA\_KEVIN@vax1.iit.edu>  
Subject: Brewing a Weizenbock -- Need Ideas

Hello Homebrewers!!

I have discovered a truly fantastic beer called "Erdinger Pikantus Weizenbock". It is a Dark Weiss Bock beer with incredible body and a taste unlike any other Weiss beer on the market. It is available locally in Chicago at the Weinkeller, a microbrewery/bar/german restauraunt which serves 8 different brews of their own along with 500 different beers from around the world.

>From reading other posts, I believe that I would be able to cultivate the yeast from several bottles of Pikantus, but I need help in finding a mixture of malt extracts which would yield the proper starting wort for this type of beer. Also, I would appreciate any ideas on proper brewing technique (temperature, specific gravity, fermentation time, etc..) for this type of beer.

The Wienkeller (plug) is located on Roosevelt Road, just east of Harlem Ave. in Chicago (actually in Berwyn). I highly recommend this place to anyone who is planning on making a visit to the area. In fact, drop me a line and I'll meet you there!!

Thanks in advance,

```
*****  
*****  
* Kevin Krelwitz* Why are we here?      *  
* ia_kevin@vax1.iit.edu * To Drink some beer! *  
* Illinois Institute of Technology * Roll the Bones.*  
*****  
*****
```

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Date: Fri, 5 Feb 93 09:45:01 MST  
From: Joe Boardman <boardman@amber.Colorado.EDU>  
Subject: cold break in or out....second try

\*\*\*\*OOOPS\*\*\*\* Sorry about that "subject only" post yesterday.  
Brevity is a commendable, but it was an accident. Here's the whole  
letter:

G'day HBD'ers,

After returning to Boulder from a 15 month stay in Australia,  
I got reacquainted with my grain mill et al last weekend. I brewed up a  
10  
gal batch, everything went well. Then I ran it through my counter-flow  
chiller  
and really ZAPPED it with Boulder's near-freezing tap water, causing a  
great  
cold-break. I had a semi-slow moving 1056 Wyeast starter going so I  
pitched  
the two carboys and went to bed. My wife just gave me a copy of Miller's  
Complete Handbook, and he seems to go to great lengths to get the wort  
off  
the trub, racking soon after pitching. I left the stuff in there and it  
settled out and formed a semi-solid layer on the bottom, even the  
churning  
ferment of the last few days has left it pretty much undisturbed  
EXCEPT  
it seems to have all these little "worm-holes" in it. It's as if during  
the  
active primary ferment some part of the trub has been used by the yeast.

What's the collective wisdom?

- 1)does leaving the cold-break in the primary (a feature of a counter-  
flow  
chiller) harm the beer?
- 2)does it help the yeast, nutrients etc.?
- 3)is a beer-style thing (lagers no, ales yes)
- 4)can anybody tell the difference?
- 5)any ideas on what has been taken out of the trub to make the worm-  
holes?

Maybe next time I'll rack one carboy and not the other. But it was 9.5  
hour  
session as it was and I just couldn't make myself sanitize another carboy  
and  
go through all the hassle. Or maybe I should just chill the hell out of  
it,  
no problem to get it below 50F, and let it sit overnight before pitching.  
All my instincts say "NO DON'T LEAVE YOUR WORT OVERNIGHT WITHOUT YEAST  
YOU  
FOOL".

So.....

Cheers,

Joe "Leave dead dogs alone"

-----

Date: Fri, 5 Feb 1993 08:40:22 -0800  
From: tima@wv.MENTORG.COM (Tim Anderson)  
Subject: All-graiWorld's Worst All-Grain Snobs

I nominate "All-grain snobs" as the most insipid HBD thread of the year.

On the other hand, "The World's Worst Brewer" is delightful, and I have a suggestion:

Tim's Bucket Conditioned Brew

Pour a 5 lb bag of cane sugar into a 5 gal plastic bucket with a spigot in the side near the bottom. (Don't buy the bucket, just walk out the door of the home-brew supply store with it under your arm. Say something about wanting to see if it's the right size. Drive off with tires squeeling.) Add room temperature tap water, stir. Pitch several packets of different kinds of bread yeast. Stir again. Before putting on the lid, (Oh My God, did you forget to steal the lid? Well then use plastic wrap.) put your face close to the surface of the wort and softly whisper the word "hops". Wait a couple of weeks. You now have beer for the rest of your life. Just pour from the spigot directly into your glass. Or if you haven't gotten around to stealing any glasses, directly into your mouth. Every now and then add some more sugar and water. If it starts tasting sweet, add some more yeast. If anything fuzzy or smelly starts growing on top, skim it off (you don't want to DRINK that shit!)

It's obvious to me that your method of brewing is only a step toward my method of brewing. It couldn't possibly be the case that you actually enjoy doing it your way. Therefore, I want everybody who reads the digest to start making bucket conditioned beer immediately. And email me with all sorts gratuitous testimonials, and grovelling for my approval. As long as there's any difference in the way we make beer, you won't get it, but it will do wonders for my ego.

Ready, begin.

tim  
"Just kidding. Use ale yeast."

-----

Date: Fri, 5 Feb 93 12:04:08 EST  
From: DLAMARPL@ucs.indiana.edu  
Subject: Sanitizing Copper; All-Grain Snobbery

Several sources indicate the hazards of using alkaline solutions (e.g. chlorine) to sanitize copper. None I have seen, however, suggest alternatives other than boiling. What are effective sanitizing agents for equipment that cannot be boiled (e.g. counterflow wort chillers)?

\*\*\*\*\*

In HBD 1071, Jack Schmidling implies that, in its "proper perspective," extract brewers' "image that all-grain brewers are snobs" is the result of the neuroses of extract brewers themselves. As a former rhetorical critic, I feel compelled to note the contradictions in Mr. Schmidling's statements.

In laying blame on extract brewers, Mr. Schmidling, an all-grain brewer, describes them as "lazy, paranoid or ill-informed" and refers to their "insecurity, sensitivity and paranoia." Such epithets appear to me to be "all-grain snobbery" of the most inelegant sort. Although he is entitled to his interpretation of the "proper perspective," his articulation of it lacks internal validity. Mr. Schmidling's attempt to exonerate the more "sophisticated" brewers instead indicates that some of the perceptual inadequacies felt by extract brewers may, in part, be instilled and perpetuated by \*some\* advanced brewers.

Any time we discuss advanced topics with those less informed, we must be careful not to confuse or offend them, else we snuff out their desire to learn.

Without more empathy in our attempts to share our knowledge and experience with beginners, we risk alienating potential new members of our hobby. As I used to tell my students: "THINK about what you say; you never know when your words will come back to haunt you."

-----

Date: Fri, 5 Feb 93 09:04:55 -0800  
From: SCHREMPP\_MIKE/HP4200\_42@pollux.svale.hp.com  
Subject: All grain snobs

After reading all the snob stories, I had to throw in my two bits. I believe a big part of the snobbery is the snob appeal... "sure you can make better beer if you're willing to take the BIG STEP and go all-grain".

It's the mystique of the BIG STEP that makes brewers fear taking it and puffs up those that have. The fact is, the BIG STEP is NO BIG DEAL. My second batch was all grain and yours can be too.

Read a book, use a washed out cooler as a mash tun, make and use a \$5 sparge system (window screen on the end of a siphon tube (EASYSiphonPipe tm), and use as many pots as necessary to boil the wort.

It's just not difficult enough to make those that do it into snobs. And it's more fun too.

Mike Schrempp

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Date: Fri, 5 Feb 93 09:19:49 PST  
From: rush@xanadu.llnl.gov (Alan Edwards)  
Subject: Smooth Hop Utilization Function

Hi fellow beermakers:

I've come up with a formula to approximate hop utilization in a continuous fashion by fitting a curve to the data from the "Hops" issue of Zymurgy. The article is "Calculating Hop Bitterness in Beer" by Jackie Rager, and is found on pages 53 and 54. (Thanks, Jackie.)

I know what you're saying: "Overkill". But in preparation for the "do-it-all" spreadsheet that I hope to write sometime in the near future, I've been trying to create a formula for all those little brewing calculations that don't generally have one.

The main reason for fitting a curve, is to have an easy way of calculating IBU's with a spreadsheet, or programmable calculator. The secondary reason is to have some reasonable interpolation of intermediate boiling times. Of course the smooth function is only as good as the original data; but I think that it would provide more consistent results-- especially for someone like me who likes to add hops at different times (other than the standard :60, :30, :05).

The graph approaches 5% utilization towards zero boiling time. This might seem strange at first until you assume that "zero" boiling time means that the hops were boiled for zero minutes, but they were still added to the wort. In other words, I take the point zero to mean dry hopping; or probably more correctly, putting the hops in at the very end of the boil (steeping). Dry hopping and steeping does (in my limited experience) add to the bitterness a little. (About 5%, right? :-)

Here's the data from the article:

| boil (minutes) | Hop Utilization (percent) |
|----------------|---------------------------|
| < 5            | 5.0                       |
| 6 - 10         | 6.0                       |
| 11 - 15        | 8.0                       |
| 16 - 20        | 10.1                      |
| 21 - 25        | 12.1                      |
| 26 - 30        | 15.3                      |
| 31 - 35        | 18.8                      |
| 36 - 40        | 22.8                      |
| 41 - 45        | 26.9                      |
| 46 - 50        | 28.1                      |
| 51 - 60        | 30.0                      |

>From that, I created a data point for each minute:

(0, 0.05), (1, 0.05), (2, 0.05), (3, 0.05), (4, 0.05), (5, 0.05), (6, 0.06), (7, 0.06), (8, 0.06), (9, 0.06), ...

Then, I fit a smooth function to the data. Here's the function that I came up with:

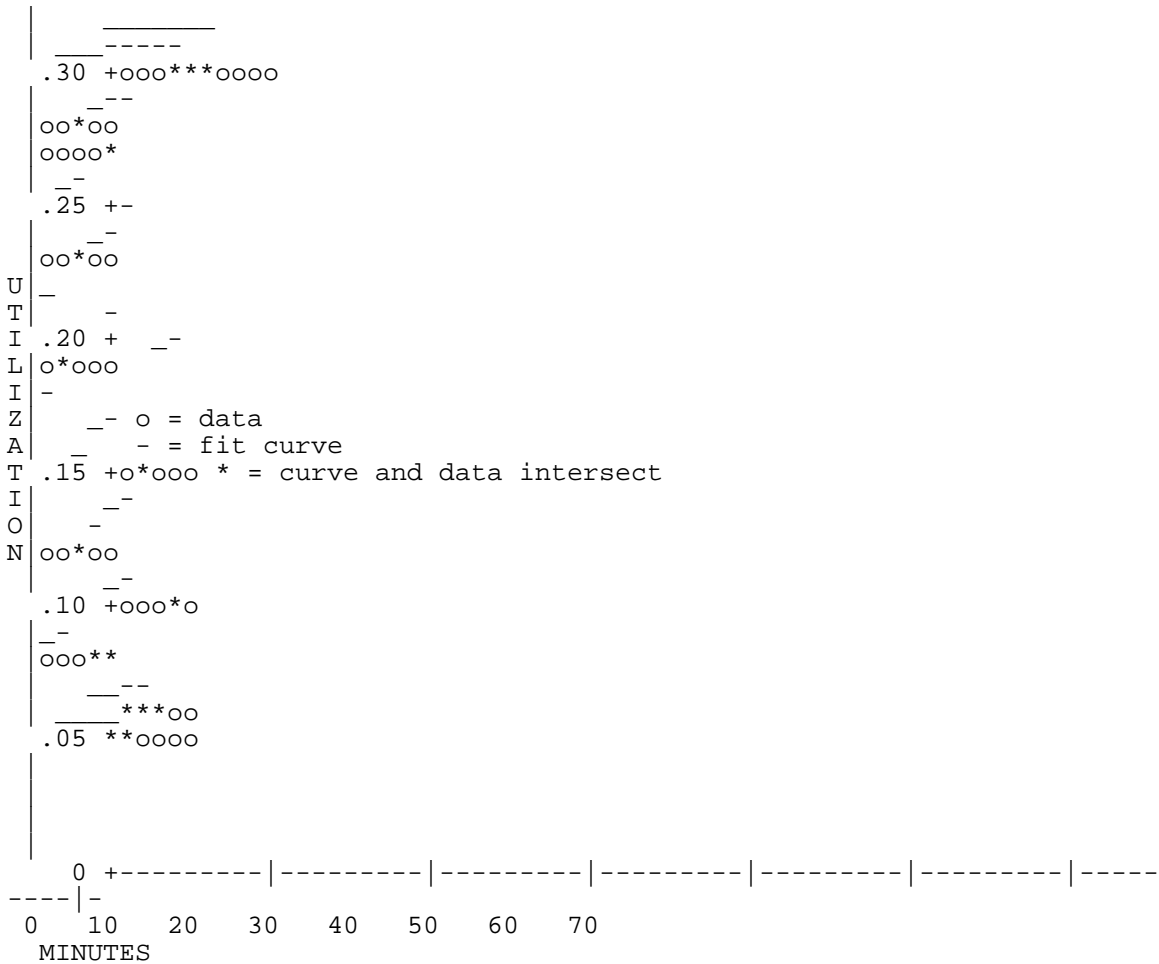
---

```
utilization = 18.109069 + 13.862039 * hyptan[(minutes - 31.322749) / 18.267743]
```

(The hyperbolic-tangent may be expanded to it's exponential definition if your calculator or spreadsheet doesn't have hyptan.)

$$\tanh(x) = \frac{e^x - e^{-x}}{e^x + e^{-x}} \quad e = 2.71828182844\dots$$

This formula was fit with the least-squares method. I realized that a hyperbolic-tangent fit much better than a polynomial, because the data implies an "s" curve. Here's the data and the curve superimposed:



As you can see the curve fits pretty well with the data. Of course the data is to be questioned; but it's the best that I've seen so far. (I especially suspect the data for the 41-45 range, it looks a little too high to be consistent.)

Here's a table that the function generates:

---

| Hop Utilization per Boiling Time |     |     |     |     |     |     |     |     |     |     |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| +                                | :00 | :01 | :02 | :03 | :04 | :05 | :06 | :07 | :08 | :09 |



:00 .051 .052 .053 .054 .056 .057 .059 .061 .062 .065  
:10 .067 .070 .072 .075 .079 .082 .086 .090 .095 .100  
:20 .105 .110 .116 .122 .128 .135 .142 .149 .156 .164  
:30 .171 .179 .186 .194 .201 .209 .216 .223 .230 .236  
:40 .242 .248 .254 .259 .264 .269 .273 .277 .281 .285  
:50 .288 .291 .294 .296 .298 .300 .302 .304 .306 .307  
:60 .308 .309 .310 .311 .312 .313 .314 .314 .315 .315

---

Have Fun!

-Alan (Overkill) Edwards

-----  
| Alan Edwards: rush@xanadu.llnl.gov | To find the sacred river Alph  
| or: alan-edwards@llnl.gov | Oh, I will dine on honeydew  
|-----' And drink the milk of Paradise

-----  
End of HOMEBREW Digest #1072, 02/08/93

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Date: Fri, 5 Feb 93 09:22:27 PST  
From: rush@xanadu.llnl.gov (Alan Edwards)  
Subject: Calculating IBU's with the Utilization Function

Here's an example of how to use the hop utilization function in my previous article, using the calculations in Jackie Rager's Zymurgy article:

```
UTILIZATION = 18.109069 + 13.862039 * hyptan[(MINUTES - 31.322749) / 18.267743]
```

(Of course, you can drop a lot of those significant figures.)

```
    If the gravity of the boil exceeds 1.050:  
ADJUSTMENT = (BOIL_GRAVITY - 1.050) / 0.2  
    otherwise,  
ADJUSTMENT = 0
```

```
IBU_PER_OZ = UTILIZATION * ALPHA * 74.62 / (VOLUME * (1 + ADJUSTMENT));  
    ALPHA is the percent alpha acids (eg. 5.2--don't divide by 100)  
    VOLUME is the final number of gallons in the batch (usually 5).
```

To calculate IBU's if you know the number of ounces of hops to be used:

```
IBU = OUNCES * IBU_PER_OZ
```

To predict the number of ounces needed to hit a targeted IBU:

```
OUNCES = IBU / IBU_PER_OZ
```

I've packaged those formulae into a nifty calculator for those of you who are on a Unix machine, or a PC that has Perl installed. (If there is a demand, I can convert it to a C-shell script or a C program.)

It will calculate IBU's (International Bittering Units), given only:

- amount of hops
- alpha acid rating
- length of boil
- gravity of boil (if over 1.050)

It basically does what that mess of calculations in the Zymurgy article does (but you don't have to think about it). It will also do the inverse--return the amount of hops required to reach a target IBU level.

If I typed:

```
ibu 1.5 8 45
```

The output would be:

```
1.50 ounces of hops with 8.0% alpha acid, boiled for 45 minutes  
will produce 48.2 IBU's.
```

In the "inverse" mode:

```
ibu -i 49 8 60
```

would produce this output:

```
1.33 ounces of hops with 8.0% alpha acid, boiled for 60 minutes  
will be required to produce 49.0 IBU's.
```

Here's the Perl script (called "ibu"):

---

```
#!/usr/bin/perl

require "getopts.pl";

# set option variable defaults

$boil_gravity = 1.050;
$volume = 5;

# read command line

if ((!&Getopts('iv:g:')) || ($#ARGV != 2))
[
    printf STDERR qq/
Usage:
    ibu [-v volume] [-g boil_gravity] ounces percent_alpha minutes
    -v Final volume in gallons. The default is 5.
    -g Gravity of boil if over 1.050.
or
    ibu -i [-v volume] [-g boil_gravity] target_ibu percent_alpha minutes
    -i Inverse. Return number of ounces required to hit target IBU's.

Example:
    ibu -g 1.082 1.5 8.3 30
    /;
    exit 1;
]

$inverse = $opt_i;
$boil_gravity = $opt_g if ($opt_g);
$volume = $opt_v if ($opt_v);
$ounces = $ARGV[0];
$ibu = $ARGV[0];
$alpha = $ARGV[1];
$minutes = $ARGV[2];

if ($boil_gravity > 1.050)
    [$adjustment = ($boil_gravity - 1.050) / 0.2;]
else
    [$adjustment = 0;]

# calculate utilization from exponential equivalent of hyperbolic tangent
$exp = ($minutes - 31.322749) / 18.267743;
$utilization = 0.18109069 + 0.13862039
    * (exp($exp) - exp(-$exp)) / (exp($exp) + exp(-$exp));

$ibu_per_oz = $utilization * $alpha * 74.62 / ($volume * (1 +
$adjustment));

unless ($inverse)
    [$ibu = $ounces * $ibu_per_oz;]
else
    [$ounces = $ibu / $ibu_per_oz;]

printf("%.2f ounces of hops with %.1f%% alpha acid, boiled for %d
minutes",
    $ounces, $alpha, $minutes);
printf(" in %.3f wort", $boil_gravity) if ($opt_g);
```

```
printf("/nwill");
printf(" be required to") if ($inverse);
printf(" produce %.1f IBU's./n", $ibu);
```

---

Have Fun!

-Alan (Overkill) Edwards

```
.----- A thousand years have come and
gone
| Alan Edwards: rush@xanadu.llnl.gov | But Time has passed me by
| or: alan-edwards@llnl.gov | Stars stopped in the sky
|-----' Frozen in an everlasting view
```

-----

Date: Fri, 5 Feb 93 11:40:09 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: Extract and Proud

As one who has gotten a great deal of information out of HBD, and who finds it a great way to forget about work for twenty minutes a day, I really hate it when it degenerates into silly stuff like Pub-Info-Request-Wars and Extract-vs.-Grain wars.

PLEASE LET'S NOT LET THIS GET OUT OF HAND, PEOPLE!

I have thought about doing the all-grain route, but frankly my present financial condition prevents me from investing in the additional equipment, and the fact that I have three children under the age of six lurking around my house makes the extra time involved impractical for me. I also suspect that if I didn't know all-grain methods were available to the homebrewer, I would continue to drink my extract brews in complete bliss (o.k., and ignorance too). Most of us extracters have very good reasons for staying with our present methods.

My inquiries regarding extract brewing have always been received gracefully and enthusiastically by readers of the HBD. I would say that if there really ARE extract brewers who are intimidated by the level of discussion by all-grainers, yeast-culturers, etc., they should do as I have done: ask anyway! It's your right. If someone actually does respond "snobbishly," then flame the idiot by private e-mail and go on asking your questions publicly.

Relax, don't worry -- have an extract brew.

Jonathan

-----

Date: Fri, 5 Feb 93 12:43:47 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: soda kegs on tap

Hi All,

From HBD #1071:

>Anybody have advice on how (and how long) to keep soda kegs on tap? I  
have  
>not tried it for more than about two weeks, and there was a noticable  
>change in the beer at the end. I did not take stringent measures against  
>leaks, so I presume the deterioration was due to air getting into the  
keg.

I'd say your presumption is probably correct. I've kept beers in soda  
kegs for over two months with absolutely no ill effects, the last pint  
tastes  
as good or better than the first. Sealed in a keg at a constant 45F,  
protected from heat, light and air, beer should keep for quite some time,  
certainly longer than two weeks.

The poster didn't mention whether or not the kegs were kept  
refridgerated,  
but I'm not sure this is a critical point. Keeping them in a reasonably  
cool  
place like a basement should be OK. I believe the problem is the kegs  
were  
not well sealed, allowing air to get in.

Try keeping a maintainence pressure of 12-15 psi on the keg when not  
dispensing. This will help provide a tighter seal along the large O-  
ring.

Also, disconnect the CO2 tank and the cobra tap when not in use. Leaving  
the  
hose barbs installed keeps the check valves in the fitting open. The  
only  
remaining seal is the small rubber gasket between the hose barb and the  
fitting, which I would not trust to keep the keg airtight over an  
extended period.

Cheers,  
Jim

-----



Date: Fri, 5 Feb 93 09:57:57-080  
From: brian@bio.cor2.epa.gov (Brian Spence)  
Subject: Hops Cultivation

Short time listener, first time caller. When my spouse and I purchased our home, we had the good fortune of inheriting a rather prolific hops plant. Now that I've begun brewing, the plant is no longer just and attractive ornamental, but offers practical benefits as well.

The Problem: I have no idea as to what variety these hops might be. We live in the infamous Willamette Valley, so I at least have the obvious first guess. Does anyone out there know of a good reference book that would allow me to key out this beast. Perhaps a "Peterson's Field Guide to Hops and Grains."

Other Questions: Papazian suggests that the soil for growing hops should be loamy and kept continually moist during the growing season. We have excruciatingly high clay content in our soils and have never watered at all.

Nevertheless the plant has done quite well. Will the quality of the hops be affected by my lack of care? Or should I follow the adage "If it ain't broke, don't fix it?" Also, how much will AAU vary with time of harvest, amount of watering, etc. And lastly, is there any moderately low-tech way of determining AAU of homegrown hops?

A good reference book on this subject would satisfy my needs, should you not wish to clutter the e-waves.

Thanks in advance. Spence.

-----

Date: Fri, 5 Feb 93 08:56 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Wet Dream, FAQ

>From: Paul Matulonis <paulm@sci.ccny.cuny.edu>  
>Subject: WL media (extracted from the Difco Manual)

>Bacto WL Differential Medium has the same formula as Bacto WL Nutrient Medium, with the addition of 0.004 g of Actidione per liter. This inhibits the development of yeasts without interfering with the development of bacteria generally encountered in beers.

A most enlightening article. However, if this is in response to the discussion about a medium that rejects or encourages "wild yeast", it seems

to confirm my opinion that such a medium is a wet dream.

The two described here simply control yeast and/or bacteria.

>From: Chris McDermott <mcdermott@draper.com>

>Subject: FAQ/RFC on Recirculation.

>Since many topics come up in cyclical manner it would be nice if they could

be answered in a FAQ format. And since some topics have more than one accepted answer the FAQs should try to show all sides of an issue.

A couple of points here. Many of us barely literate computer users have no idea of how to access a FAQ, if indeed it is something we can get at will.

CompuServe stores just about everything of any value in library files that are easily accessible but cost an arm and a leg to retrieve or even find out what's there. I have not read the header lately, but if such a thing exists for HBD readers, instructions on accessing it should be part of the HBD header and in terms even I can understand.

.....

>Recirculation is a practice employed in the lautering of mashed grains where the turbid sweet wort is collected, as it is runoff, and recirculated through the grain bed until the runoff becomes clear.

>Please consider this FAQ as a kind of HbD Request For Comment (RFC). Please feel free to make any additions or corrections.

My comment is that there exists a commercially available product for mashing (name and availability upon request) that runs clear in something less than one cup and the whole discussion becomes academic.

.....

Having said that, the RFC aspect for a FAQ library is important and seems to be lacking in the current system. For example, I have badgered the person who maintains the FAQ to include videos in his list of sources and the request has been ignored for several years.

>From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
>Subject: A survey of the readership

>I wonder how many questions have not even been asked because the author is afraid of being labelled "not a REAL brewer" by more advanced brewers. (Remember that discussion a while back about real brewers?)

How could I forget? I suppose my more objective posting yesterday will also be interpreted by some as intimidation but that was not my intent.

I simply think it's time to call a spade, a spade and get on with brewing. How one reacts to someone else's opinions, views and statements is his own responsibility. If one chooses to run away because some windbag uses big words, I guess that's life.

I would like to point out that before stumbling upon the HBD, I had spent over twenty years (off and on) making barely drinkable (and mostly not) rubbish. And now look at me... the World's Greatest Brewer! If I can glean what is needed out of this forum, so can anyone else and I have little sympathy for people who claim to be intimidated.

>I suspect that the readership consists of more beginners than are represented by the questions posed in the HBD. And I think that, if beginners realized that they make up a substantial part of the HBD community, they would be more likely to pose "lower level" questions, and therefore, improve their comprehension and brewing.

That is a good point but I think it is already happening at a reasonable level. Compuserve deals with this problem by dividing the forum into Basic and Tehnical message groups but that can't be done on the Digest so one just has to wade through the stuff they are not interested in but fortunately it's "free" here. Someone could start up a beginners' digest but I think it would be counter-productive.

I don't doubt that some people may be intimidated but there are enough that are not, to get out the questions and keep the discussions going.

Back to spades.... "real brewers" was a poor choice of words and perhaps trying to come up with a more appropriate one will still offend some but pushing it under the rug doesn't help either.

I still contend that mashing whole grains is another step up the ladder to becoming the "complete brewer". If many/most opt out, so be it. We opt out of many steps in the process but there is no reason to get paranoid about any particular one of them. Nor is there any reason to criticize those who crusade for or against, any or all of them.

>From: Richard Cox <rcox@hsc.usc.edu>  
>Subject: Dry Malt Extract vs. Syrup Malt Extract

>One of my homebrew suppliers strongly maintains that dry malt extract provides better flavor and less extract "tang" than the syrup variety. He has encouraged me to use all DME in my recipes whenever possible.

I can't offer anything other than intuitive reasoning. Wort is converted to extract by evaporating the water. In the case of dry extract almost all and in the case of liquid much less. It seems that whatever they do to the wort to get rid of the water has nothing to do with what we do to wort to make beer and therefore, less is better.

js

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Date: Fri, 5 Feb 93 11:26:18 -0700  
From: colvin@hayduke.cs.utah.edu (Tom Colvin)  
Subject: Bud % alcohol / Ridding oil from plastics

After reading the posts of Ulick Stafford and Bill Szymczak, I realized that Bud % alcohol must vary greatly from region to region even in the US.

In this "wonderful" state of Utah it is law that beer exceeding 3.2% alcohol by volume must be sold in liquor stores. However, Bud is available in any grocery store around here.

Our brewing club recently brewed a beer with chocolate in it. Does anyone have any idea on cleaning the oil out of the plastic tubing and buckets easily? We were trying to avoid using dish washing detergent since they normally leave behind stuff for anti-spotting and who knows what else. We also were trying to avoid using a lot of water since we going through a major drought in the area.

thanks for any advice in advance,

Tom Colvin  
colvin@cs.utah.edu

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Date: Fri, 5 Feb 93 10:49:46 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: chimay yeast/recipe idea

> From tony@spss.com (Tony Babinec)

>  
> At this point, you have a choice. You can either brew  
> a beer and pitch your starter culture, or you can plate out the  
> yeast, isolate a single cell, build it up, and then brew the beer.

I've been absent for a while, so I don't know what the last time was  
that this was discussed.

The yeast in Chimay is not a single strain. It is either 3 or 5. I  
forget which, but I think it is 3. If you plate it and isolate a  
single cell for building a culture, you will only get one of the  
three.

Of course, you also avoid any other nasties that snuck into the bottle  
in small numbers.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Fri, 5 Feb 93 14:28:39 EST  
From: umehara@NADC.NADC.NAVY.MIL (M. Umehara)  
Subject: Recirculating Infusion Mashing System (RIMS)

Thanks for your response to my RIMS questions on the HBD. I have decided to build one and have several more questions for you.

- What is your method for sparging?
- What are your approximate flow rates during the different stages?
- How quickly does your heater cycle on and off?
- Which is higher, the liquid level or the grain level and should it matter?
- Where does the diffuser go? Does it float on top of the grain/wort?

I really appreciate any help I can get. I'm a gadget freak, but unfortunately a klutz.

Mike  
umehara@NADC.NAVY.MIL

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Date: Fri, 5 Feb 93 11:05:15 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: All-grain Snobs

> Keeping in mind that lots of people stick with extract because they  
are lazy,  
> paranoid or il-informed

[etc., deleted]

> Having said that, I suggest it is the extract brewers' insecurity,  
> sensitivity and paranoia that creates the image that all-grain brewers  
are  
> snobs.

Gee, Jack. It's nice to know that I use extract because I am lazy  
(partially true) and that I read your posting as arrogant and snobbish  
because I am insecure. I would otherwise have thought it was because  
you post like the proverbial bull in a china shop.

I'd also like to thank you for not charging me \$100/hour for this  
analysis.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Fri, 5 Feb 93 11:23:10 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: Killian's Irish Red

> Just a clarification on which category Killian's falls into - the last  
time  
> I had one(last night) I read the label and it says that it is a  
"LAGER".  
>  
> I, too, was suprised as I thought that it was an ale also.  
>  
> Craig Vandeventer

It was an ale. When Coors started making it (1978?) it was an ale.  
Somewhere along the way, they started making the lager.

When I first was drinking it ~1986, it was an ale and I liked it. I  
stopped buying it for a while (shifting to Bass), and when I bought it  
again, I didn't like it much. I later noticed that it was (in tiny  
print) "lager" now.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Fri, 5 Feb 93 15:06:32 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: How Long Is Too Long

>From: pointon@m2c.org (Joel Pointon@staff)

>Greetings fellow brewers. Being a fairly new convert to HB, I  
>have a question that I realize most of you WON'T be able to relate to.  
>Although I enjoy my HB, I'm not a big drinker, so subsequently I  
>have a stockpile building up of my brewing efforts. The beer cellar  
>presently contains the following extract brewed product: Porter,  
>(3 months), Pilsner (2 months) and English Bitter (1 month old).  
>The cellar is approximately 55 degrees F at this time of year and  
>will increase to about 65 by the beginning of summer. How long  
>can one expect to keep each of these before the flavor falls off?

Well, there are at least some of us out there who don't drink much beer.  
I probably drink about 2 or 3 beers a week. There are at least 12 cases of homebrew in my basement.

Like yours, my basement doesn't get below 50F during the winter nor much above 60F or so in the summer. Also, I store all my beer in cardboard boxes with covers, so there is no exposure to light.

I brought a three-year-old holiday ale to a December homebrewer meeting. It had been seriously overhopped originally and now tasted like an OK ale-- none of the spice character was left, and only a normal amount of hop bitterness could be detected. It wasn't oxidized, either.

I recently uncovered a two-year-old raspberry ale six pack. Figured it would have none of the overpowering raspberry aroma and flavor of the original brew. Boy, was I wrong! Still smelled and tasted great! I \*would\* say that it was past it's prime, though.

For that matter, I still have some 1990 Anchor holiday ale down there and it is starting to get a little worse but is still just fine.

What general rules or conclusions do I have?

1) Most beers will keep fine for at least a year under such conditions. Many will keep for two or three just fine.

2) Invite friends over to help you drink it if you like to brew as much as

I do. Everyone is happy this way.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Fri, 5 Feb 93 15:16:33 EST  
From: kstiles@aluxpo.att.com  
Subject: Re: wine making

in HOMEBREW Digest #1071 connell@vax.cord.edu asks:

> I have noted with curiosity that ... there is almost no discussion  
> of homemade wines ... Is wine making discussed here so seldom  
> because the process is uninterestingly straightforward or because  
> the results are so inferior to commercial wines or both?

The charters of the Digest and rec.crafts.brewing exclude wine making for some reason. As both brewer and wine maker, I will risk flamage to comment here on wine making. As far as wine kits go, I can't comment; I tend to avoid anything that looks like a recipe. I don't see why you can't make a decent wine from kits, though. I make fruit wines, which can't really be compared to commercial (grape) wines. For example, I tend to like dry wines ("Hey, Stiles, you call this good wine? I call it gagging in the Sahara."), but fruit wines generally exhibit their fruit character better if they have some residual sweetness.

Wine making skills/equipment overlap considerably with those of brewing, but there are differences. Also, the time scale is a lot different (I don't have TIME for instant gratification, dammit!). Get a good book on wine making. A browse through the library is a good start.

ObBrewing: No takers on my question about flavor/aroma properties of Chinook hops, huh? Do any commercial brews use them?

Kevin Stiles

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Date: Fri, 5 Feb 93 14:52:46 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: Spiced Ale

Now, here's a question that could be answered by extract brewers and all grain brewers alike.

There was a \*thin\* thread (not quite overwhelmed by all the philosophizing and speculation about snobbishnes) recently about spiced ales.

Part of the discussion prompts me to wonder: has anyone tried BOTH the technique of adding whole spices at some point to the boil AND adding powdered spices at the end of the boil? (Obviously, in different batches.)

I made my first spiced ale this year and boiled orange zest, ginger root, cinnamon sticks and whole cloves for about the last thirty minutes. It has a bit more bite than I intended, although the beer does taste quite good. I am wondering whether I boiled the stuff too long and whether powdered spices at the end of the boil would produce a "kinder, gentler" brew.

If anyone has a response of general interest, please post. I would also be happy to summarize and post e-mail responses.

Not Worrying, and Having a Spiced Extract Ale With a Little Too Much Bite,

Jonathan

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Date: Fri, 5 Feb 93 16:27:42 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Leaf Hops?

I have to agree about the freshness and general wonderfulness of hops plugs. I bought some recently (imported by Crosby & Baker, according to the package) at Brew 'N' Grow (same as Alternative Garden Supply, but in Detroit instead of Chicago). I made a Bock with Hallertau & a little Saaz. What an aroma! This was the first time I really understood what is meant by the "spicy" aroma of Saaz. Wow!

And the hops looked beautiful after I drained the wort. Full cones that half-filled my brewpot.

The beer is still lagering, so I can't report on the taste, yet.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Fri, 5 Feb 1993 15:44:38 -0600 (CST)  
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)  
Subject: BAA

Hi yall

Well well well! There are quite a few of you out there with opinions on Beer Across America. I tried to reply to each of you to thank you for your time in replying to my query. But jeez, I got better response than I ever anticipated. So, I'll waste everyone's bandwidth and just do a global THANKS. :)

I just gotta be careful what I ask for, I just might get it ;)

I think I'm gonna join this thing, at least for a little while. Spencer had a good suggestion about "sharing" the cost. I may do that with a friend or 2 to help defray some of the expense. But we-uns here in the southland don't got much other choice. Maybe some day.

Oh yeah, Michael G., thanks for the fax, I guess that means you're my sponsor. Only one more for a free 6er :):) Think maybe you could send ME a bottle? :)

scott

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Date: Fri, 5 Feb 93 17:38:06 EST  
From: Lee Menegon <necis!lmenegon@transfer.stratus.com>  
Subject: Diacetyl ?

I have recently begun brewing all grain batches, 5 or 6. A constant comment about my beers is that they contain noticable levels of diacetyl. I have done some research in the Zymurgy trouble shooting issue and in Miller's CHOB and found:

- 1) Diacetyl is a by product of the early stage of fermentation when oxygen is available to the yeast.
- 2) Its level of production is directly related to wort temperature, i.e. warmer = more diacetyl.
- 3) Yeast will eventually reduce the diacetyl in the later stages of fermentation.

I discussed my brewing process with an experienced all grain brewer who too was having this problem with his beers. We decide that since the yeast strains we were using 1056 and 1098 are not noted for high levels of diacetyl in their flavor profile that the following could be flaws in our brewing process:

- 1) Pitching into wort that was much warmer than the target fermentation temperature. We did this to reduce lag time.
- 2) Adding finings immediatley after racking to the secondary. We did this to induce CO2 generation to purge the head space. This would cause the yeast to prematurely fall out of suspension thus reducing the quantity and the time in which the yeast was reducing diacetyl.
- 3) Since we artifically carbonate our beer in soda kegs we would not bolster the yeast population which could reduce diacetyl in the conditioning phase.

What besides pitching to wort at fermentation temperatue and finning after the yeast has settled or not at all what can we do to reduce the production of diacetyl and increase its reduction later? I still plan to artificially carbonate it seems to make for clearer beer and I can drink it sooner, 3 days after keggng.

What can I do to produce high levels of diacetyl and minimize its reduction if I want to brew something with a Samuel Smith profile? Is a warm ferment with a yeast strain noted for diacetyl production and fining immediatley after primary fermentation the way to go ?

- - -

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Date: Fri, 5 Feb 93 15:48 CST  
From: korz@iepubj.att.com  
Subject: Re: dry VS syrup extract

Richard writes:

>One of my homebrew suppliers strongly maintains that dry malt  
>extract provides better flavor and less extract "tang" than the  
>syrup variety. He has encouraged me to use all DME in my recipes  
>whenever possible.

I know that the two most popular dry malt extracts, Munton & Fison and Laaglander, are both made from 100% malt (note that the Laaglander is a bit less fermentable, so use that to your advantage). Many syrups contain all kinds of other sugars, like corn and even sucrose. I certainly would not want to simply dismiss all syrups -- there are a great many that appear to be of very high quality. I've narrowed my use of extracts to a few that I feel are good (Northwestern, Munton & Fison, John Bull, Alexander's, Coopers, Ireks and a few others) and my extract batches have been par with my (and other's) all-grain batches.

>I'm too new to homebrewing to have an objective opinion on this,  
>although my last batch -- using all DME -- does taste \*much\*  
>better than my first, which was made with syrup extract. There  
>may have been other factors at work in that case, though. I have  
>wondered whether or not the syrup cans impart any detectable  
>metal taste to the extract.

I have not noticed this.

>Does anyone have any advice?

Yes, to everyone, not just Richard:

Taste your homebrew supplier's homebrewed beers -- if they are worse than yours, don't take their advice.

Al.

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Date: Fri, 5 Feb 93 16:05 CST  
From: korz@iepubj.att.com  
Subject: Re: skimming/blowoff/HSA

Jack writes:

> Another example of his misinformation is on page 53, also underscored  
and  
> burnt into my early data base on brewing.  
>  
> "If you look into the fermenter, you will see a rich foamy head  
bubbling on  
> top. This head is composed mainly of resins from the hops, which are  
forced  
> up ty the carbon dioxide bubbles. Some books advocate skimming off the  
head  
> but this should never be done because it contains all the oils and  
resins  
> that will give the beer its body, aroma and characteristic beer taste.  
"  
>  
> Certainly, there is a legitimate debate on the importance of skimming  
the  
> foam but no one but Beagle argues the merits of leaving it there.

I've done empirical analysis of two batches of beer split into blowoff  
and  
non-blowoff (non-skimming, also) sub-batches. Beagle is partly right  
about  
the hop resins, but is dead wrong in saying that:

1. \*all\* of them are in the foam, and
2. the oils and resins give the beer its body.

> >From: Jim Busch <busch@daacdev1.stx.com>  
> >Subject: re: reusing yeast & open fermenters  
>  
> >I am most likely in the minority of homebrewers in that I am currently  
> utilizing open fermentation techniques.  
>  
> You're in good company. The only thing you need to do to complete your  
joy  
> is to add a spigot on the bottom so you can take QC samples on a  
regular  
> basis to determine how it is progressing before sending it to the  
secondary.  
>  
> I find that for some strange reason, the primary fermentation seems to  
take  
> much longer this way and I always seem to come up about a half a gallon  
> short:)  
>  
> I am sure you have also figured out how simple it is to sterilize with  
a bit  
> of water boiling in the bottom.  
>  
> I also suspect that you, like the rest of the enlightened ones, simply  
yawn  
> at all the discussions about "blow-off" tubes and related mess.

Part of the result of my blowoff/non-blowoff experiments was to determine that

I may lose some hop bitterness and a bit of hop flavor by using blowoff, but

I don't really want a lot most of what gets blown-off in my beer. The blowoff sub-batch was smoother, cleaner, less astringent and a bit less bitter (note that I'm not a lupulophobe -- my last IPA had 80 IBU and I thought it was a bit underhopped). I urge you to try the blowoff method for a beer or two and compare.

> >From: korz@iepubj.att.com

> >Subject: Spraying the grist

>

> >Both Jim and Donald mentioned the spraying of water on the grist as it enters the mash tun. I suspect that this has the additional benefit of reducing grain dust which is explosive.

>

> I suspect that it might have a negative effect if Fix's hypothesis on HSA is

> correct. What say George?

Oops. I think there's some miscommunication here, Jack -- the mash isn't hot at this time so Hot-side Aeration (HSA) is not an issue.

Al.

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Date: Fri, 5 Feb 93 19:36:50 -0800  
From: Tom Clark <tclark@apple.com>  
Subject: Digest Submission

This is being submitted for its author: Gary Henry, ghenry@apple.com

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Feb. 3, 1993

John Harvard Brew House  
33 Dunster Street  
Cambridge, MA 02138

617-868-3585

Timothy Morse Mark Palmer Ray Kall  
Master Brewer Manager and tour guide Bartender, Waiter, Homebrewer

The first impression of this place might be oops I've stumbled into Cheers. It's down stairs under the THE GARAGE building at 33 Dunster Street, Just a half block from Harvard Square and one block East of J.F. Kennedy Dr. It used to be a restaurant called 33 Dunster Street.

The first thing you notice is the long bar with the stainless steal serving tanks enclosed in glass behind it. The bar has three sets of four towers, each having two taps. One hand pulled pump for either the casked Stout or the J.H. Pale Ale. They seemed to alternate between the two brews. Lots of back lit stained glass against the back wall which was left in place from when it was 33 Dunster Street. At the same end of the building and enclose behind the glass is a big copper mash-tun and fermentor from The Pub Brewing Company.

They get their pre-crushed malt from England and Hops from California, mashing with 700 pound of malt at 165 degrees. Gypsum is added to Cambridge's soft water. Extract is generally 430 gallons. The wort is counterflo chilled and then fermented for three to five days. The secondary is then racked to stainless steal cellar tanks for 10 to 21 days at 50 degrees. Some of their ales are dry hopped with whole hops. When aging is done they drop the temp to 36 degrees and run it through a DE filter and then to the serving tanks behind the bar. They use Krausing for carbonation and no CO2. They brew 14 barrels every three days.

The dining area is large and comfortable. I first arrived there Sat. night at 11pm and the place was so packed I had to squeeze into the hostess stand to get a Nut Brown Ale. The next morning I came back for Sunday brunch. It was great! I had an Omelet that was stuffed with made-on-the-premise pork sausage in a BBQ sauce and a little jack cheese. Served with home fries that were quartered new potatoes sauted in a garlic & onion sauce. Also served was a basket of baked goods from a local bakery, hot and wrapped in linen with a generous scoop of raspberry jam.

This brew house started nine months ago and has only been open about six months. Timothy Morse, Master Brewer who started out at Anchor Brewing, then went to Hope, WI and on to Commonwealth Brewing before starting at John Harvard's Brew House, has yet to pour his own brew here. It's been done under contract at Massachusetts Bay Brewing (Harpoon) due to hassles with the city of Cambridge over the zoning. Apparently Cambridge viewed brewing as a fire hazard. Tim finally got to do his first brew Sat. Jan. 30,1993.

O-K now for the good stuff. Ray Kall the bartender, who is also a home brewer was very helpful, informative and friendly. In fact the entire staff here is well trained and friendly. He said that once Tim gets going with his own brew there should be some improvements. He hopes to brew traditional British (Burton on Trent) style.

I had a five brew sampler.

1. Was a nut brown ale: Color was very good. I didn't get much aroma. It was drinkable but not exceptional. Not a Samuel Smith by any means.
2. Was a Highland Ale-a scotch: My first taste of Scotch Ale so I can't comment other than the FG (final gravity) seemed high but maybe normal for the style?
3. Was NEW TOWN LIGHT ALE: Light golden color. Well carbonated. Good Fuggles hopping. My wife would love this one.
4. Was JOHN HARVARD'S PALE ALE: Nice copper color and hoppy. Served either 'cold draught style' or 'cask conditioned and hand pulled' in the British manner and the Brew House's biggest seller. Had a nice sweet aftertaste.
5. Was an IRISH EXPORT STOUT: This also was poured in two ways. Draft and cask. The cask was hand pulled and served warmer and less carbonated. Both were dark, malty, with a rich roasted flavor. True to style. A full bodied, but

less bitter version of the famous Dublin Ale. This was my favorite.

The bill of fare for this very memorable Sunday brunch and the five brew sampler was \$12.50. I went back one more time for dinner and the food was again excellent. I highly recommend the John Harvard Brew House.

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Thanks,  
Tom Clark  
tclark@apple.com  
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Date: Fri, 5 Feb 93 22:49:24 PST  
From: ng570@andechs.pnl.gov  
Subject: culturing Paulaner yeast

In #1070 Greg Wolodkin writes about perhaps having problems culturing yeast from the dregs of a bottle of Paulaner Hefe-Weizen. According to Eric Warner's wheat beer book, the Paulaner Weizen that is shipped overseas is first pasteurized! I doubt that this is very good for the bottling yeast. Maybe Spaten is a better bet, but I haven't seen it around my area.

good luck!

Kirk Peterson

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Date: Fri, 5 Feb 93 22:00:19 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: Crushed grain, etc.

Danny says:

> Wasn't it Rob B. who had some remarks about all-grain snobs? Well  
said,  
> Rob! I recently made the switch to all-grain -- I will admit that I  
was  
> always a bit apologetic about being an extract brewer.

The insight into the brewing process and the complete flexibility  
in recipe formulation are what do it for me. You can bake fine cake  
from mixes and buy top-notch frozen puff pastry, but until you make  
your own from scratch you are not fully educated. Similarly, a complete  
education in homebrewing must include lots of all-grain beer ....

> The best situation is for extract brewers to be able to dabble in all  
grain  
> without purchasing the equipment (which may or may not cost a fortune)  
.

Really, it's not too expensive. The beer is much cheaper (1/2 or less),  
too. I have spent much more on books and things like autoclaves and  
culture tubes than I have on the equipment just needed to make all-grain  
brews. All you must have is a big pot (even the 20 qt Revereware  
is ok, though a little small) and a lautering system. <\$100.

> I personally believe working with an experienced person is the best way  
> to manage all aspects of brewing though.

Don't be shy. There is no need to brew from extract before working  
with all grain. When you get down to it, the process *is* forgiving.  
The only thing it isn't is, er, quick.

..

> >The cellar is approximately 55 degrees F at this time of year and  
> >will increase to about 65 by the beginning of summer. How long  
> >can one expect to keep each of these before the flavor falls off?

At that temperature, well-made pale or amber beer will keep at least  
a year. Two or three, or more, wouldn't surprise me. I don't recall  
the last time I had a staled pale or amber brew, and I tend to keep  
a few of almost every batch for 6-18 months. Dark beers will eventually  
start to stale quite suddenly.

Room temperature storage is OK for most homebrew, too. Again, I've  
kept bottles for over a year at room temperature with no problems.

...

Jack says:

> Keeping in mind that lots of people stick with extract because they  
are lazy,  
> paranoid or ill-informed [...], it is worth  
> noting that some extract beers are excellent beers, so I am told.

There weren't many extract-based first place winners in the Nationals this year, but they keep on coming ....

> Having said that, I suggest it is the extract brewers' insecurity,  
> sensitivity and paranoia that creates the image that all-grain brewers  
are  
> snobs.

Jack, Jack, Jack! It's the fact that some of us all-grain brewers ARE elitist snobs with a superiority complex. Furthermore, we know we are, and we love it. We demonstrate our affluent, care-free lifestyle by spending 4-8 hours tending a process that saves us all of \$10 per 2 cases of beer. We buy grain by the 50lb/25kg sack and smile while grunting past the open-mouthed folks carrying 11b bags of crystal malt.

The process is longer and harder and more rewarding TO US. I really don't believe, though, that it is much more likely to produce a prize-winning beer than extract brewing is in the hands of someone sufficiently skilled ... or lucky.

I personally wouldn't have it any other way. :-) :-)

...

connell says:

> I have never read about  
> or experimented with homemade wines, but I have the idea that people  
> just dump concentrate and water in a carboy and add yeast.

Oh, my. <asbestos clothing at ready>

.....

And finally, Jim Bayer says:

> I'm just beginning to mash and I have a question about the practical  
shelf  
> life of CRUSHED grain.  
> [...] If for some reason all of my ingredients arrive for brewin'  
> on Saturday but something happens and I can't get to it, how long can I  
store  
> the grain and still have fresh grain and how should I store it?

A very long time. So long as nothing is moving around inside it, it is still OK. I've heard people say it goes stale after a while, but I've not noticed this in some fairly old precrushed grain I've gotten from a friend.

It WILL pick up moisture from the environment if the humidity is high enough. I think that this is responsible for the apparent loss of yield seen by brewers who have let crushed grain sit for a day or two. The effect is on the order of 10%.

(Now, I once made a fine stout from a grain bill that accidentally included a pound of flaked barley infested with weevils. So even a few bugs won't hurt you.)

> So far someone told me to freeze it, but that sounds wrong to me.

Works fine.

> BTW, I'm thinking of weeks for storage, not days. I know it's best if  
I don't  
> have to store the grain, but I like to have my bases covered.



Use a reasonably airtight enclosure (tub or tightly folded bag is fine) and everything will work out swell.

=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebløe!joseph (609) 273-8200 day joseph%joebløe@uunet.uu.net  
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Date: Sat, 6 Feb 93 11:02 CST  
From: akcs.wally@vpnet.chi.il.us (John Walaszek)  
Subject: Toasted Flaked Barley

I have recently purchased some toasted flaked barley and intend to use about 4-6 ounces in a pale ale infusion mash. Has anybody used this grain. I am concerned that it might affect clarity. I also wonder if it should be run through the grain mill. It really doesn't look like flaked barley it looks more like flattened barley that's been toasted. Any input would be helpful. Thanks.

Wally

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Date: Sun, 7 Feb 93 09:53 CST  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Corona flour stones

I'm looking for the stone plate attachments for the Corona mill. I wish to grind some flour. Any sources? Thanks in advance.

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Date: Sun, 07 Feb 93 14:50:06 EST  
From: John Pedlow <TKSJJOHN@UBVM.CC.BUFFALO.EDU>  
Subject: PROTECT FROM FROST ?

I'm a newcomer to this group; an apology if this has been covered.  
As I was about to enjoy a Guinness Stout last evening I noticed  
verbage accross the top of the case: PROTECT FROM FROST. Why does  
it say such a thing? What does it mean? Does it alter the brew  
in some fashion if the temperature gets too low? Thanks to whoever  
is kind enough to enlighten me.

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End of HOMEBREW Digest #1073, 02/09/93  
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Date: Sun, 07 Feb 93 11:31:50 PST  
From: Martin Lodahl <gueuze!mal@PacBell.COM>  
Subject: A New Journal

If you read the Celebrator this may be old news to you, but a new magazine devoted to the technical side of homebrewing, pub-brewing or microbrewing is about to make its debut. Called "Brewing Techniques", it will break new ground in homebrewing (as far as I know) by being an honest-to-goodness "peer review" journal. The Editorial Advisory Board (the peers who do the reviewing) consists of Patrick Baker, Byron Burch, Fred Eckhardt, Teri Fahrendorf, George Fix, Terry Foster, Mary Anne Gruber, Dave Miller, Greg Noonan, David Ryder and Bill Siebel. Impressive! The clear wort of usable brewing information certainly seems unlikely to be beclouded by the trub of unsupported speculation presented as fact, with a panel like that reviewing submissions.

The magazine will be published 6 times a year, at a subscription price of \$30. For an unspecified time there will be a \$24 introductory rate for "charter" subscribers. To subscribe, send a note with your name and address information to:

Brewing Techniques  
P. O. Box 3076  
Eugene, OR 97403

You'll be billed after the release of the first issue, scheduled for May. To discuss advertising rates or editorial questions, call Stephen Mallery, Editor, at 503.683.1916.

I think this may be the magazine many of us have been waiting for ...

- - -

= pbmoss.pacbell.com!gueuze!mal Martin Lodahl Auburn, CA =  
= More reliable address: malodah@pbmoss.pacbell.com=

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Date: Mon, 08 Feb 1993 08:16:58  
From: dduane@kestrel.win.net (Diane Duane)  
Subject: Irish Ales and other matters

Hi all.

Re Ulick Stafford's post of the Digest before last:

> While ale sales have been falling  
>to lager (with stout relatively constant) sales of Smithwicks are still  
>high.

I may get in trouble for this, but Smithwicks doesn't taste much like an ale any more. One of the things interfering with this is the excessive carbonation. It now tastes more like a red lager: to me at least. (Granted, this is all very subjective.) What with my husband's and my writing careers, we spend a fair amount of time in the UK, and a lot of it staying in pubs, by preference: and we drink a fair amount of ale, "real" ale by preference, others as desired. The carbonation in them is always minor -- you might get a "petillant" pint, but nothing that fizzes like our present Smithwicks. And again, to me, it simply doesn't taste ale-like. It had never even occurred to me to think of it as an ale until Ulick called it one.

> MacArdles is also sold nationwide in bottles and can be got  
>on draft in local areas.

Ulick, where did you find it on draft? We are in and out of Dublin a lot, and hit many of the major pubs in town, and I haven't seen McArdles on draft anyplace. In bottles, yes, and I thank you for reminding me of it. But down here (Wicklow), it's thin on the ground.

> In Waterford one can even get Phoenix Ale  
>in large bottles produced at the small Cherry' brewery there.

I never heard of this, and would very much like to try it. Thanks for mentioning it!

> Bass is also produced in Belfast and is  
>an Irish Ale having slightly different taste than British produced  
>Bass.

Mmmm...true, and I dislike both forms of Bass immensely, so probably I am not equipped to critique it.

> Unfortunately the virtual monopoly Guinness have on the Irish  
>market, and indeed on malt and hop industries has meant that there are  
>fewer  
>small brewers than elsewhere.

True, but maybe with the trade barriers down between us and the North, we'll see at least some Hilden coming down here. The Hilden Ale is extremely nice. They are also now brewing a stout (Great Northern, I think it's called).

>Another point I would question was Diane's statement that Irish Bud  
>was 2.5 times stronger than American stuff. While it does taste a  
>little better (It would be hard not to), it is 4.3% by vol as



>against US Bud which is 4.6%.

(grin) This one I'm going to blame on my husband. (Truly, though, I think I must have misheard him. He's been going around the house muttering

"A \*time\* and a half stronger, not two and a half times....") I will pop down to the pub and pull the specific gravity and other figures. But certainly it is stronger...one of the local spectator sports is watching the American tourists come through, and see Bud on the pull, and say, "Looka here, Marge, they got Buuuuud here," and proceed to drink as much of it as they would have drunk in front of the TV at home. And then they fall over, and then we stack them up by the wall and put a tarp or something over them until they wake up. Ah, my poor countrymen!

Best to everyone, and thanking Ulick again for his advice. D

Diane Duane / Kestrel Ridge / Avoca, Co. Wicklow, Ireland

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"A little science...a little magic...a little chicken soup."

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Date: Mon, 8 Feb 93 12:06:01 MET  
From: THOMASR@EZRZ1.vmsmail.ethz.ch  
Subject: homemade wine

hello all. my last message seems to have disappeared (come back rob, all is forgiven). However someone else replied to the question of how to make wine, and correctly said that extract + water doesn't make the best wine. However, he then went on to say that you can only get good wine from grapes etc. How wrong! We regularly see recipes for beer that do not conform to the german purity laws, but still taste excellent.....

.... possibly because they don't (I'll take an industrial example : most english bitters contain types of sugar, eg mollasses). Well it's the same with wine. Wine making started long before the french made it their own. People have been making blackberry, strawberry, in fact hundreds of NON-grape wines for centuries. It is the "grape wine snobs" and a very powerful french industry which has meant that you can't buy them (a few companies in britain sell them, including Gales - the brewery).

True this is a beer forum, and also true there are (sorry is) a digest for wine, but please don't tell people off for asking! If anyone wants info

or wants to flame me please email me direct.

My wife and I have been both brewing and wine making for quite some years now, and can safely say that both are extremely enjoyable, not least because of the choice of drinks it gives us.

Sorry about the length of this rant, and sorry to the HBD - content - purists. but I had to get my word in!

Rob Thomas

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Date: Mon, 08 Feb 1993 08:28:43 EST  
From: babel@vs2.uh.cwru.edu  
Subject: Info needed on Cincinnati brewpubs

I'm headed down to Cincinnati this coming weekend for a business trip and was wondering if there were any good (or bad) brewpubs in the area. I've heard that there is one right across the boarder in Kentucky, but that is the only one that I have heard of.

If you know of any in or around the Cincinnati area please send email ASAP.

Thanks,

Juli

- - -

"Tell me lover are you trick or treat  
It's just that I'm all mistrusting  
when things taste so sweet"

Witches' night    Witches' night  
take me by disguise    the harvest moon lies  
I should have dressed up    We all do  
for the sake of sore eyes    Witches' night

--LadyIce

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Date: Mon, 08 Feb 93 15:50:50 +0200  
From: LCNAVOT@WEIZMANN.WEIZMANN.AC.IL  
Subject: Homebrew Pubs in Boston?

A friend will be spending a month in Boston. Could someone recomend a pub  
or  
two in Boston, where my he will be able to taste and enjoy homebrewed  
beer?  
Thanks  
Nir

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Date: Mon, 8 Feb 93 9:20:23 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: yeast reuse correction & all grain costs

In the last digest I made a somewhat erroneous statement regarding glycogyn reserves in dormant yeast cells. IF the yeast has been treated well and not shocked, then the dormant cells will have plenty of glycogyn reserves afer sitting in the secondary. The cells should wake up fine when fed fresh wort. An important issue is to avoid "yeast shock" which could lead the cells to excrete nasties back into your beer. So, just be careful handling the yeast and it should wake up fine.

RE: Costs of all grain brewing.

JS has again fired up the snobbery issue and generated a lot of wasted bandwidth in the process. I am sure jack is pleased. What I want to comment on is the response that implied the reason to avoid all grain brewing is cost. It has been noted in this forum before that going all grain does not mean going broke. To sum up the costs needed (a low budget, workable setup):  
2 plastic buckets with the holes drilled in one, plus a spigot-\$10  
used 7 gallon SS kettle - 35-50\$.  
(maybe-corona mill-45\$,new)  
wort chiller, built at home, \$25.  
total- 65-130\$

now look at the savings-dry malt extract at my local store was \$9/3 lbs! So an extract brew would cost between 15-20 for malt, plus hops & yeast, 23-27\$/5 gallons.

All grain- 8lbs domestic 2 row at 30-50 cents/lb, 3-4\$. Add 2-5\$ for hops & yeast, \$5-9 per 5 gallons. The average homebrewer brews 10-20 times a year. At 10 per year, the extract cost would be between 230 and 270\$ per year. At 20, 460-540 per year. The same all grain brewer would spend ~50-90\$ at 10 per year, or 100-200 at 20 per year. So the cost would be recovered in 10 batches or so. Not bad, eh??

Jim Busch

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Date: Mon, 8 Feb 1993 12:26:53 -0500  
From: Matthias Blumrich <mb@Princeton.EDU>  
Subject: Brewcap

I just bought a BrewCap last weekend and I would like to know if anyone has any advice before I try it (including "you wasted your money" :-). One thing I found curious is the warning against dry hopping with pellets since they might clog the blowoff hose. I don't see why this is true. Would it be better to put the pellets in a hop bag which would contain most of them? Any advice is most welcome.

- Matt -

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Date: Mon, 8 Feb 93 12:59:00 est  
From: mtavis@gemini.hyperdesk.com (Mike Tavis)  
Subject: Increasing Yields and Yeast

After all the great advice I received on my "Diminishing Yields" post, I wanted to report back to the digest with my solution. For those who don't recall, my post detailed the drop in my extract rate as a function of the size my grain bed (the bigger the bed, the lower the extract rate).

One important piece of information that I left out in my original post was that I use a 5-gallon Rubbermaid cylindrical cooler with slotted copper tubing for my mash/lauter tun. My basic problem was that I wasn't raising the temperature of the grain bed enough during mash out.

Someone (sorry I forget the name) with the same setup said he/she adds near boiling water to raise the temperature of the grain bed to the 168-170 range during mash out. Naturally, the amount of mash out water that you add (restricted by how much room is left in the cooler) determines the temperature of the water required. At some point there isn't enough room left in the cooler to raise the temperature even with boiling water. Someone else (sorry again) said they get around this problem by draining the cooler, heating the removed liquid, and adding it back to the lauter tun.

I didn't have to resort to draining the cooler. I used the first technique and was able to bring my grain bed up to 167. Previously, I used the sparge water (at 170) to do the mash out. I never took the temperature of the grain bed in my old process, but I would guess that it was in the mid to high 150's.

The result of the new process was a much faster sparge as well as an extract rate of 29 pts/lb/gal. Also, the wort come to a boil noticeably faster. I want to thank everybody that contributed their thought and experience to my problem.

On another note, I've noticed that certain yeasts strains have characteristic fermentation styles. For example, WYeast 1056 seems to have an very active start and ferment out quickly. WYeast 1007, on the other hand, seems to have a slower drop off and continues to ferment for longer. These observations are based on the highly scientific glugs per second model, but they do seem to be reproducible. I was wondering if there was any real analysis of the fermentation styles of different yeast strains? Thanks again.

- -- Mike

o o | Michael Tavis, HyperDesk Corporation  
o o | Suite 300, 2000 West Park Dr., Westboro, MA 01581  
----+ E-mail: mike\_t@hyperdesk.com (508) 366-5050

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Date: Mon, 8 Feb 93 09:20 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Wine

>From: connell@vax.cord.edu  
>Subject: homemade wine

>I have noted with curiosity that while there is discussion of sidelines to beer brewing that shows up on the digest (cider, mead), there is almost no discussion of homemade wines.

While HOMEBREW Digest should provide the answer, it does not really explain why cider and mead are discussed far more frequently than wine.

My guess is that it has something to do with the universal availability of apple juice and honey vs the regional availability of grapes. The other lies in the beer vs wine drinking statistics of Americans.

>I have never read about or experimented with homemade wines, but I have the idea that people just dump concentrate and water in a carboy and add yeast.

If that is the standard ritual, it is no wonder few people do it. It hardly is a program for great wine.

I have made wine for years and used everything from dandelions and sugar to home grown grapes.

With the proper grapes and scientific procedures one can make excellent wines. Using concentrates and your procedure, one has a hard time improving on the cheapo jug wine and concentrates are very expensive.

I am sitting on my most recent batch which I described in detail here during the startup stages but there is little to say about it while it sits for months on end. I don't expect the final report in less than ten years and it does not make for great discussions. Furthermore, as good wine requires fresh grapes, it is a seasonal project and I won't start another batch for another year.

However, as long as you brought it up.... I do think I learned something from this batch that seems to confirm what has been said before.

The wine contains 5 gals of home grown apple juice, and 11 lbs home grown elderberries, grapes and mulberries.

I heated the apple juice to 170F and added the fruit and thus sterilized everything. The wine tasted terrific all through the process but now it is



obvious that it is never going to clear properly. I tried gelatine,  
betonite  
and now honey and oak chips.

The word is that the heat destroys the enzyme that reacts with pectin  
and the  
pectin will remain in suspension forever. One can add a pectin  
destroying  
enzyme during fermentaion to overcome this evil but I took my chances  
and  
seem to have lost. I am going to experiment with a small amount of the  
wine  
and the enzyme at the present stage and will report what I learn.

Well there you have it. Be back in a year or so, on wine, that is.

js

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Date: Mon, 8 Feb 93 12:29:38 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: Re: cold break

>I got reacquainted with my grain mill et al last weekend. I brewed up a  
10  
>gal batch, everything went well. Then I ran it through my counter-flow  
chiller  
>and really ZAPPED it with Boulder's near-freezing tap water, causing a  
great  
>cold-break. I had a semi-slow moving 1056 Wyeast starter going so I  
pitched  
>the two carboys and went to bed. My wife just gave me a copy of  
Miller's  
>Complete Handbook, and he seems to go to great lengths to get the wort  
off  
>the trub, racking soon after pitching. I left the stuff in there and it  
>settled out and formed a semi-solid layer on the bottom, even the  
churning  
>ferment of the last few days has left it pretty much undisturbed  
EXCEPT  
>it seems to have all these little "worm-holes" in it. It's as if during  
the  
>active primary ferment some part of the trub has been used by the yeast.

> 1)does leaving the cold-break in the primary (a feature of a counter-  
flow  
> chiller) harm the beer?

Yes. Side-by-side tests done by a reader of this forum concluded  
that the effects were most objectionable when combined with the lack  
of a blow-off for the primary. Personally, I feel that I can tell  
the difference, but one cannot be objective about it without side  
by side comparisons. I can say that not racking detracts from the  
clarity of the beer, if not corrected by cold aging or the use of  
clarifiers.

> 2)does it help the yeast, nutrients etc.?

Yes. The yeast will feed on the cold break, and leaving the wort on  
the break will help the yeast get started. Miller claims that after  
fermentation begins, the hop resins in the break will cause fusel  
alcohols to be produced. Possible solutions are:

- a) pitch the yeast, let it sit on the break for a few hours, then  
rack off into the primary. disadvantage: if you use a quick starting  
yeast (i.e. Whitbread) and wait too long, it will stir up the trub  
at the bottom before you have a chance to rack. Also, if the yeast  
starter has fermented out (post high-krausen), much of the yeast  
will settle to the bottom and never make it to the primary.
- b) let the break/trub settle (possibly overnight in a refrigerator)  
this corrects the disadvantages of (a), but adds to the risk of  
infection, as the yeast is not pitched immediately after cooling.  
If you chill the wort below 60F or so you will sufficiently inhibit  
any foreign bacteria and there is nothing to worry about, assuming  
you have been sanitary in your procedures. The yeast does not  
get to initially feed on the trub, but I would argue the advantages  
of letting it do so, anyway.

c) use an immersion chiller and leave the trub in the brew kettle. This saves on time and the number of fermenters required (and the time to clean them). disadvantages: the wort is more prone to foreign bacteria in an open kettle while cooling than when using a counterflow chiller, and you will not be able to see the dividing line between the wort and trub (unless you are using a pyrex boiler \$\$\$). When I use this method I squeeze the hops to get the last little bit out, then transfer this with the remaining trub in the kettle into 1 gallon glass jug(s) and let sit in the fridge. After a day at really cold temps you can recover quite a bit more clear wort (typically .5-1 gallon for me) and either re-boil it and add it to the fermenter, or add it to the next batch. This is mainly a problem when using lots of leaf/plug hops.

> 3)is a beer-style thing (lagers no, ales yes)

At colder temperatures the yeast will not stir up the sediment on the bottom of the fermenter, so there will be less contact between live yeast and the trub, as in your case. You can still rack the beer off as long as this layer remains undisturbed (though you may have to restart the siphon several times if CO2 keeps stopping it). The cold temps used in conjunction with lager yeasts will usually leave the trub layer intact, but fusel alcohols are much more objectionable in lagers than in ales.

> 4)can anybody tell the difference?

See (1)

> 5)any ideas on what has been taken out of the trub to make the worm-holes?

Some clumps of yeast which were trapped in the layer became active and created them as they rose back into solution. Alternatively, they may still be trapped in the layer, but the escaping CO2 bubbles created the holes.

bb

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Date: Mon, 08 Feb 93 12:11  
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)  
Subject: Summer Skiing at Mt. Hood

The Northwest division of the Professional Ski Instructors of America (PSIA-NW) holds three summer race camps each summer at Mt. Hood. The dates for this year are:  
3-day camp July 23-25  
5-day camp July 28-Aug 1  
3-day camp July 30-Aug 1

I haven't seen pricing information yet for this year, but it normally costs around \$200 (if my memory is correct) for the lessons and lift tickets for a 3-day session. The 5-day sessions are a little more. Food and lodging are up to you. (Some people take a tent and camp out.)

Most of you are reading this thinking that I've sent mail to the wrong digest. However, consider the dates:

3-day Summer Race Camp, Mt. Hood July 23-25  
AHA National Convention, Portland July 26-30  
Oregon Brewers Festival, Portland July 30-Aug 1

Looks like quite a week. Its been on my calendar for quite a while now, and I thought that I would share this opportunity with any skiers out there.

The camp is offered to instructors first, and if it doesn't fill up by some date (not announced yet this year), they open up registration to anyone. Email questions/requests for more information directly to me so as not to take up any more space here. Send to: ccastell@eldec.com

ignore whatever my mailer says my return address is. (I am a yearly participant in the race camp, not an organizer, so I have no financial interest in the program other than having spent money on it!)

Charlie

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Date: Mon, 8 Feb 93 15:12:24 EST  
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)  
Subject: Re: Extract Brewers, Yeast Attenuation

To quote (and beat the proverbial dead horse):

>Keeping in mind that lots of people stick with extract because they are  
lazy,  
>paranoid or il-informed (blah blah blah) .....

So, Jack, since \*YOU\* were still an extract brewer right up until the  
middle  
of last year, which were you-lazy, paranoid, or ill-informed? Maybe you  
left  
one out?

If anyone else gets as ticked off as I do with stupid statements like  
that quoted above, I've been advised our only recourse is to FLOOD the  
poster with private e-mail stating how we feel. Please do; I am!

On a (Thank God!) completely different topic, does anyone have handy a  
chart  
of yeast strains attenuativity (attenuitiveness??). You know, when  
they'll  
poop out, assuming perfect aeration, enough starter, etc.? I think it was  
posted fairly recently, but of course I can find it. Mucho gracias.

Dave Van Iderstine

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=====  
==  
== Dave Van Iderstine Senior Software Engineer ==  
== Xerox Imaging Systems, Inc.==  
== UUCP: uunet!pharlap!orgasm!davevi davevi@pharlap.com :INTERNET ==  
-----  
-==  
== All Extract, Damn Proud! ==  
=====  
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Date: Mon, 08 Feb 93 12:17  
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)  
Subject: Slow WYeast Growth

I have packet of Vintner's Choice (WYeast) Champagne yeast from last September. I've had it in the refrigerator until I could find suitable apple juice to make this year's cider. (Actually, I've had a tough time finding suitable juice this year, so I guess I just go with what I have.)

I whacked the pouch the evening of 2-2. By morning on 2-3, there was SOME growth. By morning of 2-4, it was where it normally would have been after 12 hours. Now on 2-8, it has hardly changed since 2-4. The envelope is not tight at all, and I am in no fear of going home and finding yeast all over the walls of my kitchen.

Prior experience with beer and champagne WYeast has been similar to what has been reported here, namely that the activity seemed strong in spite of an extra month or three. Since nothing has happened lately, should I:  
1) assume the nutrient isn't nutritious, and pour it into some starter?  
or  
2) toss the packet, not wanting to throw good cider after bad yeast

Charlie  
ccastell@eldec.com

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Date: Mon, 8 Feb 93 14:42:28 CST  
From: gdmccconn@mspe5.b11.ingr.com (Guy McConnell)  
Subject: Irish Red Ale (again)

Ulick Stafford writes:

> Guy McConnell reproduces a blurb from Coors' about Killian's Red.  
> Much of it is true other than the fact that it paints Old Adolphus  
> and family as being something other than Ogres.

Well, I didn't reproduce anything except nuggets from a fading memory. I don't even recall for sure where I came by this information but it wasn't from Coors directly. I called Coors a "kindhearted" megabrewer, an oxymoron if ever there was one. I even put in the quote marks as above. I mentioned the fact that Coors had removed virtually all of the beer's character and decided that it should be a lager (I'm still not sure about that part - \*was\* it an ale when it was brewed in Ireland?). I also mentioned that micros and homebrewers were responsible for reviving the Irish Red Ale style, much like porter. I don't credit Coors with doing anything except making Killian's fit in the American mass market by sucking the very life out of it. That is why I would violently oppose Budweiser getting their hands on the real Budvar. The one saving grace of Coors is that they are the only megabrewer still producing a decent, all barley beer, albeit seasonally, in Winterfest. We couldn't even get that here in Huntsville this year. I don't count Miller's "Special Reserve" because there is not a dime's worth of difference between that and "Genuine Draft" in spite of the "all-barley" hoopla. How anyone could use all barley and produce a beer so lacking in any sort of beer character is beyond me. I guess I expected too much. Anyway, I was being quite sarcastic in my treatment of Coors' motives and if I painted them as "less than Ogres" it was not intentional.

By the way Ulick, I found your posts on the state of Irish brewing most enlightening. It is a shame that the producer of so fine a beer as Guinness Stout would use such tactics to keep a stranglehold on the market.

- - -

Guy McConnell gdmccconn@mspe5.b11.ingr.com  
"All I need is a pint a day"

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Date: Mon, 8 Feb 93 15:25 CST  
From: korz@iepubj.att.com  
Subject: Sanitizing counterflow chillers/All-grain snobs

DLAMARPL writes:

>Several sources indicate the hazards of using alkaline solutions (e.g.  
>chlorine) to sanitize copper. None I have seen, however, suggest  
alternatives  
>other than boiling. What are effective sanitizing agents for equipment  
that  
>cannot be boiled (e.g. counterflow wort chillers)?

Ahh, but you *can* sanitize a counterflow chiller with boiling water.  
Boil  
up some water and siphon it through the chiller with the cooling water  
turned  
off.

\*\*\*\*\*

Regarding all-grain snobbishness, I'd like to say that indeed, it's a  
stupid  
thread and those who still care about it should all take it off-line.

But before we do, I want to get in my two pence ;^):

I spoke with Jack yesterday at the CBS US Ale Fest at Goose Island and it  
appears that he has gotten lots of private email regarding his post. I  
feel that this is the best course of action when you disagree with a  
person's  
post in the HBD. Let's not all overreact here. I agree that Jack's post  
took an abrasive tone but so did Greg's. Are we counting wins and losses  
here? Let's not let our egos get in the way of brewing beer. Let's not  
take every post as some kind of life-threatening situation. It's not.

Personally, lately I've been so busy these days (I've recently opened  
a homebrew supply store *in addition to* working at AT&T) that it's hard  
to find the time to brew an extract batch let alone the time to brew  
all-grain, so virtually all my recent competition entries have been  
extract beers. In fact, my last 12 prize-winners were all extract +  
specialty grain beers. It just goes to show that good beer *can* be  
brewed without mashing.

Al.

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Date: Mon, 8 Feb 93 15:30 CST  
From: korz@iepubj.att.com  
Subject: Re: recirculation FAQ

Chris writes:

>Since many topics come up in cyclical manner it would be nice if they  
>could be  
>answered in a FAQ format. And since some topics have more than one  
>accepted  
>answer the FAQs should try to show all sides of an issue.  
>  
>So to get the ball rolling here is an example:  
>  
>FAQ #0000-000:  
>  
>[Note that 0000 indicates the number of the FAQ and -000 indicates its  
>version.  
> The version mechanism allows mistakes and inaccuracies to be corrected  
>and  
>newer information to be included in newer versions of the FAQ.]

Sounds good, but: 1) where will they be kept -- I, for example, cannot  
FTP

anything from any of my machines and I've had great difficulty getting  
stuff from the archives, and 2) "0000" is not very informative -- there  
would of course have to be an index, but who would maintain this?

>FAQ #0001-01: Recirculation: What is it, and should I do it?

>  
>Recirculation is a practice employed in the lautering of mashed grains  
>where  
>the turbid sweet wort is collected, as it is runoff, and recirculated  
>through  
>the grain bed until the runoff becomes clear.  
>  
>Most sources of homebrewing information will tell you that you should  
>employ  
>the practice of recirculation to avoid significant amounts of chaff in  
>the  
> [etc.]

I have a few comments, not actually mine, but they've been posted here,  
so  
I'm recirculating (pun intended) them.

Micah wrote:

> There have been some questions about both head retention (beer)  
>and chill haze problems. I think that a large portion of the problem  
>is a lack of lipids in the wort.  
> Lipids are very important elements for proper beer stability.  
>Lipids are unsaturated fatty acids, this means that they are available  
>to form new bonds with other elements of the wort. Although only a few  
>ppm of lipids are present in finished wort, they can have far reaching  
>effects on factors such as yeast viability, ester formation, gushing  
>and flavour staling. Small variations in brewhouse procedure can produce  
>large variations in wort lipids. Lipids adhere to trub particles ( trub  
>contains up to 50% lipids) and to filter materials. Spent grains are high  
>in lipids. A turbid top runoff from the lauter tun can contain 5 times,  
>and even 40 times as many lipids as the clear wort runoff from the same  
>mash. Also yeast will autolyze if it does not receive small amounts of

>ergosterol or unsaturated lipids.  
> North American grown barley malt contains very small amounts of  
>free fatty acids (3.2-3.5 mg/l) opposed to european malts (18-26 mg/l).  
>Insufficient fatty acid levels can result in high esters in the  
>finished product and can also be responsible for gushing problems in the  
>finished beer. The addition of unsaturated fatty acids can cure gushing.  
>While the addition of saturated fatty acids tends to increase gushing.  
>The content of unsaturated fatty acids has a strong influence on the  
>formation of fermentation volatiles, notably the acetate esters. A wort  
>that has been stripped of lipids could produce a beer too high in  
esters.  
> I believe that a shortage of lipids may be a problem that  
>homebrewers encounter because of their obsession with mash extraction  
>yields. This need to eke out every trace of sugar from a mash, leads  
home  
>brewers to practice wort recycling and or flauffing. These can be risky  
>sparging techniques with regard to hot side aeration as well as  
stripping  
>lipids from the wort. Recycling is the collecting of the wort as it runs  
>out of the lauter tun and pouring it back over the grain bed. Many  
brewers  
>claim that recycling should be done to settle the grain bed. Flauffing is  
>the collecting of the wort as it runs out of the lauter tun, boiling it  
>and then returning it to the top of the grain bed. These practices not  
>only give opportunity for hot oxygen and wort reactions, but also strip  
>out fatty acids (which North American grown malts are low in) that are  
>essential for proper yeast nutrition.  
> I have long felt that mash recycling was a bad thing, in that  
>it tends to remove a lot of large particulate matter that would  
otherwise  
>be in the boil. I feel that these particles ( husks and grits mostly)  
>provide a place for proteins to clump onto during the boil and then  
>settle out more effectively in cooling.  
> I have observed much clearer finished wort (cooled) from my  
>boils, when the mashes were conducted with no recycling of wort than  
>from those of other brewers whose worts were made by recycling the mash.  
>  
>  
> Micah Millspaw 3/31/92  
>  
>  
> A lack of sufficient lipids will cause the finished beer to have  
>stability problems one of which is head retention. Above it was  
mentioned  
>that additions of lipids could cure gushing, I would make it clear that  
>gushing is a head retention problem, and that it causes acn be the same  
>as those responsible for no head formation at all.  
>  
>Micah Millspaw 6/3/92

Note that I asked Micah (in private email, via Bob Jones) to give me sources for more info on this "need for lipids," but I guess he was (understandably) too busy with his new venture. It's not that I don't trust Micah, but when someone introduces something so different from what I've read before (why haven't I read \*something\* about this before?), I have a tendency to doubt first and read up on it. Can anyone (George? John? Mike?) substantiate this "need for lipids?"

Darryl wrote:

>> From: Phillip Seitz <0004531571@mcimail.com>  
>> Since this is a friendly forum I'll ask what seems to me to be  
>> the obvious: why is extensive recirculation any different from  
>> sparging with very large amounts of water? My question refers to

>  
>Because the pH of the wort is low, recirculation will not remove  
>tannins. But when you sparge, you may, depending on the ions present in  
>your water. This is the reason that Dave Miller suggests adding a bit  
>of lactic acid to your sparge water.  
>  
>> the extraction of tannins and the dreaded "teabag" effect (which  
>> I have been able to create in the privacy of my own home!). It  
>> seems to me that either way there will be a fair amount of rinsing  
>> going on. Based on George Fix's posting yesterday, this  
>  
>The idea of recirculation is not to rinse, but to give the grain bed a  
>chance to form, and thus hold back all of the solid material.  
>  
>It usually takes me about 20 minutes, or 5 gallons, of recirculation on  
>a 15 gallon batch. This through a Coleman 80 quart picnic cooler with  
>a slotted copper pipe manifold.  
>  
>> recirculation DOES result in some tannic/husk extraction. Well,  
>> how much is too much (recirculation, that is)?  
>My motto is to recirculate until the wort is as clear as I want my beer.  
>  
>> I suppose this could also lead to questions about decoction mashing,  
>> since we're not supposed to boil our grains either.  
>  
>Yes, it certainly could. But the decoct is also quite acidic, so even  
>boiling in that circumstance does not extract substantial tannins.  
>Those that are extracted may be conglomerated and precipitate out with  
>the extra proteins that are also extracted, during the kettle boil.  
>  
> --Darryl Richman

(to be continued)  
Al.

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Date: 08 Feb 1993 20:32:43 -0500 (EST)  
From: WESTEMEIER@delphi.com  
Subject: Extracts knobs / overkill

On the subject of extract v. all-grain, I can't resist adding a data point. I've been a homebrewer for five years, all-grain for three. I have a friend who has been an extract/adjunct grain brewer for 15 years. I would give a lot to brew beers as good and as consistently as he does. It's practice and technique, I think, more than ingredients and method, that make for success.

On another topic, I'd like to thank Alan "Overkill" Edwards for his tables, charts, curves, and assorted efforts to put nice, neat numbers to our squishy, seat-of-the-pants approximations. I certainly appreciate it, and so do the other members of my local club.

Ed Westemeier, Cincinnati OH <<westemeier@delphi.com>>  
Member, Bloatarian Brewing League

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Date: Mon, 8 Feb 1993 20:48 EDT  
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>  
Subject: I need info on a research paper!

Hi all,

I am working on a research paper for my MA in History. I sleazed a coupling of brewing and research and managed to convince my professor that a paper on the consolidation of the brewing industry would be a good topic.

What I'd like to write about is how the United States, chiefly through prohibition, changed form a country with many breweries to one with a few super regionals and national breweries.

I'd also like to look into the resurgence of micro-brewed and homebrewed beers as a result of the bland offerings of the commercial giants.

I guess what i could use is some help in some sources. i can certainly search the New York Times index, and I've done some searching for texts. Any thoughts on places to look?

I will be sending letters to the Federal Bureau of Alcohol, Tobacco and Firearms (hopefully they wont haul me away on COPS) :-(. Could folks help me with addresses for the big breweries? Or other places out there which might have a treasure trove of material? Anything at UC Davis?

If anyone is initerested--I'll gladly upload a copy of the finished product--as long as I earn a decent grade ;-).

Thanks for all the help--could you reply via personal mail or via this forum with the header of "BREW PAPER". It makes life a lot easier. Thanks in advance.

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva  
Internet: oconnor@snycorva.cortland.edu

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Date: Mon, 8 Feb 93 22:09:07 EST  
From: dcheck77@Jade.Tufts.EDU  
Subject: Shipping Homebrewed Beer?

I am almost considering myself an amateur brewer at this point, having brewed two batches so far (both coming out surprisingly excellent -- luck?). I'm brewing up in the Boston area (Framingham specifically), and I was looking to send (heh heh) some of my beer to Santa Rosa, CA.

- a) Is this legal?
- b) Possible?
- c) Advisable?

If anybody wants to laugh at me directly, or possibly enlighten me as to some great news about my shipment dilemma, please do.

Thanks much,

--\_Dan Checkoway Student of Mechanical Engineering  
Tufts University Medford, MA 02155

email : dcheck77@jade.tufts.edu

"Up here in Boston we call it Frappe..."

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Date: 9 Feb 93 03:37:53 GMT  
From: SynCAcct@slims.attmail.com  
Subject: Whole Hops

In HBD1071 I posted a comment regarding leaf hops in reference to the loose hops I was purchasing from Freshops (not named in the post) and information I received indicating that they were sweep-ups because they were loose petals instead of whole cones. I received this email from Glenn Tinseth and am posting it with his permission.

I will continue to use Freshops with no reservations tnks to Glenn's legwork.

I continue to be baffled as to why some brewers insist that their methods or opinions are exclusive. I have a hard enough time with life without this kind of crap in my hobby.....Glenn Anderson  
gande@slims.attmail.com

USUAL DISCLAIMERS.....

\*\*\*\*\*  
To: internet!attmail!slims!gande

Glenn,

First of all let me compliment you on your name. I am a not yet prominent west coast hop retailer (The Hop Source) who deals exclusively in whole hops, imported and domestic. In a recent post you mentioned some alarming info about a "west coast hop vender" that you had received from the salesperson who sold you some Saaz hop plugs. I am a competitor with Dave Wills (Freshops) if that's who you mean, and would benefit if his business diminished. That being said let me tell you the following.

What you were told is complete and utter bunk, Freshops buys whole bales from Hopunion and repackages them in ziplock baggies. The floor is never involved except as a place for the person filling the bags to rest his/her weary feet. I suspect that the person who told you this does not know what they're talking about and may have a grudge against Dave although I can't imagine why. I really did check into this and representatives from Morris Hanbury, Hopunion, and GW Kent all said virtually the same thing, that the person who told you this is misinformed and also not a very nice person :-0

Whether or not a hop cone breaks into a bunch of loose bracts is dependent on many factors including the care the grower takes in harvest and drying, the subsequent handling received at the hands of the broker, and even the variety and weather conditions. I get hops directly from the UK (actually they are the hops that go into the 1/2 oz plugs) and they range from quite broken up to pretty whole depending on the lot and the variety. In any event there is \*no\* loss in brewing value when a hop breaks into pieces although it is definitely less aesthetically pleasing ;^)

Since you didn't mention the name of the hop vendor or the salesperson, I decided to e-mail this, if you want you can post all or part. I \*am\* very interested in knowing who said this so if you are OK with it let me know. There is no room for this kind of crap in this industry!!

Wow that feels lots better getting this off my chest. Thanks.



Take care,

Glenn Tinseth  
tinsethg@ucs.orst.edu  
503-873-2879

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Date: Tue, 9 Feb 1993 01:15:53 -0800 (PST)  
From: David Schleef <dschleef@lclark.edu>  
Subject: Paulaner Hefe-Weizen

The yeast in the bottom of imported and domestic bottles of Paulaner is very hard to re-propagate since all Hefeweizen at Paulaner is pasturized. This piece of information I know as a fact, since working on the bottling line (and in the brewhouse) was part of an one-month internship I did last March at Paulaner. I donot know, however, the exact difference between the yeast used for bottling and the yeast used in the primary ferment (never thought to ask) but I would imagine that the bottling yeast is a special bottom fermenting strain and the primary yeast is a top fermenting weizen strain.  
David Schleef  
dschleef@lclark.edu

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Date: Tue, 09 Feb 93 07:59:37 EST  
From: thutt <thutt@MAIL.CASI.NASA.GOV>  
Subject: Garumph. Enough with 'real brewers'!

In regards to the vapid discussion about 'real brewers', let me pose the following questions.

- o Do you drive?
- o Do you know how to set the points for your car?
- o Can you overhaul your engine?
- o Do you know how to do brake work?
- o Can you use Bondo? (have you tasted it?) (can you get the catalyst off your hands? if so, how?)

If you have not answered 'yes' to all these questions, you are obviously an amatuer driver, and a danger to those of use who CAN, and DO, all of these things. Please stay off the road.

My point? Get a life people.

This is getting to be more stupid than alt.sex.wanted. There are different levels of interests for hobbies. (ex: My mother collects porcelain dolls. Other people collect barbies. Both collect dolls, but neither is better nor worse than the other).

You began making beer because of some personal reason, for your own consumption. Quit comparing yourself to other people. If you are happy with the beer you make, then drink it, and share your experiences.

If you are not happy with your beer, give it away, tell us what you did wrong, ask for advice on how to fix it, and share your experiences.

The discussion on bees was much more entertaining that this crap.

Taylor Hutt  
Championing worldwide usage of Oberon-2!

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End of HOMEBREW Digest #1074, 02/10/93  
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Date: Tue, 9 Feb 93 8:26:42 EST  
From: Jim Grady <jimg@hpwarga.wal.hp.com>  
Subject: hbus & ibus

First of all, thanks for all the charts and formulae for hbus -> ibus given boiling time, S.G., etc. I do still have a question however. I have seen that pellets have different utilization than whole hops (both in this forum and in some of the homebrew books); indeed hop plugs have yet another utilization rate. Yet, none of the charts nor formulae contain any reference to the form of the hops. Does anyone have any suggestions here? Am I worrying too much? Should I just use what I have as a starting point and see how I like the results?

- - -

Jim Grady | "Talent imitates, genius steals."  
Internet: jimg@wal.hp.com |  
Phone: (617) 290-3409 | T. S. Eliot

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Date: Tue, 9 Feb 93 07:40 CST  
From: arf@ddsw1.mcs.com (Jack Schmidling)  
Subject: QC, Archive, Snobs, Iodophor

>Fm: Jim Busch

>PS: to JS- My lauter tun/open fermenter does indeed have a spigot. The only problem with taking ferment SG readings is that what comes out is yeast sludge!

True but my "QC" samples were tongue in cheek. They never get near a hydrometer. The first squirt is a bit yeasty but with the you-know-what screen at the other end of the spigot, I get a fairly clear "sample" to taste.

>From: neilm@juliet.ll.mit.edu ( Neil Mager )  
>Subject: Special Archive Proposal

Let me make another proposal. How bout explaining what an archive is and how one goes about accessing it before you expand on a special archive.

.....

> Various, Snobs...

Again, I am forced to defend my statements on "all-grain snobs" but prefer to do it without personal references because this thread is simply going the wrong way again. I am sure that I could benefit from sensitivity training but I wasn't able to sell my business at 40 and retire to a life of leisure because I was a fool or a tyrant. One key to success is to find out what people really intend, want and mean and not try to explain to them what they mean.

I listed many reasons why people make extract or all-grain beer, some positive and some negative and some with a value to be assigned by the brewer or reader. To isolate the meanest and thrash the messenger with it is not only unfair but deflects the discussion into an endless stream of useless personal attacks instead of getting to the bottom of the issue.

Viz..... The economics is one major factor in the issue and it certainly is true that one can make a batch of extract beer with less initial expense than a single batch of all-grain beer.

However, as one refines his extract process, he ends up within a few dollars of an all-grain brewery. When you get right down to it, the only thing one

really needs to do all-grain is a large enough kettle to boil it in.  
These  
are available for \$30 at ACE Hardware and \$5 more will get you a  
homemade  
Easymasher in the same store. I am sure if one haunts garage sales, one  
could get it down even further. That and less than \$10 for ingredients  
will  
put you in the all-grain business. Most of the rest of the gadgets  
and  
gizmos are just as useful and important to the serious extract brewer as  
they  
are to the all-grainer.

One final point, I posted the same article to Compuserve and received  
not a  
single negative comment. Again, I am not sure what this portends but it  
is  
food for thought.

>From: "Rick (R.) Cavasin" <cav@bnr.ca>

>My incentive for using an iodophor was the hope that it could be reused  
more  
than bleach (iodine less volatile than chlorine?) and hence less would  
go  
down the drain (and into the air I'm breathing!).

Precisely my reason (breathing) for trying it. That is, in addition to  
the  
fact that I got a free sample in the mail. However, I don't think that  
it  
has anywhere near the useful life of bleach.

I do not feel comfortable with the 1 minute contact time with a  
sanitizer so  
I always used bleach full strength or at least 50:50 and I use this  
stuff, 1  
oz to the gal. There is no shortage of clean water around here so I  
have no  
qualms about thorough rinsing.

I don't like the chlorine fumes and I usually wear a respirator when  
doing a  
keg or my pump and hoses. I like being able to do a simple one time  
rinse  
with the iodophor and not having to worry about the fumes or pitting my  
kegs.

I was a bit disconcerted when a fresh batch came through the pump almost  
clear. I suspected oxidation so I did some experiments by shaking  
samples in  
closed testubes and the color does not change no matter how much or over  
what  
period I shake it.

I have no idea where the iodine goes or why it changes color. The is  
not  
enough water in the system to dilute that much.

I guess, untill I have a bad batch of beer, I will continue to use it.

As as aside, I tried using it for the starch test and it is totally  
ambiguous  
and unsuited for the test.



js

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Date: Tue, 9 Feb 1993 08:43:46 -0500  
From: mgx@ornl.gov (Michael D. Galloway)  
Subject: Malted Barley

OK,

I've got my 10 gal. cooler with false bottom and associated plumbing, I've got my 8.5 gal pot, and I've got my immersion chiller: I guess I'm ready to mash. I am going to get 8-10 lbs of British Pale Ale malt this weekend and do "it". However, I recall (please pardon my poor memory) a thread (hey, a real thread and not a flame thread!) pertaining to high quality malts (Belgium?). Could someone with a good handle on that thread please point me to the appropriate HBD issue numbers or email me a summary. I am interested in using these malts. Also, could someone post or email this newbie a description of what comprises a high quality malt (proteins/nitrogen/modification/?)

i.e, what are the important factors. Are all malts fully modified these days? How do you determine this information?

Hey BadAssAstronomer, how about a few bottles of my first all-grain batch?

Inquiring (and Forgetful) Minds Want to Know!

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Date: Tue, 09 Feb 93 08:45:59 EST  
From: thutt <thutt@MAIL.CASI.NASA.GOV>  
Subject: DAB recipes? Yeast Culturing, and others.

Does anyone have a recipe for a DAB beer clone? If not, do you know what IBU it has? What type of malt/hops would produce that flavor?

Secondly, what is the general concensus on Bigfoot Barley Wine? I tried it, and felt that it tasted EXACTLY like SN Pale Ale, only more alcoholic; I was not impressed... I expected something different. Is this how a BW is supposed to taste?

Could someone provide me with the number to one of the science houses that sells flasks & test tubes?

Does anyone have any 'caveat emptors' for the mail order places that are advertised in Zymurgy? (Are some less reliable than others? I've noticed some strange variations in price too...)

I've also gotten a book published by G.W. Kent on Culturing Yeast that should be avoided, if you like the English language. The book seems to be technically correct, but is so full of errors (bad editing, grammatical errors) that I will probably write a nasty letter of complaint to the publisher (it's in its third!!!! printing, and it STILL has this many errors).

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Date: Tue, 9 Feb 93 09:12:46 -0500  
From: rodin@ftp.com (Jonathan A. Rodin)  
**Subject: Re: John Harvard Brew House**

The beers currently sold at John Harvard Brew House are not brewed there. They only recently got their license to brew and so their first beers are still weeks away from being servable.

Jon

- - -

Jon Rodin      FTP Software, Inc.    voice: (508) 659-6261  
rodin@ftp.com 2 High Street    fax:    (508) 794-4488  
                 North Andover, MA 01845

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Date: Tue, 9 Feb 93 10:05:19 EST  
From: drew@scorpio.ic.cmc.ca (Drew Scott)  
Subject: stainless-steel pot

For those of you who live in eastern Canada, I found a source for 30 quart (US) stainless-steel pots. I don't know who manufactures them (no label) but they seem fairly sturdy. The regular price is only \$65 but I got one on sale for \$50. I know the same pot is sold elsewhere for over twice this price. The address of the store is:

Ares Equipement Ltee  
4913 Boul. St-Charles  
Pierrefonds (Montreal), Quebec  
H9H 3E4  
Tele: 514-624-0386  
Fax: 514-624-4550

I have no idea if they will accept orders over the phone.

Andrew

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Date: Tue, 9 Feb 93 09:41:56 EST  
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)  
Subject: Re: Spiced Ales, DME vs. syrup

In HBD #1073, Jonathon Knight asks:

|>has anyone tried BOTH the technique of adding whole spices at some  
|>point to the boil AND adding powdered spices at the end of the boil?

I used to add whole spices somewhere mid-boil, and found that, for some of the spices, their aroma/taste was being boiled off, particularly things like orange zest or vanilla. Others, like ginger, would last through and overwhelm completely. I tend to steer clear of ginger now, both `cuz it easily overwhelms, and I just don't like its flavor!

I switched over to powdered spices near the end of the boil (5-8 minutes) and am much happier with the results now. It has become very easy to get consistency from batch to batch with this method, I find. I've settled in on a particular recipe of my own creation which I have made several years running now, and I can be assured it'll "taste right" when done.

There may be some dispute, though, over just how fresh powdered spices might be, and that'd I think affect their utilization in the wort. The only advantage I can see to whole spices over powdered is this "freshness thing". And for certain spices, like orange zest, there is no powdered alternative, nor need there be. Add that one near the end of the boil for best results. And be aware that "oily" spices, like coriander, will severely affect head retention and even bottle conditioning (carbonation) - that is, really retard it!

Finally, I find it easier to control quantities with the powdered versions. And believe me, they're \*small\* quantities! Nothing over 1 1/2 teaspoons goes in, some as little as 1/2 teaspoon!

On the subject of dry malt vs. syrup extract-I use only Munton & Fison dry malt extract, have for 5 or 6 years, make great beer w/it, see no reason to change. Also, I buy it 55 lbs. at a time, to minimize cost. I go w/their lightest variety, & use specialty grains for flavor/color.

Dave Van Iderstine

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===
== Dave Van Iderstine Senior Software Engineer ==
== Xerox Imaging Systems, Inc.==
== UUCP: uunet!pharlap!orgasm!davevi davevi@pharlap.com :INTERNET ==
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-==
=="I haven't got time for instant gratification!" ==
-----
-==
=="I've got plenty of time, however, for that ALL-EXTRACT beer." ==
=====
===
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Date: Tue, 9 Feb 93 9:49:05 CST  
From: Gregory C. Seher <lippy@cwis.unomaha.edu>  
Subject: beer

Yee, yee i know 'dat all you'ds be makin' home 'de brew. Yet we de see  
all of the sea, in my bell-e Coors Light 'tis for thee.  
Peace.

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Date: Tue, 9 Feb 93 10:59:40 EST  
From: Ulick Stafford <ulick@schumann.helios.nd.edu>  
Subject: 3.2 a/w, Spaten Hefe Weizen, Never mind the full grainers, d

Tom Colvin regrets that only 3.2 alc beer is available in grocery stores in Utah. 2 points. That is not unusual even in more liberal states such as Minnesota. In Indiana 3.2 are not sold, but grocery stores need a licence to sell beer, and can't sell it chilled. And nowhere can sell it on Sundays, unlike in neighbouring states due to a bible belt part in the south. But at least it is cheaper than neighbouring states, and we don't have an inane law like MI's 10cent return charge (but why can't all beer sale laws and prices be like Wisconsin?).

3.2 is 3.2 by weight ~4% by volume, so it is not gruesomely weak. It is stronger than many European table beers.

Spaten usually sell Hefe Weizen under the brand name, Fransiskaner, which is readily available. I cultured from it once, think I got Krausen, but by the time I was ready to pitch, it was not lively and the culture seemed to have a aa tart lactic acid flavor, so I used a substitute (Fleischman's baking yeast - don't laugh the beer eventually was award winning), but I suspect with proper sanitation it is a viable yeast.

Never mind whole grain snobs, us decoctors look down upon them with an even more snobbish disdain - what they are too lazy to stir a thick decoction and spend up to 8 hours mashing (but then I only do double decoctions and I'm sure triple decoctors think I'm ignorant and lazy, and hop growers and barley malterers think they're lazy, and people who grow and harvest, and malt and mash their own barley and wheat and irish moss look down on them).

RE natural carbonation. I have had a hard time priming lagers even with sterile wort, canned from the batch. The perfectly cleared lagered beers have so few viable yeast cells that carbonations takes 3 weeks or more. I will just prime ales and will now krauesen lagers in future (and us krauseners look down with a snobbish disdain on primers - even those who prime with sterile wort and especially those who think they're krauseners because they've never read a book more advanced than Papazian's work, which of course us advanced snobs know, incorrectly defines Krauesening).

:-) :-) for humor impaired

Ulick Stafford  
\*\* Heineken!?! Fuck that shit ... Pabst Blue Ribbon!!! \*\*  
(my very first sig ... now resurrected)

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Date: Tue, 9 Feb 93 13:00:05 EST  
From: rowan@ocean.rutgers.edu (Andy Rowan)  
Subject: all-grain snobs

Jack Schmidling (arf@ddsw1.mcs.com) writes in HBD 1071:

>Keeping in mind that lots of people stick with extract because they are  
>lazy,  
>paranoid or il-informed and further keeping in mind  
> [etc. etc.]  
>Having said that, I suggest it is the extract brewers' insecurity,  
>sensitivity and paranoia that creates the image that all-grain brewers  
>are  
>snobs.

Gee, Jack, you don't suppose it might also be because you characterize us  
as lazy, paranoid...

-----

Date: Tue, 9 Feb 93 10:08:58 PST  
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>  
Subject: A New Journal

If you read the Celebrator this may be old news to you, but a new magazine devoted to the technical side of homebrewing, pub-brewing or microbrewing is about to make its debut. Called "Brewing Techniques", it will break new ground in homebrewing (as far as I know) by being an honest-to-goodness "peer review" journal. The Editorial Advisory Board (the peers who do the reviewing) consists of Patrick Baker, Byron Burch, Fred Eckhardt, Teri Fahrendorf, George Fix, Terry Foster, Mary Anne Gruber, Dave Miller, Greg Noonan, David Ryder and Bill Siebel. Impressive! The clear wort of usable brewing information certainly seems unlikely to be beclouded by the trub of unsupported speculation presented as fact, with a panel like that reviewing submissions.

The magazine will be published 6 times a year, at a subscription price of \$30. For an unspecified time there will be a \$24 introductory rate for "charter" subscribers. To subscribe, send a note with your name and address information to:

Brewing Techniques  
P. O. Box 3076  
Eugene, OR 97403

You'll be billed after the release of the first issue, scheduled for May. To discuss advertising rates or editorial questions, call Stephen Mallery, Editor, at 503.683.1916.

I think this may be the magazine many of us have been waiting for ...

= Martin A. Lodahl Pacific\*Bell Systems Analyst =  
= malodah@pbmoss.Pacbell.COM Sacramento, CA 916.972.4821 =  
= If it's good for ancient Druids, runnin' nekkid through the wuids, =  
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

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Date: Tue, 9 Feb 93 12:22 CST  
From: korz@iepubj.att.com  
Subject: Re: recirculation FAQ (continued)

I have one more piece of info on the recirculation issue that wouldn't fit in my last post.

George Fix wrote:

>A minor data point. Dave Miller uses 2 hours of recirculation  
>on a 15 bbl. (465 gal.) commercial brew. His recirculation times  
>with homebrews was shorter.  
>  
>Dave and I have discussed recirculation at length over the years.  
>He gets a grainy/husky flavor in his beers (homebrew and commercial)  
>which he finds to be attractive and desirable. I have different  
>aspirations  
>for the beers I brew. Neither of these viewpoints are amenable to  
>rational analysis. What we have here are matters of style, and  
>subjective  
>opinion. Besides, just think what a boring world it would be if we were  
>all  
>making the same beer with the same procedures.  
>  
>As Micah pointed out (at some point in the early summer), the low lipid  
>levels  
>of US 2 row malt like Klages means that very little recirculation should  
>be needed to get a clear runoff. (Malt properly crushed helps here as  
>well.)  
>Wort trub has a very high fatty acid content. The Belgium malts  
>definitely  
>have a higher lipid content, and I find that recirculation of ~4 gallons  
>in  
>a 13.3 gallon (50 liter) batch is needed to get proper clarification. So  
>far  
>grainy tones are not indicated, but the final judgement will have to  
>await  
>an analysis of the finished beer. If grainy flavors do show up, then I  
>will  
>modify the recirculation procedure.  
>  
>George Fix

Okay Chris, perhaps you would like to take all this and incorporate it into the FAQ? Note that first we need to debate/resolve the "need for lipids" issue.

Al.

-----

Date: Tue, 9 Feb 93 12:23:33 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: Chinook hops

Kevin says:

> ObBrewing: No takers on my question about flavor/aroma properties  
> of Chinook hops, huh? Do any commercial brews use them?

The books I've read seem to disdain the use of Chinook for aroma and bouquet. I've used 'em for both bittering and aroma and don't recall that the results were particularly good or bad. The complaints are harshness and poor storability, if I recall.

Centennial is far superior in my opinion. Try dry-hopping with a half and half mixture of German Hallertau and Centennial. Fragrant, fresh, and yummy. Wow!

=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: Tue, 9 Feb 1993 13:56:24 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: fining -> diacetyl

Lee M.,

I'd vote that adding finings early on in the secondary is what is causing the high diacetyl in your beer. In fact, this is just what happens

with Samuel Smith beers, except their yeast flocs out because of the nature of their slate fermentation vessels. Give the yeast more time in suspension in the secondary to reduce the diacetyl.

Another source of high diacetyl is low oxygen levels at the beginning of the primary ferment. If your ferments are slow or weak, and finish with a high final gravity, this may also be adding to your problem.

Russ G.

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Date: Tue, 9 Feb 1993 10:58:56 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: A Beer Odyssey (Act I)

## A Beer Odyssey

I don't much like sweet beers. The Brown Ale style is not one of my favorites. I'm not so much a hophead as I am a "malthead". I like beers heavy, fairly dry, and very well-balanced. Bitter is fine, flowery is right out. (I point this out so you'll have a handle on my perspective later on. Beer with me!)

Having said that, one of the best beers I've ever tasted is Downtown Brown Ale, from Lost Coast Brewing in Eureka. It's just sweet enough, with just the right level of hops; it's one of my favorite beers of all time.

I had my first taste of Downtown Brown Ale at the 1992 Fort Mason Beer Festival in San Francisco, and I've enjoyed it at a number of festivals since then. I had always determined to visit the brewery and sample their beers firsthand, and one particular weekend in August was finally the right time. My plan: drive from San Leandro to Eureka on Saturday, visit Lost Coast in Eureka and Humboldt Brewing in Arcata (as long as I'm there), spend the night in Eureka, and drive home Sunday morning. Simple enough.

The Friday before the trip, I met my friend Jake at Brewpub on the Green in Fremont. We talked about his recent trip to the Hockey Hall of Fame in Toronto, we had a great dinner (they make some fine hamburgers there, honest!), and we had a taste of all of their beers:

Wheat - 4.0%. Seems to be an American style, but hints of Bavarian (clove) character. Maybe a wheat lager?  
Lager - 4.2%. Same characteristics as Wheat, but not as sweet.  
Amber - 4.2%. Nice color, fruity like an amber should be. Good stuff. Very slight Irish moss (?) flavor.  
ESB - 6.0%. Just like the Amber, only more so. The alcohol really comes through in the flavor.  
Porter - 5.0%. OK - rather light and benign. ("Benign" being the opposite of "assertive".)

Like many of the microbreweries, the brewers at Brewpub on the Green have really improved their beers over the last year or so. So many breweries were making...well, bad beer a year or two ago, and those same breweries are making some of the best now. Brewpub on the Green is no exception.

At eight o'clock in the morning on Saturday, August 15, I got in my trusty Cougar and hit the road. I fought the early weekend Bay Area traffic and headed north on US 101. As usual, I skipped breakfast... why should today be any different? (Little did I know...) Around ten o'clock, I was feeling mighty dry. I checked my map for potential lunchtime stops...and there it was! Just an hour away - the Mendocino Brewing Company of Hopland, California! I had been there before...good beer, good food, and most importantly today, perfectly placed for a lunchtime respite!

I drove into Hopland around 10:45, just a few minutes before opening time. I waited in my car, checking my Celebrator and my map for any more potential stops on the way to Eureka. Hmmm...Anderson Valley is

out of the way, and North Coast is even further. Too bad.

Magically, the clock struck eleven...it's opening time! And would you believe the added bonus: it was the brewery's Ninth Anniversary. The party started immediately; the barbecue was fired up, and the Eye of the Hawk Ale was flowing. There was a geezer at the bar (named "Norm", appropriately enough) who claimed that he had been there every day since the day the place opened. There was a camera crew working on a documentary of Northern California brewpubs. I tell ya, the place was hoppin'! For lunch: a barbecued buffalo steak, done to perfection. I had a round of samplers to go with my lunch:

Peregrine - Thin, yellow. Very light. Certainly a good "transition" beer, useful for the re-education of drinkers of industrial beer.  
Blue Heron - Somewhat better. Slightly more body and flavor, little aroma.  
Red Tail - OK amber ale. Good color, flavor not as strong as it could be. MUCH better on tap than bottled!  
Black Hawk - Good black thick roasty. A little sweeter than I like, but good enough for serious quaffing!  
Eye of the Hawk - I need a pint of this to tell if I really like it.

My pint of the Eye of the Hawk Ale was really remarkable. It's their "special" ale, brewed only for special occasions like today. It's an outstanding, full-bodied ale, darker than the Red Tail, and with a similar but much more assertive flavor. It's too bad this is such a rare beer.

[To Be Continued...]

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Date: Tue, 9 Feb 93 14:35:51 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: hops plugs & G.W. Kent (NOT!)

I was at G.W. Kent on Saturday, so I asked them about hops plugs. Randy said they had added them to their catalog this year, but then were unable to get any from the supplier. Something about a bad crop this year. So, G.W. Kent is not shipping hops plugs at this time. If you thought you got some with the G.W. Kent label, you must be confused. The only ones I've seen are imported by Crosby & Baker.

He also said that as far as he knows, any plugs on the market now must be from the 1991 crop. If this is true, then my experience with plugs speaks very well for their keeping ability. As I said yesterday, the plugs I bought recently had the freshest hops I've ever used.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Tue, 9 Feb 93 13:33 CST  
From: korz@iepubj.att.com  
Subject: Re: Wet dream/ridding oil from plastics

Jack writes (quoting Paul):

>Bacto WL Differential Medium has the same formula as Bacto WL  
Nutrient Medium, with the addition of 0.004 g of Actidione per  
liter. This inhibits the development of yeasts without  
interfering with the development of bacteria generally  
encountered in beers.

A most enlightening article. However, if this is in response to the  
discussion about a medium that rejects or encourages "wild yeast", it  
seems

to confirm my opinion that such a medium is a wet dream.

I believe another poster mentioned that the media which contains the  
Brom Crestal Green (sp?) will identify different yeast strains because  
each has its own characteristic pH, thus being stained a slightly  
different  
shade of green. This is the key to the isolation of yeasts using this  
media. But you can still have wet dreams about it if you wish... ;^).

\*\*\*\*\*

Tom writes:

>Our brewing club recently brewed a beer with chocolate in it. Does  
anyone  
>have any idea on cleaning the oil out of the plastic tubing and buckets  
>easily? We were trying to avoid using dish washing detergent since they  
>normally leave behind stuff for anti-spotting and who knows what else.

Well, it has been pointed out in many texts and in this forum, that  
there's  
BIG difference between soap and detergent. I'm not a chemist, so I don't  
really know what that difference is (chemists, please chime-in and  
explain).

I too, have been wondering if using dishwasher \*detergent\* (one without  
any special additives for sheeting, i.e. anti-spotting) would be okay for  
glassware and brewing equipment. What about pure Sodium Carbonate  
(washing  
soda)?

Al.

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Date: Tue, 9 Feb 93 11:57:16 -0800  
From: SCHREMPP\_MIKE/HP4200\_42@pollux.svale.hp.com  
Subject: Worst brew

Tim Anderson's discussion of "bucket conditioned beer" sounded a whole lot like the first time I fermented something (on purpose). A couple of suggestions from my experience:

1. Steal the sugar from a restaurant packet by packet.
2. When the flavor of the brew prevents it from being consumed, add some unsweetened lime Koolaid. (I did this before Jonestown made lime Koolaid famous... or was that grape?)

Mike Schrempp

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Date: Tue, 9 Feb 93 13:18 CST  
From: korz@iepubj.att.com  
Subject: Re: Hops Cultivation

Brian writes:

>The Problem: I have no idea as to what variety these hops might be. We  
>live in the infamous Willamette Valley, so I at least have the obvious  
>first guess. Does anyone out there know of a good reference book that  
>would allow me to key out this beast. Perhaps a "Peterson's Field  
>Guide to Hops and Grains."

I suggest the Hops Special issue of Zymurgy -- in it there are photos of  
virtually every common hop cone and it's corresponding leaf. Since you  
live in the Willamette Valley, I suggest that you make use of the wealth  
of local knowledge. Take some cuttings to a grower and ask them to  
identify. I'll bet that the big commercial facilities have extensive  
libraries too.

>Other Questions: Papazian suggests that the soil for growing hops should  
>be loamy and kept continually moist during the growing season. We have  
>excruciatingly high clay content in our soils and have never watered at  
all.

I give each plant about 6.25 gallons of water every morning via a  
timer-controlled soaker hose. Water makes a big difference. Initially,  
I gave each hill (4: Hallertauer, Hersbrucker, Nugget and Willamette)  
three 1 foot coils of soaker hose for 15 minutes per day. I soon noticed  
that the Willamette was doing much better than the Nugget, which was  
doing  
better than the Hersbrucker, etc. I noticed that the soaker hose was  
spewing more at the near end than at the far end (I should have known).  
After re-arranging the hose to give the far-end hills more hose, the  
growth rate seems to have evened out.

>Nevertheless the plant has done quite well. Will the quality of the  
>hops be affected by my lack of care? Or should I follow the adage "If  
>it ain't broke, don't fix it?" Also, how much will AAU vary with time  
>of harvest, amount of watering, etc. And lastly, is there any  
moderately  
>low-tech way of determining AAU of homegrown hops?

If you pick too early or too late, you will not get as much AAU as if  
you picked at the right time. It seems to me that the general consensus  
is that when the cones begin to feel light, springy and papery as opposed  
to  
heavier, smushy and damp, it's time to pick. I found that not all the  
hops are ripe at one time. I just set up a ladder and picked-off the  
ripe  
ones once per week.

I've asked about low-tech ways to determine %AA and the only one I could  
come up with is brew experimental batches and use your tastebuds. If  
someone knows how to determine %AA using simple chem, please post!

Al.

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Date: Tue, 9 Feb 93 15:19:02 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: Spiced Ale

>From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>

>I made my first spiced ale this year and boiled orange zest, ginger  
>root,  
>cinamon sticks and whole cloves for about the last thirty minutes. It  
>has a bit more bite than I intended, although the beer does taste quite  
>good. I am wondering whether I boiled the stuff too long and whether  
>powdered spices at the end of the boil would produce a "kinder, gentler"  
>brew.

OK, some more opinions:

- 1) Why should it make a difference whether the spices are powdered or  
not,  
as far as your question goes? Does it assume that all the spices are  
left in the brewpot and none get into the primary?
- 2) I am now firmly convinced that the only way to add spices is to "dry  
spice", by adding the spices only to the secondary. After all, we  
know  
that the amount of flavor and aroma contributed by hops boiled a long  
time is much less than that of hops boiled a short time or hops not  
boiled at all (dry hopping). Why should spices be different? And  
since  
I only use spices for flavor and aroma, I dry spice.

Did a real nice job on my Pumpkin Pie Ale. Plus, you don't have to use  
powdered spices if you don't want to, just let them sit longer in the  
secondary.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Tue, 9 Feb 93 14:01 CST  
From: korz@iepubj.att.com  
Subject: Re: chimay yeast

Drew writes:

>The yeast in Chimay is not a single strain. It is either 3 or 5. I  
>forget which, but I think it is 3. If you plate it and isolate a  
>single cell for building a culture, you will only get one of the  
>three.

To the best of my memory, every source I've read says that Chimay is brewed from a single yeast strain. It has been widely publicised that Father Theodore was the man who isolated Chimay's current fermentation yeast and really cleaned up the beer. I've read somewhere, perhaps the bottle, that Chimay adds yeast during bottling - -- I recall that there was no mention from this source of whether the yeast added at bottling time is the same as the fermentation yeast or different. Nor do I recall if they mentioned filtering out the fermentation yeast. The bottling yeast may be the same as the fermentation yeast since maintaining two strains of yeast is twice as hard as maintaining one and it's not like the bottling yeast in Chimay is a particularly good flocculator (like SNPA's yeast is).

Orval is brewed from a single yeast also, but then bottled with a mixture of 5 yeast strains. My source is one of the Jackson books (either the pocket guide or the New World Guide to Beer... I suspect the latter). I feel, from my experiments, that one of the 5 bottling strains is the fermentation strain, the one that produces the characteristic banana/bubblegum nose of Orval.

Another multi-strain yeast is Whitbread. George Fix wrote this quite a while ago that Whitbread is a three-strain yeast. My cousin has noted that along with the change in bottles, Whitbread Ale has lost that characteristic "dark bread" flavor. I have yet to verify this. Anyone else notice this? Note that Wyeast #1098 bears a striking resemblance to Whitbread yeast ;^).

Al.

-----

Date: Tue, 9 Feb 93 12:05:56 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: chimay yeast/recipe idea

> The yeast in Chimay is not a single strain. It is either 3 or 5. I

Yea, I was wrong. That's what I get for trying to be helpful and  
posting from a year old memory.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Tue, 9 Feb 93 13:15:31 -0700  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Malting Wheat

Does anyone out there know anything about malting wheat?

I buy (unmalted) whole wheat (for baking purposes) for about 15 cents a pound. Looking at this the other day, I thought I could make some decent Weizen if I could maybe get a small batch of the wheat malted. In addition to expanding my skills as a brewer, this would save me a bundle over what my homebrew supplier charges for malted wheat (about \$1.50 per pound - an order of magnitude higher!) Anyway, I tried malting a little the other day, and found it hard to determine when the grain was fully modified. The "steely-mealy" test (mentioned, I believe, by Miller) does not seem to work here. The grain, when wet, is soft and mealy, but is completely steely when dried. I even tried mashing several ounces of this malted wheat in a "micro-micro" mash tun (along with about 33% 6-row barley malt), but got very poor conversion.

Does anyone have any experience with this, or know any good references? Email me, and I'll post any significant/interesting information, as well as let you know if I have any success with this. (Or does anyone else really care?)

Too busy to make a fancy sigline...

Kelly Jones (k-jones@ee.utah.edu)

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Date: Tue, 9 Feb 93 10:42:15 EST  
From: chuck@synchro.com (Chuck Cox)  
Subject: BBW wins again!

Here's an update on the Sam Adams vs Boston Beer Works nonsense.

Jim Koch (dba Boston Beer Company, aka Sam Adams) lost his appeal in Federal District Court. Koch has the right to appeal again, and given his attitude he is likely to do so. His lawsuit against the Commonwealth Brewing Co is still pending.

I wasn't at the trial, but I heard that Koch presented witnesses who claimed to have gone to the BBW, disliked the beer, and blamed it on the BBC. Under cross-examination they were all discredited. One admitted to being too drunk to remember any details of the visit. Another objected to a 'foul aroma' which turned out to be the smell of a batch being brewed (something Sam Adams fans generally have to go to Pittsburg to experience). Like the original suit, the ruling on the appeal was quick and decisive; Jim Koch does not own the word "Boston".

So what happened to me?

Koch never followed up on the subpoena they served me. We had to reschedule it, and they never got back to me with a new date. I think they lost interest when it became obvious that I am not an employee or representative of the Beer Works or the Sunset Grill, and that I was hostile and well-prepared. I got to keep the \$46 federal witness fee, and Koch had to spend some money to file & serve the subpoena, so I did my part to waste Koch's money.

I am still boycotting Sam Adams products, and I urge you all to do the same. Since Koch has introduced more lawsuits than beer styles in the last year, I think it is safe to say that the Boston Beer Company is a law firm and does not deserve to call itself a brewery.

I want to thank you all once again for your letters of encouragement and outrage. I had intended to keep them all in defiance of Koch's subpoena of my personal correspondence, but I ran out of disk space and had to delete them.

By the way, I never heard from the person who is forwarding my posts to Koch. I am not surprised. It is obvious that the weasel doesn't have the spine to stand up for his/her own actions, typical for a Koch crony.

To Koch & his email droid: You are both losers, and the brewing community would be better off without you. I will continue to publicly criticize your business practices, and encourage consumers to boycott your products.

I am thinking of starting a new brewery, "The Adams Family Boston Brewing Company". Any interested investors? Any interested attorneys?

(for those who recently tuned into the HBD: Jim Koch has taken to suing any brewery that uses the word "Boston" in the company name or on any of their products. I, and all my personal correspondence referring to local breweries were subpoenaed by Koch in his appeal against the Boston Beer Works. I have no affiliation with the BBW except as a satisfied customer and friend of the owners. The subpoena was pure harassment meant to stifle my outspoken public criticism of Koch & Co.)

- - -



Chuck "Boston" Cox <chuck@synchro.com>  
Starve a lawyer - boycott Sam Adams Beer.

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Date: Tue, 9 Feb 93 15:29:48 CST  
From: wood@ranger.rtsg.mot.com (Dan Wood)  
Subject: Souring Wort

A brewing friend has become enamored with soured beers, Samuel Smith's Taddy Porter in particular. He would like to replicate this taste in his own brew, using an extract recipe. We both frequently do partial mashes with adjunct grains, so suggestions in that vein are certainly within his capabilities.

So, if anyone could share his experiences, both success and failures in souring beers (intentionally :) we would be most grateful. Please feel free to respond via email if you prefer, I will summarize and post a follow-up on results.

Happy brewing! Or, "fermenting" :( for those who share my pride in producing fine beers from extract.

Dan Wood  
wood@rtsg.mot.com

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Date: Tue, 9 Feb 1993 13:33:05 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: Archives

In HBD# 1071, ex-beginner Russ Gelinas recommends:

>Read *\*all\** the HBD archives. Yes, all. IMHO,  
>the HBD archives are perhaps the richest source of homebrewing info  
>available.

Here at Wind River Systems Technical Support, we have a knowledge base system called TOPIC (made by Verity in Mountain View CA). It lets us search all of our old calls, bug reports, useful email, etc, so we can answer customers' questions much more quickly and easily than before.

Of course, the first things we loaded into the system were the entire HBD archive, the ASCII Cat's Meow, the publist, and tons of other net.brew\_stuff, and we update it monthly. Mighty informative! Mighty useful!

have fun  
Richard Stueven  
Technical Support Manager  
Wind River Systems, Inc.  
510-814-2166

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Date: Tue, 9 Feb 93 14:24 CST  
From: korz@iepubj.att.com  
Subject: Re: diacetyl?

Lee writes:

>I have recently begun brewing all grain batches, 5 or 6. A constant  
>comment about my beers is that they contain noticable levels of  
>diacetyl.

>I discussed my brewing process with an experienced all grain brewer  
>who too was having this problem with his beers. We decide that since  
>the yeast strains we were using 1056 and 1098 are not noted for high  
>levels of diacetyl in their flavor profile that the following could  
>be flaws in our brewing process:

>2) Adding finings immediatley after racking to the secondary. We did  
>this to induce CO2 generation to purge the head space. This would cause  
>the yeast to prematurely fall out of suspension thus reducing the  
>quantity and the time in which the yeast was reducing diacetyl.

BINGO. That's your problem, IMO. I feel that you don't have to add  
the finings to generate CO2 production -- by the time you are transferring  
to the secondary you already have some CO2 dissolved in the beer. When  
the beer travels over the top of the siphon hose (just past the highest  
point)

it is at slightly a lower pressure and some of the CO2 will come out of  
solution, taking up your head space. Another method, is to use your  
kegging setup to squirt a bit of CO2 into the secondary before racking.  
It's heavier than air and will minimize oxidation \*during\* transfer too.

>What can I do to produce high levels of diacetyl and minimize its  
reduction

>if I want to brew something with a Samuel Smith profile? Is a warm  
>ferment with a yeast strain noted for diacetyl production and fining  
>immediatley after primary fermentation the way to go ?

I think so.

Al.

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End of HOMEBREW Digest #1075, 02/11/93

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Date: Tue, 9 Feb 93 16:49:26 EST  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: all grain snobs, diacetyl

Hi All,

Just my .02 worth on the issue of all grain snobbery. I think the whole debate is ridiculous. "All grain brewers are snobs" and "extract brewers are lazy, paranoid, and ill-informed" are both groundless, sweeping generalities, neither position is logically defensible.

IMHO, any person who cares enough about good beer to spend the time and effort to brew thier own is a kindred spirit. Slowly but surely, the level of beer consciousness in this country is rising, which is at least partly attributable to the recent growth of the homebrewing craft. That said, what earthly difference does it make \*how\* the homebrew was produced? I for one am not going to turn up my nose at very good beer just because it was brewed using procedures that differ from my own.

\*\*\*\*\*

In HBD #1073, Lee Menegoni writes:

>I discussed my brewing process with an experienced all grain brewer

I should preface my comments by mentioning that I am this experienced all grain brewer. "Experienced" in this case is a relative term, I've been grain brewing for about 6 months longer than Lee, I've done perhaps 15-20 more batches than he. Having tasted his beers on many occasions (YUM!), I consider us as being at about the same point on the learning curve.

>2) Adding finings immediatley after racking to secondary.

I admit to being somewhat obsessive about clarity, I used polyclar when racking ales because I wanted crystal clear beer. While this achieved the desired effect, I did end up with noticeable levels of diacetyl. Polyclar is rather indiscriminate about what it scrubs out of the wort, it will cause the yeast to fall out of suspension quickly. This does diminish the ability of the yeast to reduce diacetyl.

>What besides pitching to wort at fermentation temperatue and finning after

>the yeast has settled or not at all what can we do to reduce the production

>of diacetyl and increase its reduction later? I still plan to artificially

>carbonate it seems to make for clearer beer and I can drink it sooner, 3

With my latest batch of ale, I did not use finings at all. Once the beer had fermented out, I racked to a keg, put a CO2 blanket on it, and left it

in the fermentation room at 65F for 2 days. My reasoning was that racking the beer roused some yeast back into suspension at a time when there were no fermentables, a favorable condition for diacetyl reduction, according to the Zymurgy troubleshooting issue. Leaving it at 65F for two days ensured that the yeast will not settle quickly, providing it with an opportunity to work on the diacetyl. I then chilled and force carbonated the beer as usual.

How well did this work? The brew has been conditioning since Sunday, should be ready soon. Lee, when you come over on Thursday night to pick up the yeast culture, let's tap it and see.

Ah, the joys of experimentation :-)

Cheers,  
Jim

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Date: Tue, 9 Feb 93 18:54:48 EST  
From: mcharry@freedom.otra.com (McHarry)  
Subject: Enzymes and temperature

I know that enzyme activity varies with temperature, but I have never seen discussed whether one can run a mash up to the upper 150s to break down some of the starches, then drop back to 148 or so to finish off the dextrins. Does the higher temperature just favor the one enzyme system over the other, or is the lower temperature system actually destroyed? I have always thought the latter, but the literature is unclear, and it would seem the malting process exceeds those temperatures.

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Date: Tue, 9 Feb 93 19:00:30 EST  
From: mcharry@freedom.otra.com (McHarry)  
Subject: Rye

I have been messing (literally) with a couple pounds of rye in my ale.  
The  
first batch I boiled the rye and dumped it into the mash. The rye failed  
to convert since it has a husk or membrane that failed to burst. This  
stuff needs broken up. I ran it through the Maltmill for the second  
batch  
and that worked much better, but-- when I dumped the spent grain into the  
garden I noted a darker area near the bottom of the bed. It was sweet!  
Apparently this stuff forms some gunky mass that needs roused into the  
sparge water a couple times after the first runnings. I shudder to think  
the yield I might have gotten had I known. As it was, I got 27.

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Date: Tue, 9 Feb 93 19:06:19 EST  
From: mcharry@freedom.otra.com (McHarry)  
Subject: Overnight mashing

I have been trying overnight mashing for the last couple batches, and I like the results. For the last batch, I doughed in with 130 degree water from the tap, did the protein rest, and added the rest of the water, still at 130. Then I popped the whole thing in a warm oven and went to bed. By morning the temperature had risen to about 163. I put the sparge water on with the coffee and had at it. The apparent time savings is great, and the extract seems just fine. Of course, this result is dependent on the size of the mash and the temperature your oven will hold. I find that a mash will heat just a little slower than an equal quantity of water, so put a pot of water in overnight and check the results. It might work for you also.

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Date: Wed, 10 Feb 93 7:14:14 EST  
From: rjsmith@iron.hq.afmc.af.mil (Randy Smith)  
Subject: Re: Cincinnati Brewpubs

As Juli recently said:

> I'm headed down to Cincinnati this coming weekend for a business trip  
> and was wondering if there were any good (or bad) brewpubs in the area.  
> I've heard that there is one right across the border in Kentucky, but  
> that is the only one that I have heard of.  
>  
> If you know of any in or around the Cincinnati area please send email  
> ASAP.

The brewpub you are referring to in Northern Kentucky is Oldenberg. They make some fairly good beers that you can get throughout most of SW Ohio and N Ky. Up here in Dayton (45min - 1hr from Cincy) there is the "Chickery" off I-675 on Ohio Route 725. They specialize in chicken (hence the name) and do it quite well. They also make three beers on the premises. I don't remember their names off hand but they have a red ale (pretty good), an American light pilner (standard stuff), and a wheat beer (never tried it). Food is great and the beer is good, worth the trip.

There is also a sports bar on Marshall Rd that has an Irish Ale made under contract with Oldenberg. The place is called Harrigan's. They have typical bar & grill food as well. Major meat market on Thurs night.

- --Randy--

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Date: 10 Feb 93 08:23:52 EST  
From: CHUCKM@PBN73.Prime.COM  
Subject: wyeast 2308 and other stuff

Hi brewers,

Here are a few items I am seeking opinion on:

1. Wyeast 2308 (Munich). The description of this yeast says that is sometimes 'unstable'. What does this mean. A friend told me that this yeast may quit before expected final gravity is achieved and rousing and extra aeration may be necessary.... any comments?
2. Does anyone know any specifics about Alexanders malt extract..eg, what type of barley(s), mashing specifics..etc.
3. There was an in Zymurgy for a software application called 'Brewers Logbook' (i think). It looks like a MS Windows application and sells for \$49. Does anyone have any experience with this program. \$49 seems a little steep to me.

Thanks and happy brewing  
chuckm

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Date: Wed, 10 Feb 93 09:49:39 CST  
From: jay marshall 283-5903 <marshall@sweetpea.jsc.nasa.gov>  
Subject: Clarifiers and dry-hopping

Hello all, I brewed up a batch a couple of weeks ago and, due to too much HB being imbibed during the process, I forgot to add my usual dose of Irish

Moss during the boil. No big deal, I thought, I'll just use some kind of clarifier before I bottle. Yesterday, looking at my beer sitting in the secondary, I thought about dry-hopping it. This leads to some questions. First, what is the best kind of clarifying agent (are there really any differences between using Isinglass, gelatin, or something else)? Second, will I run into any problems dry-hopping and using a clarifier? I plan to use pellets (in case that makes a difference). Finally, am I correct in assuming that the clarifiers only have an effect on the proteins, and that it will not affect yeast availability for bottle conditioning?

thanks,

Jay  
marshall@sweetpea.jsc.nasa.gov

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Date: 10 Feb 93 11:37:00 EST  
From: "CHESTER RYEGUILD CPS112" <forsythec@clvax1.cl.msu.edu>  
Subject: request

please put me on your email lists.

thanks.

chester

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Date: Wed, 10 Feb 93 08:55:08 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Lipids in wort

Most of the research on the lipid in wort topic was done by Micah. One of the references used was Declerck. This rather rare text is full of good info.

You may be able to check out a copy from your local library via an inter-library loan. I would really like to have a personal copy for my library, I would also like to have copies of both volumes of Malting and Brewing science. If anyone has unwanted copies for the RIGHT price, please

email. There is a more polished discussion of this lipid topic in the last issue of Zymurgy that Micah and I wrote, complete with references.

Bob Jones

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Date: Wed, 10 Feb 93 17:07:14 +0100  
From: steve\_T%fleurie@champigny (Steven Tollefsrud)  
Subject: Licorice for better head...

I have a couple of homebrew books which suggest using licorice as a way of promoting better head in beer. In a pharmacy here in France I was able to buy what they call reglisse, which are shriveled up sticks of wood (or root?) with a darkish nut color. They are about 5 inches long. My question is this, is this what I should be using or should I use the sort of black licorice sticks we used to gnaw on when we were kids (which is mostly molasses, I think)? I tried the woodish reglisse (half a stick, pulverized) in my last two batches and had good head, but I'd like to know if this can be attributed to the licorice I used, or if it might be the fact that I used unmalted barley in my wort for the first time (contributing proteins for better head retention?). The problem is I've got two variables and I don't know which helped.

If anybody who knows about licorice in brewing can advise me, I'd be much obliged.

Steve Tollefsrud  
Valbonne, France

e-mail: steve\_T%fleurie.compass.fr

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Date: Wed, 10 Feb 93 17:36:53 MET  
From: THOMASR@EZRZ1.vmsmail.ethz.ch  
Subject: re:wine digest.

hello again.

I've had four requests so far for the address of the wine digest. Well, I'm

going to have to disappoint you. I found a number of mail-ins at rusmv1.rus.uni-stuttgart.de (ip 129.69.1.12) a few months ago while browsing the vast archives they keep. However, since I already have more recipes and less storage space than I can use, I didn't make a note of where in the haystack the needle actually was!

I have a quick look today, and if you're feeling adventurous you might try /soft/kommunikation/news/spool/news and further down.

It is not beyond a shadow of a doubt that I was actually reading rec.food.drink or some such. I'm pretty sure it wasn't rec.crafts.brewing

though. Before you start chasing down the directories or getting teed off by being continually forbidden entry to the (VERY POPULAR) site, I'll let you know that the posts I read were very light on info and rather heavy on banter. This may have been an exceptional selection that I read, but you have been warned.

Rob TH.

p.s. I'll pass on any info I may remember/rediscover as soon as I do.

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Date: Wed, 10 Feb 93 11:25 EDT  
From: SIMONS22@WILMA.WHARTON.UPENN.EDU  
Subject: Baltimore/DC brewpubs

Hi....

I'm planning a little trip to see brew pubs and microbrewers in the Baltimore/Washington DC area. Looking for your suggestions and reviews.

Please mail me [save the traffic],

Alex Simons  
internet: simons22@wharton.upenn.edu

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Date: Wed, 10 Feb 1993 10:18:42 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: A Beer Odyssey (Act II)

A Beer Odyssey (Act II)

And up the road I went, and boy is it a long way to Eureka. I can hear the Downtown Brown calling me through the redwoods. By three o'clock, I was there.

It's a nice place, Lost Coast, with a lot of seating upstairs and downstairs, and a long brass-covered bar. A sign on the wall announces that the brewery was established on July 13, 1990; Friday the Thirteenth! I hope good luck stays with this place, because they make some of the best beers around.

The bar was nearly empty when I arrived, so I got to talk with Marty behind the bar for a while. I asked him if they had beer available for takeout in the plastic gallon jugs like many of the other California brewpubs. He told me that the Department of Recycling told him that those containers are illegal! I find this very hard to believe, because I've been to too many other breweries that offered this method of takeout, and I named many of them for him. I wasn't able to convince Marty, though; he said that all he knows is what the government tells him. I'd appreciate any information that will set either him or me straight.

I had a sample of each of their beers to wash down some mighty fine (mighty HOT) Buffalo Wings:

Pale - Very good pale, heavy body, light taste, well-hopped.  
Hefeweizen - Good smooth American style. Thick, just sweet enough. VGI. (Very Good Indeed!)  
Dunkel Hefeweizen - Very caramelly. If my memory serves me, doesn't it taste a lot like the Brown?  
Brown - Nope, the Dunkel Hefeweizen doesn't taste like the Brown at all...so much for my memory. Brown isn't nearly as sweet as the Dunkel Hefeweizen. An excellent brown! I like it better (side-by-side) than the Hefeweizen.  
Stout - Too burnt/astringent. I think maybe they should cut back on the black patent malt.

As I tasted their beers, and sipped my pint of Brown, I studied my map. I noticed that Highway 299 runs between US 101 and I-5. I also noticed that if I could get to I-5, I could stop at Sierra Nevada Brewing Company in Chico on the way home. I told Marty what I was up to, and asked him if Highway 299 was the best way to get to I-5 from Eureka. He told me that it was possible, but if I was willing to drive four hours or so out of my way, I could visit three more brewpubs along the way! I had to think about it for a few minutes, but not for too many.

Marty's advice: follow US 101 north (being sure to stop at Humboldt Brewing in Arcata) to US 199, continuing to Cave Junction, Oregon. There you'll find the Pizza Deli & Brewery. Continue on US 199 to Grant's Pass, Oregon, and pick up I-5 South. The Rogue Brewery is in Ashland, Oregon. Spend the night in Ashland, and head south on I-5 in the morning to get to Sierra Nevada in Chico. "Sure," says I, "and thanks for the tip!" And off I went.

I got halfway to Arcata (a quick six miles from Eureka) before I realized that I had forgotten the T-shirt that I had paid for at Lost Coast. At twenty bucks a throw, it's not the sort of thing you want to leave behind, so I made my only backtrack of the journey.

But soon enough I was in Arcata. I wasn't real sure what to expect, as I didn't remember tasting their beers anywhere, and I didn't have any lowdown on the brewery before I arrived. It's really a huge place, especially considering where it is! (Take a look at your California maps, and try to find Arcata.) For a very good writeup of the place, see Steve McClenathan's front-page article in the August 1992 Celebrator.

I would have liked to have spent more time here, because the beer was excellent! The real kicker: they were all served from real live hand pumps. In all my travels up to that time, I hadn't seen a hand pump on this side of the Atlantic. I was impressed! My round of samplers included:

Honey and Ginger Ale - 4.0%. It certainly is. Pretty good!  
Light...sweet, the ginger flavor is obvious.  
Gold Rush - 4.5%. OK, fruity light ale.  
Red Nectar - 5.0%. Good amber, well-hopped. I've seen bottles of this at Liquor Barn, etc.  
Redwood Amber - 5.5%. Better than Red Nectar, less hops, more malt flavor.  
Storm Cellar Porter - 5.7%. Pretty burnt, maybe too much for a porter. Pretty tasty, though...  
Humboldt Stout - 5.7%. Not as burnt as the porter, smoother.

Unfortunately, I didn't have more time to spend there; Oregon was calling. US 199 is a twisty path through mountains and redwoods. Beautiful scenery, and I'll bet it's even more impressive when you're the passenger in the car, rather than the driver. Distractions aside, I arrived in Cave Junction around eight o'clock Saturday night, and I found the Pizza Deli & Brewery right along the side of the road.

The name describes this place perfectly; it's a typical little pizza joint with a brewery stuck on the side! I bypassed the "Baitbucket Pizza" (shrimp, oysters and/or anchovies) in favor of a small "Deli Delight" (linguica, mushrooms, pepperoni, olives, beef, and sausage). (So sue me; I'm a carnivore.) I noted in their menu-cum-flyer that they use some imported hops, which I thought was a little strange in Oregon, considering the quality of the hops grown there. They also mention that their beers "are centuries old styles that have been the daily fare of sober, hard-working men and women - not necessarily high in alcohol or strong in flavor". That last clause - "not...strong in flavor" really caught my eye and set my expectations somewhat lower than they might have been. I was pleasantly surprised.

Light - Good pale - good pizza beer.  
Blackberry - It's a good porter. Can't taste the fruit, which is OK by me, since I don't like fruit beers.  
ESB - Not bitter enough to be called an ESB, but not bad at all.  
Dark - Good smooth dark ale. Doesn't taste very strong, though...  
Nut Brown Ale - "High in flavor but low in alcohol" - ain't that the truth.

Overall, five good beers, and some very good pizza. This stop really fortified me for what I thought would be the last leg of tonight's journey.

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Date: Wed, 10 Feb 1993 13:02 EST  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: All Grain comments and a recipe

So, I see people have been getting bent out of shape about how they brew their beer. I will simply note that this past weekend I entered a competition sponsored by CAMRA Ottawa, and my All Grain Oatmeal Stout placed third in a field of 14, but that the FIRST PRIZE WINNER WAS AN EXTRACT BASED STOUT. And, it was a good brew, too. So. I brew all grain because that's how I get the most pleasure out of brewing. My beers are good. But, Good Beer is made in many ways, the key being A GOOD ATTITUDE! So maybe we should lighten up, eh?

Anyhow, I recall a request some time ago for more recipes and less babble. So here is my CAMRA Third Prize Winning recipe, with comments for improvement.

"Breakfast of Champions" Oatmeal Stout

Water 35 litres mixed with 0.5 tsp salt and 1.5 tsp chalk to buffer the mash.

English Pale Malt (Munton and Fison 2.5 L) 2.8 kg  
Munton and Fison Crystal (60L ?) 0.8 kg  
Rolled Oats 0.4 kg  
Flaked Barley 0.6 kg  
Chocolate Malt 0.44 kg  
Roasted Barley 0.1 kg

All grains added to mash tun, put first liquor (11 litres) at 80C. Obtained strike temp of 64C (too low). Added 3 litres boiling water to obtain 66C. Mashed for 1 hour. Added 6 litres boiling water to mashout at 70C for 25 min.

Drained and sparged with 85C water (too hot). Collected runoff until SG 1.010. Boiled whole wort with 0.5 tsp powdered licorice, 227 g of lactose, and 7 plugs (0.5 oz, 15 g each) of English Fuggles 4.2 alpha. Boiled 1 hour, then removed as much of the hops as possible. Added Irish Moss, 10 grams, boiled 15 mins more.

Chilled in counterflow system, removing hot break but allowing cold break to settle in carboy. Pitched with active Wyeast 1084 culture. OG 1.050 in 22 litres.

Primary ferment 9 days to SG 1.030.  
Secondary ferment/maturation 24 days to FG 1.020. Both ferments at 22 C in closed vessels with locks or blowoffs.  
Bottled with 2/3 cup corn sugar.

Carbonation took about 3 weeks but gave nice result. Head retention is not optimal (oats are a problem). A bit excessively astringent and roasty, next time add the dark grains only in the mashout, add a bit more crystal. This one got 39.6/50 but the winner, AN EXTRACT STOUT, got 42.4/50!

So, There is my recipe, took all day, I had fun, but the extract product was judged the better beer. Ok by me. How about you folks?  
Cheers, P.

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Date: Wed, 10 Feb 93 13:35:42 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: Protein rest for dextrine malt?

I recently used dextrine malt (carapils) for the first time.  
It was US malt. 6-row I think.

7 # Munton and Fison pale ale malt  
2 # carapils  
1 # dark crystal

I used a one-step infusion mash in the low 150s. The beer is tasty but  
has a serious haze. Should I have given the mash a protein rest?  
The beer is still in the secondary. Can anything be done about the haze?

Cheers,

Rob "reviled originator of the insipid all-grain snob thread"  
(bradley@adx.adelphi.edu)

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Date: Wed, 10 Feb 93 11:58:38 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: cold break & pitching

I read Brian Bliss's post on cold break & racking off trub with interest. I've only got twenty batches behind me, but I thought my somewhat heretical methods might be of interest to those with as little or even less experience than myself. If some of you grown-up brewers out there would like to comment too, it would be great.

I boil my beer in a Vollrath pot (borrowed from a friend who is currently not brewing). I generally boil about 4 gallons, losing a gallon or so over the sixty minutes. I have pre-boiled and chilled, first in the fridge and then, while brewing, in the freezer, down to almost-frozen, 2 gallon jugs of water. When the boil is over, I stick the Vollrath in my kitchen sink, filled with ice water and dump the almost-frozen water in on top. I cover the pot & wait about a half hour or until all the ice in the sink melts. Seems to me I get a pretty good cold break from this.

Wort-chillers? We don' need no stinkin' wort-chillers!!!

Then, I rack the beer into my plastic bucket, add the yeast starter (I use the boiled DME + a couple hop pellets method) and stir like nuts, take the gravity reading, and rack into the glass primary (\$18 water bottle - \$8 deposit forfeit, and \$10 for water which made really nice beer once) to which I attach a 1" blowoff hose.

Now here's the heretical part. After having read the discussion of yeast nutrients in trub when it first appeared a few months ago, I decided to rack off not only the beer but just a little bit of break material too (maybe 1/2 cup or so). Also, in spite of all the \*worrying\* about temperature shocking yeast, I pitch at a relatively high temperature - usually in the 80's F. (I brew ales), because, o.k., well, my chilling methods DON'T work as well as a wort-chiller does - but the bottom line is that I always get fantastic starts (under six hours and a lot of crud in the blowoff bucket) and I've been getting some pretty decent beer the last few batches.

I imagine I am just being silly with that little bit of break material I rack off, but it doesn't seem to hurt anything either. And if there might be side effects from pitching at high temps, I'd love to know what they might be. At any rate, I may not be one of the World's Greatest but how

about one of the World's Cheapest (until my friend recalls his pot and I have to go get one)?

Any remarks would be happily entertained.

Jonathan

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Date: Wed, 10 Feb 1993 12:26:12 -0500  
From: Nick Zentena <zen%hophead@CANREM.COM>  
Subject: All grain costs and wine methods

Date: Mon, 8 Feb 93 9:20:23 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: yeast reuse correction & all grain costs

RE: Costs of all grain brewing.

>JS has again fired up the snobbery issue and generated a lot of  
>wasted bandwidth in the process. I am sure jack is pleased. What  
>I want to comment on is the response that implied the reason to  
>avoid all grain brewing is cost. It has been noted in this forum  
>before that going all grain does not mean going broke. To sum up  
>the costs needed (a low budget, workable setup):  
>2 plastic buckets with the holes drilled in one, plus a spigot-  
>\$10  
>used 7 gallon SS kettle - 35-50\$.  
>(maybe-corona mill-45\$,new)  
>wort chiller, built at home, \$25.  
>total- 65-130\$

Actually I started out for even less. 2 food grade buckets that I managed to get for free. a 32qt enamel canning pot. No wort chiller and precrushed malt. To be honest I was using the canning pot for full boils with extract so my only added cost was the tap on the buckets. Less then \$50 total including the kettle.

Cost isn't the issue but time is! If you don't want to set aside the better part of the day then don't. IMHO liquid yeast did much more for my beer then mashing did.

On the issue of wine making. Here in Toronto you can get US wine grapes in season.[Say late Aug-late Oct]. You can buy them either whole or get them crushed by the seller. A second choice is to buy pre-made musts of imported grape juices which are usually available year round.

If you are starting out with either the premade musts or pre-crushed grapes the effort required is much lower then beer and even simpler then the orginal method posted. [I.E. dump concentrate add water and sugar] At most you will have to add yeast. Of course you could stick to more traditonal methods and use the natural occuring yeasts on the grape skins. IMHO this tends to produce a wine of greater interest.

On the cost issue a standard case of grapes [36lbs] produces 2-2.5Imp gallons of juice [say 10litres+] with prices ranging from \$15-25cdn per case plus crushing costs [I think around \$1 we crush our own so I'm not sure] Must are higher priced.

Has long has you stick to relatively simple methods you will end up with drinkable wines. Avoid doing anything wierd like adding extra sugars or boiling the juice. The main point is to get good grapes.

Nick

\*\*\*\*\*  
\*\*\*\*\*  
I drink Beer I don't collect cute bottles!  
zen%hophead@canrem.com  
\*\*\*\*\*  
\*\*\*\*\*

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Date: Wed, 10 Feb 93 12:41:03 PST

From: "Jim Daly, Digital Equipment Corporation, Maynard, MA" <daly@mast.enet.dec.com>

**Subject: Fermenting in Stainless**

Can anyone comment on their experience fermenting in stainless? Specifically, I'd like to get away from using glass and the idea that comes to mind is to use cornelius kegs. For my primary I could replace a valve with a blowoff tube (although the diameter may be too small with the existing hole), and for a secondary I could replace a valve with an airlock or checkvalve. An alternative for the primary may be a quarter keg with the top removed, which would provide more headroom (7.5 gallons). I guess I could get really fancy and put a valve on the center-underside of the kegs to drain off the sediment during fermentation (the base of the kegs are cupped), similar to what is done with commercial tanks.

Has anyone tried something like this? Pros/Cons? Thanks...

Jim Daly  
daly@mast.enet.dec.com  
Digital Equipment Corporation  
Maynard, MA

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Date: Wed, 10 Feb 1993 14:23:00 EST  
From: Bill Ridgely FTS 402-1336 <RIDGELY@A1.CBER.FDA.GOV>  
Subject: AHA Conference Schedule

Yesterday, Charlie Castell brought to our attention the conjunction of a ski race camp with this year's AHA Conference:

>Most of you are reading this thinking that I've sent mail to the >wrong digest. However, consider the dates:

>3-day Summer Race Camp, Mt. Hood July 23-25  
>AHA National Convention, Portland July 26-30  
>Oregon Brewers Festival, Portland July 30-Aug 1

>Looks like quite a week. (Etc).

Well, as long as we're on the subject, here's another amazing conjunction that some of you may find interesting:

AHA National Convention, Portland July 23-25  
Oregon Brewers Festival, Portland July 30-Aug 1  
National Speleological Society Annual  
Convention, Pendleton Aug 2-6

For those not familiar with the latter, it's the national association devoted to caves and cave exploration. I've found over the years that a lot of homebrewers are also cavers (we have several in my homebrew club), and believe me, beer and cavers go together like Scotch and soda. Cavers are also generally crazy and like to party in a major fashion. The NSS Convention is a week-long campout with nightly parties including, among other things, "adult water sports" (sauna, hot tub, etc). Don't get me wrong - some serious science and athletic competition takes place during the day, but evenings are generally devoted to carousing and mass consumption (Does this start to sound like the AHA Convention?).

The fact that the two are colocated in time and space this year is a major reason for an old West Virginia potholer like myself to make the trip (although I'll be at the AHA anyway to co-present one of the talks).

Out of curiosity - any other caving homebrewers out there? Private e-mail preferred.

Bill  
ridgely@cber.cber.fda.gov

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Date: Wed, 10 Feb 93 15:00 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Chinook,Lag, Foam

>From: kstiles@aluxpo.att.com

>ObBrewing: No takers on my question about flavor/aroma properties of Chinook hops, huh? Do any commercial brews use them?

A number of brewers use them although at the moment I can not name them but it frequently comes up in trade journals. At last Sunday's ALEFEST sponsored by CBS, there was one that boasted of the use of Chinook exclusive and it was an excellent ale. Unfortunately, I do not recall the brand.

I have used almost nothing but Chinook for the past year in over 40 batches and am just now moving on to other varieties now that I have a bench mark.

I just bought some imported Hallertau to try in my first batch with Belgian Munich malt. I will let you all know if it is worth the expense.

I had routinely used a 1/2 oz plug of imported Saaz at the end of boil but as I could not tell the difference between batches without it, I quit doing it.

As far as aroma goes, I have nothing to compare it with yet but moments after dumping the Chinook into the boiling wort, the aroma that wafts out of the kettle can only be described as what I now consider one of the reasons I make beer. I will be most impressed if an exotic hops can improve on this.

>From: Lee Menegon <necis!lmenegon@transfer.stratus.com>

>1) Pitching into wort that was much warmer than the target fermentation temperature. We did this to reduce lag time.

If your diacetyl taste is coming from fermentation temp and you are concerned about lag time, I suggest you reconsider your priorities.

Presuming that you have a reasonable quantity of well working starter, the lag time will not be excessive if you pitch at or near primary fermentation temp. However, the most benign temperature is always whatever the starter is when pitched. If it is at room temperature, it should be pitched into room temp wort for minimum lag time and to minimize the shock to the yeast.

BTW, you did not mention just how warm "warmer" is so I am shooting in the



dark but I think in general, far too much concern is given to lag time and curing it by pitching "warm" is probably not worth the risk.

>From: korz@iepubj.att.com

> I urge you to try the blowoff method for a beer or two and compare.

I don't think I want to get into blowoff vs skimming again but I think that most people who use "open" fermenters skim the foam which is the equivalent of blowoff. The point made by the author was that removing the foam, by whatever means, severely reduces the quality of the beer. That is the mis-information we were dealing with.

For what it is worth, I tried blow-off once and wrote it off as just another one of those procedures that you either believe in or don't and no amount of discussion will change a believer's mind.

>From: korz@iepubj.att.com

>> I suspect that it might have a negative effect if Fix's hypothesis on HSA is correct. What say George?

>Oops. I think there's some miscommunication here, Jack -- the mash isn't hot at this time so Hot-side Aeration (HSA) is not an issue.

I was under the impression that the spray water being mixed with the grist was hot. As spraying it would significantly increase its surface area, it would dissolve more oxygen than if simple poured in. If cold, it would be even worse but of course become CSA.

>From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)

>>Keeping in mind that lots of people stick with extract because they are lazy, paranoid or ill-informed (blah blah blah) .....

>So, Jack, since \*YOU\* were still an extract brewer right up until the middle of last year, which were you-lazy, paranoid, or ill-informed? Maybe you left one out?

I am sure this will disappoint you but I have no problem recognizing that I was all of the above and I probably did leave a few out. This is precisely the reason I feel so strongly about my position. For the record, my first all grain batch was on Sep 23, 1991 and have not used extract since.

> If anyone else gets as ticked off as I do with stupid statements like that quoted above, I've been advised our only recourse is to FLOOD the poster with private e-mail stating how we feel. Please do; I am!

I much prefer your public comments to your trashy and vulgar email.

If anyone takes your suggestion, they will get the same treatment. As a matter of fact, if you do it again, I will start posting your trash to the Digest.

js

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Date: Wed, 10 Feb 93 15:52:08 MST  
From: Jena Davidson <G0463114@NMSUVM1.NMSU.EDU>  
Subject: address verification

Yes, you do indeed have the right address. I have just subscribed and am  
intere  
sted in recipes, news, techniques. What is your favorite beer? (imported  
and d  
omestic) Happy Valentines DAY!!!

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Date: Wed, 10 Feb 93 19:16:25 PST  
From: lfk%kerbit@uunet.UU.NET (Lynn Kerby)  
Subject: Irish Red Ale (again)

In HBD1074 Guy McConnell writes:

> The one saving grace  
> of Coors is that they are the only megabrewer still producing a decent,  
all  
> barley beer, albeit seasonally, in Winterfest. We couldn't even get  
that here  
> in Huntsville this year.

Too bad :- ( it wasn't half bad for a Coors product. I took offense a  
the word "STOUT" on the label where other domestic premium beers are  
labeled "MALT LIQUOR". Winterfest and stout are about as far apart as  
you can get in the world of beer styles like the Sam Adams Cranberry  
Lambic and real Lambics. I wish that domestic brewers would just stop  
being so pretentious and call their stuff what it is.

Lynn Kerby - [apple,amdahl]!veritas!lfk or lfk@veritas.com

Disclaimer: Any and all opinions expressed herein are my own and do not  
necessarily represent the views of anyone, especially my employer.

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wishes to try.

The number of known results are far outweighed by the number of unknown results, and this promises rewards to the experimentally inclined.

For example, I'm fermenting some black cherry juice from Napa Valley with Pasteur Champagne Yeast, the same yeast I use to make sparkling cider out of apple juice. I tried natural apple yeasts and liked the champagne yeast much better. Even if it doesn't taste good I can use it as an adjunct to another brewing experiment, like a fake cherry lambic.

- -- richard

=====

- -- richard childers rchilder@us.oracle.com 1 415 506 2411  
oracle data center -- unix systems & network administration

... whatever remains, however improbable, must be the truth.

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Date: Wed, 10 Feb 93 21:39:31 PST  
From: danforth@trinity.llnl.gov (Bill A. Danforth)  
Subject: Irish Brew

Hello All,

My monthly dinner club is planning on an Irish theme for an upcoming dinner.

I am looking for recipes of Irish brews. Please send them via email, and if people want, I can post a summary or post the recipe I used and how it came out.

Please send recipes to: danforth2@llnl.gov

Thanks in advance,  
Bill Danforth  
danforth2@llnl.gov

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Date: Thu, 11 Feb 93 10:09:03 +0100  
From: Victor Reijs <Victor.Reijs@SURFnet.nl>  
Subject: fruit wine making

Hello Rob and others,

> .... possibly because they don't (I'll take an industrial example :  
most  
>english bitters contain types of sugar, eg mollasses). Well it's the  
same  
>with wine. Wine making started long before the french made it their own.  
>People have been making blackberry, strawberry, in fact hundreds of  
>NON-grape wines for centuries. It is the "grape wine snobs" and a very  
>powerful french industry which has meant that you can't buy them (a few  
>companies in britain sell them, including Gales - the brewery).  
>True this is a beer forum, and also true there are (sorry is) a digest

Also here is a big cultural difference between America and Europe then. As I read in another mail that wine makers are people who just take a can and brew something, you hear the same story in Europe but then for beer makers;-)

But that is just for information and like all generalizations it says not much!.

But there have already been more questions about wine and reading the above message I see that there is a forum for fruit wine making (I do not mean cider making (is a type of wine) like mead). Is that correct and could you please information on that.

If not, is it not possible to set up such a list somewhere, who volunteers???

All the best,

Victor

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Date: 11 Feb 1993 08:20:46 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@LILLY.COM>  
Subject: chocolate in beer

I for one can't tell you how to clean the mess, but next time perhaps you should try using cocoa instead. In an old Zymurgy, Charlie P. has a recipe for "Slanting Annie's Chocolate Porter". When he made it he spoke of the globs of floating cocoa butter mess produced. He then stated that to get around that one could use a good powdered cocoa. One of the guys in the local brewclub made a chocolate porter with cocoa and it was GREAT!

Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Thu, 11 Feb 93 08:58:01 EST  
From: casey@bbt.com (Kevin Casey)  
Subject: Misc. beginner questions

I began my homebrewing experience by brewing "kit" beers in September, and have since brewed at least 4 batches of all malt extract beers. After 9 or so batches, I have some questions that I would like answered.

I made a batch of Pilsener which looks beautiful in the bottle until I refrigerate it. What causes the hazing of the beer when I chill it, and how can I avoid it?

I have experimented with different adjuncts. Are there any items that should not go in Beer that would cause it not to ferment properly?

I haven't had a gushing problem but I do have some of the first beers that I made and they seem to be overcarbonated. They were fine for 4-6 weeks and then began to lose flavor. Is this due to the yeast used?, and how much flavor is a factor of the yeast used?

At what temperature would an average beer of 4-5% alcohol freeze? I would rather store them in my garage than in my closet, but do not want them to freeze.

Any help would be appreciated.

I also have one comment on the all-grain vs extract brewing wars. Even a kit beer tastes better than most domestics.

Kevin Casey (casey@bbt.com)

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End of HOMEBREW Digest #1076, 02/12/93  
\*\*\*\*\*  
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Date: Thu, 11 Feb 93 09:26:06 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: all-Unix snobs

In hbd1973, arf sez:

>...Many of us barely literate computer users have no  
>idea of how to access a FAQ, if indeed it is something we can get at  
will.  
>  
>Compuserve stores just about everything of any value in library files  
that  
----- (!!!)  
>are easily accessible but cost an arm and a leg to retrieve....

In hbd1075,

>>From: neilm@juliet.ll.mit.edu ( Neil Mager )  
>>Subject: Special Archive Proposal  
>  
>Let me make another proposal. How bout explaining what an archive is  
and how  
>one goes about accessing it before you expand on a special archive.

I can't speak for "electronic community" and you may be right but it is  
also worth while to put the issue into proper perspective.

Keeping in mind that lots of people don't know about archives because  
they are lazy, paranoid or ill-informed and further keeping in mind that  
Compuserve, as opposed to the "electronic community" has a vested  
interest  
in maintaining the status quo because its revenues would dry up without  
uneducated users, it is worth noting that some Compuserve users are  
excellent  
people, so I am told. One also presumes that lots of Compuserve users  
use  
Compuserve because they know how to make excellent e-mail.

Having said that, I suggest it is the Compuserve users' insecurity,  
sensitivity and paranoia that creates the image that Unix-freaks are  
snobs.

Apologies to "real" Compuserve users. I couldn't resist :-)

Rob (bradley@adx.adelphi.edu)

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Date: Thu, 11 Feb 93 09:45:00 EST  
From: neilm@juliet.ll.mit.edu ( Neil Mager )  
Subject: Re: Archives

Jack Schmidling writes:

>>From: neilm@juliet.ll.mit.edu ( Neil Mager )  
>>Subject: Special Archive Proposal

>  
> Let me make another proposal. How bout explaining what an archive is  
> and how one goes about accessing it before you expand on a special  
archive.

Archives are just a collection of files located on some system  
(with generous owners). All the HBD digests back to 1988 are  
stored on sierra.stanford.edu. They also allow to us  
access any previous digests via email or ftp.

This is at the top of each HBD:

> Archives are available via anonymous ftp from sierra.stanford.edu.  
> (Those without ftp access may retrieve files via mail from  
> listserv@sierra.stanford.edu. Send HELP as the body of a  
> message to that address to receive listserver instructions.)

If you don't have ftp access, simply send mail to  
listserv@sierra.stanford.edu and you can receive the files.

Here's a couple of examples to put in the body of your email:

> index homebrew

The listserver will email you the list of all homebrew related files  
you can  
receive.

> get homebrew 1988.index

The listserver will email you the a file containing the subjects  
of each HBD posting, much like the top of the HBD you receive  
daily.

> get homebrew 1074

The listserver will email the HBD from Feb 10, 1993, HBD # 1074.

Richard Stueven writes:

> In HBD# 1071, ex-beginner Russ Gelinas recommends:

>  
> >Read \*all\* the HBD archives. Yes, all. IMHO,  
> >the HBD archives are perhaps the richest source of homebrewing info  
> >available.  
>

I completely agree. One of the advantages of the HBD over a  
book is the discussion that occurs. You get many different  
perspectives rather than the authors favorite.

> Of course, the first things we loaded into the system were the entire

> HBD archive, the ASCII Cat's Meow, the publist, and tons of other  
> net.brew\_stuff, and we update it monthly. Mighty informative! Mighty  
> useful!

Well, I'm jealous :-). Unfortunately, we all do not have disc  
space available for the HBD archives, which is why its so nice  
having the it archived for us on sierra.

This is also why I think it would be nice have a few special  
archives files containing all the threads on some popular  
topics that come up frequently. The FAQ could reference some of  
these rather than briefly answering the questions or  
referencing the many hbd's that discussed the topic.

- -- Neil

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Neil M. Mager  
MIT Lincoln Laboratory Lexington, MA  
Weather Radar - Group 43

Internet<neilm@juliet.ll.mit.edu>  
Voice (617) 981-4803

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Date: Thu, 11 Feb 93 09:53:44 EST  
From: Ulick Stafford <ulick@beethoven.helios.nd.edu>  
Subject: Detergents etc.

Al referred to a previous posting about removing Chocolate oil and made the excellent suggestion to use washing soda (sodium carbonate). I'll chime in and also suggest TSP (trisodium phosphate) readily available in hardware stores as an oil paint stripper, or caustic soda (sodium hydroxide). These strong bases are used in commercial practice for cleaning and sterilizing and by us as label strippers. They should be used according to directions with rubber gloves. These suckers will strip the oil from your hands as easily as from the dirty vessel and you'll need quite a bit of vaseline intensive care to get it back.

Don't use soaps or detergents on your brewing equipment. The reaction that occurs above is basically soap making. The fatty acids that forms the oils (attached to glycols) react in an acid-base neutralization with the base to form fatty acid ions, which are long chains ytpically 16-18 carbons long. In water these will form micelles with the negaticely charged acid group on the outside and the hydrophobic hydrocarbons within. Organic material can dissolve within this micelles, so tha addition of soaps to water allows insoluble organics to be dissolved.

Detergents are similar, except stronger acid groups such as sulponic groups are on the end of the organic chain. There are also non ionic and cationic surfactants to go along with the usual anionic types when an acid rather than basic environment is desired (Pert shampoo and conditioner in one is an household example of this).

Basically domestic detergents and soaps are relatively kind to human skin, or have other additives. But in homebrew equipment they will leave a residue that will knock that head straight out of your beer. It is nearly impossible to remove a soap layer from the wall of a plastic bucket. Stick with strong bases for tough cleanup - and use rubber gloves. They are cleaner and stronger.

Ulick Stafford

PS on thurs all submissions were made on Tuesday. hmmm - and there isn't even a maltmill givaway going on. When the cats away everything goes to hell!

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Date: Thu, 11 Feb 93 09:08:55 CST  
From: wood@ranger.rtsg.mot.com (Dan Wood)  
Subject: Ulick's Criticism of MI Deposit Laws

While I have enjoyed Ulick's posts in the past, and benefitted from the wealth of information he provides to this digest, I must take exception to his description of Michigan's deposit law as "inane".

I live in Illinois, a state with neither bottle deposit nor blue laws. I frequently visit friends and relatives in Michigan. The contrast between the two states is startling in many respects, but let me focus on the difference this is entirely due to the bottle deposit.

In Michigan, you will find very little broken glass, nor will you find litter from empty cans or cardboard packaging. It's rare for people to throw away their empties, instead they return them for cash. In the rare occasions where they are discarded as litter, local kids enthusiastically gather them and return them to collect the deposit. You wouldn't think it would work this well, but apparently the locals have figured out that those dimes add up.

In contrast, virtually no area of Illinois is immune to this litter. Even residential neighborhoods routinely have empties (presumably from "cruising" young drinkers) discarded on street corners and in front yards. Local parks typically have hazardous areas created by broken glass. In my experience, this problem also exists in other states that don't have deposit laws.

Although Michigan's deposit laws have created some inconvenience for retailers, I feel it's justified, since they profit from the sales. It costs the consumer nothing so long as he acts responsibly and collects and returns the empties, which should be done regardless. The deposit simply provides incentive to "do the right thing". Obviously social conscience doesn't produce this incentive elsewhere.

Please excuse the long post, and I certainly don't mean to flame, but the lack of deposit laws in other states is a pet peeve of mine. I can't see condemning such an effective system simply because of minor inconvenience suffered by out-of-state visitors. Should anyone feel they must debate this issue with me, please do so via private email, this is the last HBD bandwidth I will expend on this topic.

Stepping off my soap box now, relaxing, and still brewing great beers  
from extract,  
Dan Wood  
wood@rtsg.mot.com

PS: The worst beer thread is entertaining, but does anyone out there really think they can make worse beer than Miller Lite? I think that WWB is the one area where Budmilloors has an edge on us. :)

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Date: Thu, 11 Feb 93 6:41:36 CST  
From: dewey@sooner.ctci.com (Dewey Coffman)  
Subject: Celis expanding to other States

Roll out the Celis  
Austin brewery to boost sales and production  
Austin American-Statesman Statesman, 2/9/93

Celis Brewery plans to introduce its beers to 30 states and several overseas markets by the end of the year, a move that would more than triple its production from 8,000 barrels to at least 25,000.

The Austin-made beers now are sold in six states and Washington, D.C. This month, the company plans to begin distribution in six more, including Colorado, Illinois, Indiana and New York.

We think 1994 will be a very excellent year," said Christine Calis, brewery president. At the same time the privately held company is contracting with several U.S. distributors, it is working on sales leads in Europe and Asia, Celis said. She said she expects to place the beers in Taiwan, China, England, France and Holland by 1994.

Celis began brewing last year and launched its beers -- Celis White, Cells Pale Bock and Celis Golden in May. A fourth product, Celis Grand Cru, was introduced in December.

Cells' 1992 revenues, which represent about a half year of sales, were \$550,000, brewery officials said. This year, the brewery expects sales to climb to about \$3 million.  
[much deleted]

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Date: Thu, 11 Feb 93 10:21:24 EST  
From: jrcost@hogpa.ho.att.com (John R Costelloe +1 908 949 2688)  
Subject: Brewpub tour in San francisco?

I've heard rumors that someone has organized a brewpub tour in the San Francisco area. Does anyone have any information on this? I'll be in the area for about a week starting February 20. I would also appreciate any recommendations for "must see" good beer type bars (lots of local microbrew beers on tap) in San Francisco and San Jose.  
Thanks in advance.

John

P.S. It's going to be nice getting out of New Jersey for a while!

att!hogpa!jrcost  
(908) 949-2688

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Date: Thu, 11 Feb 93 07:54:30 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: QC, Archive, Snobs, Iodophor

> From arf@ddsw1.mcs.com (Jack Schmidling)

> One final point, I posted the same article to Compuserve and received  
not a  
> single negative comment. Again, I am not sure what this portends but  
it is  
> food for thought.

I haven't been on for a couple weeks, so I didn't see it there. I  
would like to point out that there is a great difference between  
CompuServe and the Digest. That is that most CIS users do not read all  
the message threads. They use navigator programs to reduce connect  
time and generally select message threads by subject. Messages on the  
Digest (actually, any digest or mailing list) go to everybody.

Also, of course, the Digest has developed ARF antibodies and will  
likely react to even borderline messages if they are from you.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Thu, 11 Feb 93 10:08:17 -0600  
From: gjfix@utammat (George J Fix)  
Subject: Wild Yeast

It is my opinion that the major open problem in brewing microbiology today is the formulation of an accurate, practical, and rapid media for the detection of nonculture yeast. The problem is one of a needle in a haystack. We pitch ale yeast at the 5-10 million cell per ml (10-15 for lagers), yet we want to detect contaminants at the 1- 10 cell/ml range. In commercial work, even lower levels of detection are required (typically in the cells per 100 ml. range).

This problem has been solved for bacteria. Cycloheximide, sometimes known as actidione, added in very low levels to any of the suitable growth media (WLN, NBB, UBA, et al) will nicely inhibit yeast (culture and otherwise) without affecting bacteria. What is needed is something like this for wild yeast.

Simply streaking samples from a slurry on a media like WLN is only going to give a plate full of culture yeast. I have done this more times than I would like to admit, and have found in spite of the color indicators, spotting the one in a million is next to impossible. Gross contamination can be detected, but direct microscopy, and in fact one's own nose, work as well in these cases.

The two following approaches have been suggested for small scale brewers:

1. Rodney Morris> Incrementally add actidione to a growth media starting at extremely low levels. This, just like all Rodney's ideas, is terrific. It, however, is an extremely tedious procedure that for a long list of reasons can only be done in a professional lab. I use it only as a last resort, only at my university, and only if someone is paying me to do this work!

2. Other inhibitors> A variety of inhibitors have been proposed like copper sulfate. These have been very effective in the detection of strains like *S. diastaticus*. However and alas, there are *saccharomyces* strains, quite common in both home and pub brewing, which are inhibited along with culture yeast. Murphy's law suggests that these are the folks that bring us the "funky homebrew" taste.

For those at Cornell on this network, you should be aware that some very exciting work is being done in your Food Science Dept. by Dr. Karl Siebert, the Chairman of the program and a very distinguished brewing scientist. His group has come up with a new medium (cadaverine, lysine, ethylamine, nitrate) that could be what we are looking for. Now if you folks could just recruit Dr. Jean-Xavier Guinard from Penn. State, you would start to rival Munich!

George Fix

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Date: Thu, 11 Feb 1993 08:31:38 -0800 (PST)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Poe on Ale

Last August, Mike Hall used the following quote, attributed to E.A. Poe, in his sig. Mike though he got it from Guy McConnell.

Fill with mingled cream and amber, I will drain that glass again.  
Such hilarious visions clamber through the chamber of my brain--  
Quaintest thoughts -- queerest fancies come to life and fade away;  
What care I how time advances: I am drinking ale today.  
-Edgar Allen Poe

I've searched for the source for this in Poe's writings and have come up blank. It certainly is similar to Poe's style. Where did this come from?

It deserves to go on a beer label. Would the ATF approve it, or would the abusive altruists ban it?

Paul.

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Date: Thu, 11 Feb 93 10:59:34 CST  
From: Raymond Taylor <NU028463@VM1.NODAK.EDU>  
Subject: Dry Hopping

I have been brewing for a couple of years, now, and consider myself to be an intermediate to advanced brewer. However, one topic seems to elude my understanding; that is DRY HOPPING. I have Dry Hopped several batches, with good results, but the hops effect on fermentation is what I can't figure out. Each time I have Dry Hopped (I have always used pellets), seemingly dead fermentation restarts, and continues slowly for quite some time. (This is not to be confused with the rapid release of dissolved CO2 that can occur soon after the addition of the hops.)

I have a list of possibilities I have thought of, and would like to get the HBD's opinions on them:

1. The Hops introduce wild yeasts that can digest the heavy remaining sugars. (I haven't noticed any off-flavors).
2. The Hops contain some sort of enzyme that will break down the heavy sugars, to some the yeast can handle. (I have seen gravities drop further than I expected.)
3. The Hops provide a matrix for the yeast to attach to, and be more exposed to the wort. (Similar to Beechwood?)
4. The Hops contain a yeast nutrient. (Or maybe simple sugars?)
5. YOUR ideas here: \_\_\_\_\_.

Thanks for any ideas.  
Carl Eidbo

SINCE I DON'T HAVE ACCESS TO USENET PLEASE SEND ANY PERSONAL RESPONSES TO RAY TAYLOR (NU028463@NDSUVM1) OR POST TO HBD.

YOU MIGHT TRY SENDING E-MAIL TO EIDBO@MILO.NODAK.EDU. CARL MIGHT BE ABLE TO RECEIVE MAIL AT THIS ADDRESS BUT HE DOESN'T HAVE SEND CAPABILITIES. I WILL FORWARD ANY INFO YOU SEND DIRECTLY TO ME!

RAY

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Date: Thu, 11 Feb 93 12:34:49 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: hops identification

There was a question a couple of days ago about identifying unknown hops growing in someone's yard.

If the hops came from seed, the probability is essentially zero that they are one of the "recognized" varieties. Hops are normally propagated vegetatively, that is, from cuttings of a "parent" plant. All hops from a given "cultivar" are genetically identical. Plants grown from seed, even if both parents were the same, will have a different genetic makeup, and therefore different flavor, alpha acid content, and other characteristics.

If, however, the hops were planted by a homebrewer, then there's a chance they are of a recognized variety, so it doesn't hurt to try to identify them.

The bottom line is this: you will probably have to experiment with them to determine their bittering and flavor characteristics.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Thu, 11 Feb 1993 09:50:55 -0800 (PST)  
From: Mike Deliman <miked@wrs.com>  
Subject: S.S's Taddy Porter

Hi All,

I just looked through our brew archives, looking for a recipe for Samuel Smith's Taddy Porter, and unfortunately came up empty handed.

If anyone out there has a recipe, either extract or full-mash, I'd appreciate if those kind souls would email me a copy!

Thanks much,

mike

P.S. Keep us informed, Chuck!

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Mike Deliman | Save water | Starve a lawyer - boycott Sam Adams Beer.  
miked@wrs.com | drink | "Koch has introduced more lawsuits than beer  
...!wrs!miked | homebrew! | styles in the past year." - Chuck "Boston"  
Cox  
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Date: Thu, 11 Feb 93 11:12:18 -0700  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Subject: BBW wins again!

> I am thinking of starting a new brewery, "The Adams Family Boston  
> Brewing Company". Any interested investors? Any interested attorneys?

Hey I'm interested and my name is Adams! That should keep Koch's  
cronnies  
away 8^)

John Adams

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Date: Thu, 11 Feb 93 12:16:30 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: hop plugs/bad memory

>First of all, thanks for all the charts and formulae for hbus -> ibus  
>given boiling time, S.G., etc. I do still have a question however. I  
>have seen that pellets have different utilization than whole hops (both  
>in this forum and in some of the homebrew books); indeed hop plugs have  
>yet another utilization rate.

Hop plugs have the same utilization rate as loose leaf hops,  
but they keep better. i.e. the AA% content stamped on the package  
actually means something. You should multiply the AA% on loose  
leaf hops by anything from .7-.9 (typically) to compensate for the  
drop in AA during storage before plugging the # into the table.

>I was at G.W. Kent on Saturday, so I asked them about hops plugs.  
>Randy said they had added them to their catalog this year, but then  
>were unable to get any from the supplier. Something about a bad crop  
>this year. So, G.W. Kent is not shipping hops plugs at this time. If  
>you thought you got some with the G.W. Kent label, you must be  
>confused. The only ones I've seen are imported by Crosby & Baker.

Yes, I was reciting from memory, since my brewery is at home and I  
was at work. The plugs were from Morris & Handbury (sp?). They  
have a blue & white label as does Kent, and...

along the same lines:

lawson@acuson.com (Drew Lawson) writes:  
>> The yeast in Chimay is not a single strain. It is either 3 or 5. I  
>Yea, I was wrong. That's what I get for trying to be helpful and  
>posting from a year old memory.

Wow! Only a year old and you're already brewing and using a computer?

bb

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Date: Thu, 11 Feb 93 12:13 CST  
From: korz@iepubj.att.com  
Subject: Re: fining -> diacetyl

Russ writes:

> I'd vote that adding finings early on in the secondary is what is  
>causing the high diacetyl in your beer. In fact, this is just what  
happens  
>with Samuel Smith beers, except their yeast flocs out because of the  
>nature of their slate fermentation vessels. Give the yeast more time  
>in suspension in the secondary to reduce the diacetyl.

I believe it's the highly-flocculent yeast strain that they use at the  
Tadcaster Brewery (Samuel Smith's) rather than the slate "squares" that  
causes the yeast to floc out early. Someone (Darryl maybe?) reported  
that they use some kind of hand-held pumping system to push the yeast  
back into suspension.

Al.

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Date: Thu, 11 Feb 93 12:29 CST  
From: korz@iepubj.att.com  
Subject: Morris Hanbury Hop Plugs

Spencer writes:

>were unable to get any from the supplier. Something about a bad crop  
>this year. So, G.W. Kent is not shipping hops plugs at this time. If  
>you thought you got some with the G.W. Kent label, you must be  
>confused. The only ones I've seen are imported by Crosby & Baker.

I can verify that this was a bad year for hops in Europe and that the US importer (GW Kent's, Crosby & Baker's, and L. D. Carlson's supplier) is Morris Hanbury, who only sells wholesale by the way, is not shipping large quantities of plugs. They said that since their supply is so small this year, that they could not offer cases as they usually do, so that all their customers could have some. Perhaps because G.W. Kent was not interested in only 25 of 50 plugs, they chose to not stock them this year.

>He also said that as far as he knows, any plugs on the market now must  
>be from the 1991 crop. If this is true, then my experience with plugs  
>speaks very well for their keeping ability. As I said yesterday, the  
>plugs I bought recently had the freshest hops I've ever used.

Indeed they have an incredible refrigerated shelf life, partly due to the fact that their O2-barrier packages are nitrogen-purged before vacuum-sealing. The Morris Hanbury Plugs that I received, however, were marked as 1992 crop. I suspect that the unavailability of whole and pelletized 1992 Goldings is perhaps associated with the fact that they are most attractive in the plug form and thus most of the scarce 1992 export crop was destined to be made into plugs. Just a guess.

Al.

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Date: Thu, 11 Feb 1993 10:43:25 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: A Beer Odyssey (Act III)

A Beer Odyssey (Act III)

Ashland is a good long way from Cave Junction. You have to drive around a whole lot of mountains to get there. You can work up quite a thirst doing it. I finally reached Rogue Brewing in Ashland around 10:30 Saturday night.

It pains me to say it, but I'm going to plead the Fifth in my description of my visit to Rogue, and I promise the brewers and the staff there that I will give them another go under more favorable conditions. I had been driving for some thirteen hours by then, and it was late, and (dare I say it?) I was in more of a mood to sleep than I was to drink beer. As I walked up to the pub, there were a lot of people making a lot of noise (or so I thought, but what did I expect on a Saturday night?) and a folk guitarist on a stool outside. I went inside to the downstairs bar, and the bartender told me I should go outside to listen to the music. I explained the True Reason that I was there, and ordered an IPA.

I'll be honest: I've had Rogue beers on tap and in the bottle, and I was never very impressed. I found them sour and not very appetizing at all. My immediate reaction to this IPA wasn't much different, and I finished the pint and left.

As I was driving away in search of a motel, the taste of the beer lingered, and I thought, "You know, that beer wasn't bad at all." My state of mind had really distorted my state of palate. Once again, I apologize to the folks at Rogue, and I promise to stop by again and do them up right. Like so many of the beers I tasted on this odyssey, I think they've probably improved immeasurably over the past year or two.

I drove through the streets of Ashland, looking for a motel. "No Vacancy" signs lit my path. Eventually, I came to I-5, and I headed south, back toward California. "There must be some towns nearby," I thought, "and I'll find a place to stay in one of them."

Nobody had bothered to tell me that there are nothing but mountains from Ashland on south, and big empty ones at that. No towns to be found; nothing but dark twisty Interstate Highway. The nearly-full moon rose behind Mount Shasta, some sixty miles away by air (ninety by road). Forty-five minutes later, I was in Yreka, California.

No vacancy. I began to suspect a conspiracy.

I returned to the freeway and continued south. It was plenty late, and I was plenty tired, and about six hundred miles from home. The next town with a streetlight was Weed, California.

No vacancy.

I drove around the streets of Weed, checking all the motels, but they all claimed to be full. Reaching deep into my bag of tricks, I asked myself what I would have done back when I was young and poor.

I slept in my car in a Motel 6 parking lot.

I woke Sunday morning around 6:30 when the fellow in the truck next to me was loading up to leave. (The looks I got from him...) Just up the road was the Hi-Lo Cafe & Motel. The Cafe was a lot more interesting to me than the Motel just now; I was in desperate need of coffee. I mapped out the day's battle plan over breakfast. Since I had come this far, and was now rounding the far turn, as they say, I reasoned that I may as well visit a few more pubs on the way home. I plotted my course.

First up was Sierra Nevada Brewing Company in Chico. As luck would have it, I reached this Mecca of Pubcrawlers at ten o'clock in the morning, opening time, and time for Sunday brunch. It's a beautiful brewery, industrial surroundings notwithstanding, and a beautiful bar inside. It reminded me of the bar at Pacific Coast Brewing in Oakland, but the one at Sierra is even bigger. Sunday brunch at Sierra consists of your choice from their breakfast menu plus a half-pint of the beer of your choice. What a way to start your day. The hardest choice to make was which beer to accompany breakfast. To make a proper choice, I felt that I should have a round of samplers first:

Draught Ale - Like the Pale Ale, but smoother, and more hops.

Pale Ale - Even better when fresh.

Porter - Very smooth, with strong chocolate flavor. Not as highly hopped as I remember it, and that's good! Very thick.

Stout - Heavier in body, but lighter taste than Porter. Also not as highly hopped as I remember.

Celebration Ale - Not available. Too bad.

Bigfoot Ale - Holy cow! This is not your basic breakfast beer! Again, ten times better when fresh, just like the others.

Summerfest - Very smooth, heavy body, light taste. Could use a touch more flavoring hops, but maybe not.

Pale Bock - Not available. Too bad.

I chose the Huevos Rancheros and a half-pint of the Draught Ale. The Huevos Rancheros were served with a black bean sauce and an alarmingly hot salsa, and a fruit plate and various muffins. Not bad for six bucks! There was a good crowd for a Sunday morning; at least two dozen people were there for brunch, and even then the bartender called it a "pretty slow morning". Their prices are better than fair: brunch, the samplers, a pint each of Pale and Porter, a T-shirt, and two pint glasses for \$25. It's a deal! Be advised they're closed on Monday.

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Date: Thu, 11 Feb 93 12:53 CST  
From: korz@iepubj.att.com  
Subject: Re: Soured (?) Wort

Dan writes:

> A brewing friend has become enamored with soured beers, Samuel  
Smith's  
>Taddy Porter in particular.

I'm confused. Either your friend got a hold of a bad sixpack or is mis-interpreting something in the Taddy Porter's flavor profile as sour. I have never found markedly more sourness in Taddy Porter than in any other British ale. I suggest your friend get a hold of some Berliner Weiss or Cantillon Gueuze and compare sourness to Taddy Porter.

Granted, any beer with dark-roasted grains will have a bit more acidity than paler beers, so perhaps I'm jumping-the-gun... perhaps your friend is hyper-sensitive to sourness (everyone's perceptions of taste are different -- part of being a judge is recognizing and normalizing your own).

To answer your question, I feel that Charlie Papazian has a very good explanation of sour mashing in the back of the New CJoHB. I don't have my copy here, so I can't help you with the times and temps, but it basically uses naturally occurring Lactobacillus on grain husks to sour the mash. I tasted a pseudo-lambic that made it to the second round of the nationals last year that was made this way and it was quite good (albeit short on Brettanomyces character, but that's a different story).

Al.

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Date: Thu, 11 Feb 93 13:20:49 EST  
From: Lee Menegon <necis!lmenegon@transfer.stratus.com>  
Subject: Level of Malt Modification

In reviewing a grain suppliers catalog I noticed that they list the level of modification of the various malts they sell. They range from low modification for the German varieties to highly modified for the British varieties. American 2 rows were in the middle.

I know that when a friend step mashed some German Pilsner malt he would get about 28-29 sg points per pound and his mashes would take 30 to 45 minutes longer than when he mashed British Pale malt. When he switched to decoction mashing the Pilsner malt his yield would be about 34 sg points per pound.

Why are grains modified to different extents?  
How can I use this level of modification information to brew better beer?

I have been experimenting with Muton&Fison Mild Malt. It is kilned a bit higher than pale malt, is slightly darker and adds a nutty flavor to a beer's profile. I have used it in a pale ale and brown ale and recommend its use by partial mashers and all grain snobs, AGS. In the pale ale it was about 10-20% of the grist while the brown ale 40-50% of grist. Partial mashers use 1-1.5Lb for ale 2.5 to 4 lb for brown ale.

I will have some of my most recent brown ale at the 2-12 meeting of the Brew Free or Die Homebrew club. Since it is named: not so Brown Ale I hope that the whinny voice in the Sam Adams radio ads, Jim Koch, does not issue an injunction against me for using the same letters in the word Boston in my beer's name. Incidentally the grain was purchased in Boston.

Some recent posts have mentioned "a lost style " of beer, Irish Red Ales and have mentioned how homebrewing has help resurect styles, like Porter. What is the Irish Red Ale style, its color, beginning and ending gravity, what ingredients are normally used, grains hops, level of bitterness, what yeast is characteristic of this style? Lets discuss it and brew it.

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Date: 11 Feb 93 15:06:20 EST  
From: Jeff Frane <70670.2067@compuserve.com>  
Subject: Costs / Cold Break

On all-grain snobbery: Jim Busch has offered excellent points on how little all-grain brewing can cost. I'd also like to offer a suggestion -- brew with a friend. Or several friends. If you are in a region with a homebrew club, or have other brewers nearby that you know, pooling resources works very well. It's obviously a lot cheaper for 3 brewers to buy a grain mill or build a wort chiller than for one, and the reality is that this equipment spends a lot of time sitting around. It's also true that a 15 gallon kettle doesn't cost that much more than an 8 gallon kettle, and two brewers can make 10 gallons almost as quickly as one can make five. It also means more than one brain -- which can be a real aid.

On Cold Break:

Brian Bliss has posted some responses to a query about cold break, and I must say his opinion seems well-considered. However, I have to disagree, based both on my own experience and on the research I did last year for a presentation at the AHA national conference. George Fix suggested I post it to the Digest last summer, but I never got around to it. Here, then, are my own conclusions, excerpted from a presentation/article on building a wort chiller:

Hot Break/Cold Break

In addition to getting the wort to fermentation temperature, rapid cooling also causes changes in the wort which encourage good fermentation and brighter beer. At two late stages in the boiling/cooling cycle, there is an opportunity to clear the proteins, hop resins and other organic matter that would discourage healthy yeast growth and cloud the finished beer.

The hot break occurs while the wort is still in the kettle and is, in fact, considered to be the right time to end the boil. It is marked by the appearance of large flakes of "gunk" surrounded by a brilliantly clear wort. The cold break -- which consists of similar organic compounds -- begins after the wort has been cooled below 60°C (140°F). George Fix writes that "by removing most of both precipitates, one can eliminate approximately one-half of the haze-forming material." While it is essential to fine beer to ensure a proper hot break and to rack the wort off the precipitate, some homebrewers are overly cautious about "protecting" their beer from the cold break.

After touring through a few breweries, it is clear that cold break sediment is nowhere near as threatening as it seems at first glance; the most common systems create a cold break but do nothing to eliminate it. Consider, then, Jean de Clerq's statement: "It is therefore essential, that while the sterility of the wort is assured, it should (1) absorb sufficient oxygen during cooling, (2) coagulated protein should be entirely eliminated, and (3) the turbid matter which appears during cooling should be at least partly precipitated, so that it does not remain as a fine colloidal suspension in the beer." (emphasis added). In other words, what's essential is ensuring the break; once precipitated out, the material will only cause problems if it is redissolved by raising the temperature again.

George Fix writes that "in preparing my book on brewing science I tried to carefully study the effects of cold break carryover, and found that as far as finished beer flavors were concerned there were none." In that book, in fact, Fix explains that in adverse conditions such as a shortage of oxygen, trub can be utilized in yeast metabolism. He cautions, however, that bacteria can use trub in the same way. "If bacterial levels are sufficiently low both in the chilled wort and in the pitching yeast, then I believe there will be no problems from cold break carryover." With proper sanitation, then, and the use of pure cultured brewing yeast the carryover from cold break should not prove a problem to the homebrewer.

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Date: Thu, 11 Feb 93 15:09:07 CST  
From: krueger@comm.mot.com (Kevin Krueger)  
Subject: Growing your own hops

Okay, being a homebrewer means never having to say your sorry . . . uh, I mean, it means you brew in a home (whatever that might be) and I finally have one !! So, being a homeowner means owning the land, and owning the land means tilling the land, so I want to grow some hops !!

I am curious what kind grows best in Zone 5 (Northern Illinois). I imagine that there is a reference book that addresses so any suggestions would do instead of advice.

Either way, thanks for any advice.

Kevin Krueger

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Date: Thu, 11 Feb 1993 16:08:00 +0000  
From: "Rick (R.) Cavasin" <cav@bnr.ca>  
Subject: re: iodophor, rinse/reuse

JS relates his experiences with iodophor sanitizer:

I've had no problem with my brand of iodophor ('iosan') changing colour during normal use. Phil Hultin confirmed that iodine is fairly volatile (though not as much as chlorine), and so will eventually evaporate if left uncovered. This explains the fact that the iodine dissipated from the blowoff bucket but not from the stoppered carboy (I've reused the solution in the carboy and it's still amber - I guess there's a certain leap of faith you have to take in trusting the indicator colour during multiple reuses).

Coincidentally, while brewing the other night, I decided to check if the iodophor could be used as a starch indicator as well. The mash was already pretty much done and I got no colour change from the mash sample. So I tried adding a little powdered corn starch, and got the typical blue indication. Next time I'll check my mash at the beginning and end of the mash. Maybe it would be better to use the undiluted iodophor for starch tests - will test and post results.  
Cheers,  
Rick C.

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Date: Thu, 11 Feb 93 15:56:27 CST  
From: todd@gold.rtsg.mot.com (Todd M. Williams)  
Subject: hops in outer space...

More or less what was in the Thursday 2/11/93 Chicago Tribune...

BEER COULD REACH NEW HIGH IN SHUTTLE TESTS

German beer brewers, proud of their medieval roots, will join the space age next month when astronauts aboard the space shuttle test the effects of radiation and weightlessness on hops.

A leading brewery said Wednesday it hopes the experiment will produce new and better types of hops, which give beer much of its unique bitter flavor during fermentation.

"Plants change anyway because of natural radiation. Now we want to see what kind of mutation comes from extreme conditions of space radiation and weightlessness," said a spokesman for Bremen-based Brauerei Beck.

The hops experiment is one of about 90 to be carried out by two Germans flying with a U.S. space shuttle in March to the orbiting space lab.

Todd

Moderation sir, aye, moderation is my rule. 9 or 10 is reasonable refreshment, but after that it's apt to degenerate into drinking

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Date: Thu, 11 Feb 1993 16:22:08 -0600 (CST)  
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)  
Subject: still more BAA information

Hi all

Since I've had more than a few requests for info regarding my post about Beer Across America, I just thought I would post a few excerpts from the most recent BAA newsletter (kindly provided by our own Michael Galloway).

Here are the 24 different brews sent during 1992.

Jan Geary's Pale Ale  
Harpoon Ale

Feb Millstream Schild Brau  
Oldenberg Premium Verum

Mar Wild Goose Amber  
Boulevard Irish Ale

Apr Eureka Bear  
Alpine Village Lager

May Buffalo Lager  
James Page (not the Led Zeppelin guitarist I guess)

Jun Dock Street  
Old Detroit Ale

Jul Crazy Ed's Beer  
Helenboch Oktoberfest

Aug Wasatch Wheat  
Pyramid Ale

Sep Cherryland Golden Rail  
Elm City Golden Ale

Oct Penn Pilsner  
Dominion Lager

Nov Garten Brau Wild Rice Beer  
Kessler Oktoberfest

Dec Portland Ale  
Sierra Nevada Celebration Ale

They were also some favorites listed from the above:

Honorable Mentions:

Geary's  
Wild Goose  
Buffalo Lager  
Dock Street and  
Pyramid Ale

Winners:

Boulevard Irish Ale



Kessler Oktoberfest and  
Sierra Nevada Celebration Ale

As you may have noticed, all beers were either lagers or ales.  
Specifically, 15 lagers and 9 ales.

The Jan 93 selections were; Mass Bay Brewing Winter Warmer and  
Fisher Brewing Dark Ale.

There is a page of descriptions of each of the featured breweries  
giving locations and other beers available.

It also prints reviews of the last quarter's beers. All are  
favorable in a way because they supposedly have already gone  
through a taste-testing before they are selected. But they do  
offer descriptions of each beer i.e. the color, hopness, finish  
etc.

Another feature is that you can order from past selections. I was  
gonna order a 1/2 case of the SN Celebration, but they had none in  
stock. They did have Fishers Dark Ale, Portland Ale, Kessler's  
Centennial and Capitol's Dark Beer. Just in case you're  
interested.

Lastly and of course \*most\* importantly; if you are a member and  
you recruit new members (they mention your name when they sign up)  
you get a free sixpack, including shipping. So, all you  
prospective new members out there, my name is Scott Storey  
(BadAssAstronomer) ;);)

scott

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Date: 11 Feb 93 15:58:14 U  
From: "Rad Equipment" <rad\_equipment@rad-macl.ucsf.EDU>  
Subject: Another Mash-out Idea

Subject: Another Mash-out Idea Time:3:48 PMDate:2/11/93  
A thought: If unconverted starch, originating from dry sections of malt,  
might  
be released during the sparge; would it not be prudent to forgo the mash-  
out so  
that the enzymes, which are also in suspension (I assume), can do their  
bit on  
the newly released starch? I realize that the liquid level is greatly  
increased  
so it is harder for the enzymes to find the starch, but still...

Reactions?

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmacl.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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End of HOMEBREW Digest #1077, 02/15/93  
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Date: Thu, 11 Feb 93 18:16:49 -0600  
From: "Jim Ellingson" <jimme@pi28.arc.umn.edu>  
Subject: Adams Family BBC Product Suggestions

I really enjoyed Chuck's post on Sam Adams vs The World.  
Thanks for the update.

Chuck, I have some suggestions for the product line.  
I'll leave the OG, Hop Profiles, etc. up to you.

"Litigator" A doppelbock, of course.  
"Jim Koch" A NA barley whine.

and on the Adams Family Theme; "Pugsley Pale Ale"  
"Lurch Lambic", "Mortica Marzen", "Uncle Fester Fest Bier"

Cheers,  
Jim

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\* Jim Ellingson jimme@arc.umn.edu \*  
\* AHPCRC/University of Minnesotatel 612/626-8088 \*  
\* 1100 Washington Ave. S., Minneapolis, MN 55415 fax 612/626-1596 \*

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Date: Thu, 11 Feb 1993 16:37:16 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: A New Journal

Martin sez:

>If you read the Celebrator this may be old news to you...

Speaking of the Celebrator, congratulations to them on their Fifth Anniversary!

Keep up the great work, y'all!

have fun  
gak

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Date: Thu, 11 Feb 1993 19:12:41 EST  
From: Gary\_F.\_Mason%fc.jlc.mv.com@mv.com  
Subject: Fwd: Re: Pete, is this you?

This is the result of my search for Pete Soper. He OKed the post.

Cheers...Gary

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Gary,

Very sorry to hear you are between jobs. I know this is not a pleasant situation in your neck of the woods these days. Best of luck with your search; I'll be thinking about you.

Feel free to forward this to the Digest. I guess I should have realized we'd developed a sort of electronic "community" and I should have posted something about my status long ago.

Yep, I'm still here. Still in the same job, same office, same compiler development work. Encore still teeters on the crack of doom but after eight and a half years on the crack I've gotten tired of worrying about it.

I haven't read the homebrew digest in around 20 months and have put my homebrewing on indefinite hold. After my coworker here was severely injured in a hang-glider accident in April of 1991 I had to take over extra work. I then rode through the closing of a plant where half my development group worked and I had to see them through layoffs. That was lots of fun. Those of us at other sites who were not laid off had that much more work to do, so up to about mid-1992 I was totally distracted by being screwed into the ground by the load.

I took up gardening as therapy for this and have become one of those rabid types who views the whole planet as composed of compostable and non-compostable objects :-). Seriously, I was shoveling horse manure off my truck before I went to work this morning. A neighbor came out to see what was on fire (it was composting like mad and creating big clouds of steam). Lately I've been on a self-study kick, trying to reinvent myself as an "object-oriented programmer" and between these two hobbies, all the rest of my time has gone to my wife, whose career has ramped up to full time.

But in addition to all this, I find I simply can't have ten gallons of beer in the house and moderate either my waistline or the tendency to substitute one more beer for a more "worthwhile" activity. So, while I've learned to avoid saying "never", I don't expect to be brewing any time soon and I'm thinking about other things.

Cheers,  
Pete

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Pete Soper (psoper@encore.com) 919 481 3730/voice 919 481 3868/FAX  
Encore Computer Corp, 901 Kildaire Farm Rd, Cary, NC 27511 USA  
Quality is in the eye of the customer.

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John Leslie Consulting FirstClass BBS, through PostalUnion by I.E.  
The views expressed in this posting are those of the individual.

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Date: Fri, 12 Feb 93 07:59:18 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: apology

In hbd 1071, arf dismissed extract brewers in an off-hand and offensive way. I kept my peace. Over the course of the next few days, Jack referred to his limited knowledge of/access to the net. To amuse myself on a quiet Thursday morning, I took Jack's original post and made a few simple global replacements: Compuserve user for extract brewer, electronic community for homebrew community, etc. I was very amused, and decided to share the results with the hbd. I apologize now, as I did in the original post, to any Compuserve users who didn't realize that this was all in jest. More to the point, I apologize to the HBD for wasting bandwidth with what could be considered a flame. I hope this note appears on the same day as the original joke. And Jack, if you must respond by flaming, please direct it to bradley@adx.adelphi.edu instead of here on the hbd.

Rob

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Date: 12 Feb 1993 07:48:33 -0600 (CST)  
From: BLAST@sn01.sncc.lsu.edu  
Subject: Richmond, VA Brewpubs?

I have to make a trip to Ft. Lee, VA (outside Richmond) early next week.

Anybody know of any brewpubs in that area?

Thanks,  
Bruce Ray

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Date: Fri, 12 Feb 93 08:52:58 CST  
From: wood@ranger.rtsg.mot.com (Dan Wood)  
Subject: Criticism of MI Bottle Deposit

Note: I sent this in yesterday, and got an emailed assurance that it would be added to the HBD, but alas, it's not in today's issue. My apologies if it appears twice on Monday. Just goes to show, you've got to be careful about trusting daemons. :)

While I have enjoyed Ulick's posts in the past, and benefitted from the wealth of information he provides to this digest, I must take exception to his description of Michigan's deposit law as "inane".

I live in Illinois, a state with neither bottle deposit nor blue laws. I frequently visit friends and relatives in Michigan. The contrast between the two states is startling in many respects, but let me focus on the difference this is entirely due to the bottle deposit.

In Michigan, you will find very little broken glass, nor will you find litter from empty cans or cardboard packaging. It's rare for people to throw away their empties, instead they return them for cash. In the rare occasions where they are discarded as litter, local kids enthusiastically gather them and return them to collect the deposit. You wouldn't think it would work this well, but apparently the locals have figured out that those dimes add up.

In contrast, virtually no area of Illinois is immune to this litter. Even residential neighborhoods routinely have empties (presumably from "cruising" young drinkers) discarded on street corners and in front yards. Local parks typically have hazardous areas created by broken glass. In my experience, this problem also exists in other states that don't have deposit laws.

Although Michigan's deposit laws have created some inconvenience for retailers, I feel it's justified, since they profit from the sales. It costs the consumer nothing so long as he acts responsibly and collects and returns the empties, which should be done regardless. The deposit simply provides incentive to "do the right thing". Obviously social conscience doesn't produce this incentive elsewhere.

Please excuse the long post, and I certainly don't mean to flame, but the lack of deposit laws in other states is a pet peeve of mine. I can't see condemning such an effective system simply because of minor inconvenience suffered by out-of-state visitors. Should anyone feel they must debate this issue with me, please do so via private email, this is the last HBD bandwidth I will expend on this topic.

Stepping off my soap box now, relaxing, and still brewing great beers  
from extract,  
Dan Wood  
wood@rtsg.mot.com

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Date: Fri, 12 Feb 93 11:10:09 EST  
From: Andrius Tamulis <ATAMULIS@ucs.indiana.edu>  
Subject: Mash temps.

In today's HBD I saw a question about mash temperatures, and as I've had a question about the same that I've been meaning to put to the net, I figure now's the time.

I all concerns Miller's book and his mash temperature recommendations. I don't have the book here, so details may be fuzzy, but in his chapter on "Conducting the Mash" he warns that starch does not dissolve in water at temps. less than 149 F, and therefore you should never mash blow (below, that is) that temperature. Then, in the ale recepie section, he recommends mashing certain ales at 141-150 degrees F. Does anyone know what's going on here?

andrius

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Date: Fri, 12 Feb 93 10:32:44 CST  
From: lencell@unmc.edu (Lance Encell)  
Subject: message for Sandy Cockerham

Sandy, this is with regard to your post about chocolate porters.  
I want to make a chocolate for my next batch, but haven't decided on  
a recipe. Any hints....clues.... or recipes you might recommend for  
an extract brewer? ANY help is much appreciated. Please reply directly  
to me at:  
lencell@molecular.unmc.edu

Thanks again,

-Lance

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Date: Fri, 12 Feb 1993 09:54:54 -0800  
From: Richard Stueven <gak@wrs.com>  
Subject: A Beer Odyssey (Act IV)

A Beer Odyssey (Act IV, the last)

My next scheduled stops were Willet's and Brown Street, both in Napa. Check your maps - Napa is a good long way from Chico, and the nearest intervening brewpub involves a detour to Davis. (Which wouldn't have been a terribly bad idea, since Sudwerk makes some mighty fine brews.) About halfway there, my human frailties overcame my drive for beer, and around 12:30 I pulled off the freeway at Maxwell for an hour's nap.

I awoke a new man. Before long I was on Highway 128, navigating the hills between the Central Valley and the Napa Valley. (Nobody told me there were mountains there! Whose idea was this, anyway?) Willet's was closer than Brown Street, so I stopped there first. I was shocked and dismayed to read the sign painted in their front window: "Closed Sunday". Fortunately, Brown Street was just up the road.

Brown Street had been my favorite brewpub since my first visit not long after they opened. They always had twelve very good beers on tap, from a very light ale to a very black stout. Their specialties were Ginseng Ale, which was their Porter with a bit of ginseng extract added, and California Chili Beer, which was amazing. Period. My friends and I would make regular road trips to Napa to buy the stuff two or more gallons at a time. It was incredible.

Then the unimaginable happened. I read it on page 13 of the August 1992 Celebrator: "Closed: Brown Street Brewing, Napa CA. The brewery has ceased production but the restaurant is still open." I was stunned. Shocked. Dumbfounded, even. Granted, they have a terrific restaurant, but no more Chili Beer? It was hard to imagine. I was sure I was dealing with a vicious rumor, but I had to find out for myself.

The sign on the door said "Sunday: 4:30-11:00". No mention of the state of the brewery. As much as I would have liked to stay, it was only 2:30, and I had places to go. I have since learned that the brewery is in fact closed. They have five excellent California and Washington beers on tap, but the brewery is closed. A moment of silence, please.

Kelmer's in Santa Rosa is just up Highway 12 from Napa. It's bigger than your average brewpub, with a long bar, a large dining area, and a separate room that looks like it would be a great place for a private party. I was stuck in traffic (Traffic? In Sonoma County?) on the way there, so I didn't arrive until nearly four o'clock. Imagine my thirst. I remembered tasting their excellent Scottish Ale on tap at Pacific Coast, and I hoped to have some fresh at the brewery, but it was out of season. I had to make do with some of their other pretty fine beers:

Krystal (light) - Wheat lager. Very light indeed. Definite wheat sweetness.  
Klassic (medium) - Amber. Also pretty light.  
Klout (dark) - Stout. Good roasty flavor, but a bit thin.  
Independence Ale - "Winner of the Great American Beer Festival". That's more like it! Well-hopped, well-balanced pale ale.

The notes on the menu say that the brewery was established October 1987, and that they have sold over ONE MILLION glasses of their beer! Well done! They also sell those one-gallon jugs that are supposedly illegal. I asked the bartender about them, and he was not aware of any rules prohibiting their sale. Go figure. The fish and chips, while not up to the standards of the Edinburgh Castle in San Francisco, were certainly good enough to soak up a pint of their Independence Ale.

One last stop before the home stretch: Dempsey's Ale House in Petaluma. It's tucked away in the back of the Golden Eagle shopping center, but it's not too hard to find. Once again, the gallon jugs were on sale. (They're everywhere, I tell ya!) One more time, I started with a round of samplers:

Golden Eagle - light pale.  
Red Rooster - Less body but more flavor than Gold...  
Bad Bear Brown - Good brown. Just sweet enough. Could use a bit more "roasty" flavor, but maybe not.  
Henry's Stout - Thin, a little astringent. Doesn't make the cut as a stout, and it has too much burnt flavor for a porter.

The jar behind the bar advertised homemade beef jerky, but the jar was empty. Too bad.

There were more stops to be made before I crossed the Bay on the way home: Marin in Larkspur; J&L in San Rafael; 20 Tank, San Francisco Brewing, and Gordon Biersch in San Francisco; Bison and Triple Rock in Berkeley; Pacific Coast in Oakland; Tied House in Alameda; but I had to admit defeat.

Or was it defeat? Nine brewpubs, samples of forty-one of the best beers in California and Oregon, a thousand miles of driving through some of the most scenic country in America...I think I won after all.

And I learned two very valuable lessons along the way:

- A lot of microbreweries are making much better beer now than they were last year.
- The 1989 Mercury Cougar was not designed to be slept in.

Richard Stueven  
gak@wrs.com

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Date: 12 Feb 1993 13:02:10 -0500 (EST)  
From: Nathan Clark <GRS04736@CONRAD.APPSTATE.EDU>  
Subject: Suggestions for a beginner...

I have recently become interested in HB, and have been reading HBD for a few mos. I am wondering if there are any magazines out there for HB, especially ones with help, hints and recipes for the novice. I have seen some references to "Zymurgy" in articles by Bob Jones and others. Is this what I'm looking for? Also any good literature for the beginner?

Thank you,  
Nate Clark  
grs04736@conrad.appstate.edu

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Date: 12 Feb 93 10:22:13 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.EDU>  
Subject: RE- Fermenting in Stainless

Subject: RE: Fermenting in Stainless Time:9:37 AMDate:2/12/93  
I have been using a 15.5 gal Sanke keg as a fermenter for the past 18 months or so. I have been quite happy with the results. I have not modified the keg except to remove the valve assembly. I can put 13 gallons of bitter wort in it without a blowoff hose and not worry about overflow. To sanitize, I scrub the interior with my regular carboy brush, inspecting with a small mirror and flashlight. Very little grunge has stuck to the walls of the keg. I then rinse with boiling water, about 3 or 4 gallons. I roll the keg around on its side with the boiling water in it for about 15 minutes. The keg is emptied and stored with some foil over the opening. Prior to filling the fermenter with new wort I rinse it again with the same amount of boiling water as before, rolling again for 15 minutes. I have not had any infection problems.

George Fix uses pony kegs for fermenters. There is some study which says that the proportions of ponies are perfect for the task. Perhaps he'll chime in with comments of his own.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300, 61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Fri, 12 Feb 93 12:25 CST  
From: korz@iepubj.att.com  
Subject: Re: enzymes/heresy

McHarry writes:

>I know that enzyme activity varies with temperature, but I have never  
seen  
>discussed whether one can run a mash up to the upper 150s to break down  
>some of the starches, then drop back to 148 or so to finish off the  
>dextrins. Does the higher temperature just favor the one enzyme system  
>over the other, or is the lower temperature system actually destroyed? I  
>have always thought the latter, but the literature is unclear, and it  
would  
>seem the malting process exceeds those temperatures.

It's a better idea to go the other way around or mash somewhere in the  
middle, say low to mid 150s. It is the latter. Actually both alpha-  
amylase  
(which cuts the starches into dextrins) and beta-amylase (which breaks  
glucose molecules off the ends of dextrins and starches) slowly denature  
at all the temperatures above 140F (or something like that -- I don't  
have  
my books here). Beta-amylase is MORE temperature sensitive and denatures  
quite quickly at temperatures like 158F. Alpha-amylase tends to be  
heartier  
and lasts longer at temperatures like 158F. So the key is how long are  
alpha- and beta-amylase going to be around at your mashing temperature,  
not at what temperature they "like" to work. This is why going into the  
high 150s and then back down won't work as planned. I'll leave the  
answer  
to your other question, about temperatures during the malting process,  
to others since I don't know enough about it (perhaps much of the  
enzymes  
\*ARE\* denatured, but enough is still left? -- that would explain why  
Munich  
malt (kilned at higher temps) has less diastatic potential than Pilsener  
malt).

\*\*\*\*\*

Jonathan writes:

>I boil my beer in a Vollrath pot (borrowed from a friend who is  
currently not  
>brewing). I generally boil about 4 gallons, losing a gallon or so over  
the  
>sixty minutes. I have pre-boiled and chilled, first in the fridge and  
then,  
>while brewing, in the freezer, down to almost-frozen, 2 gallon jugs of  
water.  
>When the boil is over, I stick the Vollrath in my kitchen sink, filled  
with  
>ice water and dump the almost-frozen water in on top. I cover the pot &  
>wait about a half hour or until all the ice in the sink melts.  
>Seems to me I get a pretty good cold break from this.  
>  
>Wort-chillers? We don' need no stinkin' wort-chillers!!!

That's exactly what I used to do and it was a BIG improvement over trying  
to get the wort to pitching temperature in the bathtub. I build myself  
a wort-chiller so I could do full boils (better hop utilization) and for  
consistency (sometimes half of the gallon of water would freeze and I'd

have a heck of a time getting it out of the jug!) so my pitching temp was more predictable.

Then later:

>Now here's the heretical part. After having read the discussion of yeast nutrients in trub when it first appeared a few months ago, I decided to rack off not only the beer but just a little bit of break material too (maybe 1/2 cup or so). Also, in spite of all the \*worrying\* about temperature shocking yeast, I pitch at a relatively high temperature - usually in the 80's F. (I brew ales), because, o.k., well, my chilling methods DON'T work as well as a wort-chiller does - but the bottom line is that I always get fantastic starts (under six hours and a lot of crud in the blowoff bucket) and I've been getting some pretty decent beer the last few batches.

There's little problem with pitching into 80F wort if your starter is around 80F also. If your starter was in the 60s, then I'll bet you wouldn't be getting such fast starts (temperature shock). Also, pitching a warmer starter into a cooler wort is a bigger shock to the yeast than going into warmer wort.

Regarding your picking up of trub, if you mean when you are transferring to your secondary, then I feel you would be better off not picking up the trub. Sure there are nutrients in it, but they should only be made available to the yeast during respiration not during fermentation. I've read that fermentation of trub tends to increase fusel (higher) alcohol production. It has also been suggested that these higher alcohols are blown-off if you use the blowoff method (which you do), so fermenting on the trub is allegedly less of a problem if you use the blowoff method.

I ferment on whatever break I accidentally don't leave in the kettle AND use the blowoff method and on most of my beers I feel there's no problem with excessive higher alcohols.

Al.

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Date: Fri, 12 Feb 93 13:06 CST  
From: korz@iepubj.att.com  
Subject: Spread it on Toast Imperial Stout

I've gotten several requests for the recipes with which I've won awards. I believe all but the Imperial Stout and Dubbel-style have been posted. I won't post the Dubbel-style, since I don't agree with the judges -- I thought the beer was quite a bit worse than they did, but here's the Imperial Stout:

Spread it on Toast Imperial Stout  
by: Al Korzonas

6.6 lbs Northwestern Dark Unhopped Extract  
3 lbs Laaglander Light DME  
1/4 tsp NaCl  
1/4 tsp CaSO4  
1 tsp CaCO3  
1 lb 40L Crystal malt  
1/2 lb Chocolate malt  
1/4 lb Flaked barley  
3/4 lb Roasted unmalted barley  
5 gal Palos Hills, IL (soft) tapwater  
1.5 oz 7%AA Cluster pellets (60min)  
1.5 oz 5%AA Cascade pellets (60min)  
0.6 oz 5%AA Cascade pellets (15min)  
0.5 oz East Kent Goldings whole (dryhop)  
8 oz starter culture from 4 bottles of Sierra Nevada Pale Ale

Steeped grains at 170F for 15 minutes in grain bags.

OG=1090  
FG=1037

Fermented at 65F.

Bottled with 1/2 cup boiled corn sugar.

This Imperial Stout is less alcoholic than many others I've had -- this is partly due to the fact that the Laaglander extract is not very fermentable. The Laaglander is also partly responsible for the high FG. This is a very creamy, smooth beer.

Al.

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Date: Fri, 12 Feb 93 12:28:20 MST  
From: pyle@intellistor.com (Norm Pyle)  
Subject: Brewing History

Kieran asked about information on brewing history for a research paper. I have a long list of brewing history sources in the Bibliography of "Real Beer and Good Eats". There appears to be some interesting stuff there, some published as early as 1879. It could take some time to type it all in. If others are interested, I'd be willing to type it and post it. If Kieran is the only one interested, maybe I should just fax it. Let me know. (KOC: I lost your email addr!)

Cheers,  
Norm

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Date: Fri, 12 Feb 93 15:11:32 EST  
From: johnw@NADC.NAVY.MIL (J. Williamson)  
Subject: aeration and hot/cold breaks

I could use a little help with the subjects of wort aeration and the formation and importance of hot and cold break.

First, wort aeration. On reading beginner's books I get the impression that I should boil up my extract, grains, etc in my brewpot, and then

pour the wort through a strainer into my primary, pitch the yeast, seal and

leave alone. Through this forum and from other sources I've learned that the yeast needs oxygen to reproduce therefore the wort should be shaken, stirred vigorously just before or after pitching. What is the experts' advice? Do I leave the wort alone or not?

Regarding hot and cold break. As I understand it hot break is formed during the boiling of the wort. Cold break must be formed by cooling the wort after the boil. A few questions. I only boil about one and a half gallons and add that to three and a half gallons of water in my primary - does just chilling the 1 1/2 gallons produce a cold break? Does the rate of

cooling affect the formation of a cold break and if so how fast should it be cooled? I'm assuming that cooling my 1 1/2 gal of wort does produce a cold break which settles to the bottom of my pot with the hot break - should

I take care and siphon the wort off the trub into the primary? If I siphon

the wort off the trub am I leaving nutrients in the trub that the yeast need?

Any help would be greatly appreciated as even the beginners books are not crystal clear to the beginner.

Thanks in advance, JW

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Date: Fri, 12 Feb 93 13:23:55 MST  
From: stevel@chs.com (7226 Lacroix)  
Subject: Chuck Cox Freed!!!!!!

It was nice to see that the mega-brewery wannabe, the BBC, has been foiled by the courts, and (from the sound of it) their own "expert" witnesses.. especially the character who was so drunk.... Anyway, the call to continue to boycott Sam Adams Beer (c'mon fellas, it really isn't that good anyway) will be supported by this brewhound. I'm glad Chuck stood his ground and maybe this will be the end of it...then again maybe not. Is there a lesson here??? I hope so...

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Date: Fri, 12 Feb 93 14:20:12 -0800  
From: SCHREMPP\_MIKE/HP4200\_42@pollux.svale.hp.com  
Subject: roller mill rollers

A few weeks ago there was a posting from someone looking for a source of rollers for roller mills. I got a woodowrking catalog yesterday that has rollers that might work. These rollers look like conveyor belt rollers and are sold to be used to make outfeed supports for table saws and such. Here are the particulars:

|                                    |        |
|------------------------------------|--------|
| 14" roller, Catalog number 100-023 | \$8.95 |
| 22" roller, catalog number 801-127 | \$9.95 |

Woodworker's supply  
1-800-645-9292

Disclaimer: I don't own a roller mill, and I've never pruchased these things,  
so I don't know if they're the right thing.

Mike Schrempp

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Date: Fri, 12 Feb 1993 17:42:31 -0500 (EST)  
From: Alexander Samuel McDiarmid <am2o+@andrew.cmu.edu>  
Subject: malt extract

I have just tried a new batch of beer which I brewed with a piltzner kit (M&P?) in which instead of adding only shugar to the malt mix I used malt concentrate. My problem is that the taste is too bitter/(malty?). I would like some suggestions if anyone has any as to why it has turned out so bitter and general guidelines as to the proper use of malt extract. there is definately the appropriate amount of alcohol though (just for the idiotic innappropriate discussion as to what beer has the most kick for the dollar).

My process went as such.  
boiled all the water and the malt shugar (liquid), malt extract, and shugar.  
then I dumped it all in the carboy as usual.  
after cooling I dumped in the yeast ( came with the kit)  
after a week in the carboy I added gelatin as a fining agent  
waited a few more days and racked to bottles. I have since let the bottles sit the required three weeks plus a few days. (because I wanted the beer out of the bottles faster I stuck to the required shugar to pre beer ratio, also gets rid of that over pressurization prob my friends complain about when they put in more.)

I have just opened the beer and drunk some, not bad or yeasty as if it was opened too soon, but definately too bitter.

-A.

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Date: Fri, 12 Feb 93 18:50:16 PST  
From: mrozek@gandalf.etsdesg.TRW.COM (Eric M. Mrozek)  
Subject: MI 10cent deposit, all-grain snobs

Ulick Stafford <ulick@schumann.helios.nd.edu> writes in HBD 1075:

>and we don't have an inane law like MI's 10cent return charge

I was raised in Michigan and I thought the deposit was a bad idea when it started, but after living in Los Angeles for the past ten years I've changed my mind. There are practically no bottles littering MI roadsides. And so what if it costs 10 pennies to keep the bottle for homebrew? Once you get a couple hundred (~\$20), you keep reusing them anyway.

I brew all-grain beer, but I'm not an all-grain snob. Some of my best friends drink extract beer. ;) Me and my brewin' buddy DO brew all-grain, but we've made several extract beers that have won Maltose Falcon awards and have astonished some a'g'ers. One was a Maple Ale that my buddy (Mr. Mark Davis) published here a couple o' months back (actually, this one never lasted long enough to enter).

Eric Mrozek

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Date: Fri, 12 Feb 93 21:20 CST  
From: arf@ddswl.mcs.com (Jack Schmidling)  
Subject: Where's Rudebush

I think I have allowed a polite amount of time for Roy to defend his position and as he doesn't seem to be so inclined, I will offer a few comments.

Roy Rudebush has been running ads in various journals claiming that his Corona Mill, "crushes malt better than J.S. rollermill. Proven" and he made the same claim in a recent posting to the Digest.

This claim has been challenged by a HBD participant and he seems to have vanished from the scene. I have written to him several times, both email and US Mail and have never received a response.

As a bit of background, Roy who runs IMO Homebrew Supply in St Louis, purchased a MALTMILL (tm) about a year ago and promptly returned it for a refund. Aside from comments about the Corona being better, he has never responded to any further attempts of mine to resolve the issue.

Upon seeing one of his ads, my wife sent for the "proof" under her name and we received his analysis. Again I wrote to him suggesting that it is probably futile to argue with his data but pointed out that most retailers take advantage of selling to both ends of the market and I do not understand why he is taking this approach. I received no response to this either.

He claimed in his posting here that....

> Analysis was done by several professional brewers and scores of accomplished homebrewers.

In the info he mailed out, he only mentions his wife and himself. He also refers to a "Midwestern micro-brewery" that prefers to use a Corona because of its superior crushing. I would be interested in knowing the name of this brewery. The only one I know of in the Midwest using a Corona, never heard of him and the owner assures me it is a tight budget, not preference that has him using the Corona.

As this is the one and only MM ever returned for a refund, it is important to me to make sure it is understood that something most peculiar is going on here. It happens that the one he purchased was a very early edition (number 5 or so) and many improvements have been made since. All of the improvements have been to enhance reliability or ease of use and there never has been a

problem with the crush quality. Furthermore, all known problems with  
early  
units have been resolved to mutual satisfaction and as far as I know,  
there  
are no unhappy customers out there out of close to 500 users.

I can't tell someone else how to run his business or attack him for his  
ads  
but I can sure jump on him for his hit'n run attack in this forum.

Where are you Roy?

js

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Date: Fri, 12 Feb 1993 21:28:20 -0600 (CST)  
From: brewmstr@ddsw1.mcs.com (Jim Bayer)  
Subject: Irish Red Style Definition

I'm trying to find the "legitimate" definition for the Irish Red Ale style. I've heard that the style is becoming extinct, not unlike Porter and I'm interested in any information I can get.

The history of Killians and the eventual sell out to Coors is interesting but I don't think I have the whole story for that either.

Any recipes that are true to the style would be appreciated.

Jim

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*****  
* I'm not w*rrying, I'm having a homebrew! You should too! *  
* *  
* < Don't let your wife blame anything on your homebrewing > *  
* < Beer always tastes good, hangovers always go away (stolen) > *  
* Jim Bayer -> Chicago, IL *  
* brewmstr@ddsw1.mcs.com 72416.1044@compuserve.com *  
*****
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Date: Fri, 12 Feb 93 20:33:56 -0800  
From: "Stephen Hansen" <hansen@gloworm.Stanford.EDU>  
Subject: New additions to the HBD Archives.

Thanks to Ben Goetter we now have access to some the early digests that had been missing from the archives. More than a dozen from 1988 and four from 1989 have been added. These digests are all from a period before each issue was given a serial number and so they are named with the date of issue (i.e. 881101 for Nov. 1, 1988).

I have placed the perl script written by Alan Edwards for computing IBUs as a function of AAU, ounces, and boil time in the archives in programs/iso.pl (listserv users send "get homebrew iso.pl"). See Homebrew Digest #1073 (February 09, 1993) for more information.

And finally, in docs/hymn\_to\_ninkasi, is a copy of Miguel Civil's translation of the Sumerian "Hymn to Ninkasi" as transcribed by Rick Myers (listserv users send "get hymn\_to\_ninkasi").

I would like to request that those of you who are tranfering large amounts to restrict your transfers to off hours, 5pm to 8am Pacific Time.

Thanks,  
Stephen Hansen  
Homebrewer, Archivist, Beer Snob.

snob /'sn<a:>b/ n (1781)  
[obs. snob member of the lower classes, fr. E dial., shoemaker]  
1 Brit: COBBLER  
2: one who blatantly imitates, fawningly admires, or vulgarly seeks association with those he regards as his superiors  
3a: one who tends to rebuff, avoid, or ignore those he regards as inferior  
3b: one who has an offensive air of superiority in matters of knowledge or taste

Relax, lighten up, have a homebrew. :-)

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Date: Sat, 13 Feb 93 12:08:17 EST  
From: "Matthew Mitchell" <IEKP898@TJUVM.TJU.EDU>  
Subject: Reused Ballantine yeast

>On 'tother hand, Ballantine Brewery supposedly used this yeast strain  
>over and over, repitching hundreds of times without any problems. So  
>I'm still scratching my head over this one.

Well since you mentioned it, I gotta relate a story I heard from the head  
yeast guy at SchmidtUs of Philadelphia. I gave a seminar and  
accompanying  
laboratory 8^) on brewing biochemistry while in grad school and got the  
cook's  
tour from him as part of the research.

He said that Schmidt's supplied yeast for another brewer he couldn't name  
but  
I figured out was Falstaff (not "Ballantine") in Cranston, RI. Like  
most  
other commercial ventures, Falstaff tried to keep its costs down, so they  
only  
ordered yeast every few months. Naturally, this boomeranged on them  
often, as  
the yeast mutated or got contaminated, and Schmidt's would get an urgent  
call  
from Cranston: "We need some more yeast, like yesterday!" So the yeast  
guy  
would grab the latest batch destined for mother Schmidt's, and put it on  
an  
airplane. The airplane would come back with a sachel full of money,  
since  
Schmidt's knew Falstaff was over a barrel, and all the money they thought  
they'd save by stretching the yeast eventually always got to  
Philadelphia.

Moral of the story: Recycling yeast usually works (e.g. Ballantine's IPA)  
, but  
sooner or later mother nature is gonna jump up and bite you on the wazoo!

Howzat!?!

Matthew Mitchell <iekp898@tjuvm.tju.edu>  
former proprietor: Penthouse Brewing Co., Haverford, PA  
brewers of Barclay Beer, Northern Comfort Stout,  
and Big B Malt Liquor "9.4% alcohol, 100% flavor"

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Date: Fri, 12 Feb 93 22:36:37 EST  
From: jdg@cyberspace.org (Josh Grosse)  
Subject: Diacetyl reduction and clarifiers

I was moved to post a response to several related questions in today's issue (1076), regarding diacetyl reduction and clarification.

Clarifiers such as Isinglass or Polyclar (tm) will reduce the yeast population in suspension, which may be a contributing factor in diacetyl levels above the taste threshold. Diacetyl is more likely to be noticeable in lagers than in ales.

Racking from primary to secondary fermentation vessels too early may also contribute to diacetyl flavor/aroma.

Since I'm addicted to Polyclar, I use a procedure called a "Diacetyl Rest" at the end of fermentation before racking to the secondary fermenter. This eliminates diacetyl nose, and I get a beer with excellent clarity.

After fermentation completes, I bring my primary fermenter up to 68-72 F for 24-48 hours prior to racking to the secondary. I add Polyclar, and bring the secondary down to lagering temperature.

One note about clarifiers. Spencer Thomas and I split a batch of Vienna this fall. We pitched the same yeast into the same wort, split the batch, and fermented separately. We even used the same temperature for fermentation. HOWEVER, Spencer didn't use a clarifier, and I did. Yes, I won points on clarity -- Spencer won on malt nose and flavor.

Diacetyl references: Miller: TCHOHB, and Fix: POBS.

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Josh Grossejdg@grex.ann-arbor.mi.us  
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Date: Sun, 14 Feb 93 13:27:54 PST

From: davidr@ursula.ee.pdx.edu

Subject: Thanks! (was RE: Beginner wants to make SMALL batch...)

I just wanted to thank all helpful people who replied to my plea for help. Unfortunately, my mailbox has been flooded for a week, and I am unable to make personal replies. I am, however, convinced to try something larger than the one gallon that I originally intended. I will also somehow find the time to read Papazian's book, as almost EVERY reply suggested! Also, thanks to those who provided definitions to the Brewian terminology that I lack knowledge of.

-David (Still learning) Robinson

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Date: Mon, 15 Feb 93 8:53:43 EST  
From: klm@mscg.com (Kevin L. McBride)  
Subject: Beer places of interest in Santa Clara, CA?

I'm scheduled to go to the Sun Developers Conference in Santa Clara, CA at the end of March and would, quite naturally, like to spend my free time checking out the local suds venues, i.e. brewpubs, micros and beer bars.

Replies by e-mail graciously accepted. Thanks.

- - -  
Kevin

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Date: Mon, 15 Feb 1993 09:35:19 -0600  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: George Fix's Address

Sorry to bother \*everyone\* with this, but Rob is away, and two weeks is a long time to wait. I'm trying to send mail to George Fix, and his address as it shows-up in the digest is not sufficiently complete to accomplish this (gjfix@utamat). He does not seem to have a Compu\$erve account. If someone has a complete address, I'd appreciate your sending it to me...

TIA

t (trl@photos.wustl.edu)

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Date: 15 Feb 1993 11:40:42 -0400 (AST)  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Overnight mashing

Before you trash the ideas herein, please note that I DO recognize bad beer when I taste it, and I DO know the reasons why the big names in brewing for the most part discourage these techniques. I was an extract brewer for 4 years, and then made the switch to all-grain. I sometimes wished I could return to extract for a quick batch, but frankly I can't afford kits anymore; after the initial expenses (and Christmas presents from Mother in law...) I can brew a bitter for under \$10 (canadian), vs \$20+ for an extract brew. A few recent posts, particularly by George Fix and McHarry got me thinking about overnight mashing and cold sparging. So here it is: the EvenEZ-er OverNiteMash (c)\*.

0. Pre-heat oven to 200 degrees F
1. Heat the mash water to 165 degrees F
2. add the grist slowly, stirring (gently) to ensure no dry spots
3. add heat slowly, stirring gently, until temperature of the mash is an even 155 degrees F
4. Turn off the oven, put the mash pot in the oven. (if you use an insulated tun, or your kettle won't fit in the oven, skip this step, it probably won't make that much of a difference).
5. Go to bed.
6. The following morning, remove the mash from the oven, and take the lid off (if it had one on). This will cool it down quicker.
7. When the mash is cool, dump it in the lauter tun (two bucket type works just fine).
8. Sparge with COLD water.
9. Boil as usual.

(I wouldn't recommend this for a brew which needs step infusion or decoction, this process is for a beer requiring only a single stage infusion mash, such as an English bitter.)

I hear you screaming "But there's no mashout!" "My extraction rates will be way down!" "My sparge will stick!"  
To which I reply: So what, no it won't, and I had no problem, in that order. To qualify, as the temperature drops, the enzymes become less active, plus the alpha amylase has been to some degree inactivated by the high initial temp. Furthermore, part of the reason for the mashout is to eliminate a variable in brewing a specific beer; commercial breweries want to control ALL variables so each batch comes out the same. We're homebrewers, we don't have to listen to the bullies if we don't want to.  
As for extraction rates, mine were virtually identical to my hot sparge rates (which were not spectacular, but a reasonable 26-27 points or so). As for the stuck sparge, I can't say I've EVER had one. When making a two-bucket lauter tun, tape 1cm graph paper to the bottom, and drill the holes evenly.  
You will wind up with almost twice as many holes, believe it or not, and no uneven drainage of the grain bed.

I wonder if one reason for commercial breweries using a hot sparge is that it requires much less energy to heat the sweet wort to boiling

afterwards...

Anyway, this requires about 1/2 hour before bed (not including grain grinding time), and about 3 1/2 hours the following day, making the time consumption much more like making an extract brew. Another major advantage is virtually no hot side aeration (HSA) save for the mash (which is why you stir it GENTLY).

As a disclaimer, I just did this over the weekend, so I don't know yet how the final product will taste, but I will keep you posted.

Ed Hitchcock  
Dalhousie University  
Anatomy and Neurobiology  
ech@ac.dal.ca

\* EvenEZ-er OverNiteMash and other silly ideas in this text are copyrighted to Ed Hitchcock, 1993. Use them freely, use them glibly, just don't use them for profit.

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End of HOMEBREW Digest #1078, 02/16/93

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Date: 15 Feb 93 08:47:09 GMT  
From: "Tom" <ceco!CWEMAIL!WAUTS@uunet.UU.NET>  
Subject: Installing a Spigot

Date: 02/15/93  
From: Tom Stolfi - CWE1IIN  
To: Open-Addressing Application for Internet Acc INLINE - CWEMAIL  
Subject: Installing a Spigot

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I am just getting into all grainers and have found that a spigot installed in the boil kettle would speed things up. I have a porcelain over steel stockpot. What type of material is the spigot, what is the cost to install, where can I get the parts, and how long does it take to install?

Tom Stolfi wauts@cwemail.ceco.com  
Commonwealth Edison Co Waukegan, IL

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Date: Mon, 15 Feb 93 10:58:52 -0500  
From: esonn1@cc.swarthmore.edu  
Subject: Getting Rid of Detergent Residue?

>Ulick Stafford writes that detergents should not be used on brewing  
equipment.  
> Unfortunately, I have already used detergents on my fermenter several  
times.  
>I always sterilize the fermenter and all other brewing equipment using a  
>bleach solution before brewing, but I am worried about any detergent  
residue.  
>Other than using TSP or other base cleaners, is there a product I should  
use  
>to get rid of any lingering detergent residue? Our beer has generally  
been  
>slow to carbonate, but when it does, it usually carbonates sufficiently.  
>  
>Thanks in advance,  
>  
>Eugene Sonn  
>esonn1@cc.swarthmore.edu  
>

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Date: Mon, 15 Feb 93 10:06:40 CST  
From: wood@ranger.rtsg.mot.com (Dan Wood)  
Subject: Sour Brew, Part II

First let me say thanks to those who replied in HBD and via email. Experimentation with food grade acid is an interesting thought. Does anyone see problems with adding small amounts to just a few bottles at bottling time? Not that I'm nervous or anything, but I hate to take chances with 5 gallons at a time.

Anyway, my friend Brent tried following Charlie's directions. He placed a quantity (sorry, I'm unsure of amount) of pale malt in a cooler with 5 gallons of water at 130 F. He covered the cooler and left it for 19 hours. The temperature had only dropped 20 degrees to 110 F, and the liquid was sweet, with no sign of sourness (tartness?) and no noticeable growth. It may have stayed too hot, any other ideas about what went wrong?

Also, I had the pleasure of sharing an Imperial Stout and Taddy Porter (Samuel Smiths) yesterday, and they both seemed to have a bit of sourness, perhaps more noticeable in the Imperial Stout. Perhaps I'm misinterpreting something in the flavor, but there does seem to be a much more distinct sour flavor than I've experienced in beers with much more dark grains.

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Date: Mon, 15 Feb 93 17:12:38 MET  
From: THOMASR@EZRZ1.vmsmail.ethz.ch  
Subject: yeast strain selection

hello all.

on this thread about yeast strain selection aka finding a growth medium that will kill everything but the yeast you actually want, I have a few comments.

Firstly, there seem to be two lines of discussion going on at the same time, one concerns getting rid of so-called "bugs" and the other concerns getting rid of "wild" yeasts. So, the bug problem first:

most of the bacteria we are likely to get in our yeast supply can't survive acidic conditions, so if you sterilise (ie boil) your growth medium (eg wort), which you have previously adjusted to pH 4-5 (unnecessary if you mashed your own), the bacteria will not grow anywhere near as fast as your yeast. By the time the sugar is used up, there may well be enough alcohol in there to stop all bacterial growth. (I brew a strong (1085) ale just so that I can get a sample of yeast from the bottled version when I need one).

The wild yeast problem, as far as my research has dug up, is not at all trivial. You can stop the growth of ale (top) yeasts compared to lager yeasts by fermenting them on mellibiose as the sugar source. (this should be available from Aldrich chemical co, etc). There are no other sure fire ways of separating yeasts, unless you know EXACTLY who the stranger in your wort is. How about streaking plates, and doing small scale runs with all the yeast looking colonies that appear, and then isolating the strain you want by taste or rapidity of clearance. This is how they do it in the breweries. (Assuming they mislaid the clean strain or are looking for a better one.

I suppose, having finished this note, that I haven't really said anything new. Oh well.

Rob Thomas.

P.S. More brewing/beer quotes please... "Poe" was great!

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Date: Mon, 15 Feb 93 11:36:11 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: still more BAA information

BadAssAstronomer writes:

>The Jan 93 selections were; Mass Bay Brewing Winter Warmer and  
>Fisher Brewing Dark Ale.

We tasted these yesterday at the brewclub meeting. "Dark Ale" is a misnomer. This stuff was sort of copper colored. I'd say it's at the dark end of the pale ale spectrum. The flavor was nothing to get excited about, either.

The Mass Bay Winter Warmer, on the other hand was excellent. Nicely spiced, but not overwhelming. So many spiced beers have a sort of sour flavor, but this does not. Our meeting was outside at a local park, and I'd say that the Winter Warmer lived up to its name.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Mon, 15 Feb 93 10:18:24 MST  
From: Joe Boardman <boardman@amber.Colorado.EDU>  
Subject: an HBD-inspired yeast experiment

G'day All,

This weekend I started a little experiment that was inspired by a thread here a few months ago: "just what are the differences introduced by ale and lager yeasts?".

I brewed a 10 gallon batch of a pretty generic (but leaning towards a lager) wort. Then as it came out of the counterflow I split it back and forth between 2 glass carboys. One of these was pitched with a Wyeast 2007 (Pilsen) lager yeast, and is fermenting away at 50-53F. The other was pitched with a Wyeast 1056 (aka SNPA) ale yeast, and is doing its thing separately at 65F.

The recipe was:

Virginia's Advice Ale/Lager

12 lbs Klages American 2-row malted barley  
2 lbs Hinode Calrose California rice  
5 oz Saaz plugs @3.1 alpha  
2 oz Tettnang pellets @4.3 alpha  
+ the two yeasts mentioned above

I ground the rice, boiled it and cooled it to 130 with ice. Then I mashed in the grain and the rice at 130 and held for 30 minutes, then did a 2 hour mash between 152 and 145F. The IG was 11.8 Brix (about 1.047), which means my extract rate was in the low 30's.

I guess what I've really done is brew a lager and ferment half of it as an ale. I made it very light in color and body so the yeast differences wouldn't be masked. Next time, to be fair, I guess I'll have to brew an ale-type and do it again.

Does anybody want to hazard a guess about the taste differences?  
Does "clean" really mean anything?  
Is anybody going to be in Boulder in about 2 months to try some in person?  
Does anybody "know" they can tell them apart in a double-blind test?  
I'll report back if there's interest.

Cheers, Joe

"Remember, never take no cutoffs, and hurry along as fast as you can."  
advice from Virginia Reed, 1847, after surviving the Donner Party debacle

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Date: Mon, 15 Feb 1993 13:27:20 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: I killed my yeast!

Yes I did, and it was cultured-from-the-bottle Chimay Red yeast :-(  
The bleach-water was most of the way back up the blow-off tube, and when  
I lifted it out of the overflow container to drain it back down, it  
splashed  
back up the tube and into the wort. What looked to be a ferment starting  
is  
now dead, dead, dead. It made me wonder why I had bleach in the overflow  
bucket anyway. Obviously, disconnection the blow-off at the carboy end  
would have been a much better idea.

My plan is to boil it again, to boil off the bleach, cool it, and if it  
still tastes ok, pitch some other yeast. Will this work, or has the  
chlorine  
already ruined it? I'm not happy.....

Russ G.

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Date: Tue, 15 Feb 94 14:01:22 -0600  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Australian Yeast

This post is a request for information from those who have brewed with strains of active dry yeast from Australia. The strains I am particularly interested in are Mauri Foods Y327 Ale, and Mauri Foods Y497 Lager. It is my understanding that they were (are?) distributed in Canada by Superior Brewing Supplies. I am preparing a talk for the Microbrewers Conference in New Orleans, which will survey the important yeast strains currently available. There are some small operations, which due to limitations of equipment and other reasons, are forced into the use of dry yeast. Thus, I felt it is important to touch on some of the better versions. I have been told that the above strains have very high % cell viabilities, and very low bacterial/wild yeast counts. Private e-mail relating practical experience with these strains would be gratefully received.

George Fix

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Date: Sun, 14 Feb 93 17:57:59 CST  
From: hopduvel!john@linac.fnal.gov (John Isenhour)  
Subject: galvanized hardware cloth ok for sparging?

I've been wanting to build a mash/sparge cooler with a mesh filter as the rigid manifold arrangement sits a little too high off the bottom of my cooler. I haven't been able to locate brass or stainless mesh locally but I found some 1/8" galvanized hardware cloth. I haven't heard of anyone using this - is there a problem? Also, what is a reasonable minimum length of mesh if its rolled into a tube?

tnx!

- - -

John de HopDuvel  
home:john@hopduvel.uucp  
work:isenhour@lambic.fnal.gov

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Date: Mon, 15 Feb 93 21:42 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: The results are in

The results of a survey of the HBD readership are in! As you may recall, I recently submitted a note to the HBD (about a week and a half ago) inviting everyone to mail me with a descriptor of their brewing level. What a response!! By 10 a.m., I'd received more than 100 responses! Thanks to all for participating. (And what a talkative crowd! Sorry that I couldn't answer messages individually.)

The admittedly inadequately simple categories from which I asked people to choose were as follows:

All Grain if you rarely use extract for your brewing, other than for yeast culturing,

Intermediate if you do some mashing, partial mashing, some yeast culturing, etc., but you don't consider yourself very experienced, or

Extract if you are relatively new to the brewing process, haven't tried mashing, or in general, consider yourself to be on the steepest part of the learning curve.

The tallies are as follows:

All Grain: 55  
Intermediate: 65  
Extract: 69

I'd like to make a few comments regarding the survey.

Categorization: Obviously, as stated above, a categorization of only three simple slots describes the multidimensional brewer only crudely. Some people have never brewed with extract; some have brewed for ten or more years with extract only. And so on. I wanted to conduct this poll only to convince novice brewers that they really should use the HBD, not to annoy readers by forcing them to categorize themselves. Enough said!

Statistical Discussion: The results to this poll are most likely not truly representative of the entire HBD readership. I can think of several readers who regularly post in the HBD who didn't reply. I'm sure that more than 189 people read the HBD. And I suspect that the tone of my original message might have motivated those on the steepest part of the learning curve to reply, skewing the results. Also, bravado or modesty might cause people to describe themselves incorrectly.

Use of the HBD: I did all this for one simple reason. I want new brewers to feel free to use the HBD as a valuable resource for talking with experienced brewers for the purpose of improving their brewing, as I did. Several beginners told me that they were certainly intimidated from asking questions. The HBD has got to be the greatest resource available; use it. From my results, a significant fraction of the readership brews extract only. You're not alone!

A few commented that they're annoyed by such questions as "How do you brew beer?" Obviously, questions like this are inappropriate, but this doesn't mean that all discussion should be on the level of comparative mashing methods. So, use the HBD, but use it wisely.

So there you have it. An incomplete, inadequate survey of the HBD readership. That's my contribution to brewing science for now. (But with a Ph.D. in chemical engineering, I should be able to do better than that!)

Cheers!  
Chuck

P.S. For those who must know, I have never tried mashing. I use extracts and specialty grains (and fruits and spices too, yummm!) Maybe someday when I get a regular job (and a house with a basement).

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Date: Mon, 15 Feb 93 22:29 CST  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: snobs

>  
> In Michigan, you will find very little broken glass, nor will  
> find litter from empty cans or cardboard packaging . . .  
>

Really? Guess you've never been to Detroit.

Lately there seems to be a tendency towards complaining about the various types of snobs that can be found on the Digest. Be it all-grain or unix, I feel that these gripes are small potatoes. I think there exists a more serious type of snob out there which threatens the very foundation of the homebrewing community. And since it looks like no one else notices, I shall take it upon myself to point it out the general HBD community.

I would like to complain about fart snobs.

I'm sure you're aware of whom I speak. Tell me if this sounds familiar: You're at a homebrew gathering, drinking a beer, trying to decipher the subtle nuances of the hop aroma, the malt nose and the estery parfum when all of a sudden: (sniff) Oh man! Who the hell did that? GODDAMMITROGER!!!

We have all suffered from such individuals. You know who they are. Its that special breed of homebrewer who can bust worse than anyone else around.

This is one type of snob I cannot tolerate. It's not enough that a fart snob can emit such a heinous stench and at the same time maintain the facade of calm innocence nor make an otherwise gentle, God-fearing group of people trample one another in a stampede for fresh air. What really irks me is that these people won't share their technique with others.

How do they do it? What's the secret? How can they rip so vile that eyes water, dogs howl and vultures circle?

God knows I've tried. I've eaten all the wrong foods. I've done shots of yeast slurry. Hell, I've even sampled all the novice homebrew put in front of me. The result? Nothing. Oh sure, what I could pass showed promise since it did offend my wife, especially when I wafted the blankets. But I think its more of a female thing than anything else.

Which brings up another question: why don't women fart? Is their anatomy different in that the human female can't physically fart? Lets face it, have you ever heard a woman let one go? I know I haven't. It is my personal opinion that if a woman would fart periodically, and I mean really let loose with a long, loud stinkie, she would feel a lot better. Hell, I'll go one step further to say that most problems in the world today could be solved diplomatically if the two parties involved would just sit down and rip a few together. Who's to say it wouldn't work. Stranger things have happened. But I digress.

After much contemplation, I have come to the conclusion that

maybe, just maybe, I not destined for such greatness. Perhaps I should accept the fact that I'm just a mediocre farter. It could be that these people are not self-made but born to greatness.

chris campanelli

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Date: Tue, 16 Feb 93 01:33:22 EDT  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: New Brewmaster at Dock Street

I just spent an entertaining evening tasting infected beers at our new homebrewing club (now officially christened B.U.Z.Z. -- Beer Unlimited's Zany Zymurgists, after the store that sponsors it). The guest of honor was Nick Funnell, new (2 mo.) head brewmaster at Dock Street in Philadelphia.

Nick is an entirely pleasant tall, lanky somewhat English fellow who obviously has a great love of beer, and in particular cask ale. I think things are looking up for Dock Street. (Jim Busch, did you hear this? It's about time!)

Nick brought along an ersatz "Framboise," which he claimed had a Flanders brown base. I'm practicing for the BJCP exam and was busily filling out scoresheets as the beers wandered by, and was oh-so-pleased to give his (Dock Street's) brew a 41. Really, the only problem with it was a slight lack of body. Otherwise it was nearly perfectly balanced, with an awesome raspberry nose, tenacious head, clear and tart fruit flavor, and an interesting chocolate-toasted malt finish. One of those beers even your WIFE would love. (Not my words, but we know the stereotypes.)

He plans to import some casks from England shortly, and claims to be addicted to real ale. Judging by the slight shudder and glassy look he gave while saying this ...

It turns out that his apartment is right on my way home. Since he lacks a car at this point, I dropped him off and was invited in to share some cocoa with him and his wife Barbara.

Why do we make it so hard for these people to get work permits? We need MORE of them!

Yes, I think things are looking up at Dock Street!

=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
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Date: 16 Feb 1993 09:23:52 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: wild yeast media/Micah's st

Subject: Time:9:19 AM  
OFFICE MEMO wild yeast media/Micah's starter Date:2/16/93  
In HBD #1077 George Fix writes:  
Subject: Wild Yeast

>It is my opinion that the major open problem in brewing  
>microbiology today is the formulation of an accurate,  
>practical, and rapid media for the detection of  
>nonculture yeast. The problem is one of a needle in a  
>haystack.....  
>In commercial work, even lower levels of detection are  
>required (typically in the cells per 100 ml. range).

Have you (or anyone else out there) tried Lin's wild yeast medium? I think it contains crystal violet as a culture yeast inhibitor, allowing wild yeasts to grow (or rather, to grow better). Is it better-worse-same-faster than cupric sulfate? The 8th Edition of the ASBC Methods of Analysis contains a section on this media, so I assume that it has some utility and some brewery is using it. Of course if a well funded individual has the ASBC MOA maybe they could respond. The media is available from Siebel.

Another note:

I have only been on the digest since #999 and in one of the early issues I saw a reference to Micah's Magical (bionic) Starter. Can anyone either publish the recipe again or direct me to the appropriate back issue? Thanks.

DanMcC

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Date: Tue, 16 Feb 1993 10:00:28 -0500 (EST)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: My yeast is alive!

Looks like the bleach solution did not kill the yeast. I warmed up the carboy (by surrounding it with gallon jars of hot water), and it's now fermenting. How the chlorine will affect the taste, I don't know. But it's Chimay yeast, so I can blame any odd flavors on the "weird" yeast :-).

RussG

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Date: Tue, 16 Feb 93 08:10:43 MST  
From: pyle@intellistor.com (Norm Pyle)  
Subject: Mash temps. / Digest plumbing

Andrius asks about Miller's recommended mash temps. I may be speaking out of turn here, since I don't have my copy of Miller handy, but.... I believe Miller's book is mostly about brewing lagers. If that bit of heresay is actually true, then it may explain something. If he is out to brew the finest lager, he doesn't want any starch haze making him look bad. So, he wants to make sure all starch conversion is complete; if it's not, he's going to get a starch haze.

To the numbers you mentioned: I believe he said (or meant to say) that all of the starch may not dissolve below 149F. In fact, I would bet most of it does, which is something you can probably get away with in a dark, muddy ale. I don't remember him asking for anything as low as 141F but it may be so. I personally like to mash in the 152 - 158 F range for more body, less alcohol. Unfortunately, I always seem to screw up and get a nice variety of mashing temps before it's all over. ;-) :-0

Mike Schrempp posted about some outfeed roller to use in a mill. Thanks, Mike. I have one question: does the catalog mention the diameter of the rollers? (I assume the 14" and 22" are lengths) A larger diameter is better for grabbing the grain.

A note about posting to the digest: If you receive a reply from the daemon that says it will post your article, it will post your article. If it says something like: "there are 42 articles ahead of yours", then it probably won't get in the digest for a couple of days. Anything more than about 30 and there's no way it'll make it in the next digest. Please be patient. My article posted today 2/16 was sent on 2/12. The digest needs a serious dose of liquid plumber, or less posts about snobs, to clear this up. In the meantime, double postings just make things worse, so just cool it and have a beer.

Cheers,  
Norm

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Date: Tue, 16 Feb 1993 10:38:31 -0500  
From: mgx@solid.ssd.ornl.gov (Michael Galloway)  
Subject: Archives

Neil,

I think that the idea of creating and maintaining thread/faq/usefull info archives is long overdue. Nothing could be more usefull than to ftp to the archive and grab a file with information on, say, building a picnic cooler mash/lauter tun (I built one from a 10 gal gott and a 12 in. Phils Phalse Bottom, next brew is going to be all grain!). If you need help or support let me know, I would be glad to manage a thread if that would help lessen the burden.

Michael D. Galloway  
mgx@ornl.gov

Living in the WasteLand (of Beer, that is!)

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Date: Tue, 16 Feb 1993 07:40:36 PST  
From: John\_D.\_Sullivan.wbst311@xerox.com  
Subject: lagering

I'm a fairly experienced brewer (all-grain) trying something new to me, a pale lager. I made a starter with my Wyeast pilsen lager yeast (2007?) and pitched at 70 deg F. I had a short lag time and proceeded to lower the temp slowly to 50 deg with my hi-tech lagering system ;carboy covered up sitting under a cracked basement window. (I know, I should have just opened the window.) :)

My questions are these:

- 1)When should I rack to secondary? (with ales I just do primary)
- 2)When should I dryhop?
- 3)will minor temperature swings(48-55) adversely affect the beer or should I just rdwhahb?

Replies are greatly appreciated.

John

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Date: Tue, 16 Feb 1993 11:12:17 -0500  
From: mgx@solid.ssd.ornl.gov (Michael Galloway)  
Subject: grain bill

Hey ...

I went down to my local brew shop yesterday to but some grain for my first batch of all-grain brew (a SNPA clone). The proprietor looked at me rather dubiously when i gave him the grain bill:

8 lb British Pale Ale Malt  
1 lb British Crystal Malt (50L)

He seemed to think that the grain bill was short. I figured that with 30 pts/lb/gal I would get an OG of about 1050. He made some comments about Dave Millers unrealistic efficiencies and seemed to think that 25 pts/lb/gal was more reasonable. I assumed that 30 was a "good" number considering all i've read here on the digest. My setup is a 10 gal Gott cooler with a Phils Phalse Bottom as a combination mash/lauter tun. Am I being unrealistic? Perhaps I should go buy another pound or two?

michael galloway  
mgx@ornl.gov

Living in the WasteLand (of Beer, that is!)

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Date: Tue, 16 Feb 1993 11:23 EST  
From: Mark Cronenweth <CRONEN@vms.cis.pitt.edu>  
Subject: Other Digests

In a recent HBD, I heard mention of the Cider Digest. The address for this digest was posted, I SUB'd, and have received some great info. that I know is going to improve my cider tremendously - thanks Jay. I've also heard rumors of a MEAD DIGEST out there somewhere. If anybody has addresses for any online MEAD info., recipes, etc. please post me at: CRONEN@VMS.CIS.PITT.EDU Some purists will probably flame me for mentioning other fermentable materials on the HBD, but I can't help myself! I love the HBD & look forward to reading it every day. I even check my mail for it on weekends. But I'm just a sleaze-bag when it comes to fermentation. I'm not too proud to ferment anything (once) !

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Mark Cronenweth  
University of Pittsburgh  
School of Education

"From the sublime to the ridiculous is but a step." - Napoleon  
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Date: Tue, 16 Feb 93 10:03:34 PST  
From: alm@brewery.ht.intel.com (Al Marshall)  
**Subject: Test Message**

Test Message; Please forgive the use of bandwidth.

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Date: Tue, 16 Feb 1993 08:59:31 -0800 (PST)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: hops: rec.gardens request (fwd)

James,

I've been getting my hop cuttings froms Freshops in Philomath, Ore. They have given good service and are quite friendly over the phone. Directory assistance for are code (503) should find them...

I don't have any here at work, but you should check out Zymurgy magazine. This is the publication of the American Homebrewers Association. It can be found at large newsdealers and bookstores (usually among the gourmet and food/wine magazines). Everyone that sells hop cuttings advertises here.

If you want more info and contacts, send e-mail message with both the subject and message "SUSCRIBE" to homebrew-request@hpfcmi.fc.ph.com to get the daily internet digest for homebrewers. It has around 1500 members and is better behaved than rec.crafts.brewing where it is also echoed.

cheers,  
Paul de Armond.

- ----- Forwarded message -----

Date: Mon, 15 Feb 1993 12:07:01 -0800  
From: Mark Turner <mturner@henson.cc.wvu.edu>  
Subject: hops: rec.gardens request (fwd)  
Subject: hops: rec.gardens request

Paul, I came across this request in rec.gardens and thought you might be able to shed some light for the interested party.

- -- Mark

James White  
(james@rchland.vnet.ibm.com) wrote:

: Speaking of beer making and gardening. Does anyone know of a good  
source  
: for hop plants? I believe that I have to buy the roots. I see in some  
of  
: of the catalogs, adds for hops but they are all from the same source  
and none  
: provide the real variety name.

I mail ordered hop rhizomes from Marysville Oast in Oregon. I don't have a phone number for them, but here's the address:

Marysville Oast  
866 NE 1000 Oaks  
Corvallis, OR 97330

I don't recall which varieties I purchased (and the markers are covered with snow right now, so I can't read them from here!), but both grew well and produced modestly, which is expected in the first year. I'm looking forward to an increased harvest this fall!

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Date: Tue, 16 Feb 1993 09:12:35 -0800 (PST)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: apologies for previous post

To All,  
    sorry about the preceeding post. I used cc: to get the digest  
address and forgot to delete the cc: line before sending.  
Mea Culpa,  
Paul.

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Date: Tue, 16 Feb 93 10:34:50 PST  
From: southard@biology.UCSC.EDU  
Subject: recipe request (maple)

In HBD #1078, Eric Mrozek mentioned a Maple Ale recipe posted "a couple  
o'  
months back". This may have been before I started reading the digest.  
Anyway it happens that I picked up a quart of maple syrup (grade c, dark  
amber, \$6) just yesterday. Any and all suggestions for using this in a  
brew would be appreciated. I would definitely like to be able to taste  
the maple - is a qt too much for 5 gal? For background, I am not an all  
grain brewer, but have done several partial mashes with good results.  
I know that Cats Meow probably contains some good maple beer recipes,  
but I don't know how to access it. Thanks in advance for any help.

Jon Southard

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Date: Tue, 16 Feb 93 13:12 CST  
From: korz@iepubj.att.com  
Subject: MM vs Corona

JS writes:

> In the info he mailed out, he only mentions his wife and himself. He  
> also  
> refers to a "Midwestern micro-brewery" that prefers to use a Corona  
> because  
> of its superior crushing. I would be interested in knowing the name of  
> this  
> brewery. The only one I know of in the Midwest using a Corona, never  
> heard  
> of him and the owner assures me it is a tight budget, not preference  
> that has  
> him using the Corona.

I have spoken to that brewmaster from the "Midwestern micro-brewery" and he did say to me that he prefers the crush of the Corona mill (drill-powered by the way) over the MaltMill, but I disagreed with him then and still disagree with him. He and Roy seem to be the only two people that I've heard of liking the Corona over the MaltMill. I have an older model MaltMill and am very happy with it, but the more-recent ones I've seen are, indeed, even better. On the older models, two pieces of plastic blocked grains from "falling off the end of the roller in stead of being crushed" whereas the current design has the rollers going all the way flush with their mounting plates. On my design, I need to put a tray under the outlet chute to catch the grains -- the current design sits over a bucket, which, by the way, reduces airbourne grain dust. As much as I've disagreed with Jack (I've got a few megabytes of off-line arguments on disk too), I've got to admit, he's built the best homebrew-sized grain mill on the market.

Al.

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Date: Tue, 16 Feb 93 14:11 CST  
From: korz@iepubj.att.com  
Subject: Beginner questions/aeration/break/too bitter/Irish Red

Nathan writes:

>I have recently become interested in HB, and have been reading HBD for a few  
>mos. I am wondering if there are any magazines out there for HB, especially  
>ones with help, hints and recipes for the novice. I have seen some  
>references to "Zymurgy" in articles by Bob Jones and others. Is this what I'm  
>looking for? Also any good literature for the beginner?

Yes, Zymurgy has articles targeted for virtually all homebrewers ranging from beginner to expert. I think that not only a subscription is in order if you are serious about homebrewing, but also get back-issues also (especially the special issues on Hops, Extract, Troubleshooting and eventually All-grain).

I feel the best way to start, however is by reading "The New Complete Joy of Homebrewing" by Charlie Papazian. The articles in Zymurgy will make more sense when you learn the basics and the vocabulary of homebrewing.

>Thank you,  
>Nate Clark  
>grs04736@conrad.appstate.edu  
^^^^^^^^

Look up Kinney Baughman if he hasn't contacted you yet. He may still be as AppState, but last heard he's a brewmaster somewhere in the vicinity.

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John writes:

> I could use a little help with the subjects of wort aeration and  
>the formation and importance of hot and cold break.  
> First, wort aeration. On reading beginner's books I get the impression that I should boil up my extract, grains, etc in my brewpot, and then  
>pour the wort through a strainer into my primary, pitch the yeast, seal and  
>leave alone. Through this forum and from other sources I've learned that  
>the yeast needs oxygen to reproduce therefore the wort should be shaken,  
>stirred vigorously just before or after pitching. What is the experts' advice? Do I leave the wort alone or not?

If you are doing a full, 5-gallon boil, pouring it through a strainer will aerate it enough, but you should let it cool before aerating. When the wort is hot (over 80F) the oxygen you add during aeration will react with compounds in the wort to oxidize them. This is Hot Side Aeration (HSA) which you've probably noticed lately in HBD and is generally regarded as bad (although it appears that many breweries get away with it). If you are doing a partial boil, as you've noted that you do, I feel you still may need to do some aeration to get a good amount of oxygen in the wort. The warning about letting it cool below 80F before aerating STILL APPLIES.

Make sure you don't use your wooden spoon to aerate -- you just can't sanitize wood well enough and should only use wooden utensils in the boil.

> Regarding hot and cold break. As I understand it hot break is formed during the boiling of the wort. Cold break must be formed by cooling the wort after the boil. A few questions. I only boil about one and a half gallons and add that to three and a half gallons of water in my primary - does just chilling the 1 1/2 gallons produce a cold break?

Yes, the down side is that with a 5-gallon boil you will have to leave a quart of wort behind in the kettle to avoid pouring the break into the fermenter. With a 1.5-gallon boil you will still have something close to a quart of break which is a much bigger percentage of your boil. Some have suggested putting this break-wort in a jar, letting it settle in the fridge and using it, but that's too much to worry about right now.

> Does the rate of cooling affect the formation of a cold break and if so how fast should it be cooled?

Yes. The simple answer is: "as quickly as possible" but to give you a rough idea, in the wintertime, with my immersion chiller, I get from 212F to 70F in about 15-20 minutes, depending on the thickness of the wort.

> I'm assuming that cooling my 1 1/2 gal of wort does produce a cold break which settles to the bottom of my pot with the hot break - should I take care and siphon the wort off the trub into the primary?

I just pour it into the primary and stop just before the trub (break) begins to go in. It's usually 1-2 quarts of wort.

> If I siphon the wort off the trub am I leaving nutrients in the trub that the yeast need?

The yeast CAN use the nutrients in the trub, but if you've aerated well, the yeast can synthesize everything they need -- getting it from the trub is just a shortcut for the yeast. Ideally, you may want to give the yeast a few hours in the wort with the break and then siphon off into your primary, but don't worry about it if you don't.

> Any help would be greatly appreciated as even the beginners books are not crystal clear to the beginner.

Yes and much less interactive than the HBD.

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Alexander writes:

> I have just tried a new batch of beer which I brewed with a pilsner kit (M&F?) in which instead of adding only sugar to the malt mix I used malt concentrate. My problem is that the taste is too bitter/(malty?). > I would like some suggestions if anyone has any as to why it has turned out so bitter and general guidelines as to the proper use of malt extract. There is definitely the appropriate amount of alcohol though.

..

There is hopped malt extract and unhopped malt extract, if you added hopped malt extract to your pilsner kit (which, by the way is a bitter style to begin with) you may have made it too bitter for your taste.

>My process went as such.  
>boiled all the water and the malt sugar (liquid), malt extract, and sugar.  
>then I dumped it all in the carboy as usual.  
>after cooling I dumped in the yeast ( came with the kit)  
>after a week in the carboy I added gelatin as a fining agent  
>waited a few more days and racked to bottles. I have since let the  
>bottles sit the required three weeks plus a few days.

>I have just opened the beer and drunk some, not bad or yeasty as if it  
>was opened too soon, but definately too bitter.

Fear not. The bitterness will mellow a little with age. Your process seems okay (except for the hot aeration -- see above) as long as the sugar you've added doesn't become too large a percentage of your fermentables (IMO 20% is the maximum) which will give you cidery flavors.

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Jim writes:

>I'm trying to find the "legitimate" definition for the Irish Red Ale  
>style. I've heard that the style is becomming extinct, not unlike  
>Porter and I'm interested in any information I can get.  
>  
>The history if Killians and the eventual sell out to Coors is  
interesting  
>but I don't think I have the whole story for that either.

Personally, I don't think Irish Red is a real style -- I think it's a recently created idea -- a product of the marketing director of a large industrial mega-brewer. Perhaps I'm wrong, but yesterday I heard a radio ad for Killian's Irish Red Lager, in which "lager" was mentioned prominently at least 20 times.

To create something resembling Killian's, I suggest brewing a lightly-hopped (perhaps 15-20 IBU) pale ale but add 1 ounce of Roasted Unmalted Barley, just for color.

Al.

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Date: Tue, 16 Feb 93 15:43:03 CST  
From: gdmcconn@mspe5.bll.ingr.com (Guy McConnell)  
Subject: Birmingham Brewing Tour (Part I)

Jeff Herring and I toured Birmingham Brewing on Monday, February 15th. I had not been in there since they got any of their equipment and, boy, what a difference - stainless steel everywhere! A little history first:

At the turn of the century, Birmingham was an industrial oasis in the rural South. The laborers who worked in its mines and factories came from surrounding farmlands, from the industrial North, as well as every country of Europe. And with them, they brought their taste for beer.

In 1889, The Birmingham Brewery was founded to help satisfy their thirsty demands. This modest brewery was equipped to produce 18,000 barrels of lager beer annually. By 1905, the brewery's annual output increased to 40,000 barrels. The brewery closed its doors in 1908, the victim of nationwide prohibition. Its barrels were smashed and their contents gently flowed through the streets of Birmingham, to the horror of thirsty onlookers. Not until last year had beer been commercially brewed anywhere in Alabama since. That has changed with the opening of The Birmingham Brewing Company and its production of Red Mountain Beers. Their product line consists of 4 brews; a red ale (my personal favorite), a golden ale, a gold lager, and (seasonally) a wheat beer. The wheat will be brewed again this spring for the summer season.

Jeff and I arrived at 2:00 and opened the sliding door around back on the loading dock. The wonderful aroma of fresh beer immediately wafted over and welcomed us. John Zanteson, Brewmaster, was expecting us and walked over to greet us. I asked if he minded my taking notes and pictures and he said "no" so we quickly retrieved our cameras.

John started out, surprisingly enough, as a homebrewer. He developed a desire to brew on a commercial scale and took a job in a brewery pushing a broom. From there he "learned every job in the place". That is reflected in his philosophy about aspiring brewmasters. He says that if you are not willing to start with the "menial" jobs in a brewery to learn the trade, you don't have what it takes to become a commercial brewer. John started brewing commercially in 1988 at the Mendocino Brewpub in Hopland, California. He then went to

Dixie brewing in Louisiana before coming to Birmingham Brewing. I mentioned the "Norm" character that Richard Steuven met at Mendocino (who claimed to have been there every day since it opened) and John immediately said that he knew him. He said that he was a thin, older man in a pith helmet. He said that he could believe that old Norm had indeed been there every day since opening.

More to come...

- - -

Guy McConnell gdmccconn@mspe5.b11.ingr.com

"All I need is a pint a day"

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Date: Tue, 16 Feb 93 13:26:59 PST  
From: TAN1%SysEng%D CPP@cts27.cs.pge.com  
Subject: Re: wyeast 2308 and other stuff

Chuck,

I can tell you a few things about the "Brewer's Workshop" as I am the author of the program. It was designed to help craft recipes to a particular style of beer, of which there are 33 included in the program. They cover most varieties of ales and lagers, but not specialty beers. As ingredients are added their contribution to specific gravity, color and bitterness are displayed in a style definition area, which also has target values for each of these parameters for the style selected. This way it is extremely easy to see if you are going to end up with a bitter or a pale ale (for example).

There are of course many nice features associated with the program, but for a full run down please send for the brochure. Its on the house and doesn't use up valuable thread space, just write to TKO Software, 423 Greenwood Drive, Arroyo Grande, CA 93420.

Tom Nelson

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Date: Tue, 16 Feb 93 14:13:44 EST  
From: mmlai!lucy!gildner@uunet.UU.NET (Michael Gildner)  
Subject: root beer

Hello,

I have a couple of root beer type of questions. I brought some of that root beer extract this weekend and made two six pack of the stuff according to the directions. I used corn sugar instead of granulated sugar as a sweetener. I was wondering how that might change the taste since it didn't seem as syrupy as store brought root beer. Also, I added dry yeast to get carboration after bottling. Will this produce an alcoholic root beer? My kids will be bummed if Dad is the only one who gets to drink it.

Mike Gildner  
gildner@mml.mmc.com

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End of HOMEBREW Digest #1079, 02/17/93  
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Date: Tue, 16 Feb 1993 14:06:43 -0800 (PST)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: HELP! Can bottle carbonation take a long time?

I have a problem with my latest batch regarding virtually no bottle carbonation. Before going further, here are the specifics of the brew:

3 gallon batch (so you'll have to extrapolate to get 5G equivalents)

the boil -

3.5 lbs John Bull light extract syrup in 1.5 gallons water  
1.23 oz Willamette for 45 mins  
0.35 oz Willamette for 20 mins

(this batch frothed over when I threw in the hops :-( so not knowing how much I lost I added another 0.25 oz)

After boiling I chilled it to 70 degrees (in about 10 minutes using my wort chiller), let the trub settle for 30 minutes, syphoned into a 5 gallon glass carboy, added water to make up to 3 gallons and pitched the yeast (WYEAST 1056 which I'd made into a 1 pint starter).

OG = 1.036

After 5 days at 68 degrees it was transferred into a secondary with an SG of 1.007.

After 1 week in the secondary it was bottled with FG = 1.006.  
This was looking great! I wanted a light, dry beer.

1/2 cup corn sugar was boiled in some water, poured into a carboy and the secondary siphoned into it. Bottling was done from this mixture. At the time of bottling I noticed it was particularly clear - almost all suspended cloudiness had fallen to the bottom of the secondary.

4 days later, after storing at 68, there is virtually no carbonation. The cap hissed a very little on opening, but the beer tastes REALLY flat, subjectively only marginally, if any, more than there was when it was bottled.

What is going on here? Should I wait longer? If the yeast has mostly all settled out in the secondary, does this mean a longer than normal conditioning time? Is it possible to have too little yeast in the bottles to effectively condition them?

In an experiment I have "modified" three bottles but would like comments as to whether this is the right thing to do or not:

add 1/4 teaspoon extra sugar directly  
add 1/16 teaspoon (roughly measured) of dried yeast directly  
put 1/4 teaspoon of dried yeast in 25 ml water to rehydrate and pour 5 ml of slurry into a bottle

The dried yeast I used was Munton & Fison (happened to have a packet in the fridge).

Any advice would be greatly appreciated. I REALLY don't want to throw this batch out as it tastes great, but do want it carbonated.

Peter

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Date: Tue, 16 Feb 93 22:20:53 GMT

From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)

Subject: Questions From a Newer-Brewer About 2 Stage Fermentation

I write as a relative new-brewer and extract user, I have a few questions to pose to the readership after having read the past three months of the HBD and C. Papazian's TNCJoHB.

This past weekend I finally aquired a second 5 gallon glass carboy. After three successful single-stage extract brewings, I feel comfortable enough to take what I feel is the next step up the brewing ladder: Doing a two-stage fermentation. Additionally, this will be my first go at using no sugar in the process, except for what appears to be the standard use of 3/4 cup for priming.

As I understand the procedure, after the respiration phase has completed, and the blow-off tube has cleared, I am to siphon the fermenting brew into the secondary fermentation vessel (with as little aeration of the liquid as possible), leaving behind whatever sediment is on the bottom of the primary vessel.

Questions at this point:

- 1.) Must the transfer to the secondary be done immediately, or is there a safe window of a day or two? Obviously the transfer doesn't have to be done at all, but ... I am trying to make a better brew.
- 2.) How important is it not to aerate the wort during the transfer from primary to secondary.
- 3.) By leaving behind the sediment, won't there be a tremendous (significant) amount of viable yeast left behind? My observations of the fermentation process show that the CO2 rises from the precipitate at the bottom of the carboy, not from the material in suspension.

Now, all my primings to this point have been by adding a measured amount of corn sugar to each bottle, then filling the bottle, capping, conditioning ... enjoying (er, sort of). Hey, what can I say, I followed the directions that came with the extract, and those supplied with the microbrewery kit ... how was I to know. Beat me, whip me, make me write bad checks! I'm trying to reform myself.

If I understand the literature, about 3/4 cup of sugar/sugar equivalent should be boiled in water or sterile wort, then added to the contents of the secondary, cooled to the temperature of the remaining 5 gal liquid (is it still called wort at this stage?), bottled and conditioned as usual.

It would seem that if I add anything to the remianing 5 gal liquid in the secondary, and mix, all the precipitate will go back into suspension and consequently be bottled. If I don't mix, what will be bottled will not be consistantly primed. I was under the impression that one of the advantages of doing a two-stage fermentation was to eliminate as much particulate from the bottled product as possible.

Questions:

- 1.) What am I missing here? Do I accept putting all the precipitate back into suspension and into the bottles, or,
- 2.) Is there a method of mixing the priming sugar/equivalent without disturbing the junk in the secondary?
- 3.) Noting that the 3/4 cup is not carved in stein, if I



substitute dry malt extract for corn sugar, do I use the same 3/4 cup? What if I substitute liquid extract?  
4.) Lastly, if I use (for conversation sake) a 3 pound can of a hopped liquid extract, and want to use dry malt extract (instead of a second un-hopped can of liquid or [gasp!] sugar) to finish off the ingredient list, what would be a reasonable amount of DME be to use as a baseline starting point for future experimentation?

GUIDANCE, PLEASE

Mark

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Date: Tue, 16 Feb 93 15:36 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: The results are in!

The results of a survey of the HBD readership are in! As you may recall, I recently submitted a note to the HBD (about a week and a half ago) inviting everyone to mail me with a descriptor of their brewing level. What a response!! By 10 a.m., I'd received more than 100 responses! Thanks to all for participating. (And what a talkative crowd! Sorry that I couldn't answer messages individually.)

The admittedly inadequately simple categories from which I asked people to choose were as follows:

All Grain if you rarely use extract for your brewing, other than for yeast culturing,

Intermediate if you do some mashing, partial mashing, some yeast culturing, etc., but you don't consider yourself very experienced, or

Extract if you are relatively new to the brewing process, haven't tried mashing, or in general, consider yourself to be on the steepest part of the learning curve.

The tallies are as follows:

All Grain: 55  
Intermediate: 66  
Extract: 70

I'd like to make a few comments regarding the survey.

Categorization: Obviously, as stated above, a categorization of only three simple slots describes the multidimensional brewer only crudely. Some people have never brewed with extract; some have brewed for ten or more years with extract only. And so on. I wanted to conduct this poll only to convince novice brewers that they really should use the HBD, not to annoy readers by forcing them to categorize themselves. Enough said!

Statistical Discussion: The results to this poll are most likely not truly representative of the entire HBD readership. I can think of several readers who regularly post in the HBD who didn't reply. I'm sure that more than 191 people read the HBD. And I suspect that the tone of my original message might have motivated those on the steepest part of the learning curve to reply, skewing the results. Also, bravado or modesty might cause people to describe themselves incorrectly.

Use of the HBD: I did all this for one simple reason. I want new brewers to feel free to use the HBD as a valuable resource for talking with experienced brewers for the purpose of improving their brewing, as I did. Several beginners told me that they were certainly intimidated from asking questions. The HBD has got to be the greatest resource available; use it. From my results, a significant fraction of the readership brews extract only. You're not alone!

A few commented that they're annoyed by such questions as "How do you brew beer?" Obviously, questions like this are inappropriate, but this doesn't mean that all discussion should be on the level of comparative mashing methods. So, use the HBD, but use it wisely.

So there you have it. An incomplete, inadequate survey of the HBD readership. That's my contribution to brewing science for now. (But with a Ph.D. in chemical engineering, I should be able to do better than that!)

Cheers!  
Chuck

P.S. For those who must know, I have never tried mashing. I use extracts and specialty grains (and fruits and spices too, yummm!) Maybe someday when I get a regular job (and a house with a basement).

P.P.S. Our damn mailer is still giving us problems; my apologies if this shows up twice.

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Date: Tue, 16 Feb 93 15:28:56 -0800  
From: "Stephen Hansen" <hansen@gloworm.Stanford.EDU>  
Subject: Re: New additions to the HBD Archives.

In message <9302130433.AA28403@gloworm.Stanford.EDU> I write:

>  
> I have placed the perl script written by Alan Edwards for computing  
> IBUs as a function of AAU, ounces, and boil time in the archives in  
> programs/iso.pl (listserv users send "get homebrew iso.pl"). See  
> Homebrew Digest #1073 (February 09, 1993) for more information.

Due to line noise that occurred somewhere between my brain and my  
fingers the IBU calculation script was called iso.pl instead of ibu.pl.  
I have renamed it to ibu.pl. I'll leave a link under the old name for  
a few days.

Stephen Hansen

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Date: Wed, 17 Feb 93 09:45:46 +0100  
From: steve\_T%fleurie@champigny (Steven Tollefsrud)  
Subject: Kicking Dead Horse for Better Extraction

(that NAG-ging question)

I know that this poor dead horse has been kicked so many times that it's beginning to seem a bit sadistic, and I, for one, am starting to tire from all the debate between advocates of extract brewing and proponents of all grain brewing, but I felt I might offer just one more whack at the old quivering nag.

There has been a lot of blatant arrogance expressed by some all-grain brewers, some implying that extract brewers are not in the same league, likening extract brewing to mindless just-add-water cake-mixing, or, even more ridiculous, that extract is analogous to instant coffee! This has left the extract brewer feeling ridiculed in a forum intended to be shared and enjoyed by all home-brewers.

While it was refreshing to see a few all-grain brewers come to the defense of the extract brewer, I have yet to see one come out in favor of extract brewing over all-grain brewing. Maybe, then, all-grain brewing produces a brew of such vast superiority over extract brewing that it justifies all the time, expense and complexity. But this isn't always so, is it? More than a few extract beers have beat out their all-grain competitors in brew contests. If I were an all-grain brewer who had made all the investment in equipment and time, I too would find it difficult to admit, afterward, that it wasn't worth it.

Malt is only one contributor to what makes a good beer, and whether that one ingredient is extracted from the grain in your kitchen or at a factory is less significant to the quality of the final product than what is contributed by the flavor and aroma of the hops selected, the quantity and quality of the grain added during the boil, the quality and purity of the water, the subtle differences between yeasts, or the variations resulting from how the fermenting was conducted (temperature, secondary fermenter, sterilization, etc.). Far from being mindless instant cake-mix brewing, there are more than enough ways of varying the other contributors to the formation of beer, intentionally or accidentally, to keep an extract brewer happily experimenting for years.

One of the most common reasons given by all-grain advocates for making the plunge is for greater control over what goes into the beer. But I have seen so much space in HBD used up discussing problems of inconsistency in all-grain results from one extraction to the next as to make me shy away from having such "control" at least until I've got bored with fiddling around with all the other inputs that can be varied. Being an engineer by profession, one of the attractions of homebrewing for me is scientifically experimenting with the brewing process and understanding how changes in the inputs or process affect the (hopefully) tasty result. Using a good quality extract is one way of controlling one of the inputs when I'm interested in understanding the contributions of another. How can you tell the subtle difference a new hop might make when your

grain extract rate or unfermentable content is varying 10%  
from one batch to the next?

It's nice to know that when I've become bored with all the  
permutations possible in extract brewing, there is still a  
whole new world of grain extraction waiting to be explored.  
In the mean time, I'd like to feel good about my hobby  
and not be belittled by those all-grain mashers who would  
make us extract brewers think that we are not really worthy  
to call ourselves beer brewers.

Steve Tollefsrud  
Valbonne, France

e-mail: [steve\\_T@fleurie.compass.fr](mailto:steve_T@fleurie.compass.fr)

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Date: Wed, 17 Feb 93 01:34:57 EST  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: Oxygenating Mash

What with all the hooplah about HSA, I thought the passage on p. 277 of Malting & Brewing Science might be of interest:

... Additions of hydrogen peroxide or charcoal to the mash or charcoal to the sweet wort also reduce polyphenol levels [76]. Oxygenating mashes, made with uncured or lightly cured malts, also reduces the wort anthocyanogen levels, probably through oxidations catalyzed by polyphenol oxidase, and can result in beers with enhanced shelf lives [77]. The low levels of anthocyanogens found in worts from mashes of green malt may also be due to their destruction by some enzyme-catalysed oxidative mechanism possibly using oxygen from air entrained in the mash....

Am I to take this to mean that the effects of aeration, at least in the mash, vary depending upon the color of the mash? Perhaps some aeration is even GOOD in the case of light-colored worts? In any event, polyphenols are one thing and melanoidins are another. I would rather have a hazy beer than a stale one. There is also obviously the question of whether any of this applies to fully cured malts.

=====  
=====O Fortuna, velut Luna, statu variabilis=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: Wed, 17 Feb 93 05:19:31 MST  
From: stevel@chs.com (7226 Lacroix)  
Subject: Maltmill Kudos

After reading Al's post this morning, I just had to respond. A couple of months ago, I posted some favorable remarks about the MM. Shortly thereafter, I received E-mail from one of our resident brewgods lambasting me for my opinion. I made a few humble offerings to said brewgod and we resolved the more important issues (like those about my heritage) and both got on with the rest of our lives. It was refreshing to see someone else who isn't afraid to voice their opinions on the net. After all fellas, these are only opinions...chill already. P.S. I still think the MM is the best mill for HBers....so there ;-)...BTW, all of the blah blah disclaimers apply.  
Steve Lacroix  
Primitive Brewing P.P.S. Al, get ready for some interesting E-mail!

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Date: Wed, 17 Feb 93 08:35:57 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: Dry Hopping

From: Raymond Taylor <NU028463@VM1.NODAK.EDU> (Actually Carl Eidbo)

>I have Dry Hopped several batches, with good results, but  
>the hops effect on fermentation is what I can't figure out. Each  
>time I have Dry Hopped (I have always used pellets), seemingly  
>dead fermentation restarts, and continues slowly for quite some  
>time. (This is not to be confused with the rapid release of  
>dissolved CO2 that can occur soon after the addition of the  
>hops.)

> I have a list of possibilities I have thought of, and would  
>like to get the HBD's opinions on them:

>3. The Hops provide a matrix for the yeast to attach to, and be  
>more exposed to the wort. (Similar to Beechwood?)

Hmmm. Interesting. May have some truth to it.

>5. YOUR ideas here: \_\_\_\_\_.

I believe it is fairly well-known that items in the fermenter like hops  
(especially hop pellets) provide nucleation sites for CO2 production/  
release. This can easily account for more bubbling than expected for a  
week or more (in my experience, anyway).

I have never seen an lower-than-expected terminal S.G., though, from dry  
hopping, but if you have there might be other reasons, such as somehow  
rousing the yeast or possibly adding oxygen that the yeast used.  
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Wed, 17 Feb 93 09:07:55 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: aeration

From: johnw@NADC.NAVY.MIL (J. Williamson)

> First, wort aeration. On reading beginner's books I get the impres-  
> sion that I should boil up my extract, grains, etc in my brewpot, and  
then  
> pour the wort through a strainer into my primary, pitch the yeast, seal  
and  
> leave alone. Through this forum and from other sources I've learned  
that  
> the yeast needs oxygen to reproduce therefore the wort should be shaken,  
> stirred vigorously just before or after pitching. What is the experts'  
> advice? Do I leave the wort alone or not?

Well, first of all, you should \*cool\* the wort before pouring into the  
primary, to avoid oxidation (HSA) that occurs very quickly at such high  
temperatures.

Otherwise, pouring wort from a height, through a funnel with a strainer  
on  
it, into a fermenter causes \*lots\* of splashing and aeration in my house.  
I can't imagine that shaking or stirring the wort afterwards would do  
anywhere near as good a job of aeration.  
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Wed, 17 Feb 93 09:31:57 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: Lager Dry Hopping?, etc from 1079

It is nice to see that posting has caught up. Hopefully it'll stay that way. Anyway, one post that struck me was John Sullivan's asking about lager brewing. Generally rack to secondary (lager vessel) once the froth dies down in the primary. Minor temperature fluctuations will make little difference, but you shouldn't have anything too significant in a basement, but the dry hopping question got me thinking. Traditionally (i.e. Germany, Bohemia) lager finishing hops are added at the end of the boil, although reading George Fix's Brewing Science book last night he mentioned that dry hopping may also be better for lagers. I wonder when would be best - perhaps the whole lager, or add after krausen dies and let them sit in the primary for the second week prior to lagering? I am not a fan of dry hopping as I have had trouble clearing dry hopped beers, but my stema beer that never cleared tasted just like Anchor. Anyone anyclearing suggestions that are Reinheitsgebot?

Rob Thomas mentions keeping a strong ale for culturing bacteria low samples. However, strong beers tend to affect yeast too. My preference especially now that I have a pH meter is to acid wash yeast and culture out to totally eliminate bacteria without worrying about mutants.

Norm Pyle considers Miller to be a lager book. I dispute that. It is a good introductory text on producing many basic beers with typical American Malts. Noonan, despite being error riddled, is a lager book. It covers the essential of lager brewing much better. Hell, Miller recommends priming with corn sugar. What is Miller's Continental Pilsener book like?

Michael Galloway mentioned how his homebrew store recommended he increase his grain bill. Good advice, especially for a first all grain batch. I finally got a Milleresque yield in my last batch. I mashed 12Ib of grain (10 pilsener, 1 each of Munich and Carapils) for my 14B Dortmunder (6 gallons or so), expecting my usual 30 point yield. It ended up as 16.5 (out of AHA style range :-), a yield of 33. But I carefully doughed in, left for an extra long protein rest as I desperately sought acid (I had hardened the water with baking soda and gypsum wasan't cutting it), held the thick decoction for an extra 10 minutes in the 140-150 range, and held the main saccharification an extra 10 minutes while I ate my supper. What was the key factor? Who knows? Will I be back to 30 for my next batch? 25 is a nice conservative target. You should do better, but tales of first mashes are usually disappointed because people end up with light beers because they expected too much.

Al Korz doubts the existence of an Irish Red Ale as a distinct style. I tend to agree. While Irish ale are less hopped than those of the South of England they are not significantly different from Northern English or Scottish ales. But the AHA already has so many styles of that type that I think are practically indistinguishable, what's another? Being Irish I get used to the abuse of that word in the US. The football team

here at ND are called the Fighting Irish. That's a howl. Then there is Irish Spring soap and everyone seems to think Corned beef and cabbage is a dish eaten in Ireland. So what if Coor's abuse the term with their Irish Red Lager. You have as much chance of finding Corned beef and cabbage in Ireland as Irish Red Lager (right now I'm pissing myself laughing :-)

---

'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@bach.helios.nd.edu

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Date: Wed, 17 Feb 93 8:37:50 CST  
From: gdmcconn@mspe5.bll.ingr.com (Guy McConnell)  
Subject: Birmingham Brewing Tour (part II)

Birmingham Brewing Tour, part II:

The tour started with John telling us that they use exclusively Briess malts in all their beers. The Red Ale originally had some of the Belgian caramel malt in it but John has since changed that over to domestic caramel from Briess. He said that the Belgian malts, while good, were no better than the domestic malts and that he has had excellent results with Briess, both the people and the product. John said that he felt that American beer should be made with American malt. He likes the idea of keeping the jobs and business in the U.S., particularly since the price, and the resulting beer, is right. They also use only Yakima Valley hops with the exception of using some imported Hallertauer in the lager.

We started at the grain mill, a rather small unit for a brewery but keeping with their philosophy of starting small and building up if necessary. He said that they'd likely replace it with a larger unit some time but, for now, it fills their needs. The grain is poured into a large hopper (it looked large enough to handle at least 100 lbs of grain at a time) in the floor above the mill (on the same level as the access ports on the mash tun and boiler). From there the grain is moved up to the mash tun through a semi-flexible plastic hose with an "auger-like" device in it. The mash tun is steam jacketed and has a capacity of 30 bbl. They put ~1500 pounds (dry weight) of grain in for a batch, meeting the incoming grain with a stream of hot water as it goes into the tun. After filling, they do a 20 minute recirculation to make sure the mash water is "turned over" well and the temperature is uniform. The steam jacket is not sufficient to mash on its own but rather acts as an insulator to keep the heat in. The mash is a single step infusion (forgot to ask what temp and if they mash out). They then drain the tun through the false bottom and sparge the grains. The liquor then is pumped into the kettle for a 1.5 hour boil with hop additions done at various intervals by hand. After the boil the sweet wort is pumped into a settling tank in such a fashion as to create a

whirlpool and the trub and break material from the kettle is allowed to settle out into a cone on the bottom. They allow it a 20 minute "rest" here before pumping it through a counter-current heat exchanger into a 60 bbl unitank fermentor. The hot water from the heat exchanger is then reused in the brewing of a second 30 bbl batch to fill up the fermentor. The beer is fermented for 4 - 5 days followed by a 2 week aging period for the ales and 3 weeks for the lager. The beer is naturally carbonated by sealing up the fermentor at a predetermined gravity (and kraeusening the lager) followed by dropping the temperature to 32°F to settle out most of the yeast and to mature the flavor. The finished beer is then pumped through a plate and frame depth filtration matrix into a bright beer tank. There the carbonation level is checked and adjusted if necessary. The beer then goes into kegs or to the bottling line. Their current "comfortable" capacity is 6,000 bbl a year but they could do "considerably more" if need be. Right now, there are just three brewers and John said that a 60 hour week was a "welcome break".

Part III (the final installment) tomorrow...

- - -

Guy McConnell gdmconn@mspe5.b11.ingr.com  
"All I need is a pint a day"

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Date: Wed, 17 Feb 1993 08:48:41 -0600  
From: rmolinger@mmm.com (RANDY OLINGER 3-0784 [544-2N-1])  
Subject: Length of carboy aging.

Question here. Let me preface this by saying that I am not worried.

How long can a batch stay in the carboy (after racking once) before bottling? Any stories out there of amazing feats like 6 month storage? I used Wyeast American Ale and it was a slow starter, and even slower finisher, but the FG is around 1009. Due to lack of time it has been basically ignored. I don't want to say exactly how long it has sat, but lets just pretend its around, oh, 3 months. Do I have another month? Will my yeast stay dormant that long? I'm in no rush to bottle since I have quite a stock built up. I was kind of hoping that I'd have my kegging system ready for this batch.....

Any ideas, please respond to rmolinger@mmm.com

Happy brewing.

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Date: Wed, 17 Feb 93 10:15:03 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:ale vs lager yeasts

Tom writes,  
<From: THOMASR@EZRZ1.vmsmail.ethz.ch  
<Subject: yeast strain selection

<So, the bug problem first:  
<most of the bacteria we are likely to get in our yeast  
<supply can't survive acidic conditions, so if you  
<sterilise (ie boil) your growth medium (eg wort),  
<which you have previously adjusted to pH 4-5 (unnecessary  
<if you mashed your own), the bacteria will not grow anywhere  
<near as fast as your yeast. By the time the sugar is  
<used up, there may well be enough alcohol in there to  
<stop all bacterial growth. (I brew a strong (1085) ale  
<just so that I can get a sample of yeast from the bottled  
<version when I need one).

Well.....

Some of this is true and some needs clarification. One of the points being missed here is that chemical substances resulting from bacteria are detectable in the finished beer at levels as small as several parts per BILLION (ppb)! Another important issue is that while a yeast rich environment will reduce pH and eliminate oxygen, this will not occur for several hours into the ferment. The yeast must transition from the respiration phase into the "active fermentation" phase for these conditions to be relevant. By the time this occurs, your bacteria could have easily produced a few ppb of nasties that can carry over into the finished product. The source for bacteria in the fermenter is often from the yeast slurry/starter that was pitched, and thus the bacteria can get a small foothold in your beer prior to active yeast fermentation. This is one of the reasons Dr. Fix was pointing out the importance of being able to determine gross percentages of bacteria in your pitching yeast. I would also point out that the flavor profile of the bacteria excrement is quite foul (even at a few ppb).

Also, most brewers would never suggest reusing yeast from a beer of such high OG (1.085). This level of alcohol could definitely lead to poor yeast performance and/or mutation problems. In general, a OG of 1.050 or less is optimum for yeast propagation.

Jim Busch

PS: Just a nit here but boiling != sterilizing. It does mean sanitizing, and that is all we care about as long as we have bacteria free (negligable) starters. This is another reason many people pressure cook thier yeast starters.

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Date: Wed, 17 Feb 93 10:16:13 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:ale vs lager yeasts

Pardon my missed subject line on the last post.....

Joe comments on his ale/lager yeast experiment. A very good and interesting test. I would just point out that the Sierra ale yeast that you used is about the "cleanest" ale yeast I have ever used. Also much of the flavor profiles you will create will be dependent on your fermentation technique. For example, the SNPA at 65F is about perfect temp for the ale ferment. In fact, variations from 60-70 will not effect the outcome nearly as much as variations of 3-6F will in your lager batch. Also 50-53 is the "American" approach to brewing lagers. Many Bavarian braumeisters never let the lager primary rise above 48F. Not that it will be "bad", just different, and since this is partly a experiment on "cleanliness" of lager vs ale it could be significant. After primary ferment is complete, try a diacetyl rest at 42-44F for 2-3 days. Then drop the temp 2F per day until it gets to 31F. Lager here for 4-6 weeks and the beer should be excellent.

Sounds like a great test, except the ale will be 2 months old when the lager is ready! Should be fine and tasty though. Too bad Im not near Boulder,I would definetly take you up on the blind test offer.

Jim Busch

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Date: Wed, 17 Feb 93 10:17:51 EST  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re: Great beers from Dock Street!!

Wow, three posts in one day, I must be ahead at work!

Joseph Hall pointed out that Dock Street in Philly has a new brewmaster. What great news! Strange how right after I read a rather heated debate between Lou Ferrell, of Dock Street, and Ron Barchet, of Old Dominion, on the pros/cons of Decoction mashing, Lou leaves Dock Street! I had to laugh about the issue in the DC brews paper, Barley Corn, since Lou was belittling the significance of decoction mashing when he was brewing some of the thinnest weakest micro beers in the nation. This was not just my opinion, several professional brewers have reported the same feedback. Is it true that Lou is opening a micro in the Philly area?

There is nothing that disappoints me more than to travel to a craft brewery and discover that the products are so mediocre. It is a benefit to the entrepreneurial spirit of America that anyone can be a professional brewer without specific training or national certification. It can also result in poor beer quality. I am not trying to bash homebrewers who turn pro, and I do believe Lou has been trained at a reputable US brewing school, but it is not for everyone. I do believe there is a place for well trained brewmasters in the US even though the US Immigration service doesn't agree. I'll never forget hearing that the fantastic brewmaster at Sudwerks was sent home by the INS for awhile because "we have brewers in America", glad he's back and speaking at the next microbrewers conference!

I look forward to a wonderful pint of cask Dock Street when I get to Philly for the next Dead shows!

Obligatory positive comment: Stoudts products have just arrived on tap in the MD area. I don't even think the brewmaster (Tom) is "formally" trained, but he sure makes some outstanding beers! The Export/gold was an amazing "session" beer at 4% V/V with rich malty/hop notes. The Mardi Gras Bock was also outstanding, hiding the alcohol very well while maintaining a rich maltiness. Both of these Stoudts get a solid 4.2/5.0. Bigfoot, SNPA, SA Doppel and three Stoudts beers on tap all in one weekend, we've come a long way in MD!!!!

Jim Busch

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Date: Wed, 17 Feb 93 9:41:23 CST  
From: tony@spss.com (Tony Babinec)  
Subject: irish ale

Roger Protz's "European Beer Almanac" gives the following information for Smithwick's Kilkenny Ale:

OG 1052

Ingredients. Pale ale and roasted malt (roasted barley?). Challenger, Fuggles, Goldings, Northdown, and Northern Brewer hops to 32.5 IBUs. Infusion mash. Top-fermenting yeast.

Nose. Malt aroma with pear-drop esters.

Palate. Light malty palate, dry finish with some fruit and hop notes.

Comments. The use of roast malt gives the beer a rich copper color and a pleasing fruity appeal.

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It seems that Irish ale is brewed somewhat in the Scottish style, that is, malt-accented. Estery yeast and warm fermentation temperatures could be used. Diacetyl flavor note is okay. Beer should be less-hopped than bitter or pale ale equivalent. Color can be gotten from 2 ounces of roasted barley, or 4 ounces of Special B.

I, too, remember that Coors' Killian's Red was an ale and then became a lager. This was probably because Coors decided to "tone down" the flavor profile. In the Chicago market, radio commercials mention "Killian's Red," absent an ale or lager designation, and leave it at that.

Another American Irish ale is Dempsey's--still brewed by Huber?--which likewise is not much like the original.

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Date: Wed, 17 Feb 93 9:48:59 CST  
From: cush@msc.edu  
Subject: dry hopping and bottle conditioning

I have observed that every single brew that I have dry-hopped has ended up with, apparently, a higher carbonation level in the bottle compared to non-dry-hopped brews with the same amount of priming sugar. The result is brews with a nice-healthy head. Not necessarily gushers....but one DOES need to pour somewhat quickly after cracking the cap!

Has anyone else noticed this effect? Any guesses as to the cause?

There has been some discussion lately about apparent slow fermentation in the secondary following dry-hopping. The two possible causes that have been proposed are 1) the hops act as nucleation sites for dissolved CO<sub>2</sub>, and 2) bacterial contamination on the hops. Any thoughts as to which of these two causes the higher bottle conditioning? (I am still not convinced that some bacteria, or more likely wild yeast, are not carried in on the hops)

> Cush Hamlen | cush@msc.edu  
> Minnesota Supercomputer Center, Inc. | 612/626-0263

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Date: Thu, 17 Feb 94 10:12:45 -0600  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Wild Yeast Media

Dan asks:

>Have you (or anyone else out there) tried Lin's wild yeast  
>medium? I think it contains crystal violet as a culture yeast  
>inhibitor, allowing wild yeasts to grow (or rather, to grow  
>better). Is it better-worse-same-faster than cupric sulfate?  
>The 8th Edition of the ASBC Methods of Analysis contains a  
>section on this media, so I assume that it has some utility  
>and some brewery is using it. Of course if a well funded  
>individual has the ASBC MOA maybe they could respond. The  
> media is available from Siebel.

The ASBC's MOA is worth its weight in gold. Often I am asked by  
homebrewers  
with aspirations to go into the commercial arena, which of the books on  
brewing  
science should be studied. I have always given a prompt response to  
forget  
about brewing science, and to get a copy of MOA and start practicing  
their  
procedures.

The detection of wild yeast is a very special problem. All of the known  
media including Lin's will not only surpress culture yeast, but selected  
nonculture yeast as well. We are currently working with 10 different  
media,  
including 5 developed at Siebel using a crystal violet base. If one were  
to  
do plates using all 10, then likely one would be able to pick up at least  
95% of nonculture strains in pitching yeast. This, however, is not a  
feasible  
proposition. I consider it a triumph just to get pub brewers to do a  
crude  
and simple test like HLP to check for bacteria! The work at Cornell may  
hopefully change this situation.

George Fix

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Date: Wed, 17 Feb 93 11:12:29 EST  
From: Andrius Tamulis <ATAMULIS@ucs.indiana.edu>  
Subject: Wyeast data point

I have a tale to tell of my first experience with liquid yeast.

Having expended my entire stock of dry yeast, and deciding that my mashing technique has progressed enough to warrant the expense, I decided to buy a packet of WYeast for the batch of beer I was planning. I went to the local homebrew supply store, bought a foil packet labeled 1098 (or something like that) and 2 oz. of hops, and went home. At this point, insanity, or perhaps pure stupidity overtook me. I tossed the entire purchase into the freezer.

I ate dinner, watched some TV, and thought about my schedule, deciding that I would brew in 2 days, and so realized that I had to start the yeast. Then it hit me - YOU AREN'T SUPPOSED TO FREEZE YEAST!! I ran to the freezer, grabbed the foil packet, and felt it. The liquid inside was slushy, and there was at least one part that was frozen.

I started warming the package against my skin as soon as I realized what had happened, and when it had reached a proper temp., I broke that inner-seal thingy and hoped. Well, the package swelled in less than the 2 days that were suggested (this was last weekend, the date on the pack was Dec 6), and the beer is bubbling nicely.

Just another story to keep people from worrying about yeast mistakes,  
andrius

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Date: Wed, 17 Feb 93 08:19:25 PST  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: Adams Family BBC Product Suggestions

> and on the Adams Family Theme; "Pugsley Pale Ale"  
> "Lurch Lambic", "Mortica Marzen", "Uncle Fester Fest Bier"

I had been thinking more of a "Morticia Very Pale Ale"

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Thu, 17 Feb 94 10:07:46 -0600  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Fermenters

Russ writes:

>I have been using a 15.5 gal Sanke keg as a fermenter for the past 18  
months or  
>so. I have been quite happy with the results. I have not modified the  
keg  
>except to remove the valve assembly. I can put 13 gallons of bitter wort  
in it  
>without a blowoff hose and not worry about overflow. To sanitize, I  
scrub the  
>interior with my regular carboy brush, inspecting with a small mirror  
and  
>flashlight. Very little grunge has stuck to the walls of the keg. I then  
rinse  
>with boiling water, about 3 or 4 gallons. I roll the keg around on its  
side  
>with the boiling water in it for about 15 minutes. The keg is emptied  
and  
>stored with some foil over the opening. Prior to filling the fermenter  
with new  
>wort I rinse it again with the same amount of boiling water as before,  
rolling  
>again for 15 minutes. I have not had any infection problems.

>George Fix uses pony kegs for fermenters. There is some study which says  
that  
>the proportions of ponies are perfect for the task. Perhaps he'll chime  
in with  
>comments of his own.

De Clerck (who else!) was the one who did the most fundamental work on  
fermenter  
geometry. His results are briefly summarized on page 414 of his book.  
Actually,  
his references provide more detail. His ideal fermenter is a shallow one  
like  
that used at Anchor. Subsequent work has focused on the depth to surface  
area  
ratio. This usually gets expressed as the ratio of depth to a  
characteristic  
horizontal dimension. This number is very small for Anchor's fermenter,  
which  
De Clerck felt was highly desirable. It has been my experience that as  
long as  
that ratio is not much greater than 1.0, then effects due to fermenter  
geometry  
will not be significant. With a 1/2 bbl. keg filled to 75-80% capacity,  
you are  
doing just fine. My main interest in using kegs as fermenters is they  
permit  
a closed system of beer transfer from fermenters to storage tanks via CO2  
pressure. I still consider this a more important issue than geometry.

As Russ and Darryl Richman have correctly pointed out, boiling water is a  
natural and effective sterilant. Many small scale German brewers would  
not



touch chlorine or iodophor with a "10 foot pole" due to a hypersensitivity to chemical residues in beer. In the past, it was either boiling water or vinegar for those folks. It should be noted, however, that peracetic acid has found widespread acceptance there, primarily because its residues are totally natural to beer. However and alas, this stuff is explosive (as been previously noted in HBD). It seems like there are no 100% safe sterilants, and this is an area where a "cowboy brewing style" does not find application. Care and attention to detail is needed by all no matter what sanitation procedure is being used.

George Fix

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Date: Wed, 17 Feb 93 08:41:38 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Meeting with Pierre Celis

I had the honor of meeting Pierre Celis last night at Lyon's Brewery Depot. Pierre is on a world wind tour through Calif. micros. What a nice guy! I got to pick his brain and share a few brews with him for about an hour. I brought along a light lager for our consumption. He took a whiff and said "no problems here", he liked it! He had many photos of his new brewery and lots of photos of Hogarden brewery in Belgium. We did speak about brewing techniques, I ask many questions and he was very open with answers. What a evening for the memory bank!

Bob Jones

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End of HOMEBREW Digest #1080, 02/18/93

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Date: Wed, 17 Feb 1993 08:46:48 -0800 (PST)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Re: Corn Sugar in Root Beer

Mike Gildner asks about using corn sugar in root beer. I've used corn sugar and Equal(tm) [aspartame] to make diet root beer for a friend's father who is diabetic. We used four cups (about a pound +/-) of corn sugar and a huge number of packets of Equal following the substitution directions. It worked fine and was rated as better than store-bought.

Homebrewed soft drinks contain very little alcohol, since the CO2 stomps the yeast after it reaches a certain level. I've also made root beer and force carbonated it in a 5-gal soda keg.

I don't know what the store-bought root beers use to increase the richness of the mouth feel. Small amounts of glycerine or Irish moss (carageenan) are possibilities, but I don't know of anyone who has published recipes for full-bodied root beer.

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Date: Wed, 17 Feb 93 09:05:06 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Micah's magical yeast starters

For a very short review, Micah advocated using powdered sugar for yeast starters with some Difco nutrient. His claims of greater yeast growth got all interested. I too have used this growth technique for a while with no big obvious problems.

Now for the update.....

I recently decided to compare the two yeast starter techniques. The two techniques being, standard starter (DME and water) and powdered sugar starter. I split a 10 gallon batch of wort for comparison. Both starters were the same gravity (1020) and volume and the yeast was the same (1028)

The two batches were fermented side by side at the same temp. I feed both starters the morning of brew day. The powdered sugar starter (PSS) seemed to

generate much more yeast than the DME starter. The activity in the PSS was

almost zero through the whole growth phase, compared to the DME starter that

looks like a normal mini-fermentation. This is a bit troubling when you observe the two side by side. I pitched them both and waited. The next morning the DME starter batch was at high krausen, the PSS had no sign of fermentation. The PSS started several hours later. The DME batch stopped fermentation at about 3 days, and the PSS continued for several more days.

The terminal gravities were measured at about 1 week. The DME batch had better attenuation than the PSS batch. The PSS batch never reached as low a

terminal gravity as the DME batch after several weeks. I have now kegged them separately and will taste and continue my comparisons. My opinion at this

point in time is that although there may be much more yeast growth with a PS starter the results when compared to a standard DME starter may not be what one desires. I mentioned all this to Micah and he said it could be due

to the lack of Difco nutrient in the PSS. I don't think so. He thought the

results were interesting, too. He agrees now that PSS may not be so good. Personally I am going back to DME starters, and don't recommend PS starters.

I'll post the taste off results when their all in.

Bob Jones

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Date: Wed, 17 Feb 93 10:27:34 -0800  
From: SCHREMPP\_MIKE/HP4200\_42@pollux.svale.hp.com  
Subject: roller diameter

I got a few requests for the diameter of the rollers in I saw in a catalog.

I don't have the catalog with me, but the picture of the rollers looked like they were somewhere between 1.5" and 2". I'll have another look tonight to see if the diametre is listed.

Mike Schrempp

P.S. - My wife can rip a good one now and then. I suggest a big bowl of French

Onion soup followed by large amounts of high quality cheese fondue.

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Date: Wed, 17 Feb 93 10:52:42 -0800  
From: jason@beamlab.ps.uci.edu  
Subject: yeast nutrition

Ok, say I want to make a quickish mead, but I don't have any yeast nutrients.

I know that malt extracts have the required goodness.

How many lbs of malt extract would I need to add to the boil (for a 5 gallon or 1 gallon batch) so that the yeast will be happy enough to ferment in a reasonable amount of time?

I was thinking of maybe 1 lb honey and 1 lb extract per gallon of water. And using Champagne yeast. Maybe 1lb honey and 1/2 lb extract per gallon will be good enough?  
Or three lbs honey and 1 lb extract for two gallons?

Comments?

Jscum

What happened to the mead digest--is no one posting to it. I never saved the address, so I can't post to it until it is sent to me again.

-----



Date: Wed, 17 Feb 93 13:45:53 -0500  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: roller mill rollers

In HBD #1638 Mike Schrempp writes:

>A few weeks ago there was a posting from someone looking for a source of  
>rollers for roller mills. I got a woodowrking catalog yesterday that has  
>rollers that might work. These rollers look like conveyor belt rollers  
and

>are sold to be used to make outfeed supports for table saws and such.  
Here

>are the particulars:

>

I have lots of these rollers. I got them from a local conveyor  
manufacture

for \$5/ea (or may it was \$3.50...) anyway they would be a BAD choice for  
roller mills. A: they are welded thinwall pipe and do not roll true  
enough

for any kind of milling. B: they have internal bearings, so there is no  
decent way to drive them.

Try "Bearings Inc" - you can get conveyor belt drive ends (e.g. shaft  
driven,

not bearing rolling) 4"dia, 10" wide for \$44/each. They are custom built  
because you don't want a crown on your roller mill. The one I had priced  
out included built in hubs. That is cheaper than the standard rollers  
with

two-piece hubs. They also had a precision roller (machined), but I  
didn't

bother pricing it out. I figured I could true up the standard rollers if  
needed.

The company that actually makes the rollers is Van Gorp, in Iowa.  
1-800-Van-Gorp You want to specify a "Finish Bore Drum Conveyor Pulley"  
And you want it "straight faced" not "crowned".

Disclaimer: I have yet to make my roller mill...

- - -

Larry Barello uunet!polstra!larryba

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Date: Wed, 17 Feb 93 19:29 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: Refrigerators

Over the past year I have thrown away almost half of the beer I've brewed, which is a bummer of such magnitude that only a homebrewer can understand. This has been due to the high temperatures in our house, which typically range from 74-76 degrees F. I can say from long, sad experience that this imparts some highly undesirable flavors to beer, (particularly high-gravity brews), and I have the bottles to prove it. We have no control over this heat, which comes from the various steam pipes located throughout the floors and walls. Nor do we have a basement.

In one of those saint-like gestures sometimes made by spouses of homebrewers, my wife has given me permission to look for a refrigerator I could use for brewing. (Presumably this would be used in a conjunction with a Hunter Airstat or similar device).

The problem--and the reason for her saintliness--is that our house is quite small, and there is absolutely no inconspicuous place to put a fridge. We will have to live with this thing constantly in our faces. I am therefore looking for the smallest possible (presumably dorm-type) refrigerator that can hold a carboy with airlock. I'll buy new if necessary, as I am desperate.

Are any of you familiar with refrigerator models that are currently available, or were available not long ago, that fit this bill?

Please send responses and any other suggestions via E-mail to PSEITZ@MCIMAIL.COM

Thanks!

-----

Date: Wed, 17 Feb 93 17:20:12 CST  
From: bliss@csrd.uiuc.edu (Brian Bliss)  
Subject: lactic acid / BAA

> First let me say thanks to those who replied in HBD and via email.  
>Experimentation with food grade acid is an interesting thought. Does  
>anyone see problems with adding small amounts to just a few bottles at  
>bottling time? Not that I'm nervous or anything, but I hate to take  
>chances with 5 gallons at a time.

I tried adding some 88% lactic acid from GW Kent (I double checked to make sure I had the right source this time) to my dry stout a few weeks ago. It tasted great. The only side effect was that I passed out after 5 pints and woke up with every muscle in my body sore as hell...

> Anyway, my friend Brent tried following Charlie's directions. He  
>placed a quantity (sorry, I'm unsure of amount) of pale malt in a cooler  
>with 5 gallons of water at 130 F. He covered the cooler and left it for  
>19 hours. The temperature had only dropped 20 degrees to 110 F, and  
>the liquid was sweet, with no sign of sourness (tartness?) and no  
>noticeable growth. It may have stayed too hot, any other ideas about  
>what went wrong?

The mash probably also stayed too hot. It needs to get into the 80-100 F range. Then it will take only a few hours to sour appreciably.

> Also, I had the pleasure of sharing an Imperial Stout and  
>Taddy Porter (Samuel Smiths) yesterday, and they both seemed to have  
>a bit of sourness, perhaps more noticable in the Imperial Stout.  
>Perhaps I'm misinterpreting something in the flavor, but there does  
>seem to be a much more distinct sour flavor than I've experienced in  
>beers with much more dark grains.

The Imperial stout comes in a clear bottle and 50% of the time I buy it, it is light-struck (skunky). I don't drink much of the taddy porter.

- -----  
As far as Beer Across America goes:

>BadAssAstronomer writes:  
> >The Jan 93 selections were; Mass Bay Brewing Winter Warmer and  
> >Fisher Brewing Dark Ale.  
>  
>We tasted these yesterday at the brewclub meeting. "Dark Ale" is a  
>misnomer. This stuff was sort of copper colored. I'd say it's at the  
>dark end of the pale ale spectrum. The flavor was nothing to get  
>excited about, either.  
>  
>The Mass Bay Winter Warmer, on the other hand was excellent. Nicely  
>spiced, but not overwhelming. So many spiced beers have a sort of  
>sour flavor, but this does not. Our meeting was outside at a local  
>park, and I'd say that the Winter Warmer lived up to its name.

I loved the Dark Ale. The following is palate-subjective, but it seemed to have just enough diacetyl without seeming stale to taste good (not that a beer needs diacetyl, but this one used it to its flavor advantage, as do Smith's and (possibly too much) Young's).

On the subject of staleness, try comparing a bottle of 1992 Thomas

Hardy's to a 1991 version...

-----  
>Nick brought along an ersatz "Framboise," which he claimed had a  
>Flanders  
>brown base. I'm practicing for the BJCP exam and was busily filling  
>out scoresheets as the beers wandered by, and was oh-so-pleased to  
>give his (Dock Street's) brew a 41. Really, the only problem with  
>it was a slight lack of body. Otherwise it was nearly perfectly  
>balanced,  
>with an awesome raspberry nose, tenacious head, clear and tart fruit  
>flavor, and an interesting chocolate-toasted malt finish. One of  
>those beers even your WIFE would love. (Not my words, but we know  
>the stereotypes.)

Dock street amber was by far my favorite beer that BAA distributed  
in 1992. Unfortunately, they ran out before I could order a third  
case (burp!)

Assuming he doesn't object, I'd like to see a copy of the score sheet...  
(whatever happened to the idea of judging BAA beers and then  
discussing the results via e-mail?)

bb

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Date: Wed, 17 Feb 93 13:47 CST  
From: korz@iepubj.att.com  
Subject: Public service announcement

This is a public service announcement for Chicagoland beer lovers or beer lovers who will happen to be in the Chicago area this Saturday, Feb. 20th:

What: BEER TASTING (11 U.S. Microbrewed ales and 3 homebrewed ales)

When: Saturday, February 20th, from 2pm till 8pm

Where: MAINSTREET DELI AND LIQUORS  
5425 South LaGrange Road  
Countryside, Illinois

(3 minutes north of I-55 (Stevenson) on LaGrange Road)  
(15 minutes south of I-290 (Eisenhower) on Mannheim Road)  
(LaGrange and Mannheim are the same street -- Route 45)

Cost: FREE!!!

The Beers: Grant's IPA  
Grant's Scottish Ale  
Pike Place Pale Ale  
Sierra Nevada Pale Ale  
Pete's Wicked Ale  
Bell's Amber Ale  
Sierra Nevada Porter  
Bell's Porter  
Grant's Imperial Stout  
Bell's Kalamazoo Stout  
Sierra Nevada Stout

Homebrewed Light Ale  
Homebrewed English Pale Ale  
Homebrewed Medium-dry Stout

More info: Call 708-430-HOPS or 708-354-0355

Okay, so there's nothing very extraordinary on the list, but it's free beer (the best kind) and it's an opportunity to compare a number of respectable commercial beers, side-by-side. Actually, the purpose of this tasting is to get some Beck's or Sam Adams (boo) drinkers to be more adventurous. Mainstreet normally does wine tastings on Saturdays from 2 to 8, but this is their first beer tasting. Hopefully the turnout will be good, the owners will be impressed and will do this more often, maybe next time with 11 Belgian Lambiks!

Disclaimer: I'm not denying anything.

See you there.  
Al.

P.S. I brewed the three homebrews.

-----

Date: Wed, 17 Feb 93 15:43:25 PST  
From: mrozek@gandalf.etdesg.TRW.COM (Eric M. Mrozek)  
Subject: re: recipe request (maple)

Jon, in answer to your request:

Mark and I brewed the maple ale on Labor Day so I don't recall the details of the recipe. I'll pull out my logbook when I get home tonight and give you the actual recipe tomorrow.

If I remember right, we used half a quart of dark amber maple syrup. The end result was a pretty dry beer with a thin body. I really liked it even though it didn't turn out like we intended (a maple flavored PALE ALE). The maple flavor was definitely there, but you can bend your brain trying to imagine what maple sugar tastes like without the sugar.

I think the maple sugar ferments out almost completely, and even seems to increase the overall attenuation. The recipe was based on other pale ales we had done (which had real pale ale gravities and body). The next maple ale we do will have more crystal malt and maybe some carapils (going for more body). Does anyone have any recommendations?

As for the Cat's Meow recipes, I have a hard copy and I can get it via FTP (read the daily HBD header for more info) but maybe someone who already has an electronic copy can volunteer to cut out the relevant recipes and E-mail them to you (southard@biology.UCSC.EDU).

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Date: Wed, 17 Feb 93 20:47:02 -0500  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: Irish red ale recipe idea

In #1079, Al (korz@iepubj.att.com) writes:

>Personally, I don't think Irish Red is a real style -- I think it's a  
>recently created idea -- a product of the marketing director of a large  
>industrial mega-brewer. Perhaps I'm wrong, but yesterday I heard a

I agree, that the word `Red' sounds unauthentic and that the lager  
Coors makes likely bears little resemblance to anything that may have  
been brewed in Ireland in years gone by.

That said Irish Red ALE (yes ALE) seems to be an emerging American  
style, based on recent offerings at a variety of microbreweries.  
Ironically, Guy McDonnell mentioned one in the article immediately  
below Al's post! I posted here in January about the Chicago Brewing  
Company's Legacy Irish Ale. I find it a very tasty brew. It is both  
darker and more bitter than Killian's. It's brewed in Chicago, Al;  
you must have tried it. The blurb on the bottle says Irish immigrant  
brewers brewed in this style in 19th century Chicago. It's certainly a  
plausible tale.

>To create something resembling Killian's, I suggest brewing a lightly-  
>hopped (perhaps 15-20 IBU) pale ale but add 1 ounce of Roasted Unmalted  
>Barley, just for color.

I can't imagine too many people really want to duplicate Killian's  
when they can brew something with more character. Here's my suggestion,  
based on my memory of Legacy Red Ale and my experience using smallish  
amounts of more highly roasted malts in pale ales:

pale ale malt or pale malt extract for OG of about 1050  
 (for extract recipes with attenuative yeast, include 1 # crystal,  
 for all-grain with attenuative yeast, mash at a warmer temperature)  
2 ounces roasted barley (up to 3 if no crystal is used)  
Bittering hops for 30 IBU (CBS uses Chinook)  
Fuggles or Willamette to finish (CBS uses Willamette)  
Wyeast Irish yeast or a reliable dried yeast

Cheers,

Rob (bradley@adx.adelphi.edu)

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Date: 17 Feb 93 18:38:44 U  
From: "Richard Withers" <richard\_withers@macmail.conductus.com>  
Subject: Adams Family Boston Brewery

Subject: Time:6:24 PM

OFFICE MEMOAdams Family Boston Brewery Date:2/17/93  
Chuck Cox had a great suggestion for paying retribution to Jim Koch's  
(Sam  
Adams) bad legal habits. John Adams thought that, being born an Adams,  
he  
could not be denied use of the name. He's wrong, unless the law has  
changed in  
the14 years since I visited the Bully Hill Winery on the Finger Lakes of  
New  
York.

During the tour of Bully Hill, I noticed that there were many paintings  
in  
the tasting room signed by an artist named Walter S. \_\_\_\_; that is, the  
last  
name was obliterated. The same obliterated name was seen on various  
signs  
around the winery giving inspiration to the workers about quality control  
and  
the like. I asked about this and was told that the owner was named  
Walter S.  
Taylor, and he was a descendant of the founder of Taylor Wines. Taylor  
Wines  
had been acquired by Coca-Cola (Koch? could it be??) (or was it Pepsico?  
) , and  
they had obtained an injunction prohibiting Walter Taylor from using the  
Taylor  
name in the marketing of Bully Hill wines. So... Walter complied with  
the  
order to the absurd limit.

Bully Hill also produced bumper stickers stating: "Drink Bully Hill  
wines --

the UN-Taylor" (remember the 7-Up Un-cola campaign?)

Fight back!

- Richard Withers  
withers@conductus.com

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Date: Wed, 17 Feb 1993 22:13 EST  
From: STBLEZA@grove.iup.edu  
Subject: Mead and Extract Brewing...

Greetings all...

In a recent HBD, Mark Cronenweth <CRONEN@vms.cis.pitt.edu> writes:

> I've also heard rumors of a MEAD DIGEST out there somewhere. If  
> anybody has  
> addresses for any online MEAD info., recipes, etc. please post me at:

Would any kind soul with any mead information also please E-mail me with  
the  
info... It would be greatly appreciated.

Also, I've reads some messages talking about 'extract' brewing. I'm  
afraid that  
I'm not familiar with this process. I learned brewing from an  
organization  
called the SCA (Society for Creative Anacronism), a medieval re-  
creationist  
group. Hence, I've only learned techniques in use before 1550 AD, and  
have  
missed this (and other) techniques. Would some kind soul please be so  
generous as to give a brief explanation of this artform? Thanx in  
advance.

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| "There are no choices between good and |The Dragon of |
| evil. All choices are between the | Summer Sun and |
| lesser of two evils, or the greater of | Winter Moon |
| two goods."|(AKA J. Hunter Heinlen) |
| -The Dragon of Shadow Walking and|(Bitnet:STBLEZA@IUP) |
| Night Stalking -- a good friend RIP |(Internet:STBLEZA@GROVE.IUP.
EDU) |
+=====+=====+=====+=====+=====+=====+=====+=====+=====+
=====+
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Date: Wed, 17 Feb 93 09:26:43 EST  
From: mlobo@sentry.foxboro.com (Michael T. Lobo)  
Subject: Rolling Rocks #33

I saw this question posted a few weeks ago, and never saw a response -  
does anyone know what the 33 on the Rolling Rock label REALLY stands for?

thanks,

Michael T. Lobo 508 549 2487  
Foxboro Co.  
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,  
my beer speaks for me" -Monty

-----

Date: Wed, 17 Feb 93 23:20:47 EST  
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)  
Subject: The Taste of Dextrose

How many of you out there have tasted the corn dextrose that comes in 50-lb bags?

Now, pure glucose is mildly sweet, and essentially tasteless otherwise. But this stuff tastes like, well, wallpaper paste. When I added 3 grams to a glass of water the taste was still distinct, though probably threshold at best in beer.

Is it ALL like this?

Another argument for using sucrose or some other seriously refined sugar for priming. Or, <sigh>, malt extract.

=====  
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net  
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052  
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Date: Wed, 17 Feb 1993 18:58:06 -0500  
From: Chris.Kagy@p882.f70.n109.z1.fidonet.org (Chris Kagy)  
Subject: Semi-beginner question

On the heels of Chuck's survey, I've got a semi-beginner question. Would adding rolled oats to a brew (a porter in this case) have any desirable effect if it were used like other adjunct grains? In other words, if I add a half pound of rolled oats to 2 gal of water, bring it to a boil and remove the oats would there be any useful result? Unfortunately, I'm not set up to mash, hence my question... Thanks for any answers!

-kegster

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Date: Thu, 18 Feb 93 10:27:52 +0200  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
Subject: Wild Yeasts

I have been thinking about the problem of contamination of yeast cultures by wild yeasts and would like to ask a couple of questions.

1. If you had the possibility to test for wild yeast contamination, say with a kit of some sort, would it be still worthwhile if you had no means to get rid of those nasties (other than dumping the contaminated stock)?
2. How often does the problem occur in your homebrewing enterprise?

Nir Navot  
Molecular Biologist  
Novice Home Brewer

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Date: Thu, 18 Feb 93 11:27:49 GMT  
From: des@pandora.swindon.ingr.com (Desmond Mottram)  
Subject: Re: Kicking that horse

Forwarded message:  
>From des Thu Feb 18 11:09:08 1993  
>Subject: Re: Kicking that horse  
>To: homebrew@hpfcmi.fc.com

Date: Thu, 18 Feb 93 11:09:08 GMT

X-Mailer: ELM [version 06.01.01.00 (2.3 PL11)]

**Subject: Re: Kicking that horse**

Just a few data points on Steve Tollefsrud's post, based on experience. My background is 10 years brewing extract kits, now two years all-grain.

I agree with Steve that extract brewing can keep a brewer just as occupied juggling with ingredients. Extract can beat all-grain in competitions. It's easier, quicker and requires less kit. Why do I prefer all-grain? Because all-grain consistently produces better beers for me than extract. Maybe I'm such a useless brewer I can't get a good beer out of extract.

> There has been a lot of blatant arrogance expressed by some  
> all-grain brewers,

I think it was only Jack, who admits he sometimes puts his foot in his mouth. Best thing is to count ten and forget it. Mail direct if you must.

>  
> Malt is only one contributor to what makes a good beer, and whether  
> that one ingredient is extracted from the grain in your kitchen  
> or at a factory is less significant to the quality of the final  
> product than what is contributed by ... [hops, water yeast etc]

Disagree totally here. Factory extract in my experience is markedly inferior to wort extracted at home or brewery. Probably due to the processing required to eliminate the water. Far from being less significant, I consider it to be the most significant factor in poorer flavour compared to all-grain. Only differences in hop rates come near to affecting taste as much. This is why it is essential to use the very best quality extract if you want to beat all-grain brews in competitions.

> One of the most common reasons given by all-grain advocates for  
> making the plunge is for greater control over what goes into  
> the beer.

It's not my reason, and I doubt it is a common reason. Greater scope for experimenting maybe, and even that's debatable. As Steve says, all you do is throw more variables in the pot. I use all-grain, as said before, because it tastes far better. That's the main reason I switched and the only reason I prefer it. Ah! that taste!

> Steve Tollefsrud  
> Valbonne, France  
>  
> e-mail: steve\_T@fleurie.compass.fr

Desmond Mottram  
des@pandora.swindon.ingr.com

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Date: Thu, 18 Feb 93 11:30 GMT  
From: "John Robinson, King's College London" <UDAA002@OAK.CC.KCL.AC.UK>  
Subject: RE: Kicking Dead Horse for Better Extraction

steve\_T%fleurie@champigny (Steven Tollefsrud) writes:

> There has been a lot of blatant arrogance expressed by some  
> all-grain brewers, some implying that extract brewers are  
> not in the same league, likening extract brewing to mindless  
> just-add-water cake-mixing, or, even more ridiculous, that  
> extract is analogous to instant coffee! This has left the  
> extract brewer feeling ridiculed in a forum intended to be  
> shared and enjoyed by all home-brewers.

Whilst the "grain vs. extract" argument can be taken too far, I must admit I agree with the instant coffee analogy. After all, both instant coffee and malt extract are concentrated forms of the original substance.

I brewed with extract for about 5 years before trying my first all-grain brew, and since then I haven't looked back. I could say the same about using instant and ground coffee, and also about from-concentrate vs. freshly-squeezed orange juice. In all three cases, IMHO, the concentrated product lacks the clean, "zesty" quality of the original. The basic flavour is present, and about right, but it seems somehow to be dulled. I've an idea that this difference is rather more important than any additional flavours that may be introduced by the concentrating process.

OK, malt [extract] is only one ingredient, and not the major one for flavouring purposes, but good fresh malt does make a big contribution to the taste. I've drunk some fine beers made from extract - and some dreadful all-grain brews. But my own experience with homebrew is that it's been well worth the change, if only to hear from fellow imbibers the comment "this doesn't taste like homebrew, it's just like <some commercial real ale>".

John  
JANET: J.Robinson@uk.ac.kcl.cc.oak

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Date: 18 Feb 93 07:18:00 EST  
From: "PAUL EDWARDS" <8260PE@indy.navy.mil>  
Subject: chocolate porter

At the request of a few people, here's my chocolate porter recipe that Sandy was bragging on a few issues back (blush):

3 lbs laaglander light dry malt  
3 lbs laaglander amber dry malt  
1/4 lb black patent malt  
1/2 lb chocolate malt  
2 1/4 lbs xtal malt (i had 32 deg lovibond laying around; 40 deg would be ok)  
1/2 lb cara-pils  
24 tablespoons cocoa powder

1 oz Northern Brewer hops (6.8% alpha), boiled 1 hour  
1 oz Willamette (alpha not recorded) at finish of boil

Yeast was Whitbread dry ale yeast in a 1 qt starter

Steeped cracked grains in grain bag in 5 qts 160 deg F water. Strained. Brought water volume to 6 gallons, added dry malt, boiled one hour. Chilled with immersion chiller, racked to primary, pitched yeast starter.

OG 1064 FG not recorded. Bottled with 3/4 cup corn sugar to prime.

The beer was great tasting from the beginning, but after a month in the bottle, the hop bitterness had diminished, allowing the chocolate bitterness to come thru. The beer was very rich and thick with a creamy tan head.

My wife is a confirmed chocoholic (and porter lover), and is bugging me to brew another batch.

Cheers!

- -- Paul

-----

Date: Thu, 18 Feb 1993 07:56:11 -0500  
From: mgx@ornl.gov (Michael D. Galloway)  
Subject: Answers

In HBD #1080 Mark had a few questions:

[snip]

>Questions at this point:

>1.) Must the transfer to the secondary be done immediately, or  
>is there a safe window of a day or two? Obviously the transfer  
>doesn't have to be done at all, but ... I am trying to make a  
>better brew.  
>2.) How important is it not to aerate the wort during the  
>transfer from primary to secondary.  
>3.) By leaving behind the sediment, won't there be a  
>tremendous (significant) amount of viable yeast left behind? My  
>observations of the fermentation process show that the CO2 rises  
>from the precipitate at the bottom of the carboy, not from the  
>material in suspension.  
>

Answers:

1. No, remember there are few hard and fast rules when it comes to making homebrew. My typical fermentation schedule is this: Brew and get the primary going on Saturday ... active fermentation by Sunday. Then I normally rack (transfer) to the secondary the next Saturday. Then I bottle the following Saturday. So ....

7 days

in the primary and 7 days in the secondary. Racking to the secondary gets the beer off the trub and hops and dead yeast and appears to allow much more yeast to flocculate ... this means clearer beer in the bottle with much less sediment in the bottle.

2. It is important that you minimize the aeration at this stage. The dissolved O2 from aeration will lead to premature staling of your beer. All you need to do is get the secondary end of the racking tube (I use 3/8 tubing) under the surface of the beer as soon as possible.

3. Yes, there will be a lot of 'good' yeast left behind but you will also leave behind a lot of dead yeast, trub (break material) and spent hop material. Don't worry, there is plenty of yeast in suspension that will carry over into the secondary.

>Now, all my primings to this point have been by adding a  
>measured amount of corn sugar to each bottle, then filling the  
>bottle, capping, conditioning ... enjoying (er, sort of). Hey,  
>what can I say, I followed the directions that came with the  
>extract, and those supplied with the microbrewery kit ... how was  
>I to know. Beat me, whip me, make me write bad checks! I'm trying  
>to reform myself.

>If I understand the literature, about 3/4 cup of sugar/sugar  
>equivalent should be boiled in water or sterile wort, then added to  
>the contents of the secondary, cooled to the temperature of the  
>remaining 5 gal liquid (is it still called wort at this stage?),  
>bottled and conditioned as usual.

>

>It would seem that if I add anything to the remaining 5 gal

>liquid in the secondary, and mix, all the precipitate will go back  
>into suspension and consequently be bottled. If I don't mix, what  
>will be bottled will not be consistently primed. I was under the  
>impression that one of the advantages of doing a two-stage  
>fermentation was to eliminate as much particulate from the bottled  
>product as possible.

>

>Questions:

>1.) What am I missing here? Do I accept putting all the  
>precipitate back into suspension and into the bottles, or,  
>2.) Is there a method of mixing the priming sugar/equivalent  
>without disturbing the junk in the secondary?  
>3.) Noting that the 3/4 cup is not carved in stone, if I  
>substitute dry malt extract for corn sugar, do I use the same 3/4  
>cup? What if I substitute liquid extract?  
>4.) Lastly, if I use (for conversation sake) a 3 pound can of  
>a hopped liquid extract, and want to use dry malt extract (instead  
>of a second un-hopped can of liquid or [gasp!] sugar) to finish  
>off the ingredient list, what would be a reasonable amount of DME  
>to use as a baseline starting point for future experimentation?

>

>

Answers:

First, once the fermentation is over, its beer, carbonated or not.

1. The normal priming method is this: boil and cool 3/4 cup  
corn sugar (or 1 to 1 1/4 cup dried malt extract, I never use  
liquid extract, too hard to measure at this level) in 1 cup  
water. Place this sugar solution in the bottom of a clean and  
sanitized 5 gal carboy (or what ever you use for a bottling  
container) and rack the beer from your secondary onto this  
sugar solution, again, with as little aeration as possible.  
The sugar solution will go into solution with the beer with  
no difficulty. Bottle and enjoy a week or two later.

2. See 1

3. See 1

4. First, I would recommend that you use un-hopped extract (it  
is difficult to predict the hopping rate in extracts) and hop  
the wort yourself. This way you get the hop rate YOU like  
and you get to use the variety of hops that are pleasing to  
YOU. The amount of DME (dried malt extract?) that you  
would need depends on the kind of beer that you want to  
make. For my 'normal' ales I like an OG of around 1.045,  
and I usually end up using 6-7 lbs of extracts (I like the  
Northwestern extracts) total.

GUIDANCE, PLEASE

>

>Mark

>

Mark, hope this helps some. Keep at it!

Michael D. Galloway  
mgx@ornl.gov

Living in the WasteLand

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Date: Thu, 18 Feb 93 09:43:30 EST  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Aeration

I think this was in the gadgets issue of Zymurgy (maybe it was even posted here months ago), but it's a neat idea that bears repeating. It's not original to me, anyway.

I'm one of those who likes to rack (siphon) from the boiling pot into my primary fermenter (maybe because it's hard to pour into the neck of a carboy from a big pot). I made a neat gadget that automagically aerates the (cooled!) wort as it's siphoning. I took some 3/8 OD copper tubing (left over from building wort chiller, sparging manifold, etc.) and cut a piece just slightly taller than the inside height of my carboy. A couple of inches down from the top (far enough down so it's inside the neck of the carboy) I drilled four 1/16" holes. I filed notches in the bottom with a triangular file (this prevents it from sitting flat on the bottom of the carboy and stopping the flow). I then insert this into the end of my racking tube, put it in the carboy, and siphon. The Bernoulli effect (knew that physics class would come in handy some day) sucks air in through the holes, and it gets well mixed with the wort. Makes a nice head of bubbles in the carboy, too.

Assuming you've got some copper tubing lying around, it's free and easy. Even if you don't, a couple of feet of tubing will cost you maybe a buck?

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Thu, 18 Feb 93 8:29:54 CST  
From: gdmcconn@mspe5.b11.ingr.com (Guy McConnell)  
Subject: Birmingham Brewing Tour (part III)

Last we were taken into the cold storage room filled with kegs, cases of bottled beer, and the unmistakable aroma of hops. I thought I'd died and gone to heaven. John then took us back to the front of the brewery (a long walk of perhaps 100 feet), pointed out some cups and two taps and said "help yourselves". They had the golden ale and gold lager on tap. There was no red ale on tap because they didn't have any in kegs at the time. I'll have to recant my previous opinion of the golden ale. I have had it in bottles here in Huntsville and said that it was "good but nothing special". After trying it fresh at the brewery, I'll have to say that it is quite good. It had a wonderful hop aroma and flavor, balanced by good malt taste and topped off with a creamy head. The lager was very smooth and quite good as well. John likened it more to a Dortmunder style than a pils. Being an ale man, I can't comment on that comparison.

I asked if he would tell me what was in the red ale, without giving away the farm of course. He said they use 2-row, Munich, Caramel, and a "small amount" of Chocolate malts in the brew. The chocolate is there primarily to add texture and complexity rather than color as that is derived from the caramel malt. Clusters are used for bittering with Fuggles and Cascades used for flavor and aroma.

When asked about brewing other types of beer he said he'd love to do a stout or a porter but they were afraid that it wouldn't sell here. They do plan to brew a Christmas Ale of some sort this year and are, as yet, uncertain as to whether it would be available only in Birmingham or in all markets. Their beer is currently available throughout Alabama in the "major" cities such as Birmingham, Huntsville, Decatur, Mobile, Montgomery, etc. He wasn't sure how much of it made it into "outlying areas" as they deal only with distributors. It is also available in some parts of Georgia and they are soon going to have it in the Florida panhandle.

Red Mountain Red will be in next month's Beer Across America shipment and John was quite honored by that as they are such a new brewery. He showed us the last of 3200 cases on their way to the BAA people.

They are migrating to twist-top bottles since the ones they use are not returnable anyway. This had an unexpected benefit to us as he gave us a half case of the red ale and a half case of the golden ale to split from their bottling runs. That fresh red ale is something else indeed!

John is justifiably proud of the brewery. He says that, while it is quite small in comparison to most others, "there are no finer micros anywhere, all of the equipment is first-rate".

Quite an enjoyable tour, particularly since I'd never seen the inside of a brewery before. John said that he is happy to give tours of virtually any size, preferring those in the range of 1 - 4 people. Larger tours are also welcome but are not as "personal". Just call to make sure he will be in and will have the time to show you around. The address and phone number:

Birmingham Brewing Company  
3118 3rd Avenue South  
Birmingham, AL. 35233  
(205)326-6677

Enjoy and here's to the return of the brewing industry to Alabama!

- - -  
Guy McConnell gdmcconn@mspe5.b11.ingr.com  
"All I need is a pint a day"

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Date: Thu, 18 Feb 93 09:26:46 EST  
From: mattd@software.pulse.com (Matt Downs)  
Subject: Found Beer

All Homebrewers:

Recently, I found a raspberry wheat beer in a fermenter that I forgot about.

Please no flames--I know "stupid"! Any way, it is about 7 months old and the air lock appears to still be intact. What I was wondering is if any one has had an experience like this and what did they do? Did you bottle it any way?

Did it turn out ok? How might have using fruit changed this?

Any answers would be appreciated, but flames would not! There seems to have been an extradonary number of flames for people who have valid questions to this group, we as a group should be more understanding and unless we have constructive answer, we should refrain from wasteing bandwidth in meaningless and unwanted expressions of our own inadequatcies (spelling is probably incorrect).

Thanks.

Matt

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|                            |                                            |
|----------------------------|--------------------------------------------|
| Matthew Downs              | "To error is human, to forgive devine"     |
| Pulse Communications, Inc. |                                            |
| 2900 Towerview Road        | I have admitted my stupidity, I promise it |
| Herndon, VA 22071          | will not happen again!                     |

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Date: Thu, 18 Feb 93 10:14:00 EST  
From: DJH0@NIOSR1.EM.CDC.GOV  
Subject: is it too late for the secondary?

Greetings-

I tried a partial mash of 1/2 lb. chocolate malt (crushed with a mortar and pestle) with a lager extract, and lacking a wort chiller, poured the hot wort and the hot break (out of ignorance) through a strainer and into a 5 gal. carboy with 3 gal. of water. I let the cold water in the carboy cool the wort and pitched my yeast soon afterward. (My milling "technique" had produced some powdery grains as well as granular grain fragments) . The latest posts in the HBD have given me some concern about my crude methods. Question- Has all the harm been done? Should I bother racking to a secondary ASAP to get the wort away from the hot/cold break which formed a 1 inch layer on the bottom of my carboy? The yeast is just now producing CO2 (very slowly) after 2 days of no activity at 65-70°F. Not worrying- just learning.

djh0@niosr1.em.cdc.gov

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End of HOMEBREW Digest #1081, 02/19/93  
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Date: Thu, 18 Feb 93 9:30:02 CST  
From: gdmccconn@mspe5.b11.ingr.com (Guy McConnell)  
Subject: Irish Red Ale

Considering that I am at least partly responsible for starting (as well as carrying on) this thread, and that this (non?)style is near and dear to my heart (as well as my palate), I decided to poke around in my copy of Michael Jackson's 1977 "World Guide to Beer" to see what I could find.

In the section on "Classical Beer Styles" under the "(Burton) Pale Ale" heading:

"...a lively beer, faintly acidic, with a strong tang of hops...also sometimes known as 'India Pale Ale'...France has 'Irish Russett Ale', a copper colored beer..."

Also, in the section on Britain and Ireland, he mentions that Lett's at Enniscorthy, county Wexford, the last small independent brewery in Ireland, ceased to produce its popular ales in 1956. The company has kept up to date its brewing license. Enniscorthy-style beer can be produced under license in France by Pelforth. There is a picture of two beer labels on that page, one from Ireland and one from France. The one from Ireland reads:

"G.H. Lett & Co., LTD., Enniscorthy Ruby Ale"

The one from France reads:

"George Killian's Biere Rousse Brasse Par Pelforth" While the signature on the label under the horse's head is "George Killian Lett". In the fine print at the bottom it says:

"Biere Brasse Par Pelforth Selon De Procede de Fermentation Haute (Irish Top Brewing) De George Killian Lett".

While this certainly does not indicate that "Irish Red Ale" is considered a style unto itself, it does indicate that there exists (or existed) a type of Irish Ale with a distinctively red coloration, possibly brewed only in one area of the country. It would also appear that this type of beer is no longer produced in Ireland.

I checked in the section in U.S. breweries to see if there was any mention of Coors buying the Killian's name but this book was written prior to that. It says that "while most major U.S. breweries brew multiple types of beers,

Coors is adamant that they only need one; their Coors Banquet Beer".

Based on this, I stand by my assertion that "Irish Red Ale" is a type of beer (perhaps "style" is not the correct word) that has been revived by micros and homebrewers in much the same way that porter was. My initial thought was that "Irish Red Ale" was a relative to, or perhaps a decendent of, a British beer style (I thought maybe Special Bitter or ESB). While that may indeed be the case, it seems that the evidence I found would indicate that it is distinctly Irish in origin though perhaps similar to IPA in character. I still found no direct reference to the type of grain used, hopping rate, or strength of this elusive brew but maybe further research will turn something up.

- - -

Guy McConnell gdmccconn@mspe5.b11.ingr.com

"And the beer I had for breakfast wasn't bad, so I had one for dessert"

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Date: Thu, 18 Feb 93 11:04:55 EST  
From: ali@hicomb.hi.com  
Subject: Re: HELP! Can bottle carbonation take a long time?

>  
> Date: Tue, 16 Feb 1993 14:06:43 -0800 (PST)  
> From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
> Subject: HELP! Can bottle carbonation take a long time?  
>  
> I have a problem with my latest batch regarding virtually no bottle  
> carbonation. Before going further, here are the specifics of the brew:  
>  
> [ Some stuff describing process deleted ]  
>  
> 4 days later, after storing at 68, there is virtually no carbonation.  
The  
> cap hissed a very little on opening, but the beer tastes REALLY flat,  
> subjectively only marginally, if any, more than there was when it was  
bottled  
>.

I believe you should let the beer sit in the bottle a little longer.  
You should wait about eight days (or so I've been told). Just because  
you only made 3 gallons doesn't mean you wait half the time.

> In an experiment I have "modified" three bottles but would like  
comments as  
> to whether this is the right thing to do or not:  
>  
> add 1/4 teaspoon extra sugar directly  
> add 1/16 teaspoon (roughly measured) of dried yeast directly  
> put 1/4 teaspoon of dried yeast in 25 ml water to rehydrate and pour 5  
ml of  
> slurry into a bottle  
>

Great experiment. I would love to hear how it came out.

Also, I have a question of my own: I would like to put fruit flavor  
in my beer. I am strictly an extract brewer (for now). Is this easy  
to do? When should I add the fruit flavor (for example, apple)? What  
form should the fruit flavor take (diced apples, whole apples, apple  
kool-aid?)? I appreciate any help.

Thanks,

Shaheen

- - -

Shaheen H. Ali ali@hicomb.hi.com, !hicomb!ali  
System Software Engineer  
Hitachi Computer Products,  
1601 Trapelo Rd., Waltham, MA 02154 (617) 890 0444

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Date: Thu, 18 Feb 93 07:30:28 MST  
From: pyle@intellistor.com (Norm Pyle)  
Subject: Several

Some random ramblings:

Steve brings up several very valid points in the extract vs. all-grain debate. I will explain my motivation for recently going all-grain: FUN. I have more fun brewing with grain than with extract. Everything else (lower cost, more time, less/more control, etc.) is secondary. All homebrewers clearly have more fun brewing beer than people who just go to the store and buy it. I have more fun brewing mine with grain. No big deal; just brew it and have fun (right, gak?)

I saw an article in the Wall Street Journal yesterday about clear beers. It seems all of the big boys are planning to make them but the people who really know beer don't think they'll sell (no color = no taste = no alcohol = no sales), or so the logic goes. The interesting part to me was the method for removing the color: charcoal. They dump a load of charcoal into the beer, filter it out and voila!: clear beer. Any volunteers to ruin a perfectly good batch of hb in the name of science? (not me) P.S. I expect it would be much more difficult to remove the color from a deep amber ale than a piss-colored well-known American swill beer. I'll bet Guinness doesn't try to make Guinness Extra Stout & Clear.

Thanks for setting me straight on Miller, Ulick. Its been several homebrews since I read it...

Joe, I'd be glad to participate in your ale/lager taste test. I don't pretend to be able to add much to the discussion, but it sure would be interesting for me. I live in Longmont.

Just had a Vail Pale Ale last night. It had a wonderful sweet, malty base with a quite well-balanced hop kick to finish it. I've never had a 22 oz. bottle disappear so quickly. In fact, it was so good I immediately went to the store and liberated another.

Cheers,  
Norm

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Date: Thu, 18 Feb 93 11:13:06 EST  
From: Joe Rolfe <jdr@wang.com>  
Subject: pH Meters, Sparge, MM and Extracts

hi all,

whew what a subject (forgot, yeast re-pitch, Belgian Ale Book Comments).

on the subj of pH meters - i recently got one from HANNA (shucks found out it is made in italy :0). anyway does anyone have one of these? do you notice a fluctuation between hot and cold temps of the same sample? i am not sure if mine is defective or what, pH varies by .5 (even after letting it sit in the non-ambient temp sample for 1-2 mins)....the probe was calibrated with the 7 and 4 solutions minutes before....and soaked in a conditioning solution for 30 mins as recomended.... does any one have the temp diffs for pH?

on sparge water - i am just beginning to go all grain (not because i feel less than a whole brewer - but for cost reasons and control over the end product). i am looking for inputs on what types of acids people use to knock down the pH of the sparge and comments on the results brought into the final product (flavour, aromas, color or anything).

on the js MM, i have been using it - mostly on MF crystal - it does produce a good crush, no tearing (to speak of ) of the husks. the thruput may not be high enough for my purposes (at least in a manually operated mode) but both myself and another larger scale brewer are going to put a motor on it with a good sized hopper (in and out). anyone done any motorizing of these? what rpm did you find best (too fast the grains just roll or fall out of the sides).

my 1/2 cent on extracts vs grain - what ever works for you. i think it has been said that yes - you too can make a good beer from extract and grain. one thing i have found in using the extract to date - you have a hell of a time controlling color of the final product. if your looking for the same color it seems very difficult (at least for a very pale to pale colors). the extract does brown over time ( i have yet to figure out MF date coding). i have even seen some difference in SG/lb/gallon of between 3 and 8 pts. again if you try as i do to produce the same product over and over - it makes it less "cookbook" like.

i finally got a re-pitch to work. i had problems with stucks and in conversations with Mike Sharp and SHeri Almeda the major problem was O2 and areation. i never had a problem re-pitching small batches (5-10 gal) but

larger batches (even when over-pitching) got stuck. pH of the wort was fine (5.2 +/- .2). no major temp changes in the yeast.. started warming the yeast up days in advance. yeast never sat for more than 5-7 days in 40F temps. so if in doubt areate the hell out it. i used an oilless compressor with .2 ucron filter and connected to the bottom valve of the fermenter. a hose dropped into the wort should do fine if you can get it to the bottom for top opening vessels. but always use a filter to get "sterile air". i have also heard that using pure O2 is not very good - most bottles o2 contains an additive used to prevent "stuff" growing (for hospital use), it is very explosive and too much purew o2 can be toxic to yeast..... although i have heard that divers O2 should be fine.

as i have posted in the past - i will be travelling to montreal to see pierre rajotte within the next few weeks - the offer still stands about those people who thought the book "missed the mark", "lacked" wahtever... or was good in whatever....both sides of the comments are desired...

so far i have posts from Brian Bliss, Jim Liddil, Jim Busch (hi jim!), Conn Copas

have not gotten any specifics from Martin Lodal (not to put you on the spot:) but in LD 11 for Thur Dec 10 -you mentioned "but many experienced and capable brewers don't feel he succeeded in communicating it" [it being info on brewing beglian ales]. between you and Conn - this was the impetus to get the questions answered....

so martin - do you have any comments?? do any of the other brewers you talked to have them? these can be direct comments of questions that could be answered to remove the vague areas. as i said and pierre has agreed to answer any questions, you post them, i hand carry them and respond to all en-mass....

my god - what a long winded mess i have made - sorry for the wsted bandwidth i have not posted in a while....i feel better now:)

good brewing (how ever you do it)

- - -  
joe rolfe  
jdr@wang.com  
508-967-5760

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Date: Thu, 18 Feb 93 08:31:33 PST  
From: bryan@tekgen.bv.tek.com  
Subject: Re: Length of Carboy Aging

I brewed an Ale a couple of years ago that had a "stuck" fermentation. It was in the winter in a unheated bedroom. After a couple of months in the secondary I kind of forgot about it and it didn't get bottled till it was 6 or 7 months old. It was great. It didn't carbonate quite as much as I thought it should have, but that didn't bother me. The ale was a nice amber  
with no haze and very little yeast in the bottom of the bottle.

Bryan

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Date: Thu, 18 Feb 1993 09:29:25 -0800 (PST)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Re: stuck conditioning

Peter Maxwell says his brew isn't conditioning in the bottle. I've had similar hassles. Is there any visible sediment in the bottles? This is the best gauge (other than opening a bottle) of how the yeast in the bottle is doing. My guess is that the yeast count at bottling was too low.

In my case, I think this was due to fining with Polyclar. Now I swish the racking tube around the bottom of the secondary to pick up a little of the yeast sediment. I have also added 1/4 tsp of dry yeast to the bottling bucket.

That's for later, this is for now: Peter, shake all your bottles and lay them on their sides in a warm (70F) place. Shake every day, until there is visible yeast in suspension. I got this trick from The Cellar in Seattle. I think it works by exposing more yeast surface area. I did this on a batch of Kropotkin Anarchist Ale and it had good carbonation in three weeks. This was after it stayed flat for a month. Let us know how it all works out.

Paul.

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Date: Fri, 18 Feb 94 11:12:21 -0600  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Fermenters

The following are answers to private e-mail from Cush Hamlen. My response to cush@msc.edu bounced.

>A quick question on your posting today on fermenter geometry: If I follow  
>you right, DeClerk (sp?) found a shallow container to be better. However,  
>is seems to me that a large surface area is just begging for increased  
>likelihood of contamination (of course, this is a mute point for closed  
>fermentors). Is he concerned, then, about geometry as it relates to  
>circulation of wort during fermentation?

You are absolutely right about bacteria. Those using open fermenters have to be very careful here. Anchor has theirs in an enclosed area that is under a positive pressure, and where sterile air is circulated.

>If one assumes that the circulation imposed by the CO2 rising through the  
>liquid is akin to uniformly heating the base of a container, then the  
>mean number of convection cells is greater for a container with a small  
>depth to area ratio. This is the typical Rayleigh-Bernard convection  
>pattern (Gee...can you tell that a great deal of my research has been  
>in fluid-dynamics? :- ) The result of increased number of convection  
>cells would be greater contact of unfermented sugars with yeast.

>Is it then concern about convectin pattern in the fermenter that drives  
>the conclusion that 'shallow is better'?

You are exactly right here as well. There is a nontrivial temp. gradient in a tower type fermenter which drives the Rayleigh-Bernard convection cells.

This has been observed empirically, and in addition numerical simulations have been done using the (incompressible) Navier-Stokes equations at appropriate Reynold's numbers which confirm this as well. I have the most relevant references on file at home. I would be happy to send you this list if interested. In modern commercial brewing, stirring devices are added to the tower fermenters to keep yeast in suspension along the length, and to level out temperature gradients. I still do not like these type of fermenters, and they are usually only used when horizontal space comes at a premium.

George Fix

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Date: 18 Feb 93 12:42:13 EST  
From: "Dean Roy" <DEAN@alpha.uwindsor.ca>  
Subject: Gelatin Finings

Can someone tell me if there is any difference between the gelatin finings sold in homebrew stores and the plain unflavored gelatin you can buy at the supermarket. I have a supply of the supermarket variety and was considering using some on my latest batch.

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|                       |                               |
|-----------------------|-------------------------------|
| Dean Roy              | Email: DEAN@UWINDSOR.CA       |
| Systems Programmer    | Voice: (519)253-4232 Ext 2763 |
| University of Windsor | Fax : (519)973-7083           |

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Date: Thu, 18 Feb 93 12:14:45 CST  
From: Jacob Galley <gal2@midway.uchicago.edu>  
Subject: Yeast mutation

Jim Busch writes:

> Also, most brewers would never suggest reusing yeast from a beer of  
> such high OG (1.085). This level of alcohol could definitely lead to  
> poor yeast performance and/or mutation problems. In general, a OG of  
> 1.050 or less is optimum for yeast propagation.

I've been wondering about this for a while. Just how does high alcohol induce mutation? I'm assuming it's just natural selection for more attenuative individual yeast cells. If so, is this necessarily a problem? Can strange esters / by-products / flavors be created by this kind of random mutation due to high-alcohol storage media (ie slurry)? If adverse mutations occur, can't they be detected in the starter? Is there something I'm missing?

Have another beer,  
Jake.

"JUST DO IT yourself." <----- Jacob Galley / gal2@midway.uchicago.edu

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Date: Thu, 18 Feb 93 13:32:07 EST  
From: whjeh@hogpa.ho.att.com (John E Haas +1 201 386 4376)  
Subject: London Pubs and Breweries

I'll be in London and Southern England for a week  
in March and I'm wondering if anybody can recommend  
some pubs and/or breweries to visit. I'm sure I've seen  
this here before but at the time it didn't seem worth  
saving.

Thanks in advance,  
Ted

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Date: Thu, 18 Feb 1993 11:40:39 -0800 (PST)  
From: James Thompson <sirjames@u.washington.edu>  
Subject: 2 Stage Fermentation

In response to Mark Elliott's questions about adding priming sugar to secondary:

The method I was taught, which works great, is siphoning the secondary ferment into another vessel -- to which you have already added the priming sugar -- just prior to bottling (to get it off the secondary trub/sediment). Since the priming sugar is added to the new vessel first, it is thoroughly mixed during the transfer. You really wouldn't want to mix up the sediment into your beer just before bottling, I should think!

If this is clear as mud, and others don't explain more clearly, feel free to e-mail me directly, and I'll explain step-by-step the method I use.

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Date: 18 Feb 93 12:45:30 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.EDU>  
Subject: Re- Meeting with Pierre Cel

Subject: Re: Meeting with Pierre Celis      Time:12:36 PM      Date:2/18/93  
I'd like to echo Bob Jones' comments about spending some time with the  
White  
Brewer of Austin. I spent an hour or so with Pierre at the Toronado in  
San  
Francisco on Wednesday afternoon. He is a very easy person to drink with.  
I  
felt very comfortable trading beer stories over a pint of his white.  
Pierre was  
interested to hear about our discussion groups here on-line and pleased  
that we  
had such good reports of his beers from Boston and other locations. I  
think  
homebrewers have a new friend in Austin.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Thu, 18 Feb 93 12:52:08 PST  
From: mrozek@gandalf.etdesg.TRW.COM (Eric M. Mrozek)  
Subject: Re: 2 stage fermentation and bottling

In HBD # 1080, Markham R. Elliott asks:  
2.) How important is it not to aerate the wort during the transfer from primary to secondary.  
3.) By leaving behind the sediment, won't there be a tremendous (significant) amount of viable yeast left behind?

...  
1.) What am I missing here? Do I accept putting all the precipitate back into suspension and into the bottles, or,  
2.) Is there a method of mixing the priming sugar/equivalent without disturbing the junk in the secondary?

This is my bottling procedure:

- 1) Make up the priming solution by boiling a mixture of about 3 cups of the beer in the secondary and 3/4 cup corn sugar or 1 cup of malt extract.
- 2) Carefully pour (avoid splashing/oxidation) the priming solution into a clean tertiary (originally the primary).
- 3) Rack the beer from the secondary onto the priming solution.
- 4) Immediately bottle the primed beer.

This procedure leaves behind the sediment and achieves uniform mixing of the priming solution with the beer. Although most of the yeast has been separated out at this point, I don't worry about it. There is still plenty of viable yeast in suspension as long as you're bottling within 3 weeks of brewing.

As for oxidation, your biggest concern should be with hot wort. At fermentation temperatures the effect is reduced by orders of magnitude. But as long as you are using a racking tube to siphon the beer off the sediment, why not avoid a little splashing and make the best beer you can?

Eric

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Date: Thu, 18 Feb 93 13:54:56 PST  
From: mrozek@gandalf.etdesg.TRW.COM (Eric M. Mrozek)  
Subject: The real reason we brew

Steven Tollefsrud writes in HBD #1080:

>While it was refreshing to see a few all-grain brewers come to  
>the defense of the extract brewer, I have yet to see one come  
>out in favor of extract brewing over all-grain brewing.  
>...  
>If I were an all-grain brewer  
>who had made all the investment in equipment and time, I too would  
>find it difficult to admit, afterward, that it wasn't worth it.

In my post to HBD #1078, I stated that I brew both extract and all-grain.

Although I didn't explicitly say "I am in favor of extract brewing over all-grain brewing," I hope I implied that extract brewing is perfectly acceptable. It simply comes down to what your goals are and how you choose to meet them. If there are snobs (whether a'g'ers or EXTRACTERS) who criticize the choice of others, all I can say is, \*\*\* Give people information, but let them choose their own goals and means \*\*\*.

>One of the most common reasons given by all-grain advocates for  
>taking the plunge is for greater control over what goes into the beer.  
>But .. inconsistency ... make me shy away from having such "control"

Greater control in all-grain brewing isn't the same thing as having a process that is "in control". A'g'ers have more control available to them because they can choose the mashing procedures and temperatures, sparging temperatures and times, and many other variables. Having more control (read: choices, parameters, variables, tweak points, etc.) means it DOES take more work to stay in control. I think everybody's FIRST goal is to have fun with a hobby that interests you. If you want good beer, use good extract. If you want to play with these other controls, then play.

Eric

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Date: Thu, 18 Feb 93 15:48 CST  
From: korz@iepubj.att.com  
Subject: carbonation/priming/DMEvsLiquid

Peter writes:

>1/2 cup corn sugar was boiled in some water, poured into a carboy and  
the  
>secondary siphoned into it. Bottling was done from this mixture. At  
the  
>time of bottling I noticed it was particularly clear - almost all  
suspended  
>cloudiness had fallen to the bottom of the secondary.  
>  
>4 days later, after storing at 68, there is virtually no carbonation.  
The  
>cap hissed a very little on opening, but the beer tastes REALLY flat,  
>subjectively only marginally, if any, more than there was when it was  
bottled.

I usually wait at least a week to 10 days before expecting carbonation.  
That a beer appears clear (not clouded with yeast) only means that the  
yeast count has dropped below 10,000 cells/ml (I THINK -- I don't  
remember  
if this is the right number -- perhaps someone can verify/correct?).  
There's  
still lots of yeast in suspension and should be plenty to carbonate your  
beer unless you gave the yeast a temperature shock, in which case it may  
take a bit longer.

\*\*\*\*\*

Markham writes:

>This past weekend I finally aquired a second 5 gallon glass  
>carboy. After three successful single-stage extract brewings, I  
>feel comfortable enough to take what I feel is the next step up the  
>brewing ladder: Doing a two-stage fermentation. Additionally,  
>this will be my first go at using no sugar in the process, except  
>for what appears to be the standard use of 3/4 cup for priming.

The sugar-freeness will improve your beer a lot more than the secondary.

>As I understand the procedure, after the respiration phase has  
>completed, and the blow-off tube has cleared, I am to siphon the  
>fermenting brew into the secondary fermentation vessel (with as  
>little aeration of the liquid as possible), leaving behind whatever  
>sediment is on the bottom of the primary vessel.

You can, if you wish. Many a prize-winning ale has been done with  
single-  
stage fermentation. I personally feel, that a secondary is only needed  
for long ferments like lagers and thus I only use a secondary for lagers.  
Note that respiration occurs before any activity can be seen. Perhaps  
what you mean is "after blowoff ends" which is perhaps 1/2 to 1/3 of the  
way through the fermentation phase.

>1.) Must the transfer to the secondary be done immediately, or  
>is there a safe window of a day or two?

To gain the maximum benefit (which is to get the beer off the trub)  
you want to go to the secondary right after blowoff ends, but if the  
whole ferment is going to last only a week, I feel that the added  
risk of infection and aeration are not outweighed by the benefits

of using a secondary. Personally, I feel you're better off using the second carboy to make another (concurrent) batch.

>2.) How important is it not to aerate the wort during the >transfer from primary to secondary.

If active fermentation is still ongoing, then it's less (but not much less) important. The CO2 escaping from the beer will scrub out much of any oxygen you add. If fermentation is over, then I feel it's more important. Just do your best and don't worry too much.

>3.) By leaving behind the sediment, won't there be a >tremendous (significant) amount of viable yeast left behind? My >observations of the fermentation process show that the CO2 rises >from the precipitate at the bottom of the carboy, not from the >material in suspension.

There's still plenty of yeast in suspension and although I don't have a clear answer to why you see the majority of the CO2 coming from the sediment, I'm quite certain that the yeast in suspension does most of the work. Note that when by beer is actively fermenting, there so much yeast in suspension that the beer looks like chocolate milk and I can't see much more than 1/2 inch into the fermenter.

>Now, all my primings to this point have been by adding a >measured amount of corn sugar to each bottle, then filling the >bottle, capping, conditioning ... enjoying (er, sort of). Hey, >what can I say, I followed the directions that came with the >extract, and those supplied with the microbrewery kit ... how was >I to know. Beat me, whip me, make me write bad checks! I'm trying >to reform myself.

Don't be so hard on yourself. If you like the way your beer has been turning out... great! However, we all have room for improvement and the difference between a great brewer and a good one is one that is constantly trying something new, whether it be a new procedure or a new ingredient or a new style. I feel that you'll get better consistency and less chance for infection if you bulk prime (what you are suggesting in the next paragraph).

>If I understand the literature, about 3/4 cup of sugar/sugar >equivalent should be boiled in water or sterile wort, then added to >the contents of the secondary, cooled to the temperature of the >remaining 5 gal liquid (is it still called wort at this stage?), >bottled and conditioned as usual.

Boil the priming sugar in water, not sterile wort. Sterile wort has fermentables in it too and you want to use just the 1/2 to 3/4 cup of corn sugar (dextrose) for priming OR a measured amount of sterile wort... not both. It's called green beer at this point -- fermentation is over, so it's not wort anymore.

>

>It would seem that if I add anything to the remaining 5 gal >liquid in the secondary, and mix, all the precipitate will go back >into suspension and consequently be bottled. If I don't mix, what >will be bottled will not be consistently primed. I was under the >impression that one of the advantages of doing a two-stage >fermentation was to eliminate as much particulate from the bottled >product as possible.

>

>Questions:

>1.) What am I missing here? Do I accept putting all the >precipitate back into suspension and into the bottles, or,

You're missing the priming vessel (aka bottling bucket). No, don't do that -- siphon the beer onto the priming solution in another sanitized container, stir very gently and then bottle from that vessel. I use another carboy since the narrow neck is a smaller opening for nasties through which to float in via the wind.

>2.) Is there a method of mixing the priming sugar/equivalent  
>without disturbing the junk in the secondary?

Yes. See above.

>3.) Noting that the 3/4 cup is not carved in stone, if I  
>substitute dry malt extract for corn sugar, do I use the same 3/4  
>cup? What if I substitute liquid extract?

I've never used liquid since dry extract is easier to store partially opened. Dry malt extract is only about 80% fermentable, so if you use it in place of corn sugar, increase weight used by 20% or so. Malt extract syrup is about 20% water, so increase the weight used by another 20% over dry malt extract.

>4.) Lastly, if I use (for conversation sake) a 3 pound can of  
>a hopped liquid extract, and want to use dry malt extract (instead  
>of a second un-hopped can of liquid or [gasp!] sugar) to finish  
>off the ingredient list, what would be a reasonable amount of DME  
>to use as a baseline starting point for future experimentation?

As I mentioned above, the liquid is partly water, so if you substitute dry for liquid extract, cut back by about 20% by weight. NOTE THAT LAAGLANDER DRY MALT EXTRACT IS LESS FERMENTABLE THAN MUNTON & FISON, SO EXPECT A HIGH FINISHING GRAVITY AND A SWEETER BEER. I use Laaglander intentionally to make my Young's Special London Ale clone. It would be good for other high FG styles like Scotch Ale or Sweet Stout.

Al.

-----

Date: Thu, 18 Feb 93 17:10:59 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: sadistic bestial necrophilia

I think all we all grainers should get down on our knees and pray to Steve Tollefsrud for showing us the light by telling us we are all inferior to the extract brewmeisters, but are afraid to admit it because we are embarrassed about the expense in equipment and time we spend to produce beer when the mighty extract brewers produce award winning brew in a couple of hours.

The error of our ways, spending less than half what the mighty extract brewers spend on malt superbly extracted by professionals, controlling mashes so poorly that the quality must be less consistent than the sugary, corn syrupy, overdark extracts. And we never know what extract we'll get like the extract brewers, given the superb consistency of syrup (Alexanders?), or TG from attenuative dried extracts (Laaglander) on the market. Thank you for pointing this out to us. We can now plant plants in our lauter tuns, donate our mills to charity, and get most of our Saturday afternoons back again to spend \$20 for 6.6lb of malt extract that isn't for pale wussy inferior beers we make now with grain.

A repentant all grainer,  
Ulick Stafford  
s

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Date: Thu, 18 Feb 1993 17:34:43 -1100  
From: Kirk\_Anderson@wheatonma.edu (Kirk Anderson)  
Subject: queries

Hello everybody from a new reader, but brewer for 6-7 years, in near-total isolation. Hence discovering the HBD was a mind-blower. I'll resist the temptation to comment on recent flare-ups between extracters and all-grainers. How's that for self-restraint? A few questions please.

- 1) hydrometer reading: at the highest level the wort climbs up the instrument, or at the bottom of the curve? I've been reading at the highest part. Crude experiments with plain tapwater at 60 degrees suggest I'm right.
- 2) I've counted on Papazian's book for ages. Must I buy the new revised version? What do I get that's new (besides an index)?
- 3) Since Charlie mis-defined krausening (and I thought I'd been krausening all this time and I've only been wort-priming! with great success too), please someone give the real definition.
- 4) Go ahead-convince me that Wyeast is worth the extra investment. I'm all ears.
- 5) Anyone tried the Brew Werk 'Abby Beer' kit? How was it?

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Date: Thu, 18 Feb 93 16:30 CST  
From: korz@iepubj.att.com  
Subject: dryhopping/books

Ulick writes:

>got me thinking. Traditionally (i.e. Germany, Bohemia) lager  
>finishing hops are added at the end of the boil, although reading  
>George Fix's Brewing Science book last night he mentioned that  
>dry hopping may also be better for lagers. I wonder when would be best  
-  
>perhaps the whole lager, or add after krausen dies and let them sit in  
the  
>primary for the second week prior to lagering? I am not a fan of dry  
hopping  
>as I have had trouble clearing dry hopped beers, but my stema beer that  
never  
>cleared tasted just like Anchor. Anyone anyclearing suggestions  
>that are Reinheitsgebot?

Personally, I dryhop virtually all my beers, but then again most of them  
are pale ales. I have never had problems clearing my dryhopped beers --  
they all turn out crystal clear without *\*any\** finings. Perhaps you  
should  
look elsewhere (besides dryhopping) for your clarity problem. For the  
record, I use whole hops for dryhopping because they float and I just  
siphon  
the beer out from under them. I dryhop when fermentation has gotten down  
to the 1 bubble/minute range and let the beer sit with the hops for  
exactly  
seven days (more or less appears to reduce bouquet).  
>  
>Norm Pyle considers Miller to be a lager book. I dispute that. It is a  
>good introductory text on producing many basic beers with typical  
American  
>Malts. Noonan, despite being error riddled, is a lager book. It covers  
>the essential of lager brewing much better. Hell, Miller recommends  
priming  
>with corn sugar. What is Miller's Continental Pilsener book like?

I feel that there are errors in Miller's "Complete Handbook of  
Homebrewing"  
albeit not as many as in Noonan's "Brewing Lager Beer." I feel Charlie's  
NCJoHB is the most error-free, although I have a few sticking points with  
that too (like not recommending a strain of yeast -- I feel the yeast has  
more to do with the flavor than virtually anything else -- certainly more  
than which brand of extract!). Miller's "Continental Pilsener" is a good  
book with relatively few errors (IMO), but not as *\*great\** as Guinard's  
"Lambic" or the Fix's "Vienna."

\*\*\*\*\*

RANDY writes:

>How long can a batch stay in the carboy (after racking once) before  
>bottling? Any stories out there of amazing feats like 6 month storage?

Sure, but taste it before you bottle. If it has gone bad and you hate  
the  
taste, then don't bother.

>I used Wyeast American Ale and it was a slow starter, and even slower  
>finisher, but the FG is around 1009. Due to lack of time it has been



>basically ignored. I don't want to say exactly how long it has sat, but  
The slow finisher scares me a bit. I've found 1056 to finish quite  
quickly  
and suddenly. Now don't get worried, but the slow finish may be related  
to  
the slow start, namely, that during the slow start, something else got in  
there. But fear not. Taste it and trust your tastebuds -- they won't  
steer you wrong.

\*\*\*\*\*

Cush writes:

>I have observed that every single brew that I have dry-hopped has ended  
>up with, apparently, a higher carbonation level in the bottle compared  
>to non-dry-hopped brews with the same amount of priming sugar. The  
result  
>is brews with a nice-healthy head. Not necessarily gushers....but one  
DOES  
>need to pour somewhat quickly after cracking the cap!  
>  
>Has anyone else noticed this effect? Any guesses as to the cause?  
>  
>There has been some discussion lately about apparent slow fermentation  
in  
>the secondary following dry-hopping. The two possible causes that have  
been  
>proposed are 1) the hops act as nucleation sites for dissolved CO2, and  
>2) bacterial contamination on the hops. Any thoughts as to which of  
these  
>two causes the higher bottle conditioning? (I am still not convinced  
that  
>some bacteria, or more likely wild yeast, are not carried in on the  
hops).

I haven't had this kind of effect and have brewed perhaps 40 dryhopped  
beers in the last two years. It took me a long time to convince myself  
to  
dryhop (I was afraid of contamination) and eventually two things (both  
suggested by the HBD):

1. when you dryhop, the beer already has very little sugar left, quite  
a bit of alcohol and the antibiotic effects of the boiling and flavoring  
hops, and
2. what self-respecting yeast or bacteria would live on hops!?! It's not  
like it's a grape skin or a cup of raspberry puree... I think that hops  
would tend to carry no more microbiota than the area that they have been  
stored in contains (i.e. the dust in the area is just as likely to infect  
your beer during bottle filling as the dryhops).

Al.

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Date: Thu, 18 Feb 1993 18:10:38 -0500 (EST)  
From: Andy Kurtz <ak35+@andrew.cmu.edu>  
Subject: I heart the listermann sparger

I know there have been some postings in the past about the LS, but it worked out so well for me that I thought I would plug it once again. The LS (for those of you who don't know) is merely two 5 gal. plastic tubs. One is for holding sparging water; the other is a lauter tun (it has a neat false bottom insert). Both are drilled near the bottom and have lengths of plastic tubing inserted in them. The tube coming out of the water container is terminated with a couple of lengths of pvc pipe fitted perpendicular to each other so that they sit atop the lauter tun.

Water is sprayed onto the mash via a small brass pipe connected to the pvc (and the plastic tubing, of course). As water flows through the tube, the brass pipe whirls around fan-like, spraying water slowly and evenly across the grain. The grain bed is never disturbed and the water level is easy to regulate by keeping an eye on how fast the water shoots through the "fan" and out of the lauter tun.

My extracts have gone from a dismal 1.035 (for 8-10 lbs of grain!!) to over 1.060! It cost me about 40 bucks, but IMHO was well worth it (I'm sure y'all who are handy would be able to make something like this for much less -- but hey, I'm into convenience).

andy

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Date: Thu, 18 Feb 93 18:13:16 EST  
From: rowan@ocean.rutgers.edu (Andy Rowan)  
Subject: labels for laser printer

Has anyone found a good solution to the challenge of trying to print labels for beer bottles on a laser printer?

I've got some ideas for things I could do up on the computer and print out, but I'm afraid if I use the usual mailing label type labels, I'll never get them off the bottles again.

Any ideas?

```
=====
| Andy Rowan| You don't know what I'm |
| Cook College Remote Sensing Center | talking about? Don't |
| Rutgers University | worry, everyone tells |
| rowan@ocean.rutgers.edu | me I don't either. |
| (908) 932-9631 | |
=====
```

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Date: Thu, 18 Feb 93 14:29:31 EST  
From: richer@desi.HQ.Ileaf.COM (Al Richer)  
Subject: Malt question

I am a bit confused as to the differences between 2-row British and 2-row American malts. I have a homebrew supplier that is happy to sell me Klages as suitable for British styles (bitters, pale ales, stouts...) and tells me that the major difference is that the American 2-row will convert faster.

Well.... I dunno.

I have traditionally used British malts in my ales and stouts, and will likely continue to do so for the specialty grains. At \$40 for a 55-pound bag (as opposed to \$56 for Brit 2-row), it's awfully tempting...

On a related note...

Anybody got any good suggestions as to where to buy bulk grain malt in the Boston area? This price is from Barleymalt and Vine in Framingham. Beer and Wine Hobby in Woburn is a bit lower, but not much. Mailorder would be fine only with a BIIIGGG price differential, considering the shipping ( I prefer dealing over the counter and shipping by Mazda pickup...<grin>).

Opinions, speculation (labeled as such), and other input welcome.

ajr

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Alan J. Richer      Mail: richer@hq.ileaf.com  
Interleaf, Inc.    All std. disclaimers apply  
9 Hillside Ave.    Your mileage may vary  
Waltham,MA. 02154  
" It's a nitwit idea. Nitwit ideas are for emergencies.  
The rest of the time you go by the Book, which is a  
collection of nitwit ideas that worked at least once."  
from "The Mote in God's Eye" , Niven and Pournelle

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Date: Thu, 18 Feb 1993 17:00:16 -0800 (PST)  
From: James Thompson <sirjames@u.washington.edu>  
**Subject: Survey & Signature**

Thanks, Chuck, for the survey results. As a new brewer, and as an all-extract brewer so far, I have not been intimidated by the all-grain info, but have been learning a lot from this great forum, from the simple question-and-answer stuff to the highly technical jargon. I learn more in a few days of reading HBD than I would in months trying things out at my own pace. Hurray for Internet!

As a first time poster above in response to Mark Elliott's question re 2 Stage Fermentation, I forgot to put in a signature, address, disclaimer and so forth. To rectify that blatant omission:

Jim Thompson  
sirjames@carson.u.washington.edu

Disclaimer: All our opinions are only our own, aren't they my Precious?

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Date: Thu, 18 Feb 93 17:56 CST  
From: akcs.wseliger@vpnet.chi.il.us (William M. Seliger)  
Subject: Sankey Lock Ring Tool Availability???

I'm not sure if this topic has come up before, but as long as we're discussing stainless steel fermenters and fermenting in kegs: Does anyone know where to get hold of the tool to remove the lock ring that locks in the downtube in sankey kegs???

I would imagine that a toolmaker could make one at a great expense, but SnapOn or someone like that must sell these things (probably also at great expense).

Just wondering,  
Bill Seliger  
H 1(312)907-9686  
W 1(708)640-2718  
email wseliger@chinet.chi.il.us    -or-    akcs.wseliger@vpnet.chi.il.us

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Date: Thu, 18 Feb 93 20:33:01 EST  
From: woessner@psych.purdue.edu (Leo Woessner)  
Subject: mead digest

I have recently tried to join the mead digest without success. I mailed  
mead-  
mead-lovers-request@nsa.hp.com does the digest still exist. If so how  
can I join  
join?? Thanks in advance.  
Estes of Manang

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End of HOMEBREW Digest #1082, 02/22/93  
\*\*\*\*\*  
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Date: Fri, 19 Feb 93 1:34:24 EST  
From: Garland O Burton <gburton@magnus.acs.ohio-state.edu>  
Subject: no more syrup

i am at the stage of omitting the 4lb can of syrup in my recipes and using all dry malt extract and hop pellets for the first time.

the recipe was:

4lb stout syrup (w/hop and roast barley extracts) i have heard that this does not ferment efficiently

3lb dry malt extract  
1/2lb dark roast barley (steeped)  
and most recently the addition of 1/2lb flaked barley. first i steeped at end of boil with dark roast, then on next batch boiled 10 min and strained  
milky soup into wort.

at first i was using dry yeast.  
the last 2 batches used yeast from local brewpub yeast harvest.

the boil was 15 min. primary less than a week. secondary more than a week.  
i can tell (luck?) when it's time to act.

i just got a hydrometer and the og was 1.042 on the last batch. it is still  
in the secondary.

my (5) batches have all tasted ok, (great compared to store bought) but i want to use all dry malt extract and hop pellets. i do stout, and am thinking of moving to pale ale (bitter) next.

what is the proper amount of dme to use. 6lb? dark dme is all i have ever used. i was told that i could use 7lb light malt extract and 2 lb "black patent." is that unmalted stuff to steep like i do the dark roast?

i think the action of the brewpub yeast has spoiled me as far as ever using  
dry yeast again so i will probably use liquid irish ale yeast in future.

i haven't tasted the brewpub yeast batches yet, but i think i will be pleasantly surprised.

what kind of hop pellets, and what kind of boil times will i want for my new, unknown recipe? i don't know what flavor hops are good for which brews, but i am sure there is the obvious hop and procedure for the stout/porter i am trying to brew.

can i grow decent hops in mid ohio?

sorry for all the ?s but i have been reading dozens of hbd's and this is my first post. thanks for replies and all of your posts to peruse in the last couple of months.

cheers!

gob!

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Date: Friday, February 19, 1993 06:35:06  
From: TBSAMSEL@qvarsa.er.usgs.gov (Theodore B. Samsel)  
Subject: 33?

I was at a VietNameese restaurant for the Lunar NewYear, chowing down on some cha giaou and Singha when Nguyen, the owner said he was out out of Singha....well, I said "I'll try a 33 (bammitybam)"...

When I got it, I looked at the label and the volume was 330 ml or 11.2 oz. Is the 33 from 330ml or 33cl..volumetrically speaking??

~~~~~

Re: all grain...I'll do it when my kids move out and i have an 8-12 hour block of time to spare.....

Not lazy, just busyier than a onearmed paperhanger with an itch.
Regards,

Date: Fri, 19 Feb 1993 07:46:17 -0500
From: mgx@ornl.gov (Michael D. Galloway)
Subject: Mead Digest

For what its worth, here is the address of the mead digest (I haven't gotten any mead digests lately either).

mead-lovers@nsa.hp.com

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: Fri, 19 Feb 93 08:22:30 EST
From: "John DeCarlo" <jad@pegasus.mitre.org>
Subject: Brewpubs in Atlanta area?

I found Georgia Brewing brewpub in the last list I have. Any other recommendations or updates? E-mail, please. Thanks in advance.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Fri, 19 Feb 93 08:43:20 -0500
From: blossomf@ttown.apci.com (Karl F. Bloss)
Subject: Good chocolate beer, but...

My first batch with chocolate malt matured yesterday, so I had some friends over and generally it's a yummy beer. However, I still have that slight, annoying cidery taste. I did add about 150g of sugar beet molasses besides the malt extract and coarsely ground chocolate malt. Is it perhaps too refined of a sugar and adds mostly alcohol and not much flavor? Other suggestions?

-Karl
(blosskf@ttown.apci.com)

Date: Fri, 19 Feb 1993 08:46:05 -0500
From: mgx@ornl.gov (Michael D. Galloway)
Subject: BAA/Thomas Hardy's Ale/Maple

Comments from a previous digest:

>>BadAssAstronomer writes:
>> >The Jan 93 selections were; Mass Bay Brewing Winter Warmer and
>> >Fisher Brewing Dark Ale.
>>
>>We tasted these yesterday at the brewclub meeting. "Dark Ale" is a
>>misnomer. This stuff was sort of copper colored. I'd say it's at the
>>dark end of the pale ale spectrum. The flavor was nothing to get
>>excited about, either.
>>
>>The Mass Bay Winter Warmer, on the other hand was excellent. Nicely
>>spiced, but not overwhelming. So many spiced beers have a sort of
>>sour flavor, but this does not. Our meeting was outside at a local
>>park, and I'd say that the Winter Warmer lived up to its name.

Brian Bliss responding to these comments writes:

[snip]
>I loved the Dark Ale. The following is palate-subjective, but it
>seemed to have just enough diacetyl without seeming stale to taste
>good (not that a beer needs diacetyl, but this one used it to its
>flavor advantage, as do Smith's and (possibly too much) Young's).

I liked the dark ale too, and I thought the color was very nice. Nice malty flavor.

and BB says:

>
>On the subject of staleness, try comparing a bottle of 1992 Thomas
>Hardy's to a 1991 version...
>

Sure wish we could get Thomas Hardy's here in the WasteLand (read beer envy here!).

On the subject of maple beers: I was cooking up a favorite ham steak with maple syrup/mustard sauce in January. While in the kitchen, I happened to be quaffing a few bottles of the Winter Warmer. All of a sudden I had maple syrup in one hand and empty beer glass in the other: seeking, as always, oral gratification I poured a tablespoon or two of syrup into the glass and then poured a fresh Winter Warmer on top: the result was fantastic! Great maple flavor and the sweetness really seemed to complement the spicy flavor. I've tried maple syrup in pale ales, other ales, and porter now but liked it best in the Winter Warmer and pretty good in the porter.

Just another date point.

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: Fri, 19 Feb 93 09:08:45 EST
From: WIESEN@VAX2.DNET.ICD.Teradyne.COM (Dan `Stout' Wiesen)
Subject: request for extract information

In regards to the `dead horse' thread started by Steve Tollefsrud, how about providing extract brewers with information and characteristics of malt extract?

In my college days, my friends and I were extract brewers. Being major geeks (RPI), we didn't bat an eye at massaging variables like hops (plugs, pellets, whole, centennial, saaz, boiling, finishing), adjuncts (crystal, black patent, brown sugar, molasses, cocoa, ginger, spruce, oats) and yeast (dry, liquid, ale, lager). But when it came to malt, we didn't get much beyond the questions of amber/dark? and syrup/dry? We stayed away from hopped extracts, preferring even as novices to control this.

One of the reasons all grain brewing is extolled is for the ability to get your hands on more of the variables in the brewing process and tweaking them to your satisfaction. Similarly, one of the reasons extract brewing gets panned is due to the lack of control of the extract. Well, let's put the collective wisdom of the HBD to work and give extract brewers the ability to have this control.

What I suggest is that people submit entries to me with the following information:

BRAND:
FORM: (syrup/dry)
- the percentage fermentable would be helpful for syrup
COLOR: (light, amber, dark)
- perhaps an equivalent to the lovibond scale?
HOPS: (hopped/unhopped)
- the name of the hops and the IBUs
SUGAR PROFILE: (percent of sugar from malt, percent of sugar from other sources such as wheat, corn or cane)
UNFERMENTABLES: (are there proteins, starches or other unfermentables present that may affect body, mouthfeel or head retention)
OTHER: (distinguishing characteristics such as roast barley, which would be appropriate for stouts, noticable tannin astringency, or perhaps the oxidized funk of wet cardboard)

Being a longtime reader (since #4xx, yet infrequent poster), I vaguely remember a mention of a comparative study of malts conducted by a Saskatchewan (yea, my home province) university. I also vaguely remember some difficulty in obtaining the results of that study. This seems like it would be an excellent place to start. Does anyone remember the details better? Does anyone know where this post is in the archives?

Dan Wiesen

Date: 19 Feb 1993 09:29:37 -0400 (EDT)

From: KLIGERMAN@herlvx.rtpnc.epa.gov

Subject: yeasts

Looking through my yeast packages I noted that I had Wyeast 1214 (Belgium-
Barleywine Ale) and a dry Koenig Whitbread Lager yeast. Does anyone have any informaion on the flavor profiles|, characteristics, opinions, etc. on these. Also, people ask about using old yeast. I have found some Danish 2042 yeast that I collected from a secondary on 9/17/91 and stored in about 25 ml of fermented wort in my refrigerator sinnce then. I'm in the process of starting it up again and let you know the results. I've done this before with yeast stored up to a year with excellent results, but this should be a record (17 months)!!

- - - - -

Subj: refrigerator

A recent post asks about small refregerators (PSEITZ@MCIMAIL.COM). I found it easier and cheaper to purchase a small freezer and put a hunter controller on it. They usually go for less than \$150. Just make sure you can fit a carboy inside.

Date: Fri, 19 Feb 93 10:07:21
From: okra%genesis.uucp@gte.com (dean goulding)
Subject: Great Englis Pub

When we got the chance to fly Virgin Atlantic for \$93 ea. way, we jumped. Don't let the weather in the UK in Jan. scare you - just keep close to your CAMRA Good Beer Guide!

It was our 4th of 7 days in England and we were heading south from the county of Norfolk in East Anglia towards Oxford. As it was getting late, we detoured off the A47 to the town of Wisbech. We couldn't see any B&B signs but we did find a Real Ale pub from the Good Beer Guide and thought that would be a good place to ask. Thus we entered The Rose Tavern freehouse in Wisbech.

They had just opened @ 5:30 and there were already 3 or so gents at the 12 seat bar. We ordered Woodford's Wherry Best Bitter (OG 1.039 ABV 4%) and asked about places to stay in the area. Graham appeared from the back room and set about to helping us find a room. A call to the Marmin Hotel, his first choice, proved them full. So he asks 'Who's driving?'. I answered that I was and he say's 'Come on. We'll go get you a room at a good rate'. So I left my wife at the bar and headed out to explore Wisbech with the local publican. At his direction, I drove around the town stopping at two hotels that he declared 'too expensive', the Marmin again 'Just to check', and ended up at the Orchard Hotel (which came complete with Basil and Sybil - but that's another story). He also gave me an impromptu historical tour and showed me the Elgoods Brewery in town telling me to go in and 'tell 'em you came from America for a tour!'.

We returned to the Rose. As I sat down one gent asks 'So you work with computers?' and a second chimes in 'And make your own beer?!' Patty had been having quite a chat! Over pints of Butterknowle's Conciliation Ale (1.042, 4.2%) I got to know the folks who seemed to know me so well. Graham was starting us collecting bar coasters (of which he has quite a collection) by the time we tried Morrells Varsity (1.041, 4.3%).

All made us feel as welcome as we've ever been! Sensing my curiosity about Real Ale, Graham gave us a cellar tour (his cellar trousers are the butt of the locals jokes), showed us where he has his beer festival in the summer complete with live music and dancing, and gave us a copy of all the Real Ale literature he could find.

We returned after dinner for the Everards Tiger Best Bitter (1.041, 4.2%) and the best beer of the trip, Cains Formidable Ale (1.048, 5.1%) - smooth, tasty and sneaky!

We consider ourselves fortunate to be adopted by Graham and the Rose Tavern folks. If you're ever anywhere near England, GO! Best, freshest and most diverse Real Ales (and conversation!) on our trip!

The Rose Tavern freehouse
53 North Bank (on the river)
Wisbech
tel (0945) 588335

Dean Goulding (okra@genesis.nred.ma.us)

Date: Fri, 19 Feb 1993 10:06:34 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Fridges,Maple syrup and long lost beer

Date: Wed, 17 Feb 93 19:29 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: Refrigerators

>In one of those saint-like gestures sometimes made by
>spouses of homebrewers, my wife has given me permission to
>look for a refrigerator I could use for brewing.
>(Presumably this would be used in a conjunction with a
>Hunter Airstat or similar device).

>The problem--and the reason for her saintliness--is that our
>house is quite small, and there is absolutely no
>inconspicuous place to put a fridge. We will have to live

How about a different idea. Paint/wallpaper it to
match the room. A local micro used to have some old
style fridges painted in the brewery colours with the
logo. They looked quite nice. You could do something
to make it fit the room.

Date: Wed, 17 Feb 93 15:43:25 PST
From: mrozek@gandalf.etdesg.TRW.COM (Eric M. Mrozek)
Subject: re: recipe request (maple)

>Jon, in answer to your request:

>Mark and I brewed the maple ale on Labor Day so I don't recall the
details of
>the recipe. I'll pull out my logbook when I get home tonight and give
you
>the actual recipe tomorrow.

>If I remember right, we used half a quart of dark amber maple syrup. The
end
>result was a pretty dry beer with a thin body. I really liked it even
though
>it didn't turn out like we intended (a maple flavored PALE ALE). The
maple
>flavor was definitely there, but you can bend your brain trying to
imagine what
>maple syrup tastes like without the sugar.

A local micro [Niagra Falls Brewing] makes a maple
syrup beer. It is very maple like. It's also fairly
expensive. Most of this brewery's products are on
the high side in terms of alcohol. This is no
exception. I think 7+% volume. There is no doubt that
there is maple in this beer. I'd hate to guess how
much syrup is in there.

BTW the stout they produce is also very nice.

Date: Thu, 18 Feb 93 09:26:46 EST
From: mattd@software.pulse.com (Matt Downs)
Subject: Found Beer

>All Homebrewers:

>Recently, I found a raspberry wheat beer in a fermenter that I forgot about.

>Please no flames--I know "stupid"! Any way, it is about 7 months old and the

>air lock appears to still be intact. What I was wondering is if any one has

>had an experience like this and what did they do? Did you bottle it any way?

>Did it turn out ok? How might have using fruit changed this?

A couple of weeks ago I bottled a raspberry puesday-lambic(k). It had spent 5+months on the fruit. 5months could be considered rushing it-). I'd say go ahead and bottle it. Mine had a great raspberry aroma to it.

Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Fri, 19 Feb 93 10:56:45 -0500
From: Eric Conrad <conrad@merl.com>
Subject: re: Rolling Rocks #33

There are 33 words on the back of a Rolling Rock bottle.
Count 'em.

I know this is the reason for the "33" because on the back
of a bottle of Rolling Rock Light, it doesn't say "Rolling
Rock Light" (that'd be 34 words), but "Rock Light." The
back of the bottles said "Premium Light" when the light beer
was first released (also 33 words).

...Eric

Date: Fri, 19 Feb 93 11:35:08 EST
From: rowan@urban.rutgers.edu (Andy Rowan)
Subject: >Rolling Rocks #33

Michael Lobo writes:

>I saw this question posted a few weeks ago, and never saw a response -
>does anyone know what the 33 on the Rolling Rock label REALLY stands
for?

Well, the story I heard is that it's the number of *words* on the label,
including their cute little slogan that's printed on the back of the
label and read through the glass. Either that or the number of words
just in the cute little slogan, I can't remember...

Anyway, this is just as unlikely to be the real reason as any other
you'll hear, but it does happen to be true. That is, there ARE 33 words.
..

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=====
| Andy Rowan| You don't know what I'm |
| Cook College Remote Sensing Center | talking about? Don't |
| Rutgers University | worry, everyone tells |
| rowan@ocean.rutgers.edu | me I don't either. |
| (908) 932-9631 | |
=====
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Date: Fri, 19 Feb 93 9:50:20 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Found Beer

> Recently, I found a raspberry wheat beer in a fermenter that I forgot
> about. Please no flames--I know "stupid"! Any way, it is about 7
> months old and the air lock appears to still be intact. What I was
> wondering is if any one has had an experience like this and what did
> they do? Did you bottle it any way? Did it turn out ok? How might
> have using fruit changed this?

The general consensus, I believe, is that you should let your nose and
tastebuds be the judge. Fermented beer can last quite a long time in
the secondary if kept from contact with air. If it still tastes and
smells good, then it's good, and you can bottle it without worry.

In fact, I brewed a cherry wheat beer recently that I left in the
secondary (or perhaps it was even tertiary) for three months, on
purpose. It turned out wonderfully, and four months later it continues
to get better. My general experience with fruit beers is that they are
extremely complex and take a lot of aging to reach their peak, so 7
months may have improved it!

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Fri, 19 Feb 93 10:45:10 MST
From: Steve Dempsey <steved@longs.lance.colostate.edu>
Subject: 3rd annual March Mashfest (AHA sanctioned competition)

The Fort Collins, CO Mash Tongues will hold their 3rd annual March Mashfest homebrew competition March 12-13, 1993. This AHA sanctioned event is open to all homebrewers. Entries will be evaluated by BJCP and other experienced judges. All AHA styles except cider and sake may be entered; awards will be presented in 9 categories. Entry fee is \$3 per entry. Deadline for receiving entries is Tuesday, March 9. For complete rules & entry forms via e-mail send:

To: netlib@longs.lance.colostate.edu
Subject: help

or if you are familiar with netlib:

Subject: send index for mashfest

===== Engineering Network Services
Steve Dempsey Colorado State University
steved@longs.lance.colostate.edu Fort Collins, CO 80523
===== +1 303 491 0630

Date: Fri, 19 Feb 93 10:17:46 -0800
From: atl@kpc.com
Subject: Starch Conversion Weirdness

About three nights ago, I purchased a 5 gallon igloo cooler to try single step infusion mashes in. I have been doing all my mashes in my brewpot, using my kooker to add heat when necessary. The temperature fluctuations were quite difficult to control.

Anyway, I put 12.25 lbs of grain into the cooler, and added 12.25 qts of 172F water, stirred, and the temperature settled at exactly 155F, the desired temperature for this batch. I closed the lid, and let it sit for an hour. At this time, I sampled a bit of liquid from the surface and performed the iodine test for starch conversion. There was no color change, indicating complete conversion. Then, on a whim, I sampled some liquid from the spigot at the bottom of the cooler, and performed the iodine test on this as well. The test instantly turned jet black, indicating incomplete conversion. I thought this might be a result of fluid in the spigot itself, so I ran about a quart of liquid through, and tested again with the same (incomplete conversion) results.

Note: I had placed a stopper, short piece of plastic tubing, and a "Mr. Tuffy" sink scrubber into the spigot so I could drain liquid from the spigot cleanly.

At this point, the temperature had dropped to about 152F, so I drained about 1.5qts of liquid from the spigot, boiled it, and stirred it back into the mash. I then stirred the mash well, thinking that maybe I had been sampling from a portion of the mash local to the Cara Pils malt I had added. This brought the temperature back up to about 154F, and I let it sit for another hour. I repeated the pair of tests again with the same results.

Now frustrated, and up past my bedtime on a weekday, I drained out about 2 qts of liquid, boiled it, and stirred it back into the mash, bringing the temperature up to about 158F. I put the lid on, and went to bed. In the morning, the temperature had dropped to 144F, and the test from both top and bottom indicated complete conversion. I sparged with my "PVC manifold in the bottom of a bucket" system, and brewed as usual. My extraction rate was 26.9.

Now, the questions:

- 1) How is it possible to have different conversion rates in different portions of the mash?
- 2) I regularly get extraction rates from 24-28. What can I do to approach the magic 30 that I hear commonly in this forum. My sparges usually take 1-1.5 hours, and the temperature in the lauter tun stays between 150F and 170F.
- 3) The method used above to reheat the mash seems similar to decoction mashing. With regards to decoction mashing:
 - a) is it usual to drain and boil just liquid, or liquid and grain?
 - b) doesn't this process denature the enzymes needed for conversion?
 - c) is there some formula for how much of the liquid or liquid and grain to reboil to make a desired temperature change?
- 4) Are the enzymes converting the starches dissolved in the liquid, or bound into the starch itself?

p5) Unrelated question: Is boiling 2oz of hops for an hour the same as boiling 4oz for 30 minutes? In other words, in the equation for IBU's can you trade off boil time against total hop weight and acheive the same results?

Thanks,
Drew

-

Lastly: Shut the f**k up about all grain versus extract! Brew what you like, how you like, when you like! If you must argue the point further into the ground, take it OFFLINE! Phew, sorry, just had to get that off my chest.

-

Date: Fri, 19 Feb 93 12:51:44 CST
From: jlf@palm.cray.com (John Freeman)
Subject: When to call it beer

> >If I understand the literature, about 3/4 cup of sugar/sugar
> >equivalent should be boiled in water or sterile wort, then added to
> >the contents of the secondary, cooled to the temperature of the
> >remaining 5 gal liquid (is it still called wort at this stage?),
> >bottled and conditioned as usual.
> Answers:
> First, once the fermentation is over, its beer, carbonated or not.

My understanding is that once you pitch the yeast, you may call it beer.

John Freeman
jlf@cray.com

Date: Fri, 19 Feb 93 12:54:20 CST
From: jlf@palm.cray.com (John Freeman)
Subject: Powdered sugar starters

> For a very short review, Micah advocated using powdered sugar for yeast
> starters with some Difco nutrient. His claims of greater yeast growth
got
> all interested. I too have used this growth technique for a while with
no
> big obvious problems.
>

Isn't powdered sugar just sugar? I don't understand the insistence on
using the powdered form versus the crystalline form.

Date: Fri, 19 Feb 93 13:27:29 EST
From: Lee Menegon <necis!lmenegon@transfer.stratus.com>
Subject: Yeast type and beer style

I plan on developing and refining an Oktoberfest recipe. My goal is to try to produce a Spaten Ur Marzen clone. I realize Jackson considers this one of the world's finest beers so I guess I am aiming high. I am an all grain non fart snob and would appreciate input on this project.
What Wyeast strain is appropriate to this style:
Bohemian, Bavarian or Munich?

At a recent club meeting a fellow brewer mentioned using the Bohemian yeast in a Pilsner and finding his brew came out drier than a similar brew using the Bavarian strain. This inspite of the published attenuation for the Bavarian being the greater of the two. Any data points on this issue?

The Munich yeast is some times refered to as "unstable" what does this mean? What effect does instability have with regards to culturing this strain?

PS: I have yet to get an injunction for using the same letters in Boston in the name of my Brown Ale so this project will yield:
not so Bavarian Fest Beer.

- - -

Date: Fri, 19 Feb 93 13:03 CST

From: korz@iepubj.att.com

Subject: Combating skunky beer/CBC's Legacy Red Ale/Old Raspberry Wheat

Brian writes:

>The Imperial stout comes in a clear bottle and 50% of the time I
>buy it, it is light-struck (skunky). I don't drink much of the taddy
>porter.

I read somewhere that keeping beer at around 50F (in the dark) for a few days will cause some chemical reactions that make the light-struck (skunky)

aromas go away. I tried it on a sixpack of severly light-struck Newcastle

Brown Ale (clear bottles) and it worked! Perhaps some of the rest of you could try it and see if I just lucked out or was influenced by wishful thinking? I'd say a bottle of Pilsner Urquell after a week or three under fluorescent lights would be the ultimate challenge.

BTW: All the Samuel Smith's beers that we get here are in clear bottles. Frankly, I can wait till I open to look at the color.

Rob writes:

>Ironically, Guy McDonnell mentioned one in the article immediately
>below AL's post! I posted here in January about the Chicago Brewing
>Company's Legacy Irish Ale. I find it a very tasty brew. It is both
>darker and more bitter than Killians'. It's brewed in Chicago, Al;
>you must have tried it. The blurb on the bottle says Irish immigrant
>brewers brewed in this style in 19th century Chicago. It's certainly a
>plausible tale.

Someone (was it Tony? sorry) recently speculated that perhaps Irish Ale (in Ireland) tends towards a malty version of a Pale Ale. This may be true, but my recollection of CBC's Legacy Red Ale is that the balance was definately towards bitterness as opposed to maltiness. Perhaps it's the Chinook they use and the Chinook bitterness "stands out" more than an equivalent IBU of a milder hop? So maybe all ties of Irish-American

Red Ales with Irish-Irish Ales have been long severed and the two styles (if indeed they are styles) have diverged or perhaps have never been related?

Matt writes:

>Recently, I found a raspberry wheat beer in a fermenter that I forgot about.

>Please no flames--I know "stupid"! Any way, it is about 7 months old and the

>air lock appears to still be intact. What I was wondering is if any one has

>had an experience like this and what did they do? Did you bottle it any way?

>Did it turn out ok? How might have using fruit changed this?

Sure, I've done it, but mine was 9 months old and I initially pitched not only Saccharomyces, but also Brettanomyces Lambicus yeast and Pediococcus Cerevisiae bacteria. It was my pseudo-lambik-kriek! The pseudo-lambik-framboise is still in the fermenter (10 months and counting...). I liked the p-kriek but felt it needed more sourness and Brett character. If you

taste yours and feel that it has developed a lactic infection which you don't like, well then send them to me... I'll drink them!

Al.

Date: 19 Feb 93 14:14:13 EST
From: Jeff Frane <70670.2067@compuserve.com>
Subject: A Modest Proposal/Irish Ales/Snobs

<<A Modest Proposal>>

Recently, the Homebrew Digest has had what seems to be an increasing number of contributions (some very long) about people's tours through commercial beer land. I hasten to say that I have no problem with people writing about the microbrews they've discovered, or how much they loved the Pacific Northwest -- in fact I think articles like this can be quite interesting, and I've even written a few myself.

I'm not convinced, however, that the Homebrew Digest is the right place for such articles. Frankly, I have a tough time plowing through the Digest every day and wouldn't mind if it was a little shorter. I've also noticed that the lag time is getting pretty long, and that articles seem to need several days now to be posted; I think this hurts the utility of the Digest, and the flavor of almost-instant electronic response that makes the Digest so useful for those with questions (especially panicky questions about why "nothing's happening!").

In Usenet, there is a distinct difference between alt.beer and rec.crafts.brewing. People who post questions (usually beginner's) about how to make beer on alt.beer, quickly get shuffled off to rcb. Why do we not have a similar division here -- and soon?

No, I don't have the means nor the knowledge to run a Beer Digest myself. But I suspect someone else could, and that Rob wouldn't mind offering some advice.

<<Irish Ales>>

I have a reference somewhere, not to hand, given to me by my father, a retired food technologist. In a book on the economic and political impact of various seed grains there was some attention given to the economic boycott imposed on the Irish by the British in (I believe) the 18th century in order to bring Ireland to a colonial status. One of the restrictions was on the importation of hops; according to the author this resulted in the Irish switching to "porter". The Irish have succeeded over the years in becoming dandy smugglers, but it still appears that not very many hops made it in to the country.

Any "authentic" ales, then, are likely to have very low hopping rates, and especially be lacking in the finest of finishing hops.

<<All-Grain Snobbery>>

Being primarily an all-grain brewer myself, I've watched the bickering here with a certain alarm. Recent converts to all-grain brewing tend to sound much like those who just quit smoking -- there is an appalling air of self-righteousness (except for you, of course, Jack). A number of people have pointed out that a good many award-winning beers are brewed from an extract base; I have long since gotten over being surprised by this phenomenon. In my own experience, assuming the same quality yeast and hops, and quality malt extract and additional grains, the real difference comes from using a full boil. I teach a beginning homebrew class and brew using the "Papazian" method, more or less, having pre-boiled the water in the carboy; I also occasionally brew an extract

batch at home. No matter how hard I try, the batch brewed in class is NEVER as good as the one I brew using a large kettle and a wort chiller.

But, hell, what do I know? I don't care what method a brewer uses; if the beer is good and they're willing to let me drink it, what possible difference can their process make?

- --Jeff Frane

Date: Fri, 19 Feb 93 13:21:58 CST
From: jlf@palm.cray.com (John Freeman)
Subject: mash vs extract

I'd like to add my opinion to the mash vs. extract discussion. I made my first extract beer in several years last Sunday and I enjoyed it thoroughly. (I did add some home toasted malt for color/flavor.) It was definitely easier, and the wort was clearer than any mash I've ever made. I racked it last night to the secondary - it looks and tastes wonderful.

My general rule of thumb is to mash for pale beers, and use extract for dark beers. Because I do believe pale beers simply come out better when mashed. Although I made some good pale beers using Alexander's extract. It seems like a waste to me to take a good home mashed wort and cover it up with dark malts, that's why I say use extract for dark beers.

As for having better control over the brewing process, not in my case. Sometimes I hit the mash temperature I want, sometimes I have to adjust it. I never mash or boil for exactly the same amount of time each time. I never have exactly the same yield in gallons or points per gallon. And fermentation temperature control? whatever room temp is for ales, and basement temp for lagers.

I took the plunge into mashing over ten years ago, after twelve years of extract brewing, and made the switch to Wyeast two years ago. I'd say that liquid yeast is more important in making excellent, consistent beer than mashing. In fact, using extract would be a better choice for getting consistent beer than mashing.

Now I mash because I like pale beers, and since I've made the investment in equipment, it's cheaper. Otherwise, I'd use Alexander's malt, specialty malts, Freshhops, and Wyeast. And keep the stinking brown sugar out of my beer.

John Freeman
jlf@cray.com

Date: Fri, 19 Feb 93 12:54:26 PST
From: "John Cotterill" <johnc@hprpcd.rose.hp.com>
Subject: Micah's PS Starters
Full-Name: "John Cotterill"

I have also tried to duplicate Micah's procedure for using powdered sugar starters. My results are similar to Bob's and I DID use a yeast nutrient in the starter. I did not do any side by side like Bob, just a normal batch of beer with the PS starter. My initial starter was 500ml of 1.020 powdered sugar with a pinch of yeast nutrient. After two days I fed the starter 200ml of 1.030 PS solution with additional nutrient. A day later I brewed. I was impressed with the quantity of slurry at the bottom of the starter. It was about 300ml of fairly dense/cloudy material. The yeast also flocculated very well (BTW it was 1056 yeast). I poured off the clear liquid on top, pitched the 70F starter into 70F wort and fermented at 70F. The OG of the wort was 1.061. My lag time was the almost the longest that I have recorded...almost 2 days! I think a single package of 1056 would have started faster. And indeed, just like Bob, the fermentation was slow and the FG was high. I eventually repitched with a standard 1056 DME starter and the beer fermented out fine.

I am going to stick with the standard DME starters. I don't think the yeast pitch rate is as high with similar volumes of DME and PS, but the PS yeast must get severely shocked going into the beer environment from the PS env. A bunch of the beasties must die, and those that survive must take a while to adjust.

JC
johnc@hprpcd.rose.hp.com

Date: Fri, 19 Feb 93 13:50:42 PST
From: scott@gordian.com (Scott Murphy)
Subject: simons and beer

did anyone catch the Simson's last night.

While much of the episode was neo-prohibitionist, there were a few good parts. The Brewery tour where they showed the taps of Duff, Duff Lite, and Duff Dry all connected to the same pipe was very funny.

scott

Date: Fri, 19 Feb 93 14:33:07 -0800
From: pascal@netcom.com (The Cat In The Hat)
Subject: Refrigerators

"Date: Wed, 17 Feb 93 19:29 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: Refrigerators

.
.
.

"... I am therefore
looking for the smallest possible (presumably dorm-type)
refrigerator that can hold a carboy with airlock. I'll buy
new if necessary, as I am desperate.

"Are any of you familiar with refrigerator models that are
currently available, or were available not long ago, that
fit this bill?"

I have a small refrigerator which is just tall enough, if one takes out
all of the internal racks. The freezer is too low to allow a vapor lock,
but I can think of a couple of workarounds, including a flexible piece of
hose (which could also lead out of the refrigerator, so that you can see
it percolating), a hole in the freezer / refrigerator barrier, or the
removal of the freezer compartment altogether (leaving behind the coils
on the sides and top of the refrigerator, of course).

It's called a Welbilt, model W 555 AX. Says Welbilt is a US corporation
on the back, but it also says the refrigerator was built in Yugoslavia.
I'd guess it was made in the Seventies, but refrigeration technology is
pretty stable, few or no differences between apartment refrigerators made
in the Seventies, and those made now.

It's just the right size and height to hold a small microwave oven, or
a collection of cookbooks, or a spice rack and associated materials.

- -- richard

"It is obligatory, within the limits of capability, to commend the
good and forbid evil." Kitab Adab al-Muridin, by Suhrawardi

richard childerspascal@netcom.com

Date: Fri, 19 Feb 93 17:02 CST
From: XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU
Subject: yeast

Dear Brewers

Just a quick question here: I recently brewed up a batch of leftovers to make a total of 1 gal. of beer... just simply for the hell of it. I threw in approximately 1# dry wheat malt and 1# dry light malt (though I suspect both were less than a full pound, and therefore total at maybe 1.67#?). Plus, I tossed in 1/2 oz. Tett. and another 1/2 oz Cascade hops, though I think I left the Tett. for the finishing stages. (For all of you exacting and technical brewers out there, I appologize for my rather cavalier recounting of my proceedures; I assure you, my brewing is seldom so relaxed! Usually, my gilrfriend leaves the house for her own sanity when I brew!!). I cooled the wort while also rehydrating some ale yeast - but now here's the rub: Such yeast is seldom available in quantities less that what is needed for the traditional 5 gal. batch. But I tossed it all in anyway.

The fermentation was obviously through within a day and within two I bottled the brew. At that time, the taste and smell reminded me of a beach-side men's room in the summer time, without air conditioning! (Pfew-ee!). I'm hopeful, though. Maybe it'll age out? So the question is: could the large quantity of yeast (or the fact that it was dry) lend off flavors and/or aromas to the beer? I'm not too concerned about it over all, as this is a batch of left-overs, but I am interested in the learning experience.

Cheers,

John

Date: Fri, 19 Feb 93 17:06:06 EST
From: mcharry@freedom.otra.com (McHarry)
Subject: Re: yeast starters

Bob Jones reported on his rather disappointing results with sugar water as a starter. Following MM's post I tried something similar using sucrose and yeast nutrient (just the salts, not the Difco stuff). I was disappointed as well. I have thought about better additives, but came to the conclusion wort is probably less hassle.

Has anyone tried pressure cooked fermenter sludge as a yeast nutrient? Intuitively it sounds like just the ticket.
John McHarry

Date: Fri, 19 Feb 1993 16:09:18 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: starters - DME versus extract syrup

Bob Jones gave us interesting results of comparing DME with powdered sugar and concluded that DME was better. I have never used DME but extract syrup instead. Are there any thoughts or experiences regarding any difference between these?

Peter

Date: Sat, 20 Feb 93 14:31 EST
From: Richard_Ahrens@vos.stratus.com
Subject: Rolling Rock #33

Michael T. Lobo asked for the real meaning of the "33" on the Rolling Rock label. Cecil Adams, who writes "The Straight Dope" column in numerous papers, researched this some time ago. His answer is included in the second collection of extracts from those columns, "More of The Straight Dope." The book is a gas - check your bookstore. Where else would you find all 32 of the variations of the spelling of Muammar Qaddafi's name recognized by the Library of Congress?

Anyway, Adams says that the number "officially" represents two things: the year Prohibition ended and the number of words in the slogan on the bottle. That slogan is "Rolling Rock from glass lined tanks in the Laurel Highlands. We tender this premium beer for your enjoyment as a tribute to your good taste. It comes from the mountain springs to you."

He adds, "Now this is a touching sentiment, and there is no question that there are 33 words in it, but from the point of view of being intellectually satisfying, it sucks." So he interviewed James L. Tito, former CEO of Latrobe Brewing. Tito's family owned the company from Prohibition until 1985. His answer was based on notes and discussions with now dead family members. In other words, it probably can't be substantiated either, so take it with a grain of salt.

Apparently when the Titos were preparing to introduce Rolling Rock in the late thirties, there was much argument about what slogan to put on the back of the bottle. Long and short ones were debated. When the one eventually used was written, someone wrote a big "33" on it to indicate its length. When the original copy went to the bottle maker, they did not realize that the number was not part of the text and it made its way onto the first run of bottles. Rather than throw out perfectly good bottles, they then made up a story about it representing the end of Prohibition.

Adams seems a bit skeptical of this version, too, but he seems to have gotten as close as one can get to a real source of any folklore.

End of HOMEBREW Digest #1083, 02/23/93

Date: Sat, 20 Feb 93 13:02:21 MST
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: Why does my beer smell like bubble gum?

A few questions for those with more homebrewing experience:

- 1) Why does my homebrew smell like bubblegum? This is my third batch; I used the following ingredients:

- 7 lb. container of Steinbart's Light liquid malt extract
- 0.5 lb. dried light malt extract
- 1 lb. crushed crystal malt
- 1.5 oz cascade pellet hops (60 min)
- 0.5 oz cascade hop pellets (10 min)
- 1.2 oz cascade hop flowers (1 min)
- 2 tsp gypsum
- 0.5 tsp salt
- 1 qt. Wyeast 1056 starter

I put 1.5 gallons distilled water in a stainless pot. I steeped the crystal malt about 30 min as the water was heating up, then removed before full boil. Added extracts, salt, gypsum, boiling hops, then aroma hops as indicated. Placed boiling pot into sink full of ice cubes and chilled to ~80 degrees F. Poured into carboy, without attempting to strain out pellet hop residue. Topped with presumably sterile bottled water. Pitched yeast solution when I felt that the wort had cooled to room temp.

The next morning, about 12 hours after pitching, there was noticeable activity. 36 hours after pitching, the fermentation was furious, and had actually churned up the trub into suspension. BTW, I used a blow-off tube.

After 10 days, I bottled with 0.75 C corn sugar. 7 days after bottling, I tried one. Carbonation was OK, but the beer smelled of bubblegum. My wife thinks it smells like licorice, but to me it smells like a fresh package of Bazooka Joe.

Does anyone know why this happened? I realize that I haven't given it very long in the bottle. I seem to remember reading about this phenomenon somewhere before, but I haven't been able to find it.

- 2) I would really like to replicate Sierra Nevada Pale Ale. I really like its hoppy aroma. My second batch of homebrew (recipe almost exactly that given for batch #3, above) had good hop aroma, but it disappeared after about 1 - 2 weeks. The above batch has almost no hop aroma; maybe it is masked by the bubble gum scent.

Why can't I get this nice hop aroma? I have a few ideas:

- a) My hops are not fresh enough.
- b) boiling bag reduces hop aroma extraction
- c) I need to dry hop the beer
- d) Hop aroma carried off during blow-off

If anyone can help me out here, I would appreciate it.

Thanks a lot for your help.

Joel Birkeland
birkelan@cs1.sps.mot.com

Date: Sat, 20 Feb 1993 20:12:31 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: queries correction

I asked if anyone had tried the Abbey Beer kit by "Brew Werk". Of course I meant "Brew Ferm" as you probably guessed. Not such a good showing for my first HBD intervention:(.

Say did anyone catch The Simpsons last Thursday, the only show that tells the truth about America? Case in point: Homer skipped out of work to go on the tour of the "Duff" brewery. The guide boasted about Duff, Duff Lite, and new Duff Dry. The three huge tanks with those brands on them were being filled, all out of the same mega-pipe. If you don't look at the show, reconsider. No I don't work for Fox.

Date: Sun, 21 Feb 1993 10:03:26 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Yeats on Beer and Politics

I just found the following quote in the current issue of "Steamshovel Press" at the end of an interview with Robert Anton Wilson.

"A statesman is an easy man, he tells his lies by rote.
A journalist invents his lies, and rams them down your throat.
So stay at home and drink your beer and let the neighbors vote."
- William Butler Yeats

I don't agree with the sentiment, but others may like it...

Paul (silence does not imply consent) de Armond
-not that I've been accused of silence, mind you.

Date: Mon, 22 Feb 93 2:50:37 MST
From: J. Michael Diehl <mdiehl@triton.unm.edu>
Subject: Carbonation w/ Dry Ice?

I think this was rehashed some time ago, but I missed the discussion. Anyway, a friend and I have decided to try homebrewing and would like to brew a bier that we could share with our friends. Unfortunately, most of our friends would be turned off by a bier with "bugs" floating around in it. So we were wondering if we could carbonate our bier with dry ice. We were thinking of putting some in the bier at bottling time. The dry ice should sublimate directly into solution with the bier. Might take some experimentation to find the dosage, but what do you think?

Thanx in advance.

```
+-----+
-----+
| J. Michael Diehl ;-) | I thought I was wrong once. But, I was
mistaken. |
| +-----+
| mdiehl@triton.unm.edu | "I'm just looking for the opportunity to be |
| Thunder@forum | Politically Incorrect! |
| (505) 299-2282 | <me> |
+-----+
-----+
-----+
```

Date: Mon, 22 Feb 93 10:29:05 GMT
From: des@pandora.swindon.ingr.com (Desmond Mottram)
Subject: Gelatin, London beers, Hydrometer readings

> From: "Dean Roy" <DEAN@alpha.uwindsor.ca>
> Subject: Gelatin Finings
>
> Can someone tell me if there is any difference between the gelatin
finings
> sold in homebrew stores and the plain unflavored gelatin you can buy at
the
> supermarket. I have a supply of the supermarket variety and was
considering
> using some on my latest batch.

I always use the supermarket variety as I've never seen the HB store
variety. It seems to do the trick.

> From: whjeh@hogpa.ho.att.com (John E Haas +1 201 386 4376)
> Subject: London Pubs and Breweries
>
> I'll be in London and Southern England for a week
> in March and I'm wondering if anybody can recommend
> some pubs and/or breweries to visit.

When in London the best beers are Fullers and Youngs. Fullers is brewed
in
Chiswick and is common in West London, Youngs is brewed in Wandsworth
and common in south west London. The (once) good chain of "Firkin" (as in
a
Firkin good pint) brewpubs eg Phoenix & Firkin, Frog & Firkin etc are
also
worth trying.

Try the following pubs:

Anglesea Arms, South Kensington
County Arms, Wandsworth
Dove, Hammersmith
Hand in Hand, Wimbledon
Orange Tree, Pimlico (brewpub)
Princess Louise, Holborn
Spotted Cow, Putney
Thatched House, Hammersmith
White Cross, Richmond
Windmill, Clapam Common

Get copies of CAMRA publications:
Good Beer Guide (national coverage, available in bookshops)
various local guides (available from CAMRA and some local bookshops)
London Drinker Magazine (available in some pubs, eg Dove and Anglesea)

Also Good Pub Guide (available in bookshops), as good beers and good pubs
don't necessarily go together. CAMRA often recommends good beer in grotty
pubs. Only if both guides recommend it can the place be a certain hit.

> From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
> Subject: queries
>
>
> 1) hydrometer reading: at the highest level the wort climbs up the
> instrument, or at the bottom of the curve? I've been reading at the

> highest part. Crude experiments with plain tapwater at 60 degrees
suggest
> I'm right.

Line, Wheeler and the notes that came with my hydrometer say not so. Stir
the brew remove density layers, twirl the hydrometer to shake off bubbles
below the surface, read the bottom of the meniscus. and remember to
correct
for temperature.

Surface bubbles clinging to the scale obscuring it are a real pain. Does
anyone have suggestions for preventing this? I always blow a hole on the
surface and keep blowing gently to stop more bubbles collecting, but it
can't be good for hygiene.

Rgds, Desmond Mottram
des@pandora.swindon.ingr.com

Date: Mon, 22 Feb 1993 09:36:42 -0500
From: mgx@ornl.gov (Michael D. Galloway)
Subject: Sierra Nevada Bock?

Well I did the dirty deed this weekend: My first all grain batch (batch number 25). The recipe was supposed to be SNPA:

10 lb British Pale Ale Malt
0.5 lb British Crystal Malt (50 L)
1oz Perle (8.1%)
1/2 oz Cascade Whole Hops - Flavor
1oz Cascade Whole Hops - To Be Dry Hopped Next Week
500 ml Starter of WYeast 1056

Mashed the pale ale malt and crystal in 13 quarts treated (i.e. boiled) water at 150 F for 1.5 hr in a 10 gal Gott with a Phils Phalse Bottem.

Sparged with 4+ gal acidified (1/8 tsp "acid blend") to pH = 5.5 water at 170 F. Sparged to 6.5 gal. The gravity at 6.5 gal was 1053. This implies:

$(53 \text{ pts}) \times (6.5 \text{ gal}) / 10.5 \text{ lbs} = 32.8 \text{ pts/lb/gal} !$

When boiled to 5.5 gal and racked to primary that yields an OG of 62.6. What should I call this stuff? Sierra Nevada Potent Ale?

Anyway, the mash went very well. The temperature drop was only two degrees over the 1.5 hrs (I preheated the Gott). Now sparging, that is another story. I was somewhat overwhelmed by the sparging: I kept drawing off wort and recirculating it but it never seemed to clear the way I expected it. I finally said to hell with it and ran off the initial wort and proceded to sparge with water to 6.5 gal. There was still good sugar in the sparge at this point. What is the lowdown on sparging? How much do YOU recirculate? Am I needlessly worrying?

All in all, an interesting adventure and it went much easier than I expected. Maybe Sierra Nevada Helles Bock?
Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: Mon, 22 Feb 93 8:50:14 CST
From: jmiller@anubis.network.com (Jeff J. Miller)
Subject: Printing labels on a laser printer

> Has anyone found a good solution to the challenge of trying to
> print labels for beer bottles on a laser printer?
>
> I've got some ideas for things I could do up on the computer
> and print out, but I'm afraid if I use the usual mailing label
> type labels, I'll never get them off the bottles again.
>
> Any ideas?

I located some 3/4" round labels that are designed for use on
a laser printer; unfortunately they seemed EXTREMELY expensive
at \$15 a box but I don't recall how many labels were in a box.

I've used this size label before by writing on them and then
sticking them on the caps; no mess on the bottle! It seems
that with the proper font you could get beer name and possibly
bottling date or other info.

- - -
Jeff Miller Network Systems Corporation
Advanced Development 7625 Boone Avenue North
jmiller@network.com Minneapolis MN 55428 (612)424-1724

Date: Mon, 22 Feb 93 08:28:58 -0700
From: John Adams <j_adams@hpfcjca.sde.hp.com>
Subject: labels for laser printer

I just print my artwork on regular paper and, using Elmer's glue, attach the label to the bottle. In this manner the label can be easily removed.

John Adams

Date: Mon, 22 Feb 93 10:09:01 -0500
From: "Daniel K. Yee" <yee@al.relay.upenn.edu>
Subject: removing foam scum

- ----- Forwarded message

Posted: Mon, 22 Feb 93 00:00:01 -0500

Date: Mon, 22 Feb 93 10:09:01 -0500

Author:

Subject: removing foam scum

Hello all. Most of my previous brews have been fermented in five gallon glass carboys used as primary fermenters followed by secondary fermentation in another glass carboy. Since I have always been somewhat bothered about the quart or two loss of beer from the blowoff of the primary fermenter, I recently invested in a 6.5 gallon glass carboy.

Since my new primary has a larger headspace, I do not get any lost due to blowoff. The beer that I have subsequently produced have been good, but now I find that it has a tad more of a bitter "bite" than before (but this only means a slightly longer aging time before consuming the brew). Any suggestions as to how to remove the scummy resinous brown globs that float on the foam in a sanitary fashion? (Yes, I do believe that the blowoffs from my previous setup remove the "nasties" and hence yield a smoother beer.)

Eagerly awaiting your suggestions,

Dan "Sven" Yee

- ----- End of Forwarded message

Date: Mon, 22 Feb 93 07:49:20 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Fermenter geometry

During my discussion with Pierre Celis, the subject of fermenter geometry came up. He mentioned that the head or foam cap in a shallow open fermenter was much more dense and stable than one in a closed smaller fermenter. He said he don't understand it either. I know when I visit Anchor and see their fermentations at high krausen I am only getting a snap shot of the fermentation. Say Russ, when you've walked by that room several nites in a row, have you EVER seen that foam fall? I don't know how any of this would apply to us, it is just an interesting observation and may explain how open fermentation can be safe in some cases.

Bob Jones

Date: Mon, 22 Feb 93 10:54:45 EST
From: leavitt@mordor.hw.stratus.com (Will Leavitt)
Subject: More yeast when bottling cold lagers

After many successful Ales, I decided to try my hand at a true lager: basic extract/crystal malt oktoberfest recipe with Wyeast Bavarian liquid yeast. Its been in the secondary for about a month at 40-45F. Do I need to add more yeast when I bottle it? Some folks around here say I should, others say that lager yeasts like the cold and will be ready to go as soon as I add in priming sugar and give a stir.

One more data point: I'm dry hopping with a whole plug of hallertauer, which is floating in a mass at the top of the fermenter. Will this act to precipitate yeast out of solution?

-will

Date: Mon, 22 Feb 93 10:28:34 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: laser labels

Andy Rowen asks about laser printer labels.
I always use a laser printer to print my labels, but I don't use Avery
lables. I use post-consumer recycled paper (i.e. the other side of
previously printed upon sheets!). I print 8 to a sheet and cut on
a paper cutter, and stick to the bottles with a glue stick. They
stay stuck on but come off easily when you want them to.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

Date: Mon, 22 Feb 93 08:05 PST
From: Bob_Konigsberg@3mail.3com.com
Subject: Beer Labels for laser printers

In HBD 1082 Andy Rowan asks about beer labels for laser printers.

3M (No I don't own stock in them), makes at least one kind of 8 1/2 X 11 laser printer label. Its adhesive is the post-it note kind, i.e., removeable. They may also make one with stronger adhesive, since I've found that the post-it note kind, tends to peel off when the bottle is put into the refrigerator.

The main deal here though is that you can print up 9 labels on a single page, and then cut them up. There are 3 score lines across the backing so that you can peel the backing paper off once the labels are printed.

BobK

Date: Mon, 22 Feb 1993 14:19:29 +0000
From: G.A.Cooper@qmw.ac.uk
Subject: Phenolic flavours (long) part I

Hi. I was recently asked by some colleagues to write a few notes on the problems of phenolic off-flavours in beers. The following summarises my views of what I have read on the subject. I thought you might be interested. What I would like is comments and suggestions on where I might be in error, or where I should make changes to improve clarity.

It (just) exceeds the 8K limit so the end is in another message.

Many thanks in advance.

Geoff
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TCP

TCP is a term used by amateur beermakers in the UK to refer to a particular group of off-flavours and odours reminiscent of a commercially available antiseptic. These taints, although not necessarily just trichlorophenols, are caused by phenolic compounds. Beer will, typically, contain 100-200 parts per million (ppm) of tannins ("tannin" being a term referring to a large group of polyphenolic compounds) which come predominantly from the barley, although there is some contribution from the hops. Whilst in this form the flavour threshold is quite high, when combined with chlorine their contribution to flavour is quite out of proportion to their concentration. The flavour thresholds for chlorinated phenols is around 2-3 parts per billion (ppb).

The common causes of this taint are summarised along with suggestions of how the taint might be avoided.

Water Supply

Chlorination is the almost universal method of sterilising domestic water supplies. In the distribution system, chlorine gas can be dissolved directly in the water, a hypochlorite (e.g. sodium hypochlorite) can be added to the water, or a chloramine process may be used. Whilst the first two methods perform in fundamentally the same way, chloramines, which are produced by combining chlorine with ammonia, persist many times longer than free residual chlorine. Chloramines are particularly useful on long transmission lines and where reliable penetration into stagnant areas of the distribution system is needed.

Although the level of chlorine in the water should be less than 1 ppm, it is necessary for it to be removed before using the water to make beer. To be safe, chlorine must not come in contact with the phenols naturally occurring in wort and beer so all added water must be treated wherever it is used in the beermaking process, including water used in diluting a beer to produce a beer of lower gravity.

If the supply is also contaminated with phenols then reactions

will occur resulting in unavoidable phenolic flavours. Fortunately this is rare, the World Health Organisation and European regulations specify a permissible limit of 1 ppb of phenolic substances, but water authorities endeavour to remove all of the phenols as a matter of course, so as to avoid undesirable flavours. If it does occur then beverages other than beer, e.g. tea or homemade wine, will also be affected, and the only practical solution is for the water to be passed through an active carbon filter. This method is extremely effective and reliable; it removes all the free chlorine and, if flow rates are not too great, the phenolic compounds also.

In the majority of cases, where the supply is not contaminated with phenols, other methods for the removal of chlorine may be employed.

Commercially, a common recommendation is the addition of sulphur dioxide, followed by rousing. The sulphur dioxide almost instantaneously reacts with the free chlorine and also removes any chloramines in just a few minutes. It is normal for sodium (or potassium) metabisulphite to be used at the rate of 1-2 mg per litre. The addition of one campden tablet to five gallons of water will supply in excess of ten times the required dose. It should be noted that this method affects the levels of salts in the water, which might be undesirable, but which should be allowed for in any subsequent water treatment.

It is more normal, however, for the amateur simply to boil the water to drive off the chlorine. A boil of 20 minutes is usually sufficient and this is no imposition because most water treatments prior to brewing involve boiling the water.

Sterilisers

Chlorine from sterilising agents such as domestic bleach or commercial cleansing agents, inadvertently left in fermenting bins, on cooling coils or other equipment could be responsible for the taint. All equipment, if sterilised initially with chlorine containing agents should be thoroughly rinsed, preferably with a dilute metabisulphite solution, prior to use.

Wort Bacteria

Very few breweries, especially home breweries, are free from contamination with enterobacteria which, if their growth proceeds to any great extent, can impart very noticeable odours and flavours to the beer. In particular, contamination with *Hafnia protea* (formerly *Obesumbacterium proteus*) or the coliform bacteria *Escherichia coli* and those of genus *Klebsiella* (*Aerobacter*), can be the cause of phenolic or medicinal taints. They can also be responsible for other off-flavours including a parsnip odour and the production of celery-like flavours, and can influence the development of high levels of diacetyl.

The action of these bacteria is severely inhibited during the progress of fermentation, as the pH drops and the alcohol rises, but they multiply quite rapidly during the early stages and, if allowed a sufficiently strong foothold, will leave behind significant levels of their metabolic products. The *H. protea* bacterium is also quite capable of surviving fermentation and appears to be able to influence yeast metabolism in a way that encourages a high final pH and final

gravity of the beer, and thus assists the survival of both it and other enterobacteria.

These bacteria, being present in soil and vegetation and also possibly present in very small numbers in the water supply, are readily introduced into a brewery. Once established, they can be persistent and difficult to remove, and are frequently transferred, in the pitching yeast or by contaminated equipment, onto successive brews.

Beer is at its most vulnerable between the cooling of the wort and the time that a strong and active ferment is underway, so this period must be kept to as short as possible. The normally low pH of wines means that these bacteria are usually inhibited and their presence is unlikely to cause phenolic flavours in home made wines. Also, the naturally high acidity of roasted grains means that dark beers are less susceptible to these problems and, conversely, the higher pH of lagers makes them more vulnerable.

Date: Mon, 22 Feb 1993 14:20:20 +0000
From: G.A.Cooper@gmw.ac.uk
Subject: Phenolic flavours, part II

The concluding part of the phenolic flavours article

Geoff

-o-o-o-o-o-o-o-o-o-o-o-o-

Wild Yeasts

Wild yeast can be the cause of a number of problems in beer. In addition to off-flavours the most common are surface films, turbidity and gushing.

Phenolic flavours are known to be produced by certain wild yeasts, including some strains of *Saccharomyces cerevisiae*, and *S. carlsbergensis*. Also certain strains have developed the ability to kill other sensitive yeasts and, under appropriate conditions, can begin to dominate fermentation. A number of these strains, otherwise suitable for brewing, are characterised by the unacceptable production of medicinal flavours.

It may be worth noting the, perhaps extreme, case where one of the strains of yeast used to ferment Bavarian wheat beers produces 4-vinyl guaiacol. This gives the beer its characteristic "clovelike" phenolic flavour.

Avoiding problems with wild yeasts is essentially a matter of pitching yeasts free of infection and keeping equipment clean. Continued reuse of a yeasts from previous brews can, over time, contribute to a build up of contamination.

Avoiding Phenolic Off-flavours

- 1.The quality of domestic water supplies clearly varies greatly throughout the country, and within a single district is subject to seasonal fluctuation. All added water should be boiled prior to use and in extreme cases it might be necessary to filter the water through an active carbon filter prior to this boiling. As an alternative chlorine may be removed by the addition of metabisulphite but the added salts may make this undesirable.
- 2.Any equipment that might come in contact with the wort or beer, if sterilised initially with chlorine containing agents must be thoroughly rinsed, preferably with a dilute metabisulphite solution before use.
- 3.Microbial infections should be avoided by rapidly cooling the boiled and strained wort and getting the fermentation off to a good start by the addition of a sufficient quantity of an active yeast starter. If yeasts are being re-used from previous batches, fresh cultures should be obtained at regular intervals.

Date: Mon, 22 Feb 93 08:20:57 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Hot Tip on dry hopping!

Ok boys and girls here is the hot tip of the month...

During the Calif. Allstate Competition I judged Barley wines with Steve Harrison from Sierra Nevada. I mentioned to Steve how much better this years Celebration Ale was than last years. It was more like it used to be about 8 years ago. He said it was the same exact recipe as last year! The ONLY thing they did different was seal the fermentor after dry hopping to reduce scrubbing the aromatics out with CO2 release.

Ok, I went home and tried this technique on a batch. What I did was rack to a 5 gallon keg and place the dry hops in a nylon bag with a big brass ball in it to help sink the bag and hops. I then sealed the keg and applied a small pressure. Everyday as a passed by the kegs I gave it a sort of rocking motion. After 1 week I opened the keg and fished out the hop bag with a coat hanger that had been staightened. I resealed keg, cooled and artificially carbonated. The results are really amazing! I have dry hopped many times and NEVER had the results this technique provides. The resultant beer is like taking a hand full of hops and rubbing them in your face with ever glass. The beers head and clarity are amazing at two weeks. I did use 1 oz per 5 gallons and they were Centenials and very fresh. I will cut back on the next dry hopped batch. You keggers must give this a try.

I'm already thinking about the next batch, a Pilsener with 100% Saaz and dry hopped with Saaz.

Bob Jones

Date: Mon, 22 Feb 93 16:36:09 GMT
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)
Subject: Curious about Copper

Just a question out of idle curiosity that one of you chemists or historians out there may be able to answer.

This weekend my father-in-law cycled over for a visit and we got on the subject of brewing. He is an ex-FBI agent, and was retelling a story about an investigation of an employee of the Pabst Brewery in (Milwaukee ?) back in the late 40's. At any rate, we started talking about the machinery and processes etc (I have been known to be a gadget freak). We both started wondering about why copper is the traditional material of choice in most parts of the brewing process. We never figured it out, so I told him I'd ask the Digest.

Is copper's use a carry over from the days before stainless or is there some quality about the metal that makes it the most desirable.

Although I minored in Chemistry years ago, it wasn't/isn't my strong suite, so any answers in semi-technical/laymans terms would be appreciated and understood better. (Grammar wasn't my either favorite).

Noch einmal, bitte!! Mark

Date: Mon, 22 Feb 93 11:47:43 EST
From: steve@garnet.spawar.navy.mil (Steve Jacobs)
Subject: Labels for laser printer

> Andy Rowan writes:
>
> Has anyone found a good solution to the challenge of trying to
> print labels for beer bottles on a laser printer?

I purchased a package of 25 pre-gummed, water-based adhesive sheets of 8 1/2" X 11" paper specifically designed for making labels. They come off the bottle easily with warm water.

The package states that it is photocopier safe (although they do not guarantee compatibility with all brands of photocopiers).

I bought mine for \$3.99 from:

Brew America
138 Church Street N.E. Suite F
Vienna Virginia 22180

(703) 938-4805

Standard disclaimers apply.

Steve Jacobs (KSI Inc)

Date: Mon, 22 Feb 93 11:19:18 CST
From: lencell@unmc.edu (Lance Encell)
Subject: mailing homebrew

I'm looking for tips or advice on sending a case of homebrew from Omaha,
NE
to New York City. Any help will be appreciated. -Lance (lencell@unmc.
edu)

Date: Mon, 22 Feb 1993 09:25:38 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re: pH Meters,O2

>on the subj of pH meters - i recently got one from HANNA (shucks found
out
>it is made in italy :0). anyway does anyone have one of these? do you
>notice a fluctuation between hot and cold temps of the same sample?

I just got one of these also, and did some experimentation to test for
this. I did NOT see any variation with temp. Maybe there is something
in
your water that is changing as when it heats up. Have you gone back and
forth in temp a couple of times with the same water to see if this is
repeatable? The instructions imply that the readings should be good over
a
temp range of 0 to 50 deg C (32 to 122 deg F). I see some seeming random
variations with mine of about .1 units, but I see no obvious correlation
to
temperature.

>i have also
>heard that using pure O2 is not very good - most bottles o2 contains an
>additive used to prevent "stuff" growing (for hospital use), it is very
>explosive and too much purew o2 can be toxic to yeast..... although i
have
>heard that divers O2 should be fine.

The local Brew pub that I frequent (Callahan's) uses pure O2 (at least it
comes from a green bottle). His beer comes out good. Next time I see the
brewer I will ask him what grade of O2 he uses.

Date: Mon, 22 Feb 93 11:37:30 CST
From: gdmccconn@mspe5.b11.ingr.com (Guy McConnell)
Subject: Wort Aeration

Joe Rolfe writes:

> i finally got a re-pitch to work. i had problems with stucks and in
> conversations with Mike Sharp and SHeri Almeda the major problem was O2
> and areation.
[...]
> so if in doubt areate the hell out it. i used an oilless compressor
with
> .2 ucron filter and connecteded to the bottom valve of the fermenter. a
hose
> dropped into the wort should do fine if you can get it to the bottom
for top
> opening vessels. but always use a filter to get "sterile air". i have
also
> heard that using pure O2 is not very good - most bottles o2 contains an
> additive used to prevent "stuff" growing (for hospital use), it is very
> explosive and too much purew o2 can be toxic to yeast..... although i
have
> heard that divers O2 should be fine.

That's because "diver's O2" is actually compressed *air*, not O2 at
all.
The air that goes into a SCUBA cylinder has to be dry and oil-free,
though it
is not any more "sterile" than the air it is made from. An aquarium pump
with
an in-line filter works well for this purpose.

- --
Guy McConnell gdmccconn@mspe5.b11.ingr.com
A diver too.

Date: Mon, 22 Feb 93 11:41:11 CST
From: gdmcconn@mspe5.b11.ingr.com (Guy McConnell)
Subject: Sankey valve removal tool

William M. Seliger writes:

> I'm not sure if this topic has come up before, but as long as we're
> discussing stainless steel fermenters and fermenting in kegs:
> Does anyone know where to get hold of the tool to remove the lock ring
> that locks in the downtube in sankey kegs???
> I would imagine that a toolmaker could make one at a great expense, but
> SnapOn or someone like that must sell these things (probably also at
> great expense).

Bev-Con International sells a Sankey Valve Removal Tool for a mere
\$225.00.
Hopefully someone has a more economical solution to your dilemma than
that.

- --
Guy McConnell gdmcconn@mspe5.b11.ingr.com
"All I need is a pint a day"

Date: Mon, 22 Feb 93 12:48:22 EST
From: Jim Grady <jimg@hpwarga.wal.hp.com>
Subject: Celis Wit in Boston

Some one mentioned that Celis Wit should be available in Boston by now.
Does anyone know where I can find it? After all the descriptions here,
I am eager to try it! Thanks.

- --

Jim Grady | "Talent imitates, genius steals."
Internet: jimg@wal.hp.com |
Phone: (617) 290-3409 | T. S. Eliot

Date: Mon, 22 Feb 93 12:00:40 CST
From: gdmccconn@mspe5.b11.ingr.com (Guy McConnell)
Subject: Farewell wherever you fare

Well, since I posted two articles this morning and the automagical reply said that there are 51 articles ahead of mine in the queue, I'd better post this today as well if it is to be seen before Friday.

Friday, February 26th will be my last day here at Intergraph. I am leaving and going to work in Orlando for another company. My access to the net (and therefore email and the HBD) will cease with my leaving, at least until I buy a PC for home.

I have thoroughly enjoyed reading the HBD since 1990 when I subscribed. Access to the Digest, as well as Charlie's book (recommended overwhelmingly by the digest contributors) have made my brewing experiences most pleasant. I read for several months before I jumped in and I have yet to make a single batch that was "bad". At times in the past, as well as of late, the Digest degenerates into a forum for "one-upmanship" and the usually high signal to noise ratio goes the other way. It gets carried out to the ridiculous and none of the participants seem willing to let it drop. It eventually returns to normal, though not without casualty. Witness the formation another brewing forum because of this very thing not so long ago. If I might make a gentle suggestion, think before you post. As someone suggested long ago, if you see a post to which you are considering an inflammatory response, have a homebrew first, sleep on it, and then, if you still must respond in that manner, do it by email. The Digest is constipated now from those wanting to get the last word in on the all-grain vs extract snob issue. Email it! If you simply must post to show your rapier wit or superior knowledge, do it on rec.crafts. since that type of thing is the norm on usenet. You will dazzle many more by doing so, if that is your aim. If it is not, then email was more appropriate anyway. Think about it. My hope is that, by the time I get a connection again, things will be back to normal. In the meantime I raise a glass to you all and I look forward to when our paths cross again.

- - -

Guy McConnell gdmccconn@mspe5.b11.ingr.com

"All I need is a pint a day"

Date: 22 Feb 93 08:58:00 PST
From: Tom Haley <tah@ccgate.SanDiegoCA.NCR.COM>
Subject: hbd1081 re: semi-beginner question

Chris,

I would never boil ANY grains. What I would do is get a grain bag and seep it in your wort until apx 180 deg F. This allows some of the flavor and the nice unfermentables to enhance you beer. Mashing allows you to convert starch to sugar for more fermentables. I always seep something when I am doing and extract batch and sometimes even when doing a full mash.

tom

Date: Mon, 22 Feb 93 10:03:58 PST
From: "John Cotterill" <johnc@hprpcd.rose.hp.com>
Subject: Refractometers and Hydrometers
Full-Name: "John Cotterill"

Brew Dudes and Dudettes,

I have been using a refractometer for a few months now. This past weekend

I decided to do an experiment to see how the refractometer readings match up to hydrometer readings on beer. I filled my test jar with an IPA and put my hydrometer in and it read 1.015. I took a drop of the IPA and put it on my refractometer and it read 8.2% Brix. Converting this number to points S.G., its about 1.032!! What gives here? BTW, both numbers are temperature corrected.

JC
johnc@hprpcd.rose.hp.com

Date: Mon, 22 Feb 93 11:11:41 -0700
From: Doug Cripe <doug@crevasse.ATMOS.ColoState.EDU>
Subject: WYeast

I've got a few questions regarding the use of WYeast. I'm fairly new to the joys of homebrewing, and up till now have only pitched dry yeast. However, over the weekend I decided to hoist myself off the bottom rung of the ladder and try the recipe for an Irish Red Ale that appeared in HBD a few weeks back, which called for the WYeast. My questions are these:

1) The instructions state that a period of incubation is needed (1-3) days before pitching. Why is that? I assume that when you break the inner seal, some sort of ****cose is mixed with the yeast to wake them up from hibernation and thus this is some sort of proofing period to see if they're viable.

2) The rule of thumb is that 1 day is needed for each month beyond the manufacturing date on the foil pouch at the time of purchase. Well, the date stamped on mine was Feb 17, and I bought it on Feb 20, so I concluded that even less incubation time than a day would be necessary - was this a safe conclusion? This suspicion was confirmed by what comes next...

3) Another instruction is that the foil pouch should expand to at least an inch diameter before pitching. I broke the seal, kneaded the pouch well, and set it on top of my water heater which I guessed to be about the recommended 80F degrees for the incubation. I checked on it three hours later, and the pouch had expanded to the point that it was very taut, and I thought it would burst if I waited much longer, so I went ahead and pitched it. The instructions led me to believe that the fact of expansion was more important than the actual length of time of incubation - was that a correct interpretation?

4) My roommate brewed at the same time I did, and he used dry yeast. The next morning his carboy was bubbling merrily (as we've found to be a normal time span for dry yeast), but there wasn't even a hiccup in mine. The following morning, however, mine was also bubbling, though with a tad more melancholy than my roommate's had the morning before. The temperature in the pantry where the fermentation takes place is about 67-70F degrees. Is this slow start normal? Should I expect the total fermentation time to be longer than the usual two weeks?

Thanks in advance,

Douglas Cripe
Atmospheric Science
Colorado State University
Fort Collins, CO 80523

Date: Mon, 22 Feb 93 13:10:37 EST
From: "David C. Skeldon" (CCAC-LAD) <dskeldon@PICA.ARMY.MIL>
Subject: CAUSE/EFFECT ESSAY

I am currently writing an essay on the reasons for the growing popularity of homebrewing, and I was wondering if anyone would like to email me some of the reasons that they feel homebrewing is gaining in popularity. Please email me directly.

Thanks
<dskeldon@pica.army.mil>
Dave Skeldon: Owner, Operator, and Chief Brew Meister of Wooddale Brewing Co.

Date: Mon, 22 Feb 93 13:25:45 EST
From: rowan@lake.rutgers.edu (Andy Rowan)
Subject: >queries

Kirk Anderson writes:

>2) I've counted on Papazian's book for ages. Must I buy the new revised

>version? What do I get that's new (besides an index)?

>From what I've seen, not that much. I started by using a friend's copy, which was the old edition. When I bought my own new one, it seemed pretty much the same. Certainly there are differences, and I haven't done any systematic comparison by any means, but probably no need to get the new one since the old one serves so well. Although that index is pretty handy...

Example of a change I did notice: in the new one, he has now tried maple-syrup flavored beer and highly recommends it.

I also am resisting the temptation to keep the insipid thread alive about extract vs. all-grain. So shut up already, the rest of you.

```
=====
| Andy Rowan| You don't know what I'm |
| Cook College Remote Sensing Center | talking about? Don't |
| Rutgers University | worry, everyone tells |
| rowan@ocean.rutgers.edu | me I don't either. |
| (908) 932-9631 | |
=====
```

Date: Mon, 22 Feb 1993 10:38:53 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: Several

Norm Pyle reminds us:

>I will explain my motivation for recently going all-grain: FUN.
>I have more fun brewing with grain than with extract. Everything else
>(lower cost, more time, less/more control, etc.) is secondary. All
>homebrewers clearly have more fun brewing beer than people who just go
to the
>store and buy it. I have more fun brewing mine with grain. No big
deal;
>just brew it and have fun (right, gak?)

```
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```

have fun
gak (an all-grain non-snob)
107/H/3&4

Date: Mon, 22 Feb 93 14:02:38 EST
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)
Subject: Re: All-grain vs. extract

Excuse me for noting, but this all-grain vs. extract thread has gotten completely dorky and out of control. Can we get on with other things?

DVI

Date: Mon, 22 Feb 93 14:26:24 EST
From: Keith A. MacNeal HL01/T09 225-6171 22-Feb-1993 1426 <macneal@pate.
enet.dec.com>
Subject: pH is temperature dependent

;Date: Thu, 18 Feb 93 11:13:06 EST
;From: Joe Rolfe <jdr@wang.com>
;Subject: pH Meters, Sparge, MM and Extracts

;hi all,

;whew what a subject (forgot, yeast re-pitch, Belgian Ale Book Comments)

.
;on the subj of pH meters - i recently got one from HANNA (shucks found
out
;it is made in italy :0). anyway does anyone have one of these? do you
;notice a fluctuation between hot and cold temps of the same sample? i
am not
;sure if mine is defective or what, pH varies by .5 (even after letting
it sit
;in the non-ambient temp sample for 1-2 mins)...the probe was calibrated
with
;the 7 and 4 solutions minutes before....and soaked in a conditioning
solution
;for 30 mins as recomended.... does any one have the temp diffs for pH?

pH, much like specific gravity, is dependent on temperature. I would
think
there would be a temperature correction table that came with your meter.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

End of HOMEBREW Digest #1084, 02/24/93

Date: Mon, 22 Feb 93 14:20:35 EST
From: Lee Menegon <necis!lmenegon@transfer.stratus.com>
Subject: us vs Brit malt/ Fruit in beer

Some comments on recent posts:

US vs British Malt

According to the data provided by a grain vendors, NorthEast Brewers Supply, they list the degree of modification for grains from 1 least modified to 4

most modified. They indicate that the British grain they stock is "4" while the US Klages + Harrington, as 3. I have been led to believe that the less modified a malt the longer it takes to protein rest and mash. Taking this further, that the highly modified, British, malts often do not require a protein rest hence their single step infusion mash.

I have just brewed a cream ale using all US grains, my extraction rate was

essentially the same as the British malt I usually use. The mash time was essentially the same since I always do a 15-30 minute protein rest. The color was the palest I have ever brewed a very light yellow/ gold I could never get a beer this pale using British malt.

-Fruit in Beer

I brewed a strawberry Ale this summer. What I learned is add fruit to the

secondary, like dry hopping, or all the aromatic properties will be lost out

the air lock during active fermentation. Lightly hop the brew or the subtle

fruit flavor will be over powered. If the fruit has pectin in it add pectic

enzyme or the beer will never clear, it breaks down the pectin. Remember that

yeast metabolizes sugar, that sweet fruit juice will become alcohol and fruit

essence.

- Apple Beer? I don't know if this is a good combination, fermented apple

juice is cider, and I find cidery tasting beer unenjoyable. I have had wonderful raspberry, strawberry and cranberry beers.

Brewing books:

As a beginner I found the Miller "Complete handbook of Home Brewing" more informative than the original Papazian book. I have not looked at the new

versions. I would recommend some of the Zymurgy special issues to someone

wanting to improve their knowledge. The Hops issue has useful information

on more accurately determining the level of bitterness in a beer. The Yeast issue has information on yeast reuse which make liquid yeast less costly per batch. The Trouble shooting issue cover many floor faults.

Date: Mon, 22 Feb 1993 14:23:41 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Fermenters, batch size and heat buildup

Hi,
with all this talk about the perfect fermenter design I was wondering if somebody could comment at what point does the heat buildup become high enough to affect the ferment? Also are the Wyeast preferred temps for the ferment or ambient? So does a 40-50litre ferment create enough heat to alter an ale ferment? How about lagers?

Thanks
Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Mon, 22 Feb 1993 14:11:24 -0500 (EST)
From: yavo@gvls1.VFL.Paramax.COM (Steve Yavorski)
Subject: lagering

I'm an extract brewer with a single stage fermentation setup. Is there any way to make a lager without a secondary fermenter. I will be moving soon, and don't want to buy a carboy until after I move. I'd like to take advantage of my cold basement temperatures, though. I thought I read something in a past HBD about lagering in the bottle. Is this possible? If so, what is the procedure? Would a viable alternative be a single stage fermented steam beer?

Thanks in advance,

Steve

Stephen Yavorski internet - yavo@ivy.paramax.com
NEXRAD Integration phone - (215) 443 - 7500
Paramax Systems Corporation
Ivyland, Pennsylvania

Date: Mon, 22 Feb 1993 15:20 EST
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>
Subject: Fermenting on trub

Hello Everyone,

A few months ago there was discussion in this digest about fermenting on the trub. There was some argument whether to rack your cooled wort off of the trub as soon as it settles or to forget about it and pitch.

Well I did a little experiment with my last 2 batches of Scotch Ale.

Batch 1: After chilling I let the trub settle for 45min and then racked the beer into a glass carboy and pitched the yeast [wyeast 1098].

Batch 2: After chilling I did not let the trub settle but I pitched right away with wyeast 1098.

Observations:

Batch 1 had a fast fermentation and cleared quickly. It was ready to keg in 2 weeks. Single stage fermentation.

Batch 2 started in about the same time as Batch 1 but the fermentation took longer and it never really cleared up. It was ready to keg in 3 weeks. Single stage fermentation.

Flavour:

Batch 1 had a nice clean taste with the usual flavours associated with a dark ale, the specialty grains seemed to really come through in the beer.

It was really good and did not last too long.

Batch 2 is not very good at all. It's flavour and smell is musty, yeasty, and somewhat astringent. I am having a hard time giving this stuff away.

Well you can say I learned my lesson and will from now on always let the trub settle and rack the beer off the trub before pitching.

Carlo Fusco.....g1400023@nickel.laurentian.ca

Date: Mon, 22 Feb 93 15:36:42 EST
From: elser@NADC.NADC.NAVY.MIL (S. Elser)
Subject: Alcohol content of Homebrew

Being a relatively novice brewer, I enjoy gathering new information from this digest. I have seen several references to alcohol content in homebrew recently.

One dealt with siphoning trub into the secondary fermentor (creating more fusel alcohols), the other I dug up touched upon the relationship between the body of the brew and the alcohol content.

My questions: When using partial mask method (following instructions from a recipe for holding grains at specific temps for specified lengths of time, then adding the resulting liquid to more water containing extract or DME)

is the temperature/time relationship the determinant factor in alcohol content of the finished beer? Some people tell me my beer seems to have higher alcohol than they're used to (this would be commercial American or Canadian brews). I have never tried to calculate the alcohol content, but I would imagine that with mashing variations, an accurate estimate might be way off. What are the rules of thumb for starch conversion vs. temperature?

I suppose the "trub" reference is a different factor in alcohol? And how does a blow-off tube affect alcohol?

Thanks!
Sheila Elser

Please substitute "mash" for "mask" in second paragraph.

Date: Mon, 22 Feb 1993 13:24:42 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: oxidation in the bottle

I've been wondering about beer oxidising when in the bottle, due to excessive splashing in the syphoning/bottling process. Given that yeast are present in the bottle also (or else bottle conditioning wouldn't happen) why don't they simply use any introduced oxygen to multiply before fermenting the priming sugar?

A reasonable answer would be that oxidation takes place more quickly than the yeast can remove the oxygen, but does anyone know the real answer?

Peter

Date: 22 Feb 1993 16:30:38 -0400 (EDT)

From: KLIGERMAN@herlvx.rtpnc.epa.gov

Subject: yeast mutation

Jacob Galley posted a question dealing with yeast mutation. Alcohol when metabolized can produce acetaldehyde which is mutagenic, but my guess is that since there are always spontaneous mutations occurring, if you use one yeast batch for too long a time, you wind up selecting strains that will out compete your original strains as the environment (wort) changes.

Date: Mon, 22 Feb 93 14:22:01 EST
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)
Subject: Re: labels for laser printer

I used to use adhesive labels, and you're right, they're hell to get off. I've read on the digest here that plain paper, dipped in milk (that's right!) will hold labels on well, once dry. When re-wetted, they supposedly slip right off. I haven't tried it, as I've just plain given up labelling (too paranoid, lazy, and ill-informed, you know ;-).

Dave Van Iderstine

Date: Mon, 22 Feb 1993 17:18:46 EST
From: SRIRACHA <radavfs@ube.ub.umd.edu>
Subject: Saving Yeast

Hallo thar homebrewers!

My brewing partner and I recently started using liquid yeast and are quite pleased with the results - the cost, however, is making us wonder about whether or not we should buy a new packet every time when a strain could be reused...I guess our question is this: How have the experiences of other digesters been regarding saving the sludge? Do you seal it up with some malt extract? Do you put it into a container that would allow stoppering/airlocking? Just curious..

.
we saw a couple of possible containers the other day, but I thought I'd beter write first...How about "Grolsch-type" bottles?

Thanks in advance for any input
Volker
radavfs@ube.ub.umd.edu

Date: Mon, 22 Feb 93 20:22 CST
From: korz@iepubj.att.com
Subject: Re: stuck conditioning

Paul writes:

>Peter Maxwell says his brew isn't conditioning in the bottle. I've had
>similar hassles. Is there any visible sediment in the bottles? This is
>the best gauge (other than opening a bottle) of how the yeast in the
>bottle is doing. My guess is that the yeast count at bottling was to
low.
>In my case, I think this was due to fining with Polyclar. Now I swish
the
>racking tube around the bottom of the secondary to pick up a little of
the
>yeast sediment. I have also added 1/4 tsp of dry yeast to the bottling
>bucket.

I'd like to advise against this last suggestion, especially if you used a
different liquid yeast for the primary fermentation. If the yeast you
add at bottling is more attenuative than the fermentation yeast you could
get exploding bottles. Also, if you are using dry yeast in the primary
ferment and are bottling with the same yeast, I strongly suggest
rehydrating
the yeast in both cases. In a sort of newsletter from Lallemand (the
yeast manufacturer), they say that dry yeast rehydrated in wort (as
opposed
to rehydrating in 104-115F sterile water) is more likely to produce
off-flavors. I've found that the lag time was quite a bit longer when
I didn't rehydrate in water in recent tests with Coopers and Lallemand
yeasts.

On a related note, I have written in the past warning about the use of
the yeast that comes with Munton & Fison Kits (it use to be called
Muntona, but now I think it just says "yeast"). I said that it gave
very, very high levels of phenolic/clove aromas and flavors and that
I suggested it not be used. I'd like to point out that I had not
rehydrated this yeast in water (since it was not mentioned by M&F in the
instructions). Perhaps if the yeast is rehydrated in water, it may be
more
acceptable in terms of the phenolic/clove flavors? Note that this still
does not address the issue of bacterial infection of the dry yeast
which was a problem years ago with the Muntona yeast (eventually the
beers would become gushers... when I switched to Wyeast, I could keep
the beers for years without them becoming gushers, so it was NOT my
sanitation methods).

Al.

Date: 23 Feb 93 02:10:56 MST (Tue)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: extract barleywine

A while back, amidst all the extract/all-grain ego-excreta, there was a comment about "tang" of extract brews with a lot of malt. The recent "found beer" note (I like it!) reminded me of an extract barleywine we've had for some years, with a fair stash turning up recently (in bottle). It was strong enough to start (1.095 OG) that we'd have been able to pick up any off-flavors or especially any tang, but nobody who's tasted it has had any complaint...either when it was young, or now, several years later. (In its youth, we did some comparisons against Old Foghorn. It came out in a dead heat. I loved it, and spent some considerable effort comparing the two:-)

There was also a suggestion somewhere along the way that dry malt might be better than canned. This old barleywine was made with M&F spraymalt, so FWIW there's a possible datapoint in favor of dry. Anyone else made any comparisons, or even have any good/bad single datapoints? Most of my brewing isn't beer these days, but barleywine is the one exception I'd make, so if I brew extract I'd like to aim carefully.

I'm also intrigued by the processes. I think I'd heard that the dried malt was essentially "sprayed" and evaporated by dry air and low pressure, as opposed to boiling off water. If so, this would make a good case for why dry malt would survive processing better than canned (less heat). True?

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Tue, 23 Feb 93 13:26:50 MSK
From: Alexander Nazarenko <ANAZAREN%???????@vm.gmd.de>
Subject: help

help

END OF MESSAGE

Date: Tue, 23 Feb 93 6:56 EST
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)
Subject: Annual Contest -- Upstate New York Homebrewers Assoc.

--

UPSTATE NEW YORK HOMEBREWERS ASSOCIATION

15th Annual Contest & 4th Empire State Open
Saturday, April 24, 1993

at
McGinnity's Restaurant and Party House
534 West Ridge Road, Rochester, New York

Donation \$5
Doors open at 6:00 p.m.

Public judging starts at 7:00 p.m.

COME AND JOIN THE FUN AT NEW YORK STATE'S OLDEST HOMEBREW CONTEST!

*** FREE SAMPLES OF HOMEBREW ***

--

THERE WILL BE 11 CATEGORIES:

- 1) British Ale
- 2) North American Ale
- 3) Brown Ale
- 4) Belgian Ale
- 5) Light Lager
- 6) Amber Lager
- 7) Dark Lager
- 8) Looks Like SARANAC
- 9) Porter
- 10) Stout
- 11) Specialty

No entries will be accepted after April 14 (see details below).
Beers can be entered at shops in: Buffalo, Rochester, Syracuse, and Ithaca,
or they can be shipped.

CONTEST SANCTIONED BY THE AMERICAN HOMEBREWERS ASSOCIATION

--

CONTEST PRIZES:

- BEST OF SHOW: A complete home kegging system
- 1st Runner Up: \$50 gift certificate for homebrew supplies
- 2nd Runner Up: \$25 gift certificate for homebrew supplies
- Prizes in each category: malt extract or other homebrewing supplies
- Prizes in Looks Like SARANAC: items awarded by F.X. Matt Brewery

--

For further information about entering the contest, other prizes, etc.,
send
an email request to Tom Kaltenbach at "tom@kalten.bach1.sai.com".

Date: Tue, 23 Feb 93 09:04:27 CST
From: patm@mallet.med.ge.com (Pat McNamee 5-5009)
Subject: Distribution change

Please remove me from the distribution of Homebrew Digest.

Thanks.

Date: Tue, 23 Feb 1993 07:08:13 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: More Beer Poetry

This one is from E. A. Housman's "The Welsh Marches" via the Oxford Dictionary of Quotations.

Say, for what were hop-yards meant,
Or why was Burton built on Trent?
Oh many a peer of England brews
Livelier liquor than the Muse,
And malt does more than Milton can
To justify God's ways to man.

Paul.

Date: Tue, 23 Feb 1993 09:48:53 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Re: Starch conversion

>Date: Fri, 19 Feb 93 10:17:46 -0800
>From: atl@kpc.com
>Subject: Starch Conversion Weirdness

> Anyway, I put 12.25 lbs of grain into the cooler, and added 12.25
>qts of 172F water, stirred, and the temperature settled at exactly
>155F, the desired temperature for this batch. I closed the lid, and

How well did you stir? How long before you checked
the temp? Personally I add the water first. The
cooler will suck up a fair bit of temp. With my
larger cooler I count on losing close to 10F to the
cooler itself. I also stir quite a bit during mashin
to make sure no hot spots develop. I also tend to
wait 1min at least before mashing in. I'm sure hot
spots mean cold spots.

>let it sit for an hour. At this time, I sampled a bit of liquid from
>the surface and performed the iodine test for starch conversion.
>There was no color change, indicating complete conversion. Then, on a
>whim, I sampled some liquid from the spigot at the bottom of the
>cooler, and performed the iodine test on this as well. The test
>instantly turned jet black, indicating incomplete conversion. I
>thought this might be a result of fluid in the spigot itself, so I ran
>about a quart of liquid through, and tested again with the same
>(incomplete conversion) results.

Did you do any stirring during the mash? I usually
stir a little bit every 15-20mins. Also I think most
people will tell you that iodine results aren't
perfect.

> At this point, the temperature had dropped to about 152F, so I

I don't lose this much temp during 1-2hours usually.
I wonder if the temps weren't evened out during
mashin.

>Now, the questions:

>1) How is it possible to have different conversion rates in different
> portions of the mash?

I think that if you didn't stir at all it could. I
personally don't do an iodine test. I just mash for
a certain time. 1.5hours pale beers 2hours for
stouts/porters. If you are worried I'd guess pulling
off a sample and testing it's gravity would be
better than an iodine test.

Nick

I drink Beer I don't collect cute bottles!

zen%hophead@canrem.com

Date: 23 Feb 93 10:48
From: Mike_Merriman@camb.intersolv.com
Subject: immaterial girl

>From the Boston Globe:
"The Modern Brewer," the beer supply house in Cambridge, recently posed the following question to its discerning clientele: Do you think Madonna is a jerk? Yes, 15%, and No, 14%. A whopping 71% answered that they didn't care, which proves that people who brew their own beer are wiser than the general population.

mfm

Date: Tue, 23 Feb 93 10:24:48 CST
From: gdmcconn@mspe5.b11.ingr.com (Guy McConnell)
Subject: Appropriateness of articles

Jeff Frane writes:

> Subject: A Modest Proposal/Irish Ales/Snobs
> ^^^^^
> <<A Modest Proposal>>
>
> Recently, the _Homebrew_ Digest has had what seems to be an increasing
> number of contributions (some very long) about people's tours through
> commercial beer land. I hasten to say that I have no problem with
> people writing about the microbrews they've discovered, or how much
> they loved the Pacific Northwest -- in fact I think articles like this
> can be quite interesting, and I've even written a few myself.
>
> I'm not convinced, however, that the Homebrew Digest is the right place
> for such articles.

Since I'm the author of the most recent of these brewery reviews, I
have
to disagree. From the heading of this most useful forum:

"FORUM ON BEER, HOMEBREWING, AND RELATED ISSUES"

I think that brewery tour reports certainly belong. Mine was long so
I
broke it into three parts. It probably doesn't matter much to those who
now
take for granted accessible microbreweries and their products but we,
here in
Alabama, have had no such luxury until the opening of the micro in
Birmingham.
Some of the most enjoyable and informative articles in this forum have
been
about brewery tours. They give clues to those wishing to approximate a
favorite beer on the brewing process and ingredients used in that beer as
well
as interesting insight on the microbrewing industry which most of us
support
whenever possible.

Far more damaging and digest-clogging are the continued ramblings on
such
banal subjects as the "all-grain snobbery" thread that is *still*
continuing
and is even treated in some length at the end of this article containing
a
"modest proposal" to shorten the digest. We hear about which groups are
"snobs"
(are not! are too!) and why and then we are treated to lengthy articles
from
people in each group explaining why they, at least, do not fit this
description
("I have *friends* who are all-grain/extract brewers - I can't be a snob!
").

> In Usenet, there is a distinct difference between alt.beer and rec.
> crafts.brewing. People who post questions (usually beginner's) about
> how to make beer on alt.beer, quickly get shuffled off to rcb. Why

> do we not have a similar division here -- and soon?

How about let's just drop all the namecalling and criticizing articles?
I'll bet that those have taken up far more space than any brewery tour articles combined. Also, there *is* another brewing list which is always short. I get both but guess which one I've found most useful thus far, warts and all.

- - -
Guy McConnell gdmcconn@mspe5.b11.ingr.com
"All I need is a pint a day"

Date: Tue, 23 Feb 93 08:52:48 PST
From: Robert Pulliam <pulliam@monty.rand.org>
Subject: Yeast and Malt

Greetings Brewmiesters,

Just a couple of quick questions for the collective wisdom of the HBD crowd.

1. I have just put a small amount of wyeast European Ale #1338 in a sterile Fisher bottle with some lightly hopped weak wort (around SG 1020) and attached an air lock. I would like to keep this as a starter base in my refridgerator. When do I place it in the fridge, and when, with what and how often do I feed it?
2. Is it possible to make our own specialty malts (i.e. roasted, chocolate, black patent, etc.) from a regular 2 row? How about crystals etc.? This would certainly help cut down the costs.

Any and all help would be greatly appreciated.

Robert Pulliam
(pulliam@monty.rand.org)

Date: Tue, 23 Feb 93 12:53 CST
From: korz@iepubj.att.com
Subject: Re:no more syrup/hops in OH/cidery beer/extract info

Garland writes:

>i am at the stage of omitting the 4lb can of syrup in my recipes
>and using all dry malt extract and hop pellets for the first time.
>
>the recipe was:
>
>4lb stout syrup (w/hop and roast barley extracts) i have heard that
>this does not ferment effciently

The efficiency of the fermentation is dependent on a lot of things, one of them being the amount of yeast nutrients in the wort, another being the amount of glucose/fructose/sucrose in the wort (recall Bob Jones' et al. reports of high FGs with sucrose starters). A lot depends on the quality of the extract you use (see later in this post).

>3lb dry malt extract
>1/2lb dark roast barley (steeped)
>and most recently the addition of 1/2lb flaked barley. first i steeped
>at end of boil with dark roast, then on next batch boiled 10 min and strained
>milky soup into wort.

I suggest that you steep all the specialty grains before the boil (as the water is coming up to 170F -- pull them out at 170F) since you would like to coagulate any of the large proteins that you may have introduced from the grains -- which will take the whole 60 min boil.

>what is the proper amount of dme to use. 6lb? dark dme is all i have
>ever used. i was told that i could use 7lb light malt extract and 2 lb
>"black patent." is that unmalted stuff to steep like i do the dark
roast?

2 lbs is quite a bit of black patent for a 5 gallon batch. I used 1/2 lb roasted barley and 1/2 lb black patent in a recently tasted batch with two cans (6.6#) of John Bull Dark syrup and it fermented out just fine with Wyeast #1084. I'd say a pound of black patent should be enough if you are using light malt extract.

>what kind of hop pellets, and what kind of boil times will i want for
>my new, unknown recipe? i don't know what flavor hops are good for
>which brews, but i am sure there is the obvious hop and procedure for
>the stout/porter i am trying to brew.

I used 3 ounces of Clusters for the boil and a half-ounce of Cascades in the fermenter (after the kraeusen fell), but I would recommend adding another 1 ounce of Fuggles or Goldings for the last 15 minutes of the boil (for flavor).

>can i grow decent hops in mid ohio?

Sure. Give them plenty of sun, plenty of string to climb (15-20 feet!) and lots of water (6-7 gallons per plant, per day).

Karl writes:

>My first batch with chocolate malt matured yesterday, so I had some friends
>over and generally it's a yummy beer. However, I still have that slight,
>annoying cidery taste. I did add about 150g of sugar beet molasses besides
>the malt extract and coarsely ground chocolate malt. Is it perhaps too
>refined of a sugar and adds mostly alcohol and not much flavor? Other
>suggestions?

It's not the level of the refinement, it's the type of sugar. Too much sucrose (cane or beet sugar), dextrose, glucose or fructose will give you cidery flavors. It may not be all your fault -- it could be the fault of your extract (see below).

Dan `Stout' Wiesen writes:

>how about providing extract brewers with information and
>characteristics of malt extract?

Pick up the Zymurgy special issue on Extract Brewing. It has a listing of virtually every extract brand that was available at the time (1986?). One popular extract that was not available at the time is Northwestern. I've spoken to the manufacturer and it is made from 100% barley malt (except the Bavarian Weizen which is 65% wheat malt 35% barley malt) and contains no other sugars, flavors or colorings. The hopped extracts contain the equivalent of 10 IBU of pre-isomerized hop extract (from unlisted hop varieties, alas) for a 5 gallon batch in one 3.3 lb box. (Therefore two 3.3# boxes in a 5 gallon batch will give you 20 IBU).

Al.

Date: Tue, 23 Feb 93 11:29 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: Call a spade a spade

What with the over-abundance of interesting and informative braying about extract vs all-grain brewing, I have taken the liberty of compiling a list which, I feel, best summarizes the characteristics of the two types of brewers:

Extract: Scum of the earth, lazy, ignorant, obtuse, oppressed, white bread with no crust, born-out-of-wedlock complainers.

All-grain: Scum of the earth, pompous, swaggering, self-righteous, ill-tempered, intolerant, vain, incestuous braggarts.

Naturally I've left out the more colorful descriptors so as not to offend the under-aged (or humor-impaired).

So it seems that no matter which brewing technique you employ, you fall into one of the two categories. Now I don't know about the rest of you, but this is one scum-of-the-earth who would like to put this topic to bed. And if we don't do it toot sweet, I'll be forced to post about other beer-related topics even more vulgar than farting. And let me tell you, there are a few.

You have been warned.

chris campanelli

Date: Tue, 23 Feb 1993 12:07:18 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: request for extract information

In HBD# 1083, Dan `Stout' Wiesen vaguely remembers a mention of a comparative study of malts conducted by a Saskatchewan (yea, his home province) university. He also vaguely remembers some difficulty in obtaining the results of that study.

I don't think Martin will mind my re-posting of his article from HBD# 698.

If he objects...well, I'll owe him (more) beer.

have fun
gak
107/H/3&4

Date: Thu, 8 Aug 91 11:03:42 PDT
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>
Subject: Sugared Extracts

A discussion of the adulteration of malt extracts with corn sugars has been going on over in the newsgroup rec.food.drink, and Paul Chisholm of Bell Labs asked me to let HBD in on the secret. I started the whole fracas by making a cryptic reference to recent research that cast the purity of extracts in doubt, and Doug DeMers of Amdahl immediately asked for sources, and more information. So the following day I posted this:

The flap all began in Zymurgy, Vol. 13 #5, Winter 1990. On page 15, in Dan Fink's "Brew News" column, was an item describing a report presented by Professor Michael Ingledew of the University of Saskatchewan to the 1990 meeting of the American Society of Brewing Chemists, on research he and his colleagues were doing on the composition of malt extracts. This research, a combination of High Performance Liquid Chromatography and fermentation studies, disclosed the substantial unlabeled presence of glucose syrup, invert syrup/liquid sucrose, and high fructose corn syrup in the extracts tested. They also discovered poor fermentation from some extracts, due to a deficiency in the free amino nitrogen content normally provided by barley malt (had any stuck fermentations lately?). In the presentation, they did not identify the extracts tested.

I don't have to tell you what a storm that raised! The AHA followed up on it, and in Dan Fink's column (page 14) in the Summer 1991 issue of Zymurgy (Vol. 14 #2) they published a letter from Professor Ingledew in which he said that they indeed were NOT planning to release the names of the extracts tested. They felt they couldn't be sure whether the adulteration was done by the manufacturers, or by the distributors. They also felt their sample might not be representative, as they had only tested 44 "lager" extracts, and no "ale" extracts (their terms). They didn't feel they had the time or money to handle either additional testing or possible legal action. They also felt that the burden of following up on the problem they'd identified rested with the brewing industry, through the marketplace. Then Professor Ingledew closed with this paragraph:

In spite of my comments above, I have complete

confidence in the results obtained in my lab by my colleagues. There is no doubt that some manufacturers are profiting from the addition of lower cost corn sugars to malt extract.

Well! Where does that leave us? Neither of the articles made it clear what percentage of the extracts tested had been "juiced", or to what degree. And, of course, we have no idea what they were testing.

I hope you're not too terribly depressed.

= Martin A. Lodahl Pacific*Bell Systems Analyst =
= malodah@pbmoss.Pacbell.COM Sacramento, CA 916.972.4821 =
= If it's good for ancient Druids, runnin' nekkid through the wuids, =
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

Date: Tue, 23 Feb 1993 12:10:06 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: 33?

Once and for all, the reason they put "33" on Rolling Rock bottles is to keep people guessing about the reason they put "33" on Rolling Rock bottles.

have fun
gak
107/H/3&4

Date: 23 Feb 93 11:29:00 PST
From: Tom Haley <tah@ccgate.SanDiegoCA.NCR.COM>
Subject: Re: Other 'brewing' digests

There has been quite alot of discussion lately about throwing yeast into other liquids besides wort. I think that most people who get into brewing do so for the fun of fermenting. That being said, I thought I would help encourage this by posting what I know about other digests.

Mead digest
submissionsmead-lovers@nsa.hp.com
requests mead-lovers-request@nsa.hp.com
FTP site: sierra.stanford.edu
anon FTP, pub/mead/

cider digest
submissionscider@expo.lcs.mit.edu
requests tocider-request@expo.lcs.mit.edu
Raw digest archives available for ftp only
export.lcs.mit.edu

Anyone know of others? Lets encourage fermentation!

tom

Tom.Haley@ScrippsRanchCA.NCR.COM

Date: Tue, 23 Feb 93 19:03:53 PST
From: Pat Lasswell <patl@microsoft.com>
Subject: Wyeast Bohemian wrt attenuation

Data point:

I just bottled a bock (15.5B/SG 62) fermented with the Bohemian yeast. I chose it because I wanted a high terminal gravity. Instead, I ended up with a very alcoholic, dry beer. Hmmm. If it weren't so clean, I'd swear it was Belgian. Fermentation temps were in the low 40s and 30s; and -- as I recall -- the saccharification rest was held at 158 (2-decoction mash).

Ars Zymurgia
patl@microsoft.com

Date: Tue, 23 Feb 1993 20:17 PST
From: CIS309137@axe.humboldt.edu
Subject: SUSCRIBE

PLEASE ENROLL ME IN THE HOMEBREW MAIL LIST

Date: Wed, 24 Feb 93 11:29:41 +0100
From: dejonge@geof.ruu.nl (Marc de Jonge)
Subject: Refractometers and Hydrometers

In HBD1084 John Cotterill writes:

>Brew Dudes and Dudettes,

>I have been using a refractometer for a few months now. This past weekend

>I decided to do an experiment to see how the refractometer readings match

>up to hydrometer readings on beer. I filled my test jar with an IPA and
>put my hydrometer in and it read 1.015. I took a drop of the IPA and
put

>it on my refractometer and it read 8.2% Brix. Converting this number to
>points S.G., its about 1.032!! What gives here? BTW, both numbers are
>temperature corrected.

Sounds ok:

I did a simple experiment once with a bit of unfermented wort,
adding (96%) alcohol volumes to see the effect on measured
density:

F.G.= density of wort without the alcohol.

Numbers in the table are the measured values (with a hydrometer)
after adding the percentage of alcohol given in the columns
(All values +/- my accuracy; your mileage had better vary....)

%AbV->
F.G. |12468

1020 | 1019 1018 1014 1011 1009
1030 | 1029 1028 1025 1021 1017
1040 | 1038 1036 1032 1029 1026

So, I would guess that your beer, with 32 gravity points of
sugars, contains a little over 8% alcohol by volume,
which produces a 1015 hydrometer reading....

Marc de Jonge (Who fears this hobby may be getting out of hand:)

Date: Wed, 24 Feb 93 13:36 GMT+200
From: Michel Vandenplas <mvdvp@maties.sun.ac.za>
Subject: Malt roasting - help!

Maybe a better subject title would be Homebrewing in Darkest Africa. One of my many problems (as a novice there are of course many others) is that the only malt I can buy at a reasonable price, is unroasted. The grain makes a good pale ale (to my unrefine

Naturally, while I like pale ales, I'd like to make some darker brews. To this end I've roasted some of the grain at between 100-110C. This grain has then been mixed with about 70% unroasted grain and extracted, giving a darker colour to the beer. Is this

Lastly, I've been using my wife's rolling pin to crush the grain. Does anyone have any inexpensive and easy alternatives to this? I'm surely loosing a lot in extract potential this way.

Many thanks to all the digest contributors from whom I've gleaned advice - without their knowledge that is :-).

Regards
Michel

Date: 24 Feb 1993 08:02:38 -0500 (EST)
From: Sandy Cockerham <COCKERHAM_SANDRA_L@LILLY.COM>
Subject: Laser Labels Adhesive/tale of "33"

Last HBD someone asked how to apply the labels they make on the laser printer.
Stolen directly from an old HBD-- MILK!!!! I have used this technique. I used skim milk, dipped the label in and smoothed out the bubbles. It held extremely well. Non-toxic too!
On another note, the story I heard regarding the 33 on the Rolling Rock label, which by the way is not stuck on with milk :) When the designs for the RR labels were submitted, they were numbered. The one chosen was (you guessed it) #33. As the tale goes, when it went into production someone neglected to take the 33 off and it has been on the label ever since.

Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

Date: Wed, 24 Feb 93 07:40 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: CIS

>From: lawson@acuson.com (Drew Lawson)

>I would like to point out that there is a great difference between CompuServe and the Digest. That is that most CIS users do not read all the message threads.... Also, of course, the Digest has developed ARF antibodies and will likely react to even borderline messages if they are from you.

Good points, both. But perhaps the former is a symptom of the latter.

Just a point of reference, I have lost interest in CIS for exactly that reason. It would cost a fortune to read all the articles and there is no way to sort out what is worth reading. People have no qualms about posting messages such as "Good idea, Bob." and the board is loaded with them, probably even the majority. Even a thread with one's own name in the subject can lead to endless drivel but you keep reading it so as not to miss anything that might be appropriate. I think the dicipline forced on people by knowing that everyone has to at least download what one writes is a tremendous house cleaner.

js

Date: Wed, 24 Feb 93 07:39 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Sanitizer

>From: "Rick (R.) Cavasin" <cav@bnr.ca>
>Subject: re: iodophor, rinse/reuse

>JS relates his experiences with iodophor sanitizer: I've had no problem
with
my brand of iodophor ('iosan') changing colour during normal use.

Here is the sequel to my experiments:

Two test tubes with 1 oz to 1 gal iodophor, lids screwed on tight..

One tube remained undisturbed. The other shaken vigorously at regular
intervals. For several weeks, no change in either.

It has been about a week since I last looked but yeasterday, I was
astounded
to note that, the control was totally clear and the one that had been
shaken
was still the original color. Any ideas now?

I will do it a again with more controls but this is totally surprising
to me.

JS

Date: Wed, 24 Feb 93 07:40 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: lager

>From: Joe Boardman <boardman@amber.Colorado.EDU>
>Subject: an HBD-inspired yeast experiment

>Does anybody want to hazard a guess about the taste differences?
Does "clean" really mean anything? Is anybody going to be in Boulder in
about
2 months to try some in person? Does anybody "know" they can tell them
apart
in a double-blind test? I'll report back if there's interest.

I would hazard a guess but in about a week I will have the results from
my
own similar experiment. At the moment, I will bet that a new thread on
"Lager Snobs" is not far off.

Keep us posted.

js

Date: Wed, 24 Feb 93 07:40 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Beer Crawls

Re: Jeff Frane on Beer Crawls

I have posted an article in response to many postings several times over the past two weeks and it has yet to get into the digest. I try to minimize bandwidth by combing many responses into a single posting. Obviously, the Digest software is sorting out long messages and "clensing" them. In order to fool the system, I have broken it down into many short ones and eliminated the ones that no longer have relevance.

Whether people agree with what I say or not, I suggest that responses to current discussions are more relevant and in line with the objectives of this forum than long feature articles on commercial beer and establishments. I won't go so far as to say they do not belong here but perhaps they could be saved till the Digest gets the "slows" again.

js

Date: Wed, 24 Feb 93 07:41 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Galvanized Screen

>From: hopduvel!john@linac.fnal.gov (John Isenhour)
>Subject: galvanized hardware cloth ok for sparging?

>I've been wanting to build a mash/sparge cooler with a mesh filter as the rigid manifold arrangement sits a little too high off the bottom of my cooler. I havent been able to locate brass or stainless mesh locally but I found some 1/8" galvanized hardware cloth. I haven't heard of anyone using this - is there a problem?

I used galvanized hardware cloth on the original EASYMASHER (tm) for several dozen batches and soo no problem with it. Zinc is a common mineral supplement in vitimin pills so I see no reason not to use it. Not sure why you want to use 1/8" mesh. I use 30 mesh (30 wires/inch) in the EM and it works very well. The original used widow screen, whatever that is and it also worked well.

The only source I have found for SS screen is McMaster Carr but I have to buy about \$50 worth. Not too practical if you are only making one.

> Also, what is a reasonable minimum length of mesh if its rolled into a tube?

Don't quite understand what you are doing but the tube in the EM is 6 inches long and 3/8" in diameter. It is pinched off at one end and slips over 3/8" copper tubing on the other. The tubing is bent so the screen rests on the bottom. This handles the entire task of the false bottom, slotted tube and other such devices.

js

Date: Wed, 24 Feb 93 9:06:40 EST
From: Jim Grady <jimg@hpwarga.wal.hp.com>
Subject: Gluten in beer

I believe that this was discussed before, or at least something similar, but I do not know how it was resolved.

We will be having company over for dinner in a couple weeks and one of the people coming cannot have any gluten in his diet. The question naturally is, would homebrew be a problem?

The discussion earlier was along the lines of how much wheat is in the beer but "The Cook's Companion" says that barley has some gluten too (albeit, not as much as wheat). Furthermore, it says that gluten is a protein. This makes me ask a couple questions:

1. Is it some of the protein that settles out in the hot or cold break?
2. Is it one of the proteins responsible for aiding head retention (if indeed proteins are responsible)? After all, wheat is high in gluten and wheat malt is often recommended to aid head retention.
3. Is it a protein that is broken down in the protein rest or in the malting process?

e-mail or posting is fine. I will summarize any e-mail responses I get.

Thanks for your help.

- - -

Jim Grady | "Talent imitates, genius steals."
Internet: jimg@wal.hp.com |
Phone: (617) 290-3409 | T. S. Eliot

End of HOMEBREW Digest #1085, 02/25/93

Date: 24 Feb 1993 09:08:30 -0500
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>
Subject: Ph meters, Hydrometers

Subject: Time:9:02 AM

OFFICE MEMOPh meters, Hydrometers Date:2/24/93
>;on the subj of pH meters - i recently got one from HANNA (shucks found
out
>;it is made in italy :0). anyway does anyone have one of these? do you
>;notice a fluctuation between hot and cold temps of the same sample? i
am not
>;sure if mine is defective or what, pH varies by .5 (even after letting
it
sit
>;in the non-ambient temp sample for 1-2 mins)....the probe was
calibrated with
>;the 7 and 4 solutions minutes before....and soaked in a conditioning
solution
>;for 30 mins as recomended.... does any one have the temp diffs for pH?

>pH, much like specific gravity, is dependent on temperature. I would
think
>there would be a temperature correction table that came with your meter.

The Hanna does not come with a calibration table, however you can get a
accurate reading by measuring the wort pH at the SAME temperature as the
electrode was calibrated. You must calibrate fairly often (at least
each
day), so if you calibrate at 60F and cool wort to 60F you should be ok.
Even
if you are off by 0.5 unit you are still far more accurate than pH papers
INMH(color blind)O. I love mine.

The operational definition of pH is: $pH = pH(s) + E/k$. Where $pH(s)$ is the pH
of a
known standard, E is the emf of the cell, $k = 2.302RT/F$ where R is the gas
constant, **T is temperature** and F is the value of the Faraday. As you
can
see, since temperature is a variable, the measure of pH is definitely
temperature dependant. From Handbook of Chem/Phys.

[end of chemistry digression]

On the hydrometer topic, Irecently discovered (when brewing with a
friend who
uses his religiously) that mine is horribly and uselessly inaccurate, so
I have
gone back to not using the thing. The old OG estimates of STRONG, NORMAL
and
WEAK always worked for me before, but occasionally I'd like to check my
efficiency. Thermometers can be very different from one to another and
so can
hydrometers. Short of purchasing a refractometer are there any mail
order
shops that sell a reasonably priced (\$15-20 ...??) CALIBRATED hydrometer?

Thanks, DanMcC

*As long as Keith (Richards) is still alive, I can have another beer. *

Date: Wed, 24 Feb 93 09:24:43 EST
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Printing labels on a laser printer

Jeff J. Miller writes:

> I located some 3/4" round labels that are designed for use on
> a laser printer; unfortunately they seemed EXTREMELY expensive
> at \$15 a box but I don't recall how many labels were in a box.

Well, let's see. If they're packed tightly on the page, you've got maybe 150 on a page. If the box has 50 pages, then there would be 7500 of them in the box. So they're .2 cents each. Not really expensive, except up front. Even if there were only 10 pages, they'd still be 1c each. That's less than you pay for bottle caps.

=S

Date: Wed, 24 Feb 1993 09:50:23 -0500 (EST)
From: "I'm a jelly doughnut. I'm a jelly doughnut" <cygnus@unh.edu>
Subject: The Unfermentables

Hi, I was wondering what grains have significant amounts of unfermentables etc.... i.e.

Barley (malted)
Wheat (malted)
Rice syrup solids
and more...

I like my beers to have a heavy malty taste.. just like when you put loads of 'malted milk' in your milkshake... I beleive that is a barley malt.

Question remains what type of unfermentables are we talking about here?

right now I have a coffee beer brewing, and I want that earthy malty flavour... so I figured I'd post out of curiosity to see what the HBD could come up with for all to know :)

thanks,
-chris (dcm2@kepler.unh.edu)

Date: Wed, 24 Feb 93 10:13:21 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: pH Meter Temperature Compensation

To answer some ongoing problems with pH meters and temperature dependence:

pH measurements ARE temperature dependent.
Some pH meters come with built in temperature compensation (a separate temp. probe is used in this case) and some pH meters allow for manual compensation.

With pH meters, we use the Nernst Equation

$$E = E_x + 2.3 \cdot R \cdot T_k / n \cdot F \cdot \log(a_i)$$

Plugging in all the constants,

$$\text{we get } E = E_x - 1.98 \cdot T_k \cdot \text{pH}$$

E_x is a constant depending on your reference electrode and E is the potential measured by the pH electrode.

As you can see, a change in T_k (Temperature, in Kelvin) will change the slope of your E/pH curve.

Important notes, pH will always read 7.0 at 0 mV output (Temp. compensation is not important near pH 7)

At pH 3 or 11, a temp difference of 15C leads to a pH difference of 0.2

pH error can be approximated as 0.03 pH error/pH unit/10C

Reference: pH and Conductivity, Omega, Vol 26, pp. A-3 to A-5

OHBN (Obligatory HomeBrew Note) : The Irish Red Ale for St. Patty's day is almost ready.

- - - - -

Timothy J. Dalton daltontj@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

Date: Wed, 24 Feb 93 10:02:21 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Chill haze help, copper

When I chill my lagers I get a chill haze, and with this at the back of my mind I read George Fix's Brewing Science book and he wrote of phenol-protein interactions that cause chill haze. There seemed to be 3 solutions 1) remove proteins with Irish moss or gelatin, 2) remove the tannins with polyclar, or 3) lager for 5-7 week at 0C. I would love to use the latter method, but until I get a chest freezer it is impractical. Other things that help are sparging less, and boiling for the right time.

My question is how do people use polyclar? I don't really want to, but it seems like a better option than gelatin or Irish moss that may remove head proteins. Should I add it to the beer when I rack to lager and lager with it there, or would it be sufficient to add it when I chill the wort, let that sit at 0C till fairly clear and then rack onto the yeast. Is this last idea ridiculous?

Re. Copper about which Mark Elliot asks. The reason are mainly traditional. Copper is a metal that has been known forever nearly. At beer making pH's it doesn't corrode, and the main advantage is that it has the second highest heat transfer coefficient of all metals. This was more important when fire brewing was the only heating method. Since this method is still used by us homebrewers, I would like nothing better than a big copper jam pot. But I have not seen any for sale.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

P.S. I am sorry that many of you were offended by my continuation of the 'dead horse' thread and I apologise for not restricting criticism to email. But I am not the only one committing that sin and I think it is also time for those of you who despair of this theme to stop posting your sanctimonius criticisms about how hbd is going to hell in a handbasket because of the odd accrimonius post. I am sure I am not alone in thinking that such piety is more nauseating than the occasaional flame. Also, I think there was a criticism of rec.crafts./brewing. It is my experience that r.c.b is usually more civil than hbd. I think that hbd snobs are more common than *6&-#\$%*@* snobs.

Date: 23 Feb 1993 19:44:13 -0500 (EST)

From: WESTEMEIER@delphi.com

Subject: Hops in Ohio

Garland Burton asks if you can grow decent hops in Ohio.

Answer: YES!

You can definitely grow decent hops in Ohio.

I've been growing them for a couple of years in Cincinnati, and I have a friend in Dayton who has been growing them for over 5 years.

Very successfully, I might add!

Cascades do best in this area, but try Hallertauer as well (Hersbrucker)

.

Order the rhizomes from a good source like Freshops in Oregon, and plant them as soon as the danger of frost is over.

You won't have any way of knowing exactly what the alpha acid percentage is, but you can guess, based on the average for the variety. You can also do what I do, which is ignore the issue and just use them for dry hopping. Works great!

Lots of sun seems to be the most critical factor.

- -- Ed

Date: Wed, 24 Feb 93 11:04:55 -0500
From: cook@uars.DNET.NASA.GOV (Chris Cook)
Subject: Decoction Mash Questions

In HBD 1083, while talking about starch conversion during infusion mashing,
Drew asked (about drawing off some of the mash for reheating):

> 3) The method used above to reheat the mash seems similar to decoction
> mashing. With regards to decoction mashing:
> a) is it usual to drain and boil just liquid, or liquid and grain?
> b) doesn't this process denature the enzymes needed for conversion?
> c) is there some formula for how much of the liquid or liquid and
> grain to reboil to make a desired temperature change?

Good questions. Like Drew, I'm looking to use some simple use of a
decoction
in infusion mashing, either to raise the temperature of the infusion, for
a
rudimentary step mash or for a mash-out. Plus, I'd like to try full
decoction mashing, just to see for myself.

A few weeks ago I asked what Noonan meant in his reference to removing
"...the thickest third..." of the mash. There were several answers
posted,
but they reinforced my impression that people were interpreting Noonan's
directions in different ways.

One person said that the thickest part was at the bottom of the mash-tun
after letting the grains settle. Another said that 'thickest part'
description was misleading, referring to a decoction consisting mostly of
grains. He recommended that the mash be gently stirred before scooping
off
the decoction.

Logically, I can believe that the mash will settle into heavier and
lighter
layers, but we're talking about pretty uniformly-sized grains. Is it
important to scoop from the bottom, or is it more that we should avoid
using
the top layer. Do the husks migrate to the surface or some such?

How much liquid should be drawn off with the decoction? I got three
general
answers in the Digest:

- 1) With a small pot, scoop up a bunch of grain and pour off the liquid
until the grains are barely covered, something like a stew.
- 2) With a small pot, scoop a bunch of grain against the side wall of
the
mash-tun and slide the pot up the wall, letting most of the liquid
drain back. It wasn't clear how much liquid should remain in the pot,
but the writer implied that only a little liquid should be in the
decoction.
- 3) Scoop the decoction with a sieve or colander. I assume this leaves
almost no liquid in the decoction. Barley stir-fry?

Several people emphasized the problems with grain sticking in the pot
while
heating the decoction. I don't know whether the drier decoctions were
significantly worse, but it seems they should be.

Book references and logic are only good to a point. Anybody have
experience
using a decoction to heat up a cool infusion mash, for a simple step
mash,
or for a mash-out? How large are the decoctions, how much liquid should
be
left in the decoction, and how bad is the sticking?

Chris Cook
February 24, 1993
cook@uars.dnet.nasa.gov

Date: 24 Feb 93 08:34:36 U
From: "Rad Equipment" <rad_equipment@rad-macl.ucsf.EDU>
Subject: Anchor Foam

Subject: Anchor Foam Time:8:32 AMDate:2/24/93
Bob Jones asks about the flat fermenters at Anchor and foam activity.

Now that you ask, I can't say that I have ever noticed those vats without
a
head on them except when they are being filled.

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmacl.ucsf.edu - CI\$: 72300,
61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Wed, 24 Feb 93 11:40:03 -0500
From: aderr@BBN.COM
Subject: Celis White...Answer and Question

As to where to find Celis White in the Boston area, I guess that depends on how broadly you define the "Boston area". Harrington Liquors, in Chelmsford, MA carries three Celis beers (White, Grand Cru, and one other (Bock?)). They also carry a wide selection of lambics, hard ciders, and beers from all over.

Now for a question:

I tried Celis White over this past weekend and I LOVED it!! Does anyone out there have a recipe (yet) that approximates it? Any tips would be greatly appreciated.

BTW, I'm "only" an extract brewer so far. (Sorry, I couldn't resist).

Thanks,
Alan Derr
(aderr@bbn.com)

Date: Wed, 24 Feb 93 09:38:33 -0800
From: "Stephen Hansen" <hansen@gloworm.Stanford.EDU>
Subject: SG temperature correction

There have been several articles lately that either requesting information on the variation of specific gravity with temperature or in obvious need of such information.

The Homebrew Archive at Sierra.Stanford.EDU has a file containing correction factors for specific gravity vs. temperature. The file is sg_vs_temp and anonymous ftp users will find it in the pub/homebrew/docs directory. Those of you using the listserv should use the command "get homebrew sg_vs_temp".

Stephen Hansen
homebrewer, archivist

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Stephen E. Hansen - hansen@sierra.Stanford.EDU | "The church is near,  
Electrical Engineering Computer Facility | but the road is icy.  
Applied Electronics Laboratory, Room 218 | The bar is far away,  
Stanford University, Stanford, CA 94305-4055 | but I will walk  
carefully."  
Phone: +1-415-723-1058 Fax: +1-415-725-7298 | -- Russian Proverb  
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Date: Wed, 24 Feb 93 13:49:33 EST
From: rowan@soil.rutgers.edu (Andy Rowan)
Subject: Answers about bottle labels

I got lots of mail in response to my question about making bottle labels on a laser printer, so I thought I'd summarize them for others. I guess longer-time readers of HBD or r.c.b. will have seen these already...

Lots of people suggested printing on regular paper and then sticking it to the bottle by wetting it with milk (yes, milk). All said it sticks perfectly well as long as the bottle stays dry, and comes off easily with a soak.

As far as glues, I got the following suggestions:

1 part white glue (like Elmers) to 2 parts water. Water soak to remove.

Glue sticks for kids, which are soluble in water.

Dennison "Tack a Note" glue stick, with sticking power of a post-it note.

Rubber cement. Remove label (and cement) by peeling it off.

As far as self-adhesive (mailing) labels, most are VERY difficult to remove, but Don Howard wrote that Z-LABEL brand laser printer labels come off easily after a short soak, and cost about 2 cents each.

Date: Wed, 24 Feb 93 11:46:39 PST
From: jwsb@netcom.com (Justin Broughton)
Subject: Cat's Meow Evaluation

The Cat's Meow (for those who don't know) is a compilation of recipes posted on the Internet and in HBD. It is available via anonymous ftp from sierra.stanford.edu in /pub/homebrew/recipes.

I have already posted this to the internet, but realized that I forgot to post to home brew digest. So please excuse the duplicate posting.

Looking through the Cat's Meow recipe book, there seems to be no indication of whether the recipe has been tried by others and found to be reasonable and/or whether it gives the same results.

I have been talking with Mark Stevens (one of the compilers of the recipe book) and we agreed that a survey of this kind would be most useful.

Therefore I am asking you all to reply to me (jwsb@netcom.com) with details as follows:

- . chapter containing recipe (beer style)
- . name of recipe
- . number of times brewed
- . changes to any ingredients (if any)
- . changes to the procedure (if any)
- . SG/OG
- . overall quality of the beer
- . if problems were experienced what you think the reasons for the problems were
- . would you brew it again?
- . if you would what would you change.

Please send only recipes which you did not significantly change.

To the originators of the recipe - if you have repeated the recipe since feel free to send me your comments as well.

Results will be forthcoming. I will probably not post them since this might cause ruffled feathers, but will mail to anyone requesting them.

Thank you in advance for all your time.

Justin Broughton
Configurex Inc., South San Francisco, California

- - -

Date: Wed, 24 Feb 93 15:03 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Dorky Topics

>From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)
>Subject: Re: All-grain vs. extract

>Excuse me for noting, but this all-grain vs. extract thread has gotten completely dorky and out of control. Can we get on with other things?

I find it an interesting perversion of the objectives of a discussion forum to consider a topic "dorky" because it generates a lot of interest.

I think the objective is to discuss what is of most interest to most people and those who are not interested in such a topic are free to skip it. Complaining about what is discussed may or may not be "dorky" but is certainly a more obvious misuse of bandwidth.

js

Date: Wed, 24 Feb 1993 17:23 EST
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>
Subject: pH

Just a quick point. It is perfectly normal for pH to vary with temperature. Thus, your pH meter should give a different reading for hot and cold solutions. Good laboratory pH meters have a temperature adjustment, and the really nice ones automatically compensate for temperature. If you want to you can find how to correct pH meter readings for the temp. effect, but it is probably easier to just adjust your sample to the right temp. before making the reading.

Date: Wed, 24 Feb 93 18:30:57 -0800
From: pascal@netcom.com (Quasimodo The Hunchback)
Subject: Re: fermenter geometry

"Date: Mon, 22 Feb 93 07:49:20 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Fermenter geometry

"During my discussion with Pierre Celis, the subject of fermenter geometry came up. He mentioned that the head or foam cap in a shallow open fermenter was much more dense and stable than one in a closed smaller fermenter. He said he don't understand it either. I know when I visit Anchor and see their fermentations at high krausen I am only getting a snap shot of the fermentation. Say Russ, when you've walked by that room several nites in a row, have you EVER seen that foam fall? I don't know how any of this would apply to us, it is just an interesting observation and may explain how open fermentation can be safe in some cases."

My intuition is that there is a connection between the fermentation and the surface-to-volume ratio. In the book On Aggression (author's name escapes me, alas) it discusses the difficulty of maintaining enough oxygen in the aquariums (this was before World War II, no pumps, little electricity) and notes that, even with the inclusion of a large portion of the closed ecology of proximate ponds into the tanks, including moving creatures which stirred up the water ... a very large surface-to-volume ratio was a prerequisite. (The author was researching the aggressive instincts of cichlids ...)

Others have noted that readings for mash efficiency, as well as temperature, vary from top to bottom in mash geometries which emphasize height. This is optimal for conservation of heat, but not so for circulation of mash solution, such that this too bears some additional examination.

Summary : I'd guess there is a lot of garnered experience which has guided some isolated brewers down this path, and that this bears further examination in both the mash and the fermentation sequences.

I haven't done a mash yet myself (ObDisc: I have used grains as adjuncts), but when I do, I expect I'll stir things to keep a temperature gradient from forming and to evenly expose everything to walls and atmosphere. I don't do

open fermentation and, lacking a controlled environment, I'd hesitate to,
as
this would also provide a larger target for drifting spores and bacteria
...

- -- richard

"It is obligatory, within the limits of capability, to commend the
good and forbid evil."_Kitab_Adab_al-Muridin_, by Suhrawardi

richard childerspascal@netcom.com

Date: Wed, 24 Feb 93 19:18:00 -0800
From: pascal@netcom.com (Quasimodo The Hunchback)
Subject: Proposed North Bay Bike Ride & Pub Crawl

I just purchased a lovely new mountain bicycle, and have been riding all over San Francisco, having a blast. It didn't take me long to conceive of other possibilities ... such as taking the ferry boat to Angel Island, in the middle of San Francisco Bay ... or beyond, to Larkspur or San Rafael.

I mentioned this to a few bicycle-riding beer buddies, and they told me of a brewery that's apparently just a stone's throw from the San Rafael ferry landing. This is apparently a well-known ride amongst many locals. I don't know its name but I'm sure many others do. (-:

So, I'm proposing a Bay Area HBD Ride, from San Francisco - probably the south end of the Golden Gate Bridge - across the Bridge, through Sausalito, along the edge of the Bay, northwards to San Rafael, using existing bike trails already established, stopping at pre-established points for those wishing to join en route.

Once at the brewery, we disassemble for excellent (I've been told) food and beer, departing as convenient to ride back to our vehicles along the route, if appropriate, or taking the ferry back to San Francisco, and then riding back from whence we came within San Francisco. (Those doubting that this might be possible might prefer to park along the Embarcadero and ride their bikes to the Golden Gate Bridge in the morning, so that their cars are only a few blocks away when they get off the ferry.) Naturally, some people might prefer to remain together all the way back to the Toronado .
..
or we could even meet there in the first place, instead of the Bridge.

Naturally, mountain bikes (18 speed or above) are recommended, as this is not a short ride (although every effort has been made to plan it so that it is not necessary to ride uphill and that the majority of the trip will be downhill or level bayshore), but I leave the final decision to the discretion of the individuals, and promise to assist anyone who has problems en route, as the person responsible for this proposal.

I think this would be a great opportunity to match names with faces, and get a few of the lurkers to emerge into the light and let us introduce ourselves and sweep them into the mileau. As well as establish that one can be physically competent while drinking copiously, and still brewing.

Proposed date : Sunday, 07 March 1993.

What say ye ? Email me at pascal@netcom.com, please.

- -- richard

"It is obligatory, within the limits of capability, to commend the good and forbid evil."_Kitab_Adab_al-Muridin_, by Suhrawardi

richard childerspascal@netcom.com

Date: 25 Feb 93 03:36:48 GMT
From: SynCAcct@slims.attmail.com
Subject: Yeast Starter Temperature

I have 3 Lagers fermenting now, 2 at 42 degrees F and 1 at 48F. All of these are fermenting (what I would consider) rather slowly. All 3 batches started at 1.052 and after a month in the Primary are between 1.032 and 1.040. Fermentation does not appear stuck as they all have a good krausen still and are generating a fair amount of co2 (1 bubble every 10-15 seconds).

I'm using 2035, 2308 and 2007, 2 cultured from my slants and one straight out of the Wyeast pack. My question is: these yeasts were built up to pitching volume (about 2/3 quart of slurry) in 2 steps, the first in 1/2 pint of wort and then into 1.5 quarts, over 5 days. The starters were fermented on top of the fridge and with the heat from the back of the fridge I would guess it was about 80-85F. The starters were chilled to match the wort at pitching time and all started to ferment actively within 15 hours.

Is there a correlation between yeast performance and starter fermentation temperature with S.uvarum? I'm concerned that I've promoted mutated cell growth, generating an active starter that performs well only at warmer temperatures.

Gravity has slowly declined over the last month, the beer tastes fine so I suspect patience will be the solution to my problem. Any other comments or suggestions?.....

...Glenn Anderson

gande@slims.attmail.com

Date: Wed, 24 Feb 93 23:51:35 MST
From: thomas ciccateri <tciccate@carina.unm.edu>
Subject: HB Competition

The Albuquerque, New Mexico USA-based Dukes Of Ale are again sponsoring their annual AHA Sanctioned Beer Competition. Deadline is April 16, 1993. Fee is \$2.00 per entry. Judges are club-certified, AHA certified, recognized, or masters. Info: Art Priebe at 73707.2262@compuserve.com Buena Suerte.

Date: Thu, 25 Feb 1993 08:22:56 -0600 (CST)
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: Fix times two

Figured out how to beat the system. I posted 7 articles yesterday and all got acknowledged except the two that were 40 lines long. The longest one acknowledged was 33 lines. Here is the "long" one in two parts...

>From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
>Subject: George Fix's Address
> I'm trying to send mail to George Fix, and his address as it shows-up in the digest is not sufficiently complete to accomplish this (gjfix@utamam).....

Sure glad someone else is having this problem. Virtually all my mail bounces to George but it seems to get through often enough to prove that it is a good address. The last two letters I have sent about 10 times and specifically asked him to acknowledge receipt. It is particularly frustrating because it contains an apology to his wife which I hereby extend to anyone else who may have been offended by my use of an old boy's term referring to things that happen to men in the night.

This is the way the bounce appears in my mail and I get the response within seconds so it is not happening at his location.....

cont.....

Date: Thu, 25 Feb 93 9:06:54 CST
From: cush@msc.edu
Subject: Re: galvanized screen & Zinc

I would caution against giving an unqualified 'yes' to using galvanized screen in the mash. I seem to recall that Zinc can be highly toxic in too high a concentration, though it is a 'vitamin' at lower concentrations.

If I am remembering wrongly, someone please correct me, but I do believe that as far as Zinc goes, there can be 'too much of a good thing'.

- - -

> Cush Hamlen | cush@msc.edu
> Minnesota Supercomputer Center, Inc. | 612/626-0263

Date: Thu, 25 Feb 93 09:10 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Mashout

>From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.EDU>
>Subject: Another Mash-out Idea

>I realize that the liquid level is greatly increased so it is harder
for the
enzymes to find the starch, but still...

This aint necessarily so. I use about 3.5 gal of mash water to 12 lbs
of
grain and when it settles down after mashing, I end up with one inch of
liquid above the grain. This level is maintained through the entire
sparge
so the ratio of grain to liquid does not change till I turn off the
sparge
water source at the end.

>Reactions?

Burrrp

Hmmmm.... Just occurred to me that the last two lines are another good
example of a typical CIS beer forum message that one would have to pay
to
read.

js

Date: Thu, 25 Feb 1993 09:07:27 -0600 (CST)
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Mashout

>From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.EDU>
>Subject: Another Mash-out Idea

>A thought: If unconverted starch, originating from dry sections of malt, might be released during the sparge; would it not be prudent to forgo the mash-out so that the enzymes, which are also in suspension (I assume), can do their bit on the newly released starch?

Two problems here... As most people claim to be sparging at 170F, the enzymes would be deactivated by the heat. Of course some of us realize that the real temp in the grain is closer to mash temp so you are probably right. Therefore, what you are effectively doing is increasing the mash time without increasing the time it takes to mash. Not a bad idea, probably.

The real problem with forgoing the mash out is that the real temp in the grain bed drops even lower and could create all sorts of other problems.

cont.....

Date: Thu, 25 Feb 93 09:11 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: Red Star

>From: korz@iepubj.att.com

>On a related note, I have written in the past warning about the use of the yeast that comes with Munton & Fison Kits (it use to be called Muntona, but now I think it just says "yeast"). I said that it gave very, very high levels of phenolic/clove aromas and flavors and that I suggested it not be used.

This sounds dangerously reminiscent of my experiences with Red Star and all its repackaged clones. When I thought I was trying different yeasts, I later learned that it was all repackaged Red Star.

Do you know who makes the yeast? I personally, would never use a yeast that did not identify the actual lab that makes it.

I suspect that 90% of the love affair (mine included) with liquid yeast results not from switching to liquid but from getting away from Red Star and its stealth progeny.

js

Date: Thu, 25 Feb 93 08:10:26 -0700
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: gelatin fining

"Dean Roy" <DEAN@alpha.uwindsor.ca> writes:

>Can someone tell me if there is any difference between the gelatin
finings
>sold in homebrew stores and the plain unflavored gelatin you can buy at
the
>supermarket. I have a supply of the supermarket variety and was
considering
>using some on my latest batch.

I don't generally fine my beer, but as a home winemaker, I do fine my
wine,
and yes, plain unflavored gelatin works great. The procedure for wine is
to
soften about 1 tsp gelatin (per 5gal wine) in some warm wine, and stir
into
the carboy. Takes 7-10 days to settle out.

Kelly Jones<k-jones@ee.utah.edu>

Date: Thu, 25 Feb 93 11:40:23 EST
From: Joe Rolfe <jdr@wang.com>
Subject: Attemperation/Repitch

hi all,

Nick asks

> with all this talk about the perfect fermenter
> design I was wondering if somebody could comment at
> what point does the heat buildup become high enough
> to affect the ferment? Also are the Wyeast preferred
> temps for the ferment or ambient? So does a
> 40-50litre ferment create enough heat to alter an
> ale ferment? How about lagers?

well Nick, I would guess that you would like to keep the primary ferment temp as close to the recommended temps as possible (65F for ales, 55F for lager). I would say that depending on the flavour profile you want anything more than +/- 10F is too much. Smaller batches, from my limited playing with them don't seem to change very much from ambient +/- 5F in the middle of the vessel. I would venture that the 10 or so gallon batches could produce enough heat to require attemperation. I dont have a 10 gallon fermenter, but my 2BBL fermenter will generate quite alot. If I pitch at 70F, ambient temp being in the low 60'sF, the next morning at the peak of fermentation - temps will be approaching 80F. This only happened once - thankfully. I now cool the fermetner down to 62F after I see signs of fermentation - this usually takes a few hours.

As an aside here - I would like to use a sankey keg for a fermenter. I have heard of George Fix using a pony (1/4BBL) which I assume has no internal/external plate or coil. Anyone using any 1/2BBL ekgs with attemperation devices, other than sticking in a drum of water???

SRIRACHA <radavfs@ube.ub.umd.edu> asks:

>My brewing partner and I recently started using liquid yeast and
>are quite pleased with the results - the cost, however, is making
>us wonder about whether or not we should buy a new packet every time
>when a strain could be reused...I guess our question is this: How
>have the experiences of other digesters been regarding saving the
>sludge? Do you seal it up with some malt extract? Do you put it
>into a container that would allow stoppering/airlocking? Just curious.
..
>we saw a couple of possible containers the other day, but I thought I'd
>beter write first...How about "Grolsch-type" bottles?

You can store it in a sanitized (or as close to sterilized as you can get) vessel (jug, - i use a pop keg). If you are not going to repitch within a day or so (guessing here -- anyone know how long?), put the vessel in a refrig (40F). It should last a week or so (again how long??). I would repitch within a week or dump it myself. Grolsch bottles should work fine for smaller (5-10 gallons ferments). When you do take it out of the refrig (as Mike Sharp recomends warming the slurry up well in advance). I assume that when Mike does this it is done fairly slowly not to shock

the beasts into mutation. My process is to remove from the refrig 2 days in advance, on the first day store it at 10F higher than refrig temp. The second day store at a 10F higher than the previous. As I cool the wort some of the wort is diverted to the keg with the slurry. I allow this to sit at temps as close to pitching for an hour or so. The fermenter is then aerated for 45 min with sterile air. At the half way point in aeration the slurry is pitched. Since doing it this way (past 4 times) the fermentation is underway in 2 hrs (no lag here) and the final gravity is reached within 3 days (usually 2).

>From the general reading in HBD and other pubs - if your clean you can bet on repitch of 5-6 times. If your really clean and do the lab work - you should be able to repitch forever(???). I will be stopping at 5 times - until I can afford the time do it, a scope, chemies and the lab space.

good luck and stay clean!

- - -

joe rolfe
jdr@wang.com
508-967-5760

Date: Thu, 25 Feb 93 11:47:32 EST

From: kstiles@aluxpo.att.com

Subject: Sugared Extracts

A subject thread about the quality of malt extracts led Richard Stueven to re-post Martin Lodahl's article about the report from Professor Ingledew's of the University of Saskatchewan about sugar in malt extracts. Since Prof. Ingledew seems so afraid of lawsuits, let me point out that I am not asserting in the following that any company, foreign or domestic, is adulterating its malt extract with sugar. I merely note these observations; draw your own conclusions.

I recently bought some American Eagle light dry malt extract. It seems peculiar in a number of ways:

- 1) It is not a uniform powder like other DME that I've bought (M&F, Laaglander). Rather, it is a mixture of a light brown powder and white crystals.
- 2) It doesn't clump into hard blobs like other DME when mixed with water. It just dissolves more like, say, sugar.
- 3) It doesn't have a strong malt taste like other DME. It tastes more like slightly malty very sweet wall paper paste.
- 4) When used in a yeast starter, the starter tastes, well, cidery.

Keep in mind Prof. Ingledew's point that any adulteration can be done by a distributor as well as the supplier.

We all know about the high FG's from using Laaglander, presumably from a high dextrin content. Any experiences with American Eagle (the DME, not the canned extract)?

Kevin Stiles

Date: Thu, 25 Feb 1993 08:52:31 -0800 (PST)
From: James Thompson <sirjames@u.washington.edu>
Subject: Labels: Affixing & Removing

Since I make my own paper labels, I affix them with regular gluestick; they stay on fine, and come right off in hot water -- this hot tip brought to you from my homebrewer tutor, Mark Antush... Hi, Mark! :-)

For removing labels from used commercial beer bottles, I recently purchased a brush-scraper combination designed for cleaning bbq grills. After soaking the bottles in hot water, the scraper makes short work of removing the paper, and the brush takes off the glue. Although it is a metal-bristle brush, I haven't noticed any problem with scratched bottles.

Jim Thompson
sirjames@carson.u.washington.edu
Disclaimer: "These opinions are only our own, aren't they my Precious?"

Date: Thu, 25 Feb 1993 12:25:00 +0000
From: "Rick (R.) Cavasin" <cav@bnr.ca>
Subject: re: iodophor, rinse/reuse

JS relates further experiments with iodophor sanitizer:

Hmmmm. How much headspace in each testtube? (headspace vs solution ratio could be fairly high in a testtube)
Did you open either tube (thus releasing iodine vapour in headspace) during the test? Both stoppers sealed tightly? Possible leak?
Ideally, the test should be carried out with several tubes in each group, and outliers discarded.
I've used my solution several times since my previous posting (without augmenting the iodophor) and though the amber colour may have faded a little (hard to remember what the original shade was - could mix up more I guess), it is still definitely amber. I guess there's no real way to know the sanitizing power vs colour relationship.
Ya pays yer money and ya takes yer chances.
Check the label on your iodophor - mine says the iodine is supplied in the form of a complex. This might make it less volatile.
Cheers,
Rick C.

Date: Thu, 25 Feb 1993 12:25:00 +0000
From: "Rick (R.) Cavasin" <cav@bnr.ca>
Subject: Wyeast reuse/stretching

There's been some renewed interest in making the most of Wyeast packages lately. Although I think I've posted this before, it sounds like there's at least a few people who might find a repost useful. Here's the method for stretching the Wyeast that I have been using successfully. It should be noted that storing the yeast in the form of sediment may be suboptimal (someone else posted a simple yeast washing technique some time ago - haven't tried it). All I can say is that this method has worked for me with 4 different Wyeast ale strains (Whitbread, Irish, German, European)

.
It's simple, and requires no special equipment. Alternatively, it allows several brewers to swap yeasts with each brewer propagating one strain.

Briefly, my suggestion consists of converting the original Wyeast package into a number of 'copies' stored in beer bottles.
ie. it is a parallel propagation rather than a serial propagation

Step 1:

Prepare some starter wort (S.G. = 1.020), see Miller's book for recipe. Basically, you need about 1/2 gallon, but if you make more and can it in mason jars (using standard canning procedures), you will not have to prepare more at a later date.

Step 2:

Place 1/2 gallon or so of starter wort in a suitable container (1 gallon glass jug), pitch (inflated) Wyeast package at correct temp. and fit air lock. This is the 'master' starter.

Step 3:

Allow to ferment to completion. When fermentation has ceased, agitate the 'beer' to suspend all sediment, and very carefully bottle it.

You will now have about 6 bottles of very thin beer with a good deal of viable yeast sediment in each bottle. Use each bottle as you would use a package of Wyeast - ie. prepare a starter culture a couple days before brewing. This is facilitated by canning wort when you prepare the master starter. All you need to in that case is pop open a mason jar of wort, dump it into a sanitized bottle/jug of appropriate size, pop open one of your bottle cultures, add it, agitate vigorously, and fit an air lock.

All yeast starters are of the same 'generation', ie. 'twice removed' from the original Wyeast package (as opposed to the usual 'once removed'). This helps avoid the accumulated contamination over multiple generations that may occur with serial propagation.

I've had the bottled cultures remain viable for more than 6 months (so far).

Observe proper sanitation and wort aeration procedures throughout.

Equipment: 1 gallon jug (for 'master' starter)
1.5 litre wine bottle (for subsequent starters)
air lock
6 beer bottles, caps and capper

Optional equipment: mason jars and canning pot.

Later,
Rick C.

Date: Thu, 25 Feb 1993 13:45 EST
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>
Subject: Brewing on Line

Hello brewers,

I want to tell you that with the newest interest in putting yeast into anything fermentable, I have updated the 'Brewing on Line' list to 'Brewing on Line vers. 2' It is a text file of about 8k.

It is available from sierra.stanford.edu via anonymous ftp. It is in the pub/homebrew/docs directory, and is titled brewing_on_line.v2

For those using the listserver, you can get it by mailing a message to the listserver with the following comand "get homebrew brewing_on_line.v2"

Carlo.....g1400023@nickel.laurentian.ca

Date: Thu, 25 Feb 93 10:35:03 PST
From: Jack St.Clair at fmccm6 <Jack_St.Clair_at_fmccm6@ccm.hf.intel.com>
Subject: Homebrewers 'round the world

Just a thought that I'd like to share. I've been reading the HBD for about a year and a half it got me started into homebrewing and has taught me many things. One of the interesting things about the digest is the diversity of the people who post and their locations. I have seen postings from England, Ireland, Scotland, Germany, New Zealand, Australia, South Africa just to name a few. Sometimes it is difficult to ascertain where the posting is from even though the poster includes his/her full name and their computer mail address. My thought? Why not include City/Country in your post. It might prove very interesting and may start new friendships around the world. Just a thought.

Jack (I brew for the taste of it) St.Clair
JACK_ST.CLAIR_AT_FMCCM5@CCM.HF.INTEL.COM
Folsom City, California, USA ---(See how easy it is!)

End of HOMEBREW Digest #1086, 02/26/93

Date: Thu, 25 Feb 1993 10:58 PST
From: MAXWELLS@axe.humboldt.edu
Subject: ? lagel ?

I have a question about a lager (?) beer I brewed about six weeks ago.

To start with I'm an intermediate brewer who uses both extract and grains I find, that the combination of the two usually yields a great flavor. I don't quite go to the extent of mashing (still not quite sure on the procedure) - what I do is boil the grains for about 45min at 150deg, then I strain the resulting "extract" into my brewpot and combine it with the canned extract. I usually use either one can or bag of extract and about 5 lbs. of grain (although how much extract I end up with is a mystery to me).

Anyway, for this recipe I used 1lb of Munich Malt, 1lb Malted Wheat, 4 cups pale malted barley, 1/2lb corn sugar, and a 3.3lb can of John Bull unhopped light malt extract. I also used Saaz hops for primary and Mt. Hood for aromatic. And to start with I used Wyeast European Lager liquid yeast.

The problem is this - after the brewing process, when the beer was cool enough to add the yeast I realized the package was about 3 months old, and had not yet risen (I gave it two days, and assumed it would be done... usually when I use the liquid ale yeast it is newer) Not really thinking I added the yeast anyway and put the fermentor outside (Humboldt temp is about 45-50 deg this time of year) After two days, there still was no sign of fermentation so I panicked and went out and bought two packages of dry ale yeast (couldn't find dry lager yeast). After adding that and moving the fermentor back inside, fermentation showed up within twelve hours...So I left the primary inside for 12 days and then put it into the secondary and put the carboy back outside. I left it out there for about 3 weeks (hoping the lager yeast would kick back in).

So I guess my question is this, now that I've bottled I can't decide to let it age at room temp or in the refrig...I put half of the batch in the fridge and half at room temp...there is sediment building at the bottom of the bottles in both cases and both still have a very light color...I just hope it is not oxidized...Any ideas if this beer is an ale, lager, or maybe its a lagel?>
anyway any suggestions would be appreciated...

thanks...the Humboldt Hophead
#|]

Date: Thu, 25 Feb 93 11:14:21 -0800
From: atl@kpc.com
Subject: Yeast Ranching

I have recently seen and contributed to threads on the various ways to save yeast from one batch to another. Especially after realizing the per batch cost savings of all grain brewing, the price of a Wyeast packet was a large percentage (20%) of the total cost of each batch. I decided to try to maintain my own yeast stock.

My first method was to simply place a portion of the trub from primary or secondary fermenter into a glass milk bottle and attach a fermentation lock. To reuse this yeast, I either simply pitched the whole thing into the next batch, or "re-started" it with some fresh wort. This worked fine as long as the yeast was reused very quickly. This was a particular problem for me, as I like to use different yeast strains for different brews, and rarely use the same yeast twice in a row. If you don't brew weekly, this problem would worsen. Another potential problem here is that successively reusing the yeast does increment the generation count, and many of the yeasts we use, Wyeast American Ale for example, are known to mutate rapidly with successive generations.

After a few tries at the "saving the trub" method with various results, I went out and bought the Zymurgy special issue on yeast. Most of what follows is my experience using the information from that volume. If you decide to try what I've tried, I highly recommend it's purchase.

My local BrewShop, Fermentation Frenzy in Los Altos, Ca, carries assorted yeast cultures on agar slants. These slants may be used in two ways. One is to wash all the yeast from the slant into a small (500ml) starter, and when it is just past high kraeusen, pitch it into you cooled wort. This will net you a small savings over Wyeast, as the slants are \$2.50 each. The most economical method is to use an inoculation loop (a small wire at the end of a stick) that has been flame sanitized to pick up a minute portion of the yeast from the slant, and rinse it (yeast) off into a very small (50-100ml) starter. When this is at high krauesen, pitch this starter into a 500ml starter, and use as above. I now perform one more step and pitch this 500ml starter into a 1l starter and pitch that into my wort after high krauesen. I have found that each "step" takes one to two days. This method has the additional benefit of keeping the master culture at the same generation. For my starter vessels, I use 500ml and 1000ml ehrlemeyer flasks, with matching stoppers and fermentation locks.

I home can wort for use as starters and for priming my beer. I purchased a case of Ball 1 pint canning jars (\$7.50), filled them with highly hopped 1.040 extract based wort, attached the lids loosely, and set them in a boiling water bath for about 30 minutes. If you have a large enough pressure cooker, that's better than the boiling water bath, but resist the temptation to "speed cool" the cooker or remove the pressure lock as it will cause the jars of wort to come to a boil again and spew their contents into the pressure cooker. As the jars cool, the lids suck down and seal the jars tightly. It is a good idea to let the wort cool and trub settle before pouring it into the canning jars, otherwise, you will loose several ounces of wort when you use them. The wort does come to a second boil in the boiling water bath, so don't worry about infection. Quality control is as easy as making sure the lids are difficult to remove when using the canned

wort. This may sound like a lot of work, but it sure beats boiling up small starters when you need them, and is easier than reserving gyle from each batch.

While attending the Brewers Luncheon at Gordon Biersch in Palo Alto (thanks for the info gak!) the head brewer, Mike Ferguson, was generous enough to trade me a liter of yeast straight from the secondary fermenter for a few of my best brews! I decided at this time that I needed to try making my own slants to preserve yeast that I collected from other sources such as breweries or purchased Wyeast packets.

Sterile slants can be purchased through the brewshop for \$1.50, and saving the acquired yeast can be as easy as using your inoculation loop to streak a tiny (read invisible) portion of yeast onto the surface of the slant. Store this at room temperature for a few days, *LOOSELY CAPPED*. Soon you will see a bit of milky white growth on the slant. It can then be used as described in the previous paragraph, and stored in the refridgerator for up to 6 months. BE WARNED: It is active, and if the cap is screwed on all the way it CAN explode!!

At this point, after collecting a number of empty slant bottles, I decided to try making my own slants and plates for yeast culturing. Plates are nice because you can grow a larger culture and check for discoloration (infection). They are not a good choice for long term storage of yeast, as they are not really sealed, and will eventually become infected. I purchased a assortment of bottles, a couple of petri dishes and a bottle of powdered agar from our local chemist's supply, LabPro in Sunnyvale, Ca. The agar was quite expensive, \$24.50 for 100g. This agar does not contain any nutrients or sugars to feed the yeast. It can be compared to gelatin, as it's purpose is to set wort into a semi solid mass for culutring yeast. I place a rounded tablespoon of agar into 1 cup of boiling wort. This is then poured into the slant bottles, which are then run through a process similar to home canning. Before they cool, they are set on an angle so when the agar hardens, it forms an elliptical surface larger than the diameter of the slant bottle itself. Be careful when choosing bottles for slants, avoid soft plastic seal inserts as they will melt in the pressure cooker/boiling water bath. The wort/agar mixture is also poured into the sanitized petri dishes and allowed to harden. Set these aside for a week, and re-pour any that show *any* signs of growth. (Note: I occasionally ignore the last safety tip, and haven't been caught by it yet...) You can also preserve unused wort/agar by canning in a larger jar.

The next step I suppose, is to get a microscope, and learn all about what I am looking at through it. We'll see...

Hope this answers some questions,
Drew

Andrew Lynch, Kubota Pacific Computer, Santa Clara, Ca. atl@kpc.com
Movin' to Montana Soon, Gonna be a Saccharomyces tycoon....

Date: Thu, 25 Feb 1993 14:47:56 EST
From: Jay Hersh <hersh@expo.lcs.mit.edu>
Subject: Re; Sanitizer

> Here is the sequel to my experiments:

>

> Two test tubes with 1 oz to 1 gal idophor, lids screwed on tight..

is this right, 1 oz to 1 gal.?? That is 10 times the amount recommended for usage. If this is indeed correct does this test really tell us anything

since the concentrations are an order of magnitude above what people normally use??

hoping that was a typo....

JaH

--

Hopfen und Malz, Gott erhalts

Date: Thu, 25 Feb 93 14:50 CST
From: korz@iepubj.att.com
Subject: fruit beers/secondaries for lagers/trub/alcohol/bottle oxidation

Lee writes:

>I brewed a strawberry Ale this summer. What I learned is add fruit to the
> secondary, like dry hopping, or all the aromatic properties will be
lost out
> the air lock during active fermentation. Lightly hop the brew or the
subtle

I agree 100%.

>fruit flavor will be over powered. If the fruit has pectin in it add
pectic
>enzyme or the beer will never clear, it breaks down the pectin.
Remember that

I did not use pectinase and the beer cleared wonderfully. I did not,
however,
boil the fruit to sanitize (this will definately set the pectins), rather
I froze it and then blanched it in 212F water.

Steve writes:

>I'm an extract brewer with a single stage fermentation setup. Is there
>any way to make a lager without a secondary fermenter. I will be moving

You can, but the long ferment on the trub and dead yeast is why you need
a secondary (if you did an ale that took 8 weeks to ferment out a
secondary
would be recommended), not that fact that it's a lager. You can go ahead
and do it in just a primary, but the resulting beer *may* have yeasty and
sulfury flavors. I'd go with the steam until you get a secondary.

Carlo writes:

>Well you can say I learned my lesson and will from now on always let the
>trub settle and rack the beer off the trub before pitching.

I've done similar tests and for ales, I don't really worry about the
trub,
use the blowoff method (do you?) and my single-stage ales have beer
turning
out quite well. I have do say that I have many data points contrary to
yours. Maybe the blowoff is the difference?

Sheila writes:

> My questions: When using partial mash method (following instructions
from
>a recipe for holding grains at specific temps for specified lengths of
time,
>then adding the resulting liquid to more water containing extract or
DME),
>is the temperature/time relationship the determinant factor in alcohol
content
>of the finished beer? Some people tell me my beer seems to have higher
alcohol

>than they're used to (this would be commercial American or Canadian brews). I

Yes. Lower mash temperatures, i.e. around 148F, will give you a more fermentable wort and thus the final result will be a higher alcohol beer.

>have never tried to calculate the alcohol content, but I would imagine that with
>mashing variations, an accurate estimate might be way off. What are the rules
>of thumb for starch conversion vs. temperature?

Low temps (~148F) will give you a more fermentable wort and higher mash temps (~158F) will give you a less fermentable wort (higher FG, lower alcohol).

> I suppose the "trub" reference is a different factor in alcohol? And how
>does a blow-off tube affect alcohol?

Fermenting on trub reportedly increases fusel (higher) alcohol production. These higher alcohols can indeed have more "alcohol flavor" which may give the impression of a stronger drink. Some higher alcohols give your beer a "solventlike" flavor/aroma, like paint thinner or model airplane glue.

The majority of the alcohol in your beer is ethanol and this can be calculated from your specific gravity. It's not difficult, thanks to an HBD post by Tom Kuhn in August of 1989:

> OK, for all of you who hate algebra but can plug numbers into a
>formula (or formulas into a program), here is the relationship between
>initial specific gravity (SG1) and the temperature at which it was
>measured (T1), final specific gravity (SG2) and the temperature at which
>it was measured (T2), and percent alcohol by volume (A), corrected to
>60 F. (All temperatures are F.):

>
>
>[0.0190 x (T1 - T2)] + [131.25 x (SG1 - SG2)] = A
>

>Based on Papazian, p. 47:

>
> (SG1 - SG2) x 105 = % Alcohol by weight
>
> (% Alcohol by weight) x 1.25 = % Alcohol by volume
>

> and on Doug Roberts (HBD #236)

>
> (T x 1.449E-4 - 0.009) + SG(uncorrected) = SG(corrected)

Peter writes:

>I've been wondering about beer oxidising when in the bottle, due to
>excessive splashing in the syphoning/bottling process. Given that yeast
>are

>present in the bottle also (or else bottle conditioning wouldn't happen)

>
>why don't they simply use any introduced oxygen to multiply before
>fermenting the priming sugar?

Because the yeast multiply and respire due to the concentrations of oxygen *AND YEAST* in the "wort" not just oxygen. When you introduce yeast into your oxygenated wort, they first respire *not* until they run out of oxygen, but rather until they reach a certain concentration. They then shift into the fermentation phase and the rest of the oxygen in the wort (if there's any left) is scrubbed out by the CO2 produced.

At cellar or fridge temperatures, the oxidation takes some time, but I would suspect that the yeast aren't interested in it at bottling time, only in the sugar.

Al.

Date: Thu, 25 Feb 93 15:26
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)
Subject: Re: Extract Information

Al Korzonas writes:

> Pick up the Zymurgy special issue on Extract Brewing. It has a listing
> of virtually every extract brand that was available at the time (1986?
)

That's correct, it's the 1986 Special Issue (vol. 9, no. 4). The article is "AHA Definitive Guide - The Lowdown on Malt Extracts" by Jill Singleton.

I happen to have it at my desk because I've been thinking about writing to someone about getting updated information (e.g., AHA, HBD). The article says "This Guide will be updated periodically." (I wonder what the period is.) It's the best information I've seen, but it is incomplete.

The table includes information such as Dry or Syrup, Package Size, Yeast Included?, Hop Flavored?, Barley Type, BU per can, BU per pound, and Ingredients. Quite a lot of the bittering information is left blank, as is a good deal of the Barley Type and Ingredients. Other information that would be useful might be hops type (not given in the ingredients), more detail concerning Barley Type and Ingredients, and possibly some sort of color expectations.

I think Dan `Stout' Wiesen is asking for more complete information. (I'd send some to him, but unfortunately I don't have any. I've looked around Compu\$erve a little, but haven't found anything there, either.) Hopefully, there is information that can be sent to Dan. I look forward to seeing an updated report.

Charles Castellow ccastell@eldec.om

Date: Thu, 25 Feb 1993 15:46:43 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: O2'ing your wort

As I promised, I checked with the brewmaster at my local hang-out (Callahan's) about what type of oxygen he uses to oxygenate his wort. He confirmed that oxygen is often sold with a fungicide in it. He said that most companies also have it available without the fungicide. So, you just have to make sure when you order it, that you specify the non-fungicide version.

Date: 25 Feb 1993 21:49:32 -0600 (CST)
From: BLAST@sn01.sncc.lsu.edu
Subject: Austin, TX Brewpubs

I have to make a trip to Austin, TX next week...

Anyone got the latest on brewpubs there?

Thanks,
Bruce Ray
Deep C Software

Date: 26 Feb 1993 08:04:08 GMT
From: ceco!CWEMAIL!WAUTS@uunet.UU.NET
Subject: NOTE 02/26/93 08:04:18

To: HBD
From: Tom Stolfi(wauts@cwemail.ceco.com)
Subject: AHA Sanctioned Competition

The BIDAL SOCIETY OF KENOSHA is holding their 7th Annual Regional Homebrew Competition April 23 & 24, 1993. This competition is open to all homebrewers and awards will be presented in all categories. Last year over 200 entries were judged. All homebrews will be evaluated by BJCP and experienced judges(please contact if you are interested in judging). This competition is part of the 1993 MIDWEST BREWER OF THE YEAR series. All entries must be received by April 16, 1993. For further information email your request to WAUTS@CWEMAIL.CECO.COM

Tom

Date: Fri, 26 Feb 93 09:15 CST
From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Decoction

>From: cook@uars.DNET.NASA.GOV (Chris Cook)

>A few weeks ago I asked what Noonan meant in his reference to removing "...the thickest third..." of the mash. There were several answers posted, but they reinforced my impression that people were interpreting Noonan's directions in different ways.

I hate to sound pompous but Noonan's book is replete with such incongruities.

In many cases he seems to be simply repeating information someone else gave

him and he does not have the background to sort out the contradictions. In

others, he doesn't seem to be able to put himself into the readers shoes and

try to understand what he is saying. I would also like to point out that his

book is loaded with useful facts and details and they are only spoiled by not

knowing which ones to believe.

Having said that, here is the procedure I have developed to incorporate decoction into my Easymash process.

I bring the mash to the low end of saccharification temp using the gas flame.

I then scoop several quarts of mash and heat this to boiling in a separate

kettle. I just dip in and take what I get. I add this to the mash and after through mixing I do it again. I find that I can do this three

times during an hour mash and keep the temp within the proper range. The fourth

time takes me toward mashout and I then turn the fire back on to complete it.

This provides about a 60% decoction. I make no claims for the results aside

from giving me something to do while mashing as I ponder all the virtues

Noonan claims for decoction.

js

Date: Fri, 26 Feb 93 9:34:08 CST
From: markz@hangdog.sps.mot.com (Mark Zaleski)
Subject: Re: Celis White recipe

>aderr@BBN.COM Requested a recipe for Celis White

I do not know of any recipes that emulate that exact beer, but I do know that anyone who wants the Celis White yeast can get it through Paul Farnsworth at U of TX, San Antonio. He runs a small yeast culturing operation on the side. I don't have the address handy, but can post at a later date.

-Mark Zaleski markz@hangdog.sps.mot.com
Motorola, Austin, TX

P.S. The Celis "Bock" that you saw on the shelves is not a Bock at all, but a product made to compete with Shiner Bock (blech!) down here in TX.

Date: Fri, 26 Feb 93 09:54:08 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Review of a new RIMS system - Part 1

The following review will appear in a future issue of Zymurgy. I have posted it on HBD to get pre-publication comments.

DISCLAIMER> I am not involved financially or otherwise with the company producing this product. BRD, a company for whom I consult, does not do systems less than 7 bbls. They are not involved, nor have any interest in, the product discussed below. Finally, I am also doing consulting work for Crosby and Baker, and they too will not be involved with the system reviewed below.

A New RIMS System

RIMS stands for recirculating infusion mashing system. The fundamental ideas were developed by Rodney Morris, a noted brewer and microbiologist. His overall concept, described in several publications, is truly remarkable. First of all, his concept addressed in a direct way many problems found in conventional homebrew mashing systems such chronic low yields, poor grain mixing, and turbid runoffs. Moreover, his system addressed these problems in a highly original way. The reviewer is not aware of anyone, commercial or amateur, who considered a continuously circulating mash during the saccharification rest. That, of course, is the heart of Rodney's concept.

Shortly after the early articles on RIMS appeared, many people started to build versions in the 1/2 to 1 barrel range, volumes which are finding wide spread favor by equipment oriented homebrewers. The reviewer did not get the opportunity to taste beer made by all of these systems, but the ones tasted were very disappointing. Rodney's prototype did make good beer, but it was much smaller. It hard to characterize the various defects encountered, but the overall malt character of each was less than ideal, and often had an upfront grain astringent tones. Also in each case the brewers told me that they got better results with their stove top mashing systems. Micah Millspaw, a noted homebrewer, told me that he had given up on the idea of a large RIMS system, and that he could do better going in different directions. Micah's system, by the way, is quite impressive, but is based on a no circulation philosophy, and therefore is quite different from the one discussed in this review.

George Fix

Date: Fri, 26 Feb 93 09:55:11 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Review of a new RIMS system - Part 2

It was in this context that I met Conrad Keys of Houston, Texas. At the 1991 Dixie Cup he informed me that he had designed a new and improved RIMS system. I was very skeptical, and tried to talk him out of it. The main reason for doing this review is to "eat corn" in public, for he was able to do what I thought was impossible. This became clear on Saturday, August 29, 1992. On that date both Rodney and I were invited to Houston to witness a full 1/2 bbl. brew on his new system. We were simply astonished.

The first thing noted was the controllers on the system. Electronics is one of Conrad's strong suits, particularly in dealing with the nonlinear effects inherent in the circuits in these types of controllers. The result is a totally automated system, with which the brewer can exert precise control. The mash was started at 125F, and this was held for 30 mins. This was followed by a transition to 154F at the classic monotone rate of 1F per min. The circulation was started at this point, and much to my surprise, not only was there no frothing or foaming, there were even no air bubbles present. Later analysis of the finished beer indicated that there was no hot side aeration during the recirculation. In fact, the beer was exceptionally smooth with a mellow malt flavor. Rodney brought a refractometer so the increase in SG was monitored throughout the duration of the mash. It had peaked by 10 mins. into the rest at 154F, and conversion as determined by the iodine test was obtained after 15-20 mins. The ultimate yield was a whopping 72%, or 34.5 pts./lb./gal.

The system was designed so that at the end of the mash the hot sparge water is pumped through the entire system ahead of the mash tun creating a self cleaning effect. This was followed by a brilliantly clear runoff. The clarity of runoffs has always been a strong point of all the RIMS built. At the end of the day Rodney told me before leaving that this indeed was the best realization of his ideas.

I have not had the opportunity to talk with Conrad about prices and related issues. Apparently, he wants to produce a variety of different variations of his basic design, including 1/2, 1, and 2 barrel systems, each likely being in a different price range. All of these systems will be fabricated from 304 stainless. The workmanship on the current prototype is first rate. The system itself has a highly attractive and professional appearance. Interested readers should contact Conrad at 713-666-9735.

George Fix

Date: Fri, 26 Feb 93 07:54:19 -0800
From: sag5004@yak.ca.boeing.com (Ford Prefect)
Subject: Tried a few commercial brews, Seeking Alt recipe and local beer judge

Sorry about stuffing this all into one post, Okay maybe not that sorry :
-)

1) Tried a few commercial brews:

a) Emerald City Ale, from Emerald City Brewing Company and it says "where it rains it pours" on the bottle. I found it to be a somewhat lifeless boring beer (glad I only bought 1 bottle :-). I think the snappy saying should be "where it rains its poor"

b) Altbairisch Dunkel from Ayinger. I liked this one. Is this a good commercial example of an Alt? If not where can I find one?

2) I am looking for an Alt recipe. All grain is preferred but not necessary.

Is it a lager/or / ale? I looked in my copy of winners circle last night and saw that some people lagered and some didn't. The type of yeast didn't provide me a clue either. Mark me down as confused. Also I wouldnt mind a recipe for your favorite red/amber ale that isnt too strong. I need to brew up a storm for my wedding reception (end of July) and it was suggested that I might want to bring beer for 200 or so. You can probably guess what I am doing with my weeekends for awhile :-)

3) I really want to become a better judge of beer and would like to get some inputs from some local (in and about Seattle) judges. I have a "brown ale" that is very dark, and I am pretty sure it is not to style and am wondering what I have (other than a beer that seems to be evaporating with at alarming rate). I was hoping somebody could come over have a taste and let me know what it is that I have and how to converge more closly with the desired style.

Thanks for your time and patience.

stuart galt boeing computer services
sag5004@yak.boeing.combellvue washington
(206) 865-3764 or home (206) 361-0190
#include <standard/disclaim.h>
I don't know what they say, they don't know what I say...

Date: Fri, 26 Feb 1993 08:43:20 -0800 (PST)
From: Mike Deliman <miked@wrs.com>
Subject: kegs and mass consumption

Hello Brewers and Consumers,

Having aquired 1 1/2BBL keg and 1 1/4BBL (pony) keg, I'm about ready to take the mass production/consumption plunge. (Well, actualy, I'd like to produce a pony keg of pale before May, when NASCAR hits sears point!)

Could someone out there who has managed to collect the kegging info please send me a copy?! (the whole shootin' match, please! :-)

Thanks much,

-mike

P.S. I may be all grain, but I'm still lazy as the dickens, and do it just for fun. If I'd have learned from an extractor, I would be brewing that way. The crux of the issue is, as gak sez, to "have fun"!

Mike Deliman, 800-USA-4WRS, FAX 510-814-2010, WRS 2400bd BBS: 510-814-2165
email: miked@wrs.com (inet) or [sun,uunet]!wrs!miked (uunet)
Snail Mail: Wind River Systems, 1010 Atlantic Ave, Alameda CA 94501
USA

Date: Sun, 21 Feb 93 18:36:20 PST
From: Darryl Richman <darrylri@microsoft.com>
Subject: Irish "Red" Ales

As a further note on this style, the February issue of "What's Brewing," the newspaper of CAMRA, contains an article by Michael Jackson about the state of brewing in Ireland. Here are a few notes from the article that relate to the discussion:

On Irish Ales: All ale producers in Ireland are owned by Guinness. These include Cherry's (in Waterford), Smithwick's (in Kilkenny), and Macardle's (in Dundalk). Jackson describes them as all using some roasted barley, which would tend towards giving them all a common color. He says "Of the Irish ales that I have tasted over the years, most have tended toward a buttery, malty sweetness, rather than a hoppy dryness. If we accept that hops were first used in Bohemia or Bavaria, and came via Northern France and Flanders to Britain, it is reasonable to assume that their use arrived rather late in Ireland."

On George Killian Lett's Red Ale, he notes that he has tasted the varieties brewed under license in France and Colorado. "The Lett's brewery had a Ruby Ale before it closed in the 1950s, so I cannot wholly accept the popular story that the Irish brewers were inspired by the success in the 1960s of Younger's Tartan."

On Irish Red Ales in general: "Why Irish ales tend towards a reddish colour, I am not sure. Malting techniques do vary from one country to another, and that may have had something to do with it in the past."

--Darryl Richman

Date: Fri, 26 Feb 93 15:25:47 EST
From: Hans Vahlenkamp <hvahlenk@lorax.trenton.edu>
Subject: Madonna survey

Mike Merriam writes in HBDigest #1085

> ... Do you think Madonna is a jerk? ...

I totally disagree with his implied insult to Madonna. She may be different from most people, but you cannot deny that she is very cool and very interesting. IMHO the HBDigest is no place for such a criticism. Mike, consider yourself flamed ;^)

P.S. Don't take this too seriously...

Hans Vahlenkamp
Trenton State College
hvahlenk@trenton.edu

Date: Fri, 26 Feb 93 13:07 CST
From: korz@iepubj.att.com
Subject: unfermentables/email size/ferment temps

Chris writes:

>Hi, I was wondering what grains have significant amounts of
>unfermentables etc.... i.e.

>I like my beers to have a heavy malty taste.. just like when you put
>loads of 'malted milk' in your milkshake... I beleive that is a barley
>malt.

It sure is. I suggest Laaglander Light Dried Malt extract for the most
unfermentables available to homebrewers in an extract. Crystal malts
have quite a bit of unfermentables also.

>Question remains what type of unfermentables are we talking about here?

Complex carbohydrates. The carbohydrates in our worts range from the
simplest (glucose) to the most complex (starch). Of course we would like
to minimize the amount of unconverted starch in our worts. These
carbohydrates are a continuum of complexity, glucose, fructose, sucrose,
maltose, maltotriose... etc. The simplest carbohydrates are fermentable
by virtually all strains of yeast. As the complexity of the
carbohydrates

increases, less and less strains are able to ferment them (that's why
some strains of yeast are said to be more attenuative -- they are able to
ferment the more complex types of carbohydrates, the ones some less
attenuative strains cannot). Some carbohydrates are not fermentable by
any beer yeast, for example lactose. Lactose is thus used by some
brewers to make sweet stouts. [I'm no biologist, but I'll bet money that
Lactobacillus *is* able to ferment lactose, by the way.]

I'm not sure where melanoidins fit into this puzzle -- I'm sure they are
responsible at least in part for malty flavors (consider the difference
in flavor between sucrose and caramel made from sucrose). Perhaps others
who know can take over here and explain?

Jack writes:

>Figured out how to beat the system. I posted 7 articles yesterday and
all
>got acknowledged except the two that were 40 lines long. The longest
one
>acknowledged was 33 lines. Here is the "long" one in two parts...

I don't think it's the length in lines, rather the size in bytes. I know
that the HBD rejects any post longer than 8K. I also know that if I post
a long and a short post around the same time, the short one always gets
in
faster than the long. I think the routing algoritms in the machines that
route from my machine to the HBD server have a tendency to delay longer
posts (perhaps till the evening when phone rates are lower?). Finally,
you
may have restrictions on mail length on your own machine -- ask your
administrator.

Joe writes:

>Nick asks
>> with all this talk about the perfect fermenter

>> design I was wondering if somebody could comment at
>> what point does the heat buildup become high enough
>> to affect the ferment? Also are the Wyeast preferred
>> temps for the ferment or ambient? So does a
>> 40-50litre ferment create enough heat to alter an
>> ale ferment? How about lagers?
>
>well Nick, I would guess that you would like to keep
>the primary ferment temp as close to the recommended temps
>as possible (65F for ales, 55F for lager). I would say that
>depending on the flavour profile you want anything more than
>+/- 10F is too much. Smaller batches, from my limited playing

I agree with everything Joe wrote, except the recommended temperatures. In my opinion, the recommended fermentation temperatures for ales are between 60F and 75F (but you can go a little higher if your yeast is very neutral, i.e. does not make too many esters/higher alcohols/phenolics). For lagers, depending on the yeast, the recommended fermentation temperatures are between 40F and 55F. Some will ferment a bit lower, but I wouldn't push it too much.

Get to know your yeast. I stick to relatively few yeasts that I've gotten to know over the years and I can tell when things are going well or when the yeast is not happy. Occasionally, I add another yeast to my stable and at first everything it does is a mystery. I've had some trouble getting a handle on Wyeast Belgian Ale, I think I'll stick to 1 gallon batches till I figure these beasts out.

Al.

Al Korzonas
Palos Hills (near Chicago), Illinois, USA

Date: Fri, 26 Feb 1993 13:52:21 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: Refractometers and Hydrometers

Marc de Jonge writes:

```
> I did a simple experiment once with a bit of unfermented wort,  
> adding (96%) alcohol volumes to see the effect on measured  
> density:  
> F.G.= density of wort without the alcohol.  
> Numbers in the table are the measured values (with a hydrometer)  
> after adding the percentage of alcohol given in the columns  
> (All values +/- my accuracy; your mileage had better vary.... )  
>  
> %AbV->  
> F.G. |12468  
> -----  
> 1020 | 1019 1018 1014 1011 1009  
> 1030 | 1029 1028 1025 1021 1017  
> 1040 | 1038 1036 1032 1029 1026  
>
```

So if I measure the FG with a hydrometer to be 1.018, how do I know if it's really 1.030 with 8% or 1.020 with 2%?

Or does this matter?

How, then, do I calculate what the % alcohol of my beer really is?

Peter

Date: Friday, 26 Feb 1993 17:52:33 EST
From: "Sweet, Timothy" <TSWEET%WVNVM.BITNET@VTVM2.CC.VT.EDU>
Subject: Laaglander high FG/poetry

1. I'm new to the list and to home brewing and have seen a couple of mentions of the fact that Laaglander DME does not ferment as completely as some others. So I have a question about this: In my current batch I was using the specs. from Papazian's chart for "special red bitter"--6 lb. amber DME (I used Laag-ed lander) and 1/8 lb. roasted unmalted barley (which I brought to a boil and then strained out). The OG was 1050; fermentation seems to have stopped and the FG is 1030. This seems too high. has something gone wrong--incomplete fermentation--or would this be a reasonable FG? (Sorry--forgot to note that I am brewing 5 gal.) The beer seems a bit too sweet for my taste.

2. I sometimes quote the lines from Housman ("malt does more than Milton can" etc.) but I know them not from "The Welsh Marches" but from "Terence This Is Stupid Stuff" (from the collection A SHROPSHIRE LAD)--and for this reason I quote them with a certain self-conscious irony. The next lines of the poem read:
Ale, man, ale's the stuff to drink
For fellows whom it hurts to think:
Look into the pewter pot
To see the world as the world's not.
Read the whole poem, rather than the snippet from the Oxford book of quotations and you will get a new view of the famous lines.

Date: Fri, 26 Feb 1993 16:45:25 -0800 (PST)
From: James Thompson <sirjames@u.washington.edu>
Subject: BOOK REVIEW & A PROPOSAL

Since there are often requests for information about locations of brewpubs and microbreweries in HBD, I thought I would pass on some information in the form of a book review, and a proposal.

BOOK REVIEW

Johnson, Steve. ON TAP: The Guide to U.S. Brewpubs. Clemson, SC: WBR Publications. paperback, 314 pp. \$15.95.

I just received my copy of this publication yesterday. As it purports to be in the subtitle, it is a complete directory of U.S. brewpubs, "including brewery restaurants and microbrewery taprooms and tasting rooms," so the definition of "brewpub" has been extended slightly. I would agree with Mr. Johnson, however, that his extension is the most useful for this sort of directory. (He is even polite enough to provide an appendix of establishments, listed by state, that were not included because they did not fit his admittedly liberal definition of "brewpub.")

The entries are listed by state, with each establishment listed in alphabetical order for each state. Every state's section starts with a map to provide a general orientation of where they are. Each entry distinguishes between brewpub and microbrewery, provides complete address, phone number, hours, styles (and names!) of the beers brewed/sold, types of food, entertainment, or special events, whether they have their own parking, smoking policy -- and just about anything else he could find out. For its directory listings alone this book is a treasure trove. But he also provides interesting introductory material about the recent history of microbreweries in this country (short!), the brewing process, and a glossary of beer-related terminology. It is also illustrated throughout with cartoons, microbrew beer labels, and beer quotes.

As regards the Washington section, I am sorry to relate that you can cross out page 283, for the Noggins Westlake Brewpub is no more. (Heavy sigh!)

ON TAP is priced at \$15.95 and is available from WBR Publications, PO Box 71, Clemson, SC 29633. Don't be silly, of course I have no monetary connection with WBR Publications!

PROPOSAL

I would strongly urge anyone who might be traveling the country to get a copy of this book. I'll keep my copy handy and when I see the occasional request for such info, I'll e-mail said party with relevant data and remind them of the existence of this book. However, my proposal is this: if you will e-mail me the authors names, titles, publishers, and price of books that are guides to your local (state or city), I will compile them and share it with this forum. For example, we have a book for Seattle entitled SEATTLE BREWS which is a complete guide to the pubs, micros, and taverns of this great beer city. Whaddya say?

Jim Thompson/Seattle WA

sirjames@carson.u.washington.edu

Disclaimer: Our opinions are only our own, aren't they my
Precious?

Five things these Chestertonian youths revere:
Beef, noise, the Church, vulgarity and beer.

-- Anonymous

Date: Fri, 26 Feb 93 08:05:47 EST
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: Korean malt extract (I kid you not)

I saw something new and different yesterday.

I was browsing through a local Oriental food store. First I located some semi-polished unenriched rice for a sake project. Above that I saw some wheat starch. Then some potato starch. Then some mung bean starch. "Hmm," I says to myself, "This might be fun to try in a beer one of these days."

Then, of course, right next to it I see the "malt powder" and several other things (wheat & rice flour, etc.) with labels on them saying "It is illegal to make wine at home for sale."

The "malt powder" I saw was Korean and came in reasonably priced bags of about 1 lb.

Now, of COURSE I am not even beginning to suggest that this stuff might be of any particular quality or use in brewing beer, but I suppose I will have to at least look into it! More than anything else I just think it's amusing

=====
=====O Fortuna, velut Luna, statu variabilis=====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052
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redistribute freely over USENET and by email. Commercial use prohibited.

Date: Sat, 27 Feb 93 07:43:00 -0500
From: roy.rudebusch@travel.com (Roy Rudebusch)
Subject: dry-hopping vs. hop nose

From: roy.rudebusch@travel.com

DH:>that the way to
DH:>retain good hop aroma is to dry hop in a *sealed* secondary, so the
goodies
DH:>aren't lost thru the air lock. Is that safe in plastic/glass?

Hop nose is achieved by boiling pellet hops for two min. and
loose hops for 5 min.

Dry-hopping seems to contribute mostly to palate flavor.

The best way to achieve maximum hop nose would be to utilize a
"hop cage". Run hot wort through these hops on the way to
a counterflow chiller. This would be "distillation" of the volatile hop
compounds.

Here is Pale Ale I just brewed:

11 Gal 1060
14# U.S. 2-row
4# Munich, Ireks
4# CaraVienne
2# Aromatic

30 HBUs Centennial
finished with 1 1/2 oz Centennial loose hops (boiled 5 min.)
Chilled with immersion chiller
W-1028 repitch.

OBTW, I have also discovered that filtering tends to *improve* the hop
flavor and hop nose of a beer. The beer flavors are cleaned up thus
allowing the hop goodness to shine through.

Brew on.

* OLX 2.2 * If your mind goes blank, remember to turn off the sound.

Date: 27 Feb 93 10:11:48 EST
From: Jim Manda <70322.2634@compuserve.com>
Subject: Laser Labels Adhesive

To: >INTERNET:homebrew@hpfcmi.fc.hp.com

Date: 26 Feb 92
From: 70322.2634@COMPUSERVE.COM (Jim Manda)
Subject: Laser Labels Adhesive

Sandy writes:

>Last HBD someone asked how to apply the labels they make on the laser
>printer. Stolen directly from an old HBD-- MILK!!!! I have used this
>technique. I used skim milk, dipped the label in and smoothed out the
>bubbles. It held extremely well. Non-toxic too!

Great idea, Sandy. Tried it myself on some regular old computer paper. I
used industrial strength 1 percent milk. Works like a champ. Thanks
for the tip.

-Jim

End of HOMEBREW Digest #1087, 03/01/93

Date: Sat, 27 Feb 93 14:29:08 EDT
From: Ted WHittemore <YX804C@gwuvvm.gwu.edu>
Subject: Please sign me up

if this is a digest mailing list of homrebrew information, please sign me
up, m
y email address is : yx804C@gwuvvm.gwu.edu (internet) and yx804c@gwuvvm
(bitnet)
thanks, Ted

Date: Sun, 28 Feb 1993 21:20 EST
From: Darryl Davidson <D_DAVIDSON@uvmvax.uvm.edu>
Subject: Phoenix sites/sights

I'm headed for Phoenix the weekend of March 5-6-7 and would appreciate the 'usual' advice, but MORE IMPORTANTLY, I want to track down Celis White and try it while I'm there. As a sort of 'just in case' scenario, I'd even be willing to race somewhere during my layover in Dallas-Ft Worth if it meant it. Reply directly here, and thanks in advance. As for the grumbling anti-advice lobby: go ahead and flame me... 'sworth it!

- --Darryld_davidson@uvmvax.uvm.edu

Date: Mon, 1 Mar 93 10:51:51 +0100
From: dejonge@geof.ruu.nl (Marc de Jonge)
Subject: Re: Refractometers and Hydrometers

In HBD 1087 Peter Maxwell asks:

> So if I measure the FG with a hydrometer to be 1.018, how do I know if
it's

> really 1.030 with 8% or 1.020 with 2%?
You don't know (from F.G. alone)

> Or does this matter?

The two mentioned cases will taste very differently, so in that sense
it matters.

> How, then, do I calculate what the % alcohol of my beer really is?
> From the difference between O.G and F.G., for example with one of
the formulas cited by Al Korz in HBD 1087.

Just to make things clear: The table is a definite 'don't worry' item
if you use normal methods for measuring the density. It is intended
for refractometers, which determine the extract concentration
not the gravity.

I only use the real extract value, corrected for alcohol, to get
some insight in the yeast and mash characteristics across
very different batches

Marc de Jonge

Date: Mon, 1 Mar 93 7:57:38 CST
From: raudins@galt.b17d.ingr.com (Glenn Raudins)
Subject: Yeast Technology

A little while back, I read review in the HBD about the book: Yeast Technology. I would like some more opinions on whether this book is worth the money from a brewing point of view or if there are better books that cover the brewing aspects of yeast. I am looking for an in depth book that covers areas like autolysis (& the compounds formed.) Any help would be appreciated.

Glenn Raudins
raudins@galt.b17d.ingr.com

Date: Mon, 1 Mar 1993 09:16:31 -0500 (EST)
From: "I'm a jelly doughnut. I'm a jelly doughnut." <cygnus@unh.edu>
Subject: Pitching Idea

I was thinking...

pitch your ale yeast around 60 F... let it ferment at this temp for a day or two to discourage bacteria growth and to let the yeast make alcohol, the stuff that kills some bacteria... then jack the temp up to 65 F to finish...

how valid is this statement? I mean, it almost sounds like making a steam beer etc. but I was just wondering...

-chris

- --.

David (Chris) Mackensen -- dcm2@kepler.unh.edu cygnus@unh.edu

"Hi, you don't know me, but I play one on T.V."

Date: Mon, 1 Mar 93 08:31 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Ranching

>From: atl@kpc.com
> I home can wort for use as starters and for priming my beer. I purchased a case of Ball 1 pint canning jars (\$7.50), filled them with highly hopped 1.040 extract based wort.....

I'm with you up to this point but why not just eliminate this whole step by saving a pint of wort from the previous batch. A further bonus (for all-grain brewers) is that the starter is more like your actual brews than one made with extract.

> This may sound like a lot of work, but it sure beats boiling up small starters when you need them, and is easier than reserving gyle from each batch.

Not sure what you mean by "gyle", I would call it bitter wort but anyway, how can your process possibly be simpler than setting aside a pint of wort before pitching?

You did not mention what kind of air lock you are using on the flask but if you use a glass one, simply putting it on at the end of boiling will sterilize it and fill it with sterile water as the steam condenses. Nothing could be simpler.

> The agar was quite expensive, \$24.50 for 100g.

A suitable agar can be had from oriental food shops for far less. It is sold in stick form and you need about 6 inches to a cup of wort.

Nice article. I don't want to start another snob thread but I put yeast culture right up there with all-grain as one of the more rewarding aspects of homebrewing.

js

Date: Mon, 1 Mar 93 08:32 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Sanitizer

>From: Jay Hersh <hersh@expo.lcs.mit.edu>

>is this right, 1 oz to 1 gal.?? That is 10 times the amount recommended for usage. If this is indeed correct does this test really tell us anything since the concentrations are an order of magnitude above what people normally use??

>hoping that was a typo....

No typo. I also used bleach neat or at least 2:1 when I used it. It is all relative and I find the long contact times discomfoting. For example, unless one uses 5 gallons of sanitizer in a 5 gallon keg, how can one ever be sure of a one minute contact time? If used at higher concentrations, one can simply slosh a small amount around for a minute and get a more effective sanitization than doing the same with a small amount at the recommended concentration.

As rinse water is not a problem around here, I don't mind more thorough rinsing and it is still far less than I had to do with bleach.

js

Date: Mon, 1 Mar 93 10:20:14 EST
From: Dave Whitman <rsndww@rohmmaas.com>
Subject: Ginger beer problem

To homebrew@hpfcmi.fc.hp.co
X-Mailer: LeeMail 1.2.4

This is my first post to hbd, although I've been reading for a while now. I've been extract brewing for about 2 years.

I'm in the middle of a batch of ginger beer, using a recipe which is a hodge-podge of Cat's Meow recipes and my own warped ideas. What I'm shooting for is something with a pronounced ginger flavor and aroma, good body, but a very light color. I think I'm going to hit all the goals except the ginger flavor, which is a problem given that this is supposed to be a ginger beer.

Here's the fine print for a 5 gallon batch:

2 cans Munton & Fison extra light extract (for light color)
0.5 lb. maltodextrin powder (for body w/o color)
2 oz Hallertauer leaf hop (4.6% alpha)
3 oz sliced ginger root (peeled for lighter color)
4 each juice from fresh lemons
1 pkt Whitbread ale yeast

The ginger and hops were boiled in the wort for 45 minutes, then lemon juice was added along with my immersion chiller. After an additional 10 minute boil, the batch was chilled to 65F. ph: 5.3 before lemon juice, 4.0 afterwards.

To my chagrin, the resulting wort had very little ginger flavor.

1. Did I steam distill off all the good stuff by boiling the ginger too long?
2. Can I "dry ginger" the batch by adding shredded ginger to my secondary fermenter? Any suggestions on how much to try?

Dave Whitman/rsndww@rohmmaas.com "I had a homebrew, but I'm *still* worried."

Date: 01 Mar 1993 11:29:51 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Mashout

If we are going to go off on a discussion of mashout and whether one should or should not, and the temperatures in the grain bed during the sparge and so on, perhaps we should state the reason for a mashout at all.

I may be completely off track here, but the only reason I can see for a mashout at enzyme-deactivating temperatures is consistency. When brewing

a sweet ale, for example, you don't want to convert all your polysaccharides down to glucose, so you kill off the enzymes before they can completely chop them up. You like the beer, you want to reproduce it as closely as possible (especially if you're a commercial brewer) so you control the mash precisely, and then you deactivate the enzymes. If, on the other hand, you are a homebrewer trying to squeeze out an extra extraction point or so in a "Swilling Beer" (please note this term refers to an individual's standard recipe that keeps the fridge full, allowing slightly longer interludes between experimental batches), you might just let the enzymes play a little longer.

Jack suggested that the mashout also increases the grain bed temperature to allow for an easier sparge. This may well be true, but

I suspect that this would be more important for commercial breweries. A friend and I compared the extraction rates for two brews, one sparged with

cold water, the other with hot. The hot sparge was done very slowly (3 hrs

or so) while the cold sparge was fairly quick (1 hr). The end result: the

long sparge produced a much clearer wort, but the extraction rates were virtually identical. Unfortunately these rates were on the low side, around 25-26, but at least the sparge can be ruled out as the cause of poor

extraction. Prime suspects for low extraction rate are the malt itself (canadian 2-row pale) and the crush (gotta get a MaltMill one of these days).

In summary: If you have a brew you like and would like to brew consistently, mashout (of course, you have to be consistent with the malt and the mash protocol too). If you want to squeeze out an extra 1/2 point of

extraction, and don't care about consistency, don't bother with mashout. If

you want to avoid HSA during the sparge, chill the mash and use cold water.

(Jack, you seem to get good results, would you mind trying a cold sparge through the EM and let us know how it turns out?)

ed

```
+-----+
| D is for Doppelbock, a strong german beer |
| Three bottle of this, you'll be on your ear. |
+-----+
```

Date: Mon, 1 Mar 93 09:57 CST
From: korz@iepubj.att.com
Subject: AHA Sanctioned Competition

[I'd like to apologize for the lateness of this post. I received the information last thursday, but due to an important day-job deadline, I could not post it till now. Since there is limited time to request additional information, I will email additional information directly. Sorry.]

BREWER'S OF SOUTH SUBURBIA
(south-suburban Chicagoland)
AHA Sanctioned
Regional Homebrew Competition
Judging: Saturday, March 20, 1993
at Public Landing in Lockport, IL

Sponsored by:
DOPPLEBOCKERS BREWERY AND RESTAURANT
(opening soon in Lockport, Illinois)
and
SHEAF & VINE BREWING SUPPLY

POINTS EARNED IN THIS COMPETITION GO TOWARDS DETERMINING
"MIDWEST HOMEBREWER OF THE YEAR"

BEST OF SHOW AWARD SPONSORED BY SHEAF & VINE BREWING SUPPLY
[(gift certificate (plus shipping if winner is out-of-state))]

ELIGIBILITY:

1. You must be relaxed.
2. You must not be worried.
3. You must have a homebrew to enter.

WHERE AND WHEN TO SEND:

1. The entry deadline is Friday, March 12th, 1993. This allows us time to cash the checks and buy train fare to Portland in June.

2. Entries accompanied by fees, forms, etc., should be delivered or shipped to:

B.O.S.S.
c/o Sheaf & Vine Brewing Supply
INSIDE Mainstreet Deli and Liquors
5425 South LaGrange Road
Countryside, IL 60525

(708) 430-HOPS (4677)

FOR MORE INFORMATION, SEND EMAIL TO ME AT korz@iepubj.att.com or
CALL THE COMPETITION CO-CHAIRMEN:

Mike Pezan (708) 349-8462 and Marty Nachel (815) 469-4789

If you will be in the Chicagoland area on March 20th, and would like to judge, please send me email (korz@iepubj.att.com) and I'll send you a Judge Registration Form.

A1.

Date: Mon, 1 Mar 93 08:14:57 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: RIMS system

George,

I'm posting this RIMS discussion to the digest, because I think this is of general interest to a lot of brewers.

I too have tried the RIMS setup, and spent a lot of time trying to make it work. I finally came to the conclusion that it only works with a specific geometry and only with small batch sizes. My attempts at a 10 gallon size RIMS was a bust. I refocused all my attention to convincing others that wanted to try the system not to waste their time. Your post wasn't very specific on details that describes the recirculating mechanics. This IS the problem area. You got mother nature to deal with here, and she is tuff to change. I found the grain compression at any speed was too much in a 10 gallon sanke keg mash tun. Again I came to the conclusion that it MIGHT work IF the mash/grain area was large compared to the depth. How does this new system overcome these obvious problems? I must have discussed this problem with 10 scientists and engineers around here with no good fool proof ideas. I would sure like to know what makes this new system work. My present system has a gas fired mash tun that I must stir continuously while heating. This is the only WORK in my system, and I dislike it. Micah's system of underleting has its problems too. The management of water volumes can be tricky. I have tried it and it too did not work as Micah would have us all believe. I think he just makes it work because, that is the only way he had to add additional heat to his mash tun. I'm sure if Micah was around to defend his approach he would.

Bob Jones

Date: Mon, 1 Mar 1993 12:27:46 -1000
From: ifby546@ccwf.cc.utexas.edu (Joe H. Barfield)
Subject: Brewing in the Southwest- articles

Please submit to me articles relating to brewing in the Southwest . The deadline for submission to the April issue of the Southwest Brewing News is

March 15. I am looking for articles about or reviews of beers, bars, breweries, brewpubs, books, burps, brewers, laws, homebrew clubs, ideal and/or ridiculous homebrew set-ups, brewing in general, and anything else

you might expect to see in a bi-monthly newspaper covering the brewing scene in Arizona, New Mexico, Texas, Oklahoma, Arkansas, and Louisiana. >
>

Also, please let me know if there is a more appropriate place to post this request.

>>More info next week on Brewpub legalization in Texas. Currently, HB335 is a

>>boon to micros & brewpubs when legalized. In effect, HB335 simplifies and

>>lowers licensing cost for small brewers.

>> I took samples of IPA wort last night before & after chilling. Post cold

>>break was certainly clearer than the sample before cold break. I had used

>>*Break Bright* 30 min. before end of boil. Anybody know if this is better

>>than plain old unreinheit Irish moss?

Thanks- Joe Barfield, Publisher, SW Brewing News, 406 w.35th, Austin, TX 78705- (512)467-2225.

Date: Mon, 1 Mar 93 17:42 GMT
From: DWORKINJ <DWORKINJ%DIALOG@mcimail.com>
Subject:

unsub homebrew@hpfcmi.fc.hp.com

Date: Mon, 1 Mar 1993 11:15:28 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: computing alcohol content

Further to my note in HBD 1087, I see that A1 refers to an earlier equation by Tom Kuhn

> OK, for all of you who hate algebra but can plug numbers into a
> formula (or formulas into a program), here is the relationship between
> initial specific gravity (SG1) and the temperature at which it was
> measured (T1), final specific gravity (SG2) and the temperature at which
> it was measured (T2), and percent alcohol by volume (A), corrected to
> 60 F. (All temperatures are F.):

>
>
> $[0.0190 \times (T1 - T2)] + [131.25 \times (SG1 - SG2)] = A$
>

What I'd like to know is SG2 the value obtained with a hydrometer, which therefore includes the effect of the alcohol present? Or does SG2 represent the "real" SG, in terms of residual sugars?

Peter

Date: Mon, 1 Mar 1993 12:27:40 -1000
From: ifby546@ccwf.cc.utexas.edu (Joe H. Barfield)
Subject: Electronic Brewing Publications

Howdy,
I'm interested in other electronic bulleting boards related to the art of brewing. I've heard reference to bulletin boards called rec.craft & rec.brewing. How does one subscribe or refer to these?
Also, what other popular bulletins exist. What popular media is out there?
What is available on Compuserve, etc.
Please send your responses to me at: ifby546@ccwf.cc.utexas.edu, I'll compile the responses and post it back to the HBDigest.
Thanks- Joe B.

Date: Mon, 1 Mar 93 14:38:59 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: filter questions

I am considering filtering my beer for the first time and I thought I would consult the HBD for any tips. My primary reason to filter is merely to remove any residual yeast. I am aware of a filter sold by the Filter Store, which is merely a wholehouse cartridge type filter. The filter cartridge is some kind of polypropelyne substance that retails for about \$33. Now, my local Hechingers has a woven type sediment filter for use in just such a house filter and it is only \$5. Anyone have experiences using either of these filters? Any tips on cleaning or sanitizing? I have heard that chlorine will break down this filter, but the people at the Filter Store specifically said to backflush at low pressure and use 1TBls chlorox per 1 gallon! Seems like if anything will breakdown this polypro, this would. Any thoughts about iodophor and or caustics (weak)??

Thanks,

Jim Busch

Date: Mon, 01 Mar 1993 14:14:47 CST
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>
Subject: hop flavor/hop nose

roy.rudebusch@travel.com (Roy Rudebusch) writes:

>Hop nose is achieved by boiling pellet hops for two min. and
>loose hops for 5 min.

>

>Dry-hopping seems to contribute mostly to palate flavor.

I believe that to get that "MORE HOPS"(tm) flavor and aroma, you can
certainly
do end-o-the-boil additions, but to really get those 'knock their socks
off'
hop aromatics, dryhopping is the way to go.

-The HopDevil

john@hopduvel.UUCP
isenhour@lambic.fnal.gov

ps to BLAST@sn01.sncc.lsu.edu

>I have to make a trip to Austin, TX next week...
>Anyone got the latest on brewpubs there?

Brewpubs are currently illegal in TX:(

Date: Mon, 01 Mar 93 13:15:20 MST
From: "Jena D." <G0463114@NMSUVM1.NMSU.EDU>
Subject: honey

I am an intermediate brewer and am interested in using honey either in a pilsener or an ale. Any recipes out there you would like to share? I am also interested in a chocolate beer recipe. I noticed Karl Bloss had one but I had trouble sending him a direct message. Any recipes would be greatly appreciated. Also in response to an article that was on a fruit beer. We brewed a batch of blackberry beer that was good after 6 weeks but after three months, what a difference in taste and color. Patience is a virtue, I suppose.

Date: Mon, 1 Mar 93 15:34:12 EST
From: Keith A. MacNeal HL01/T09 225-6171 01-Mar-1993 1523 <macneal@pate.
enet.dec.com>
Subject: My experience with Dutch dried malt extract

Timothy Sweet writes:

>1. I'm new to the list and to home brewing and have seen a couple of
mentions
>of the fact that Laaglander DME does not ferment as completely as some
others.
>So I have a question about this: In my current batch I was using the
specs.
>from Papazian's chart for "special red bitter"--6 lb. amber DME (I used
Laag-ed
>lander) and 1/8 lb. roasted unmalted barley (which I brought to a boil
and
>then strained out). The OG was 1050; fermentation seems to have stopped
and
>the FG is 1030. This seems too high. has something gone wrong--
incomplete
>fermentation--or would this be a reasonable FG? (Sorry--forgot to note
that
>I am brewing 5 gal.) The beer seems a bit too sweet for my taste.

I brewed a version of Papazian's Palalia Ale to make an IPA using a dried
malt
extract from Holland with similar results to yours. OG was around 1053.
FG
was around 1029 even after being in secondary for 2 weeks. It's been in
bottles for a few weeks now and I haven't had any gushers or beer bombs
so it
looks like it did ferment out. It doesn't seem as sweet as a previous
batch
of ale I made from 2 cans of dark extract syrup. That may be due to my
use of
oak chips in the IPA. The tannins in the oak may be hiding some of the
residual sweetness.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA USA

Date: Mon, 1 Mar 93 14:59 CST
From: korz@iepubj.att.com
Subject: Finishing hops vs. dryhops

Roy writes:

>Hop nose is achieved by boiling pellet hops for two min. and
>loose hops for 5 min.
>
>Dry-hopping seems to contribute mostly to palate flavor.

I must disagree. I have about 40 datapoints to the contrary. I agree that *some* hop bouquet can be gained from finishing hops (last 1 to 5 minutes of the boil), but not *nearly* as much as from dryhopping. Please note that I've found that in my setup (5 gallon glass carboy with blowoff; switch to airlock after krausen falls; dryhop with whole hops or plugs for exactly 7 days after the airlock rate falls to 1 bubble/minute) any more or less than 7 days of dryhopping gives me less hop bouquet and an order of magnitude more than finishing hops. Perhaps in your previous dryhopping attempts, you waited too long or not long enough. You also *must* wait for the fermentation to subside or the CO2 will scrub the hop aromatics out of the beer.

Al.

Date: Mon, 1 Mar 93 16:32:28 -0500
From: Deborah Poirier <Deborah_Poirier@INRS-ENER.UQuebec.CA>
Subject: Addition of coriander

Hello all,

I brewed a batch of Wit last weekend, which is bubbling nicely in the primary.
The recipe (Miller) calls for the addition of 1 ounce of coriander seed to the secondary. Do I have to boil the coriander before adding it or will there be enough alcohol present to ward off any nasties? Any help would be very much appreciated. Thanks in advance.

Deb
<poirier@inrs-ener.quebec.ca>

Date: 1 Mar 93 16:29:23 EDT
From: "Robert Haddad" <M-RHADDAD@bss1.umd.edu>
Subject: Re: Korean Malt extract (digest #1087)

A few months ago, while shopping in an oriental supermarket in Rockville, MD, I came across the same assortment of flours (bean, rice etc.), including the mysterious Malt Powder Joseph Hall seems to have come across. Since it seemed significantly cheaper than the stuff I get at the brew supply store, I thought I'd give it a try.

I bought 2 1-lb bags, and tried a small batch of ale, with no other malts or sugars, as if it were out of a can of malt extract. Much to my disappointment, nothing happened. The stuff never fermented. No bubbles, not beer aroma. The only transformation which did eventually occur was the film of greenish-brown slime which grew on the surface after about 2 months, and the pungent and noxious odor which emanated when I opened the fermenter to look in.

I then decided to taste the malt powder. Oddly, it didn't taste anything like the powdered malt extracts I usually buy. It tasted more like flour--no sweetness to it. It seemed starchy.

Now, the closest I have come to brewing all-grain beers is partial fermentation. Could it be, perhaps, that this malt powder has to be heated slowly to a given temperature, and then be allowed to rest for a starch conversion? Should, perhaps other sources of malt/sugar be added to help/activate the conversion?

I had given up on this idea, but would be happy to continue experimenting with the stuff if you or others could share your thoughts about what might have gone wrong.

Cheers,

Robert Haddad <m-rhaddad@bss1.umd.edu>

Date: Mon, 1 Mar 1993 14:06:16 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: gelatin fining

Kelly Jones <k-jones@ee.utah.edu> sez:

>I don't generally fine my beer...

I don't fine my beer...my beer's pretty fine as it is!

(Ha! Ha! It's a joke, son...)

have fun
gak

Date: Mon, 1 Mar 1993 14:39:24 -0800 (PST)
From: Mike Deliman <miked@wrs.com>
Subject: Test Driving Mills

Hello all in Home Brew Land,

Recently one of our fellow homebrewers and I decided that when I received my maltmill, we'd try to do an honest side-by-side comparison of the crush produced by a Corona and a MaltMill. I had intended to pick-nits with the analyses; even to the point of weighing the flour produced from one pound of milled malt, etc.

Unfortunately, the testing may need to be delayed. Although I've received the maltmill, and assembly was trivial, there is one large problem with the maltmill as it stands.

As delivered, I'm sure that the maltmill wouldn't pass the simplest of FDA inspections for food preparation machinery. Probably not even in <insert third world nation here>.

The construction of the mill itself is acceptable.

The problem lies in the accumulated detritus lodged into the rollers. While assembling the mill, I brushed my hand on the surface of the rollers. I was aghast to see zebra stripes on my hand. Stripes of lubricant mixed with metal particles, dirt, grunge.

The rollers have a nice design - they are grooved, which could facilitate the uptake of grain. It is also a poor design, as it's nearly impossible to remove the accumulated detritus from the grooves.

I spent about an hour trying to clean the rollers last night, and at this point, I'd still pronounce it unusable. It would seem that in order to properly clean the things, I'll need to disassemble the mill completely, and break out innumerable amounts of soaps, degreasers, solvents, etc. Something I'd rather not do. Certainly not in the Rheinheitsgebot.

To be honest, I'm appalled that someone would ship food processing machinery in such a state; especially priced at \$130.

In the interest of being fair, I've written to the producer and asked for a clean set of rollers to replace these. I'll post the results of this inquiry.

- -----

I have a question for the chem types out there. Does anyone know which would

contain more energy per given volume: LNG (natural gas) or LPG (propane)
?

I ask as I recently purchased a nice burner, which I thought was designed
for
LPG. When I run int off of a propane tank, however, it burns far too
rich.
(it coats the boiler with soot, and the flames never do adjust down to
that
nice, blue, clean burn!)

- - - - -

Brew question: does anybody out there have a recipe (pref all grain) for
Samuel Smith's Pale? Please!! Send to me!!

Thanks all! (grain mill results will be posted)

-mike

P.S. The worst part about the grunge: Listen to a Shark's game, and
you`ll
probably hear my call... (harassing the ref)

"KILL THE ZEBRA!!!"

Mike Deliman, 800-USA-4WRS, FAX 510-814-2010, WRS 2400bd BBS: 510-814-
2165

email: miked@wrs.com (inet) or [sun,uunet]!wrs!miked (uunet)

Snail Mail: Wind River Systems, 1010 Atlantic Ave, Alameda CA 94501

USA

(near Checkov's nuclear wessels.)

- - - - -

Date: Mon, 1 Mar 93 13:51 EST
From: "C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com>
Subject: Lallemand yeasts

Back in HBD #1026 Al wrote:

> What I'm trying to say is that some dry yeasts make bad beer and some
> make good beer. Less than a year ago, I posted that I would never use
> a dry yeast again, but have since reconsidered after tasting some beer
> made with Coopers yeast. I've also made some with Nottingham and
> Windsor, but have yet to taste it. I still use Wyeast for most of my
> brews and I simply could not get the woody character of my Pale Ale
> without Wyeast #1028 London Ale, but I look at it as having three more
> yeasts (Coopers, Nottingham and Windsor) to choose from in addition to
> the yeasts from Wyeast.

I'm very curious what Al's comments were on the different yeasts.
Al, if you've had a chance to taste the above beers you've
referred to, please comment. I'd also be very interested in
hearing from others who have experimented with various dry
yeasts.

Date: Mon, 1 Mar 93 23:02:00 +0000

From: DAMON_NOEL/HP0800_01@mailhub.cs.itc.hp.com@mailhub.cs.itc.hp.com

Subject: pH

With respect to the recent thread on pH vs. temperature...I assume that when adjusting the pH of sparge water that the calibration of the meter using the calibration solution should be done at sparge temperature and that the desired pH be set at that temperature, not room or 60 deg. I found that the boiling (conditioning) of my sparge water went from an initial room temp reading of 7.0 to 8.3 at 170. I used citric acid to make adjustment to 5.8 at the sparge temperature. The first time I tried this, I too used gypsum initially but after 2 Tbs. changed only a couple of tenths, I went to the acid and overshot to 5.0. I salvaged the sparge with bicarb and all seemed to go well.

Date: Mon, 1 Mar 93 16:28:24 PST
From: mrozek@gandalf.etsdesg.TRW.COM (Eric M. Mrozek)
Subject: re: powdered sugar

In HBD #1083 John Freeman asks:

>Isn't powdered sugar just sugar? I don't understand the insistence on
>using the powdered form versus the crystalline form.

Powdered sugar is a mix of finely ground table sugar and cornstarch
(about
60%/40%). This is why powdered sugar doesn't cake or clump, and why you
don't substitute powdered sugar for regular sugar when baking (the doughs
become impossibly stiff).

Eric

Date: Mon, 1 Mar 93 19:56:55 PST
From: damrowk@Thomas.COM (Kip Damrow)
Subject: more on labels...

Hello HBers,
Regarding beer labels; Will the color, from a color copy bleed when
dipped into the famous HBD milk adhesive (i.e. skim milk in shallow bowl
) ?
Just wondering...

Kip Damrow
Thomas Bros. Maps
Irvine, CA

Date: Mon, 1 Mar 93 16:51:59 PST
From: Pat Lasswell <patl@microsoft.com>
Subject: RE: Decoction Mash Questions

In HBD 1086, Chris Cook asks about decoction mashing.

I have brewed 10+ decoction mashed beers of varying quality: some were horrible (got dumped), some were outstanding.

When I first started out, I attempted to get the decoctions as thick as possible. The result was caramelization in the decoction no matter how much I stirred, and the more I stirred, the more HSA became a factor. My solution to this dilemma was to ensure that the decoction was dilute enough not to require stirring, either by adding boiling water after dextrinization, or by including some of the mash liquid in the decoction.

I also tried several different (and messy!) means of removing the decoction. In the end, I found the quickest, cleanest, and easiest to be siphoning: I use a 1"ID soft-pvc tube about 5 feet long. Another advantage to siphoning is that it eliminates a source of HSA.

It is not important to pull only the 'thickest' or the 'thinnest' portion for a particular decoction. If a fairly representative sample of the entire mash is taken, all works well. I have found that the most important thing to be aware of is the quantity: beware of taking too little. Perhaps if one is using a malt of low diastatic strength, such as Munich, one may need to be careful not to boil too much of the mash liquid, but with domestic 2-row, I have not had a problem. Noonan recommends that the lauter decoction be thinnest portion, so as to deactivate the enzymes and as not to gelatinize unconverted starch. Neither of these is really an issue. When the decoction is remixed, the temperature should be at mash-out which will denature the enzymes anyway. Any starch that is released should be trapped by a proper lauter: only clear run-off goes to the boiler. Hence, his two points are non-issues.

Noonan makes a big deal of slowly and evenly mixing the decoction back into the mash to avoid hot spots. For larger brewing operations this may be important, but I have never found it so, where a dozen strokes with a spoon will completely mix my mere 5-gallon mashes. To return the decoction to the cold settlement, I use the siphon hose to return the entire decoction at once. I mix thoroughly and stabilize the temperature with boiling or cold water. Siphoning here further reduces sources of HSA.

I have been experimenting with a modified decoction mash wherein the enzyme-rich liquor of the dough-in is lautered off and reserved prior to the first decoction, enabling the _entire_ grain mass to be boiled at once. The initial trial of this method was promising: extraction was high; the beer is good. If it yields worthwhile technique, I'll post.

Ars Zymurgia
patl@microsoft.com (Pat Lasswell)
Redmond, Washington USA

Date: Mon, 1 Mar 93 18:43:31 PST
From: Pat Lasswell <patl@microsoft.com>
Subject: Open Fermentors

Owing to the encouragement of seeing someone (Jim Busch?) advocate open fermentation, I gave it a try. It is one of my best beers to date, much better than many that I have made in carboys.

The fermentor used was a 6-gallon crock that my Dad used to brew his beer in. I sterilized it with boiling water before siphoning in the cooled wort and pitching the yeast. I used a culture from the bottom of the secondary of a beer fermented with Nottingham ale yeast. The yeast had been acid-washed and fed with several 1.020 sucrose solutions. At pitching time there was about 5 oz. of healthy yeast in the starter. Lag time was about 12 hours, and fermentation was finished within 60 hours of pitching. Fermentation temperature was 68degF at the peak, finishing at 65degF when I racked to a secondary and dry-hopped.

I found it much easier to monitor the ferment with an open fermentor: just sterilize the hydrometer or thermometer and drop it in; want a taste? -- just dip in a (sterilized) spoon. I have been used to just pitching the yeast and waiting until the fermentation visibly subsided before racking to secondary; there was nothing to do during primary except check on it every 12 hours or so. With open fermentation and no blow-off, I had to keep an eye on it and skim the foam every 6 hours, lest it push off the kettle lid that I had on it. (This may be because the crock was just barely big enough to hold 5 gallons of beer and the foam of high-kraeusen; if the fermentor were larger, then perhaps I would not have been concerned.)

I had expected to be able to harvest clumps of new yeast from the top of the primary, but they never appeared. This may be because the yeast is highly flocculant. (The beer does have a slight diacetyl component.) I had thought that perhaps the yeast did not reproduce much, due to the high pitching rate, but I did collect about a pint of yeast slurry from the bottom of the fermentor, so that obviously wasn't the case. Any ideas? Does the flocculant nature of Nottingham yeast make it a bottom cropping strain?

Recent discussions have centered on fermentor geometry. The crock has roughly

the same proportions as a carboy, or a little more squat. Judging from recent posts, this is not the 'ideal' geometry, having too small of a surface-to-volume ratio. Would this have had an effect on yeast cropping?

Ars Zymurgia
patl@microsoft.com (Pat Lasswell)
Redmond, Washington USA

End of HOMEBREW Digest #1088, 03/02/93

Date: Mon, 1 Mar 93 11:55:57 MST
From: pyle@intellistor.com (Norm Pyle)
Subject: Mashing, was: ?lagel?, and dry hopping

The Humboldt Hophead writes:

>To start with I'm an intermediate brewer who uses both extract and
grains
>I find, that the combination of the two usually yields a great flavor. I
>don't quite go to the extent of mashing (still not quite sure on the
>procedure) - what I do is boil the grains for about 45min at 150deg,
then

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
This is mashing.

>I strain the resulting "extract" into my brewpot and combine it with the
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

This is sparging.

>canned extract. I usually use either one can or bag of extract and
about
>5 lbs. of grain (although how much extract I end up with is a mystery to
>me).

I hate to tell you this HH, but you do know the procedure for mashing.
You
are just doing it on a smaller scale. My first mash was done this way,
called a partial mash, adding the extract from the grains to the extract
from
the can. To go all-grain, all you have to do is increase the amount of
grains and skip the extract. Of course, that assumes you would ever want
to
go all-grain, etc. etc. (ACKK! do I have to be PC here, too? - I hate
this.)

Roy sez:

>Hop nose is achieved by boiling pellet hops for two min. and
>loose hops for 5 min.
>
>Dry-hopping seems to contribute mostly to palate flavor.

I tend to slightly disagree with this statement. My experience tells me
that
dry-hopping contributes greatly to the nose and the flavor. Also, and
this
may be bunk, it seems to accentuate bitter hops as well. I mean that,
although it doesn't actually add bittering, the bittering hops seem more
assertive when boosted with a large dose of dry hops. This may only be
true
when the two hops are the same or similar varieties (i.e. I haven't done
any
real scientific research to prove/disprove my theories).

Cheers,
Norm

Date: 2 Mar 93 06:54:00 EST
From: "PAUL EDWARDS" <8260PE@indy.navy.mil>
Subject: more powdered sugar

In HBD 1088, Eric said that "Powdered sugar is a mix of finely ground table sugar and cornstarch (about 60%/40%). This is why powdered sugar doesn't cake or clump, and why you don't substitute powdered sugar for regular sugar when baking (the doughs become impossibly stiff)."

Welllll, at my local grocery, that stuff is called confectioners' sugar and is intended for making cake icing and such. 100 percent powdered sugar is available as well. Some places might call it bartenders' sugar. it mixes well in drinks, without leaving undissolved grit.

Both types are clearly labelled as to contents.

That said, I only use dry malt for my yeast starters, canning 7 or 8 qts at a time in a pressure canner.

-- Paul

Date: Tue, 2 Mar 93 08:25:19 EST
From: mmlai!lucy!gildner@uunet.UU.NET (Michael Gildner)
Subject: brewcap

Hello,

Does anyone have comments about the BREWCAP device that fits over the top of a carboy. I'm thinking of buying one so I can draw samples out of the carboy alittle easier. Also, are there any gizmos around that help start a siphon. I can never get that trick to work where you first fill the tube with water.

Mike Gildner
gildner@mml.mmc.com

Date:Tue, 2 Mar 1993 09:45 EST
From: JCHISM%HSSCAM.decnet@NETVAX.MIS.SEMI.HARRIS.COM
Subject: Fancy Labels

MOORE office supplies catalog has several laser labels that are appropriate for "gift" bottles or when you want to get fancy. They're called Design Film and come in 3 varieties - Graduated, Clear and White. The graduated is a combination of red/white, green/white, yellow/white, blue/white or gray/white. While it's not a paper, it is a film that easily peels off.

Jami Chism
jchism@decnet.mis.semi.harris.com

disclaimer: I don't work for Moore or have any financial interest
- - - - -

Date: Tue, 2 Mar 1993 07:25:35 -0800 (PST)
From: Mike Deliman <miked@wrs.com>
Subject: Mills / burners

Hello Home Brewers,

Thanks to all who responded on my post to yesterday's hbd.
Here's some followup on the millery:
I recieved two replies, which I'll attach.

This first came in before the hbd went out:

From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Re: MaltMill
To: miked@wrs.com (Mike Deliman)

Date: Mon, 1 Mar 1993 21:26:41 -0600 (CST)
X-Mailer: ELM [version 2.4 PL21]
Subject: Mills / burners
Content-Length: 0
Status: RO

And this second came in after hbd went out:

From: arf@ddsw1.mcs.com (Jack Schmidling)
Subject: Re: MaltMill
To: miked@wrs.com (Mike Deliman)

Date: Tue, 2 Mar 1993 08:10:27 -0600 (CST)
X-Mailer: ELM [version 2.4 PL21]
Subject: Mills / burners
Content-Length: 2570
Status: RO

Message 1/3 From Mike Deliman Mar 1, 93 01:44:40 pm
-0800

Return-Path: <miked@wrs.com>
Subject: Re: MaltMill

>The rollers are filthy, coated fariley well with oil residue, metal particles, and ground in grime. The easiest way to clean it would be to dissassemble it and soak the rollers in solvent.

>If you would be willing to ship me a set of clean rollers I'd be gald to ship back the currently unusable rollers. I'm not exactly thrilled about the thought of dissassembling/reassembling the thing, but if it'll save me from the thought of injesting unknown contaminants with my beer, it'd be worthwhile. (not to mention probably a lot easier than spending hours with cleaning rags, solvents, boiling water, degreasers, etc...)

>Let me know your thoughts,

I don't think we could remain friends if you knew my thoughts at the moment :)

However, here are the facts:

The only thing on the rollers is a thin coating of rust-proofing oil. This is applied after they are knurled so they do not rust in inventory. At the time they are assembled, the rollers are wiped vigorously with a clean rag to remove as much as possible. The easiest way to get the rest of it off is to mill a few pounds of malt with it and feed it to the birds.

Our QC procedure here is to mill a pound with one mill out of every batch of 10 to make sure there are no systemic problems. We simply blow it off with an air hose after testing and you may have gotten one of these which would have some dust or debris on the rollers. However, it would be the same as if you had run a pound through it.

Unless something happened to yours from the time it left here till you received it, it should look just like the 600 others we have shipped and no one has previously even commented on what you find unacceptable.

Unless you want to pay \$75 for the ss roller option, oil is a necessary evil

on a steel product. Once it is in regular use, it will stay clean without any special attention but I can not inventory hundreds of expensive rollers and take the chance of them getting rusty nor getting rusty before the customer has a chance to use it.

You can clean them with a wire brush and cooking oil and then wipe them down thoroughly. Other than that, I do not know what to tell you. If I send you another set of rollers, they will look exactly like the ones you have.

Your money will, of course, be cheerfully refunded if you choose to return the mill.

Sorry for the trouble,

js

Apology accepted, but how's this work?

" The only thing on the rollers is a thin coating of rust-proofing oil."

"The easiest way to get the rest of it off is to mill a few pounds of malt with it and feed it to the birds."

okay, I see. take my home brew supplies, coat them with machine oil, and give it to the birds. Well, I never DID like pigeons.

I guess either the other 600 users did the above, cleaned with a wire brush, et all, or were just too embarrassed to complain. Or they don't mind machine oil lager.

nuff said.

Thanks much to all who responded to the LPG vs LNG question. I suspected what seems to be true: the burner is probably jetted for LNG, and needs re-jetted for LPG. The LPG supplies more energy per given volume and thus requires more O₂; since there is no way to increase flow of air into the venturi, I gotta decrease the fuel flow. Thanks guys!

>pffft< have a homebrew,

-mike

P.S. After I clean the MM properly, the crush analysis will be posted.

Mike Deliman, 800-USA-4WRS, FAX 510-814-2010, WRS 2400bd BBS: 510-814-2165

email: miked@wrs.com (inet) or [sun,uunet]!wrs!miked (uunet)

Snail Mail: Wind River Systems, 1010 Atlantic Ave, Alameda CA 94501
USA

Date: Tue, 2 Mar 93 09:36:01 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: RIMS

I want to thank the many people who sent comments on my RIMS review.
The typos noted were the following:

1. Replace "It hard" with "It is hard" in the second paragraph.
2. Replace "eat corn" with "eat crow" in the third paragraph.

I have been very critical of the AHA for these sort of typos. I seem to remember from my youth a story about glass houses and stones. Does anyone remember how that one goes?

Bob Jones in HBD#1088 raises some very interesting points. As such things pertain to the specific case of Conrad's system, I would feel a good deal more comfortable if they were addressed directly to Conrad. Those who saw pictures of my own 1/2 bbl. system in Milwaukee know it is quite different from Conrad's. It is also different from Bob's, who in turn differs from Micah. I look on all of this with a good deal of favor. What a boring world it would be if total uniformity reigned!

Because of length restrictions, reviews differ from technical articles.
What

I look for in a review is a clear statement of the product claims made by the producer, and a good faith effort on the part of the reviewer to check them. Interested readers can then contact the producer for details. The following are what I understand to be the claims Conrad is making for his system. My observation of an actual brew being done with his system leads me to believe that they are all valid.

1. Total temperature control through uniquely designed controllers and heating elements. Any reasonable type of infusion mashing schedule can be used with the system.
2. Recirculation without HSA.
3. High yields and brilliantly clear run offs.
4. A system that is trivial to clean.

Would someone be so kind and post a list of Rodney's articles about RIMS? I have kept only the one that appeared in the Maltose Falcon newsletter, since it appeared to be the most complete and detailed.

George Fix

Date: Tue, 2 Mar 93 09:41 CST
From: arf@ddswl.mcs.com (Jack Schmidling)
Subject: Test Driving

>From: Mike Deliman <miked@wrs.com>

This issue should obviously be discussed off line but since Mike chose to post it to the Digest before I even received his comments in email, he leaves me little choice but to respond in kind.

>As delivered, I'm sure that the maltmill wouldn't pass the simplest of FDA inspections for food preparation machinery. To be honest, I'm appalled that someone would ship food processing machinery in such a state; especially priced at \$130.

My objective is to provide a modestly priced product to satisfy homebrewers. If you wish to satisfy the FDA, you should have purchased the Stainless Steel Roller Option (SSRO) for an additional \$75.

>In the interest of being fair, I've written to the producer and asked for a clean set of rollers to replace these. I'll post the results of this inquiry.

You might have waited for my response before dragging it out in public.

Here is the response I sent to you before reading the Digest.

Return-Path: <miked@wrs.com>
Subject: Re: MaltMill

>The rollers are filthy, coated fariley well with oil residue, metal particles, and ground in grime. The easiest way to clean it would be to disassemble it and soak the rollers in solvent.

>If you would be willing to ship me a set of clean rollers I'd be gald to ship back the currently unusable rollers. I'm not exactly thrilled about the thought of disassembling/reassembling the thing, but if it'll save me from the thought of injesting unknown contaminants with my beer, it'd be worthwhile. (not to mention probably a lot easier than spending hours with cleaning rags, solvents, boiling water, degreasers, etc...)

>Let me know your thoughts,

I don't think we could remain friends if you knew my thoughts at the moment :)

However, here are the facts:

The only thing on the rollers is a thin coating of rust-proofing oil. This

is applied after they are knurled so they do not rust in inventory. At the time they are assembled, the rollers are wiped vigorously with a clean rag to remove as much as possible. The easiest way to get the rest of it off is to mill a few pounds of malt with it and feed it to the birds.

Our QC procedure here is to mill a pound with one mill out of every batch of 10 to make sure there are no systemic problems. We simply blow it off with an air hose after testing and you may have gotten one of these which would have some dust or debris on the rollers. However, it would be the same as if you had run a pound through it.

Unless something happened to yours from the time it left here till you received it, it should look just like the 600 others we have shipped and no one has previously even commented on what you find appalling and unacceptable.

Unless you want to pay \$75 for the ss roller option, oil is a necessary evil on a steel product. Once it is in regular use, it will stay clean without any special attention but I can not inventory hundreds of expensive rollers and take the chance of them getting rusty before the customer has a chance to use it.

You can clean them with a wire brush and cooking oil and then wipe them down thoroughly. Other than that, I do not know what to tell you. If I send you another set of rollers, they will look exactly like the ones you have, unless something very strange happened to yours.

Your money will, of course, be cheerfully refunded if you choose to return the mill.

Sorry for the trouble,

js
.....

I now add that in keeping with the tradition that the customer is always right, I suggest that you return the mill for detailed QC review. If it is typical of what we have been shipping for the past year, your money will be cheerfully refunded and we will call the whole thing off. If it is as you described, I will ship you a brand new one and pay shipping charges both ways.

jjs

Date: Tue, 2 Mar 1993 08:08:53 -0800 (PST)
From: Mike Deliman <miked@wrs.com>
Subject: To be fair

To be fair, I feel I should post this, which came in amongst the replies from yesterday's post.

] Ummmm, not necessarily to defend JS, but: have you ever purchased a
] Corona Mill?? When shipped, they are full of oil and grit, and to
] clean them,
] you have to disassemble them, and scrub them in a sink full of soapy
] water.
] So, it sounds like the condition of your maltmill is not that
] far out of line. After, all, you only have to clean it once....

I do see the point. But then, if I bought a blender for \$50, I'd expect less than a blender that costs \$130. Nuff said, on to re-jetting that burner and attempting an SSPA clone :-) !

Brew On Dudes >pffft<, (have a homebrew)
-mike

Mike Deliman, 800-USA-4WRS, FAX 510-814-2010, WRS 2400bd BBS: 510-814-2165
email: miked@wrs.com (inet) or [sun,uunet]!wrs!miked (uunet)
Snail Mail: Wind River Systems, 1010 Atlantic Ave, Alameda CA 94501
USA

Date: Tue, 2 Mar 93 11:14:29 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: re:stuck carbonation

Last week,

Paul dArmond <paulf@henson.cc.wvu.edu>

wrote:

That's for later, this is for now: Peter, shake all your bottles and lay them on their sides in a warm (70F) place. Shake every day, until there is visible yeast in suspension. I got this trick from The Cellar in Seattle. I think it works by exposing more yeast surface area. I did

To which I reply: I just had a stuck carbonation situation, my first ever. I first thought that I had messed up, perhaps not sufficiently stirring the priming sugar into the beer, but then it dawned on me that the temperature of my spare bedroom might be the problem.

Due to recent colder weather in the Philly area, the bottles were being maintained at about 50 to 55F, as opposed to the more usual 60-65F. So, I simply took them out of the room, shook each bottle, and left them in the 68-70F temperatures of my house, and voila!, three days later, sediment and carbonation.

Sometimes its the simple things...Oh yeah, the beer was the Sam Adams-taste alike from Cat's Meow, an Ale.

- - -

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
/////

name: Jimmy On balance, it is a wonderful thing that
email: fingerle@NADC.NADC.NAVY.MIL the cold war is over. -Bill Clinton
-or- fingerle@NADC.NAVY.MIL ON BALANCE?!? It's end has a down
side?

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
/////

Date: Tue, 02 Mar 93 10:32:35 CST
From: Fritz Keinert <keinert@iastate.edu>
Subject: Re: Korean Malt Extract

Date: 1 Mar 93 16:29:23 EDT
From: "Robert Haddad" <M-RHADDAD@bss1.umd.edu>
Subject: Re: Korean Malt extract (digest #1087)

I expected to see plenty of responses on this, but since they don't seem to be coming, here goes:

I bought some of that stuff before, too. It was from the local alternative food co-op, and it was not Korean, but I bet it was the same. What it is is ground-up malt (grains that have been sprouted, dried again, and ground into flour). It is not dried malt extract, which you (and I) were hoping to get.

Theoretically, the enzymes should still be in there, so you might be able to convert it to sugar, but you would have a really hard time getting it filtered.

I think I tried using it in bread, but it didn't work as flour, either. It was too sticky because it does contain some sugars. I am not sure what it is supposed to be good for.

- - - -

Fritz Keinert phone: (515) 294-5223
Department of Mathematics fax: (515) 294-5454
Iowa State University e-mail: keinert@iastate.edu
Ames, IA 50011

Date: Tue, 2 Mar 93 10:55:12 EST
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Korean malt, fining, labels

Korean malt:

I suspect that what you've got there is malt flour, not extract powder, just ground up malted grain. Should make good bread.

Fining:

I don't fine my beer either, no point, it doesn't have any money.

Labels:

>Will the color, from a color copy bleed...

Nope, not a problem, the image on a photocopy, B&W or color, consists of pigmented plastic powder(s) (polyester in some, maybe all, cases) melted onto the paper. The plastic will not be affected by milk or water.

Carl
Waltham, Mass.

When I stop learning, bury me.

Date: Tue, 2 Mar 93 11:57:57 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject:how come you taste so good?

I have advocated the use of brown sugar in pale ales in this forum on at least two occasions. The first was in HBD#528 in a recipe which appears in Cat's Meow (p.1-12 in the postscript version). The second was a little over a month ago in the post where I coined the phrase "all-grain snob" (mea culpa). This practice recently took a slam:

In HBD#1083 John Freeman sez:

>And keep the stinking brown sugar out of my beer.

Do I detect an all-malt attitude? (I'll avoid the "s" word :-)

Many of us began brewing from kits, using enormous amounts of sugar, and eventually learned that cutting back on the sugar meant getting rid of the cidery flavors. This doesn't necessarily imply that all sugar must be cut out in all circumstances. Belgian beer homebrewing seems to have become vastly more popular during my three years on the HBD, and homebrewers are willing to follow Belgian practice when it comes to sugar. Why should we treat UK brewers differently?

Looking back in my log book, I notice that my first two bitters contained small amounts of brown sugar - under 15%. Both were served on draft at parties and both were overwhelming successes. Having lived in England for two years, I can also assure you that the flavor was quite authentic. As well, there were occasional pale ales and brown ales which had brown sugar additions. In all, something like 4-5% of my 200+ batches. No particular problems noted, and some raves received.

I notice that I haven't used brown sugar myself since since posting my Cat's Meow recipe. I think I'll try a brown and/or pale ale with 10-15% sugar in the near future. I'd also appreciate e-mail from people who've tried my Cat's Meow recipe, with their opinions on using brown sugar in a Bass-alike.

Cheers,

Rob (bradley@adx.adelphi.edu)

Date: Tue, 2 Mar 93 11:57:11 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: Brown sugar.....

Some beers, especially British ones, are brewed with small amounts of brown sugar. I believe that reputable UK brewers keep the total amount of extract from adjuncts and sugars at or below 15% (see Foster's Pale Ale). I also understand that when brown sugar is used, it is more likely to be a "raw" brown sugar, like demerara, than the stuff one finds in a North American supermarket. The latter is likely to be ordinary white cane sugar doctored with molasses.

My palate tells me that there is brown sugar in Newcastle Brown Ale, and an English friend who is quite a good judge of beer agrees. On a more cautious claim, I believe I have tasted subtle brown sugar tones in bottled Bass. After a recent experience, though, I'm reluctant to state definitively that the tones actually come from brown sugar.

Last Friday I had a bottle of Pike's Place Pale Ale, from White River Junction, VT. This is a really fine brew: on the dark side of pale ale color, with good body and substantial hop bitterness :-)
On the nose, though, I picked up an unmistakable brown sugar aroma. A pleasant one, I might add. However, the label states only malt, hops, yeast and water, and I have no reason to doubt them. So my conclusion is that a brown sugar aroma can develop without the addition of brown sugar in the wort. Any comments?

There has been recent interest in Housman's poetry and the towns where we live:

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+-----  
-+  
| Robert Emmett Bradley | | |
| Dept. of Mathematics | | "The troubles of our proud and angry dust |  
| & Computer Science | | Are from eternity, and shall not fail. |  
| Adelphi University | | Bear them we can, and if we can we must. |  
| Garden City, NY 11530 | | Shoulder the sky, my lad, and drink your ale."  
| (516)877-4496 | | A. E. Housman, Last Poems, #9. |  
| bradley@adelphi.edu | | |  
+-----  
-+
```

Date: Tue, 02 Mar 93 10:02:25 -0800

From: atl@kpc.com

Subject: Re: Yeast Ranching

> From: arf@genesis.mcs.com

> >From: atl@kpc.com

> > I home can wort for use as starters and for priming my beer. I
> purchased a case of Ball 1 pint canning jars (\$7.50), filled them with
> highly hopped 1.040 extract based wort.....

>

> I'm with you up to this point but why not just eliminate this whole
step by

> saving a pint of wort from the previous batch. A further bonus (for
> all-grain brewers) is that the starter is more like your actual brews
than

> one made with extract.

I had considered using all-grain to make the canned wort, but went
with extract for simplicity. (I had a batch to mash and three to
bottle at this point) Also, I brew widely divergent beers weekly, so
reserving a pint of stout might not be appropriate for starting a
batch of light lager. My canned wort is "least common denominator"
pale type.

> > This may sound like a lot of work, but it sure beats boiling up
> small starters when you need them, and is easier than reserving gyle
> from each batch.

>

> Not sure what you mean by "gyle", I would call it bitter wort but
anyway, how

> can your process possibly be simpler than setting aside a pint of wort
before

> pitching?

I called it gyle from Papazian's description of reserving bitter
wort for later priming purposes. You may have a point on simplicity,
but I had more faith in the "canned" wort keeping for a long period of
time at room temperature. Also, since I had been reserving gyle for
priming purposes (usually 3 22oz bottles per batch), and frequently
have 2-5 batches fermenting simultaneously, my refridgerator just
isn't big enough.

> You did not mention what kind of air lock you are using on the flask
but if

> you use a glass one, simply putting it on at the end of boiling will
> sterilize it and fill it with sterile water as the steam condenses.

Nothing

> could be simpler.

I'm not sure which flask you are referring to. I use flasks for
growing my starters, but I don't boil at that point. I pour sterile,
canned wort into the sanitized flask, stir in a small sample of yeast,
and affix a sanitized plastic airlock. At appropriate times, I add
more sterile wort to enlarge the starter, and move to larger flasks
when appropriate.

> > The agar was quite expensive, \$24.50 for 100g.

>

> A suitable agar can be had from oriental food shops for far less. It
is sold

> in stick form and you need about 6 inches to a cup of wort.

Can you give me the asian name(s) for this? I can just imagine going into my local asian grocery and trying to describe agar. :-)

>
> Nice article. I don't want to start another snob thread but I put yeast
> culture right up there with all-grain as one of the more rewarding aspects of
> homebrewing.

Thanks for the compliment, no snobbery felt, and yes, it is fun. If I'd been brewing beer in 7th grade biology class, I might have paid a little more attention!

Drew

- -----
Andrew Lynch, Kubota Pacific Computer, Santa Clara, Ca. atl@kpc.com

Date: Tue, 2 Mar 93 13:25:11 EST
From: Dave Whitman <rsndww@rohmmaas.com>
Subject: Ginger beer summary

To homebrew@hpfcmi.fc.hp.co
X-Mailer: LeeMail 1.2.4

I was astonished at the number of responses to my post about low ginger flavor in my ginger beer wort. Thanks everyone!

Many people pointed out that the sweetness of the wort may be masking the ginger flavor. The message is that 1) lots of recipes use about 3 oz of ginger and use 1 hour boil times, and 2) a little ginger goes a long way. Before panicking, I'll taste the beer during racking into my secondary.

Jim Grady suggests grating the ginger rather than slicing it. For what it's worth, I tasted the ginger slices after boiling, and they were pretty flavorless, suggesting that the flavor was successfully extracted.

Spenser Thomas warns that he tried adding pieces of ginger to each bottle, which gave good flavor, but also caused gushing. He suggests making a ginger tea by steeping ginger in hot water, and adding that to the secondary. Would steeping sanitize the ginger enough to avoid the infection suggested by gushing?
How hot / how much time do I need to sanitize an ingredient?

Dan Butler-Ehle says that he uses ginger a lot, but has never been really happy with the flavor - the pepperiness is missing. He thinks the ginger oils boil off early. He has added ginger to his secondary, and that doesn't seem to help, and sometimes leads to off-flavors. He speculates the pulp rots, and suggests I try dried, ground ginger.

I looked up ginger and oil of ginger in the Merck Index, and got some insight into just what's there. The major flavor component is a fairly high molecular weight phenol called gingerol. It doesn't look very volatile. However, there are a number of other constituents which DO look volatile: camphene, phellandrene, borneol, citral and cineol. I suspect at least some of these are lost during an extended boil, explaining my and other's reports of disappointing flavor.

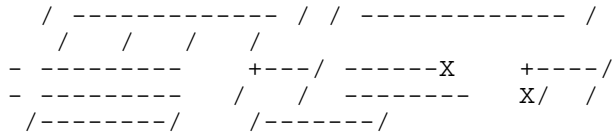
Dave Whitman / rsndww@rohmmaas.com

Date: Tue, 2 Mar 1993 10:27:00 -0800
From: Bob Konigsberg <bobk@NSD.3Com.COM>
Subject: Propane Cooker Problems.

Mike Deliman writes about problems with his propane cooker...

I believe that propane (LPG) has more heat per volume. As for the soot from your burner, it may be that the air/fuel ratio is not set correctly. Look at the inlet and there should be a rotatable shutter that you can adjust the air/fuel mixture with. Mine was a fairly cheap unit from Sears and it had one.

The other problem I noted with mine was that the gas/flame distribution was uneven with the far side of the burner having a much longer flame than the near side. A little surgery with a drill grinding bit and I was able to change the configuration of the casting to allow a more even gas flow. See crude graphics below.



Original Improved

Although it's a bit crude, the two X's in the right hand drawing show where the carving was done. The left hand carved out area opened up the gas flow to the inlet side of the burner, and the right hand X carving made a "bounceback" kind of effect with the gas so that the jet of gas (later flame) didn't simply flow straight out the opposite side of the burner from the gase inlet. It's still not perfect, but the flame distribution is a lot more even than it was as the unit was shipped to me.

Despite the appearance of the drawing above however, the actual grinding does not (should not) go anywhere near the edge of the casting.

Kip Damrow asks about color copier labels. They don't run when wet. The toner powder used in photocopying is a plastic powder that is melted (fused) to the paper. If flexed however, you may see flaking of the material off the paper.

BobK

Date: Tue, 2 Mar 93 12:42:47 -0600
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)
Subject: hop aroma

It seems that every couple of months there is another discussion about hop nose or aroma and flavor and methods of achieving it in the beer. It's the general lack of good info in the homebrewing literature and even texts on brewing science like Biotechnology of Brewing and Malting and even Malting and Brewing Science on this topic that leads to repeated queries. That's what led Mark Garetz to put together a nice article for zymurgy, appearing in the summer issue, about dry-hopping. Mark has done a really professional job putting the article together with interviews with Fritz Maytag (several hours), Jim Koch (the beloved one in this forum) and many other people in the hop industry. The article discusses several methods using finishing hops such as dry-hopping, hop backs, finishing hops at the end of the boil, hop tea, etc.

It's interesting that all of these approaches contribute to hop flavor and aroma of the beer, but the hop flavor and aroma can be very different for each technique. This is due to the fact that hop oil which is the stuff which contributes the hop flavor and aroma is really many different oils. Some are more volative than others and some are more chemically reactive than others and all are more reactive and volatile at higher temperatures.

Thus the type and amount of oils and secondary oil products in the beer depends on the variety of hop, amount, temperature, time and many other factors, including, as Bob Jones pointed out, opened or sealed vessel. Bob's advice is right on the mark. You will get more hop aroma by dryhopping in the keg. The reason for this is that volatile hop oils are not soluble in beer but rather are in suspension. The volatile suspended oils would really prefer to float away. Take Bob's advice, don't give them a chance; keep the lid on.

Rather than say that one method of using finishing hops is 'better' than another, I prefer to say that they are all wonderful but different. If you have any doubt about the incredibly vast difference of hop aroma and flavor betwenn using the same type of hop in (I believe) nearly equal amounts in two different ways, just compare Sierra Nevada Pale Ale and Anchor Liberty Ale. Both use Cascade finishing hops. One is dry-hopped and the other uses a hop back.

I am a proponent of the idea of including more information in a recipe with regard to finishing hops. it's really not enough to say "dryhopped with 1 oz cascades." if I want to really match the beer I need to know how long the hops were in the fermenter or keg and the temperature. similarly, if you use finishing hops at the end of the boil, i not only need to know how much for how long, i need to know the rate at which the hot wort was cooled because the hop flavor and character are altered significantly during a slow cooling.

Date: Tue, 2 Mar 1993 11:00:29 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re: Ginger beer problem

>Dave Whitman <rsndww@rohmmaas.com> writes
Subject: Ginger beer problem

>3 oz sliced ginger root (peeled for lighter color)

>The ginger and hops were boiled in the wort for 45 minutes, then lemon
juice
>was added along with my immersion chiller. After an additional 10
minute
>boil,
>the batch was chilled to 65F. ph: 5.3 before lemon juice, 4.0
afterwards.
>To my chagin, the resulting wort had very little ginger flavor.

>1. Did I steam distill off all the good stuff by boiling the ginger too
long?

I don't think so. I made a batch about 6 mo. ago with 1.5 oz of ginger
boiled for an hour and it had a very good ginger flavor. I think that I
might have grated my ginger as opposed to slicing it. Ginger is
powerfull
stuff and 3 oz seems like a lot. Maybe it is like hops in that there can
be a lot of variation of "the good stuff" season to season etc.

>2. Can I "dry ginger" the batch by adding shredded ginger to my
secondary
> fermenter? Any suggestions on how much to try?

This sounds like a cool idea, but I think that I would finish this batch
without it. Then, if in the end, if there is not enough ginger flavor,
you
can brew another batch and "dry ginger" it. This way, you will have a
better idea where the ginger flavor came from.

BTW... How well do your yeasties like that low pH wort?

Date: Tue, 2 Mar 93 12:28:47 EST
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: Maltmill, etc.

Mike says:

> As delivered, I'm sure that the maltmill wouldn't pass the simplest of
FDA
> inspections for food preparation machinery. [...]
> The problem lies in the accumulated detritus lodged into the rollers.
While
> assembling the mill, I brushed my hand on the surface of the rollers. I
was
> aghast to see zebra stripes on my hand. Stripes of lubricant mixed with
metal
> particles, dirt, grunge.

I found the machine-oil smell of the device a bit worrisome, but after passing a few pounds of grain through as a trial I decided it was in fact not a problem. The odor has largely gone away now that I've run a batch through. The odor is not evident in the grain passed through.

> The rollers have a nice design - they are grooved, which could facilitate the
> uptake of grain. It is also a poor design, as it's nearly impossible to
> remove the accumulated detritus from the grooves.

So? Over the long haul this doesn't make a bit of difference. Over the short term, yes, it would be nice if Jack brushed the rollers clean in something like hexane and then with a mild detergent.

> I spent about an hour trying to clean the rollers last night, and at
this
> point, I'd still pronounce it unusable. It would seem that in order to
> properly clean the things, I'll need to disassemble the mill
completely, and
> break out innumerable amounts of soaps, degreasers, solvents, etc.
> Something I'd rather not do. Certainly not in the Rheinheitsgebot.

I wish Jack had shipped mine smelling like Ivory soap, but I'm not sure what if any difference it makes. Certainly I have no problem with the particles of grain that tend to lodge in the grooved rollers.

> To be honest, I'm appalled that someone would ship food processing
machinery
> in such a state; especially priced at \$130.

Calling it "food processing machinery" is a bit loose. After all, you are going to thoroughly filter and boil the output. You aren't really going to "eat" the output of the mill at all. The chance of, say, a chip of steel making it through to a bottled beer is zero, considering all the settling and sedimentation that goes on.

Finally, casual experimentation (just now) reveals that a dry toothbrush suffices to clean the rollers down to the shine on the portion (about 2/3) of the rollers where the grain gets crushed. Why don't you just run 5-10 lbs of cheap malt through and get on with things ... ?

The effect of the maltmill on fat British 2-row malt is most impressive. The husks are left almost completely in one piece, and the kernel

is squished perfectly into coarse chunks. The results on less modified American 2-row and particularly 6-row are a little less remarkable, but I gather that these grains are harder to crush anyway.

I will print a detailed review when I have some data points. I am looking for a reduction in astringency (vs. grain from Corona) and an improvement in extraction rates. So far, at least the latter seems likely.

=====O Fortuna, velut Luna, statu variabilis=====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052
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End of HOMEBREW Digest #1089, 03/03/93

Date: Tue, 2 Mar 93 14:18 CST
From: korz@iepubj.att.com
Subject: Re: Pitching idea/Sanitizer/Ginger/Correction/Coriander/Dry yeasts

Chris writes:

>pitch your ale yeast around 60 F... let it ferment at this temp for a
>day or two to discourage bacteria growth and to let the yeast make
>alcohol, the stuff that kills some bacteria... then jack the temp up
>to 65 F to finish...

>

>how valid is this statement? I mean, it almost sounds like making a
>steam beer etc. but I was just wondering...

Well, it's sort of valid... but you're making ale. Ale temperatures are between, say, 60F and say, 75F. I don't understand why you suggest that you should first ferment at 60F to "let the yeast make alcohol, the stuff that kills some bacteria" and then raise the temperature. It's sort

of backwards from one common way to make lagers: to start the batch at around 65F and then once the yeast get going, (slowly) lower the temp to 40F or 45F. If you have good sanitation techniques and are pitching clean yeast, you can ferment the whole batch at 65F or the whole hatch at 60F. The Steam(tm) beer you suggest this might be (it's not) would be made with lager yeast (Wyeast #2112 might be a good choice ;^) fermented

at the cool end of ale temperatures (say 60-65F).

Jack writes:

> No typo. I also used bleach neat or at least 2:1 when I used it. It is all
> relative and I find the long contact times discomforting. For example,

I'm no biologist, but I think that contact times are much more important than concentrations, i.e. 10 min at 200ppm is more lethal to nasties than 1 min at 10000ppm, no? Biologists?

Personally, I'm trying to move away from Chlorine as a sanitizer from an environmental point of view. Moving to Iodine may not be much better for the environment either. I'm looking for a source of Peracetic Acid (Acetic acid and Hydrogen Peroxide). The H2O2 quickly becomes water and acetic acid is plentiful in the world. Also, a few stray ppm of acetic acid

won't affect my brew as much as a few ppm of Sodium Hypochlorite will.

Dave writes:

>3 oz sliced ginger root (peeled for lighter color)

>

>The ginger and hops were boiled in the wort for 45 minutes, then lemon juice

>was added along with my immersion chiller. After an additional 10 minute boil,

If you had grated the ginger and added it only for the last 2-3 minutes of the boil, you would have had a lot of ginger flavor and aroma. I used 2 ounces

like this and the beer took 4 months to be drinkable -- but very good eventually.

>1. Did I steam distill off all the good stuff by boiling the ginger too long?

Yes.

>2. Can I "dry ginger" the batch by adding shredded ginger to my secondary fermenter? Any suggestions on how much to try?

Yes, but just to be on the safe side, after you peel the ginger (I did) but before you grate it (coursey) on your sanitized grater, I suggest blanching it (dip it in boiling water for 10 seconds).

I wrote:

>
> BREWER'S OF SOUTH SUBURBIA
> (south-suburban Chicagoland)
>AHA Sanctioned
> Regional Homebrew Competition

That should be BREWERS OF SOUTH SUBURBIA (no apostrophe). I don't know why I've lately been randomly putting apostrophes in front of trailing s's.

Deb writes:

>I brewed a batch of Wit last weekend, which is bubbling nicely in the primary.
>The recipe (Miller) calls for the addition of 1 ounce of coriander seed to the secondary. Do I have to boil the coriander before adding it or will there be enough alcohol present to ward off any nasties? Any help would be very much appreciated. Thanks in advance.

Boiling would definately reduce the aromatics you have available. I would just blanch them (dip them in boiling water for 10 seconds) and then crush them in your sanitized coriander mill (I guess you could use a sanitized spoon in a sanitized cup if you don't have a true coriander mill ;^).

C. Lyons writes;

>> yeasts (Coopers, Nottingham and Windsor) to choose from in addition to >> the yeasts from Wyeast.
>
>I'm very curious what Al's comments were on the different yeasts.
>Al, if you've had a chance to taste the above beers you've referred to, please comment. I'd also be very interested in hearing from others who have experimented with various dry yeasts.

I've tasted two batches now made with the Nottingham. One was split between bottles and a keg. It's very clean and only very slightly fruity in the keg, but tastes/smells nutty (peanutty, like Grant's IPA [sic] or Grant's Scottish [sic] Ale) in the bottled version. Although I've only tried it on two batches, so I don't quite have a handle on this yeast, but the Nottingham appears to be relatively attenuative (more so than the Coopers, I'd say). I haven't had a chance to taste the Windsor --

I only made a 1 gallon batch to try it out and then sort of forgot about it. I've been told that the Windsor tends to be even more attenuative and less flocculent (these two factors are related) than the Nottingham. The Nottingham batches were fermented at 65F.

The Coopers is quite fruity fermented at 65F and probably the best dry ale yeast I've ever tried. It's not phenolic at all and all the flavor is a very clean fruitiness.

For those of you who made it to the Mainstreet beer tasting, the American Light Ale and English Pale Ale were made with Coopers and the Medium-dry Stout was made with Nottingham. The *DRY* stout was made with Wyeast #1084 (two years ago!). How about that -- the driest beer of the bunch was made not with dry yeast, but with liquid!

Al.

Date: Tue, 2 Mar 93 13:16 CST
From: THOMAS VODACEK <87749194@ucs.uwplatt.edu>
Subject: Old "Potato Beer" recepie

To: Homebrew Digest
Fm: 87749194@uwplatt.eduThomas Vodacek

A friend gave me an old recepie from his uncle that was for potato beer. The idea is a little odd, but I would like to try it to see the result.

It calls for cutting each potato into just larger than matchstick size pieces and mashing them seperately from the grain portion and then filtering with cloth and -then- mixing the worts for the boil.

I was wondering where the enzymes for the potato starch conversion come from? It seems to me that if there were enzymes present they would be converting the starches right away in the field and in the store. Or does the tuber have a way to control the enzymes in the living tissue? I would guess that when a potato is stored a long time and then gets soft before it begins to grow eyes (like mine usually do) this is like the point in grain malting where the grain is dried in a kiln. If this is true:

1. Do I have to let all of the potatos get to this stage, or
2. Are there enough enzymes in just one or two that can do all of the work, or
3. Are the potato starches in such a state that they are (very) quickly converted by the grain enzymes after mixing, or
4. Should I hold the wort at mashing temps for a time as comversion takes place?

The recepie doesn't say to wait for conversion, but then it doesn't say to test for it either.

Has anyone used potatos in a "beer" that can lend assistance?

Thanks.

Thomas Vodacek

Date: Tue, 2 Mar 1993 17:11:43 -0800 (PST)
From: James Thompson <sirjames@u.washington.edu>
Subject: Proposal (Repeat) & Review (New)

PROPOSAL

To repeat my proposal in HBD #1087: if you will e-mail me the authors names, titles, publishers, and prices of books that are pub/brewpub/microbrewery guides to your local (state or city), I will compile them and share the results with this forum. (You could also send me oneliners such as "homebrewing is illegal in Georgia" or "there are no brewpubs in Texas." (These sad facts we learned in recent postings.) The book which is the object of the following book review is an example of the sort of guidebook I have in mind. Is doable, yes/no?

BOOK REVIEW

Becker, Bart. SEATTLE BREWS: The Insider's Guide to Neighborhood Alehouses, Brewpubs, & Bars. Anchorage & Seattle: Alaska Northwest Books, 1992. 176 pp., paperback. \$9.95. ISBN: 0-88240-425-3.

Bart Becker has saved me the task of writing such a book -- and deprived me the fun of the research! He also did a better job than I might have done. Besides listing all the pubs, brewpubs and microbreweries in the Seattle area, he includes some basic introductory material on the history of beer, how beer is made, and beer terminology; he also provides a few recipes for food using beer as an ingredient, a list of brewpubs & microbreweries in Oregon, Idaho, Alaska, British Columbia and California, and an appendix giving information on organizations, publications and events. The actual directory listings are given by neighborhood -- which makes it easy for planning pubcrawls!

One feature that makes this guide slightly confusing is that the directory information itself is divided into two separate categories, one part listing brewpubs and microbreweries, and another listing "Alehouses and Bars." However, the book is well indexed, so it is easy to find the entry for a place whose name you already know. For all your folks heading for Portland for the AHA convention, you might consider a side trip to Seattle, truly "The Best Place In America to Drink Beer!" And if you do so, you will find this book the perfect companion to make your way around like a native.

Don't be silly; of course I do not have any monetary interest in the sale of this book. I just wish I had written it. :-)

Jim Thompson/Seattle WA
sirjames@carson.u.washington.edu

Disclaimer: Our opinions are only our own, aren't they my Precious?

Five things these Chestertonian youths revere:
Beef, noise, the Church, vulgarity and beer.

-- Anonymous

Date: Tue, 2 Mar 1993 21:33 EDT
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>
Subject: Clear Beer?

OK. I couldnt believe it, but, alas, it was on NPR. Miller will soon be offering a clear beer! Anyone got any details?

I suppose it will be helpful to those who wish to avoid the open container laws, but at the price of drinking Miller :-)

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva
Internet: oconnor@snycorva.cortland.edu

Date: Tue, 2 Mar 93 21:51:16 CST
From: lencell@unmc.edu (Lance Encell)
Subject: "clear beer??..."

anybody hear about Miller coming out with a "clear" beer?
Can you believe it? Sorry if this is old news, and if it isn't, sorry
I don't know more..... or am I?
- ----Lance

Date: Tue, 2 Mar 93 22:10 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Mashout, RIMS

>From: Ed Hitchcock <ECH@ac.dal.ca>
> Jack suggested that the mashout also increases the grain
bed temperature to allow for an easier sparge. This may well be true,
but
I suspect that this would be more important for commercial breweries. A
friend and I compared the extraction rates for two brews, one sparged
with
cold water, the other with hot..

Just for the record, I never made claims that mashout improves yield.
Only
that it would tend to prevent stuck mashes in cases where this could be
a
problem. I tend to agree that, assuming a working system, the yield
depends
primarily on the malt. My last batch was 34/pts/lb/gal and the only
thing I
changed was the malt. I used Belgian Munich.

> (Jack, you seem to get good results, would you mind trying a cold
sparge through the EM and let us know how it turns out?)

Hmmm... That's a bit like asking my wife if she would mind if I brought
another women home. I think I know the answer and am not sure what the
exercise would prove.

I am sure it would work and with the EM, you can stir it anytime and
eliminate set mashes but there is just something about sugar and hot
water
that seems right.

>From: "Bob Jones" <bjones@novax.llnl.gov> on RIMS...

Reading the article in Zymurgy on RIMS put me to sleep and the question
of
"why" kept haunting my dreams. Now that someone seems to have made it
work,
I still ask, "why"? It seems a bit like a computer controlled, laser
guided
nail clipper. Would someone please tell me what the benefits are
supposed to
be?

js

Date: Tue, 2 Mar 93 22:36:00 CST
From: hopduvel!john@linac.fnal.gov (John Isenhour)
Subject: Belgium

I've been wanting to find an excuse to check out the Belgian brews real close up, and recently someone told me there was some kind of brewfest that occurs once every five years called the Leeven Festival (his spelling) and that it was about 10 Km out of Brussels. I can find a town called Leuven northeast of Brussels and am hoping this is the right place. Anyway, if anyone has any info on this (its supposed to be in late May) I would really like to hear about it.

And as long as I'm there:-) I might as well see as much of the brewscape as I can, so any hints on good places to go or routes or whatever will be greatly appreciated. How do you go about dragging back beers? Should I consider renting a car (or a truck and a driver?).

- - -

John Isenhour
renaissance scientist and certified (till they recalc:) Beer Judge
home: john@hopduvel.UUCP (hopduvel!john@linac.fnal.gov)
work: isenhour@lambic.fnal.gov

Date: Wed, 3 Mar 93 05:01:27 CST
From: todd@gold.rtsg.mot.com (Todd M. Williams)
Subject: cooker conversion summary available...

Greetings All,

Last month I groveled in the following manner...

```
> I have a question about cajun cookers. I have put an addition
> on the ol' homestead, and moved the laundry room into the addition.
> I now want to turn the old laundry room into my brewery :-[>
>
> I have a double sink, a floor drain, and the gas line and vent from
> the dryer. What I want to do is convert my cajun cooker from a propane
> unit into a natural gas unit. Can I do this?? If so, does anyone
> know what is involved? How much it might cost?? Where to get parts??
>
> Any help would be very welcome!!!
>
> Thanks,
```

Well, I recieved many responses...many more than I expected :-D
I would like to thank everyone personally, but, there are too many!!!
So, you know who you are....THANKS, THANKS, and more THANKS!!!
I am in the process of preparing a summary and will send it to whoever
wants it. I guess this thread was covered over the summer (before I
started reading HBD) so I won't waste any more bandwidth posting the
whole
summary. So if you want it, send email to the address below, with a
subject
of "cooker summary", and I will forward it to you.

See all you CBS/BOSS members at the Goose tonight.

Again...many thanks to all!!

```
Todd Williams | Motorola, Inc.
Downers Grove, IL. | Radio Telephone Systems Group
(708) 971-8692      | Cellular Infrastructure Group
When in Chicago.... | Arlington Heights, IL.
Gimme a call.....  | (708) 632-5691
Stop by for a HB... | todd@rtsg.mot.com
```

Moderation, lad....moderation is the key. 8 or 10 is reasonable
refreshment. After that, and it's likely to degrade into drinking.

```
/-----/
-----/
/ -rwxr-xr-x 1 todd employer 69 Feb 10 1958 OPINIONS /
/ lrwxrwxrwx 1 employer other9 Jan 01 1970 OPINIONS -> /dev/null
/
/-----/
-----/
```

Date: Wed, 3 Mar 93 05:33:19 MST
From: stevel@chs.com (7226 Lacroix)
Subject: Does this qualify as anal...or what?????

I haven't been reading my mail recently, but the current thread re:
The Maltmill definitely qualifies as severely anal IMHO. Jesus folks,
get on
with the rest of your lives will ya. If you don't like the MM, send it
back,
make your own, or whatever, but climb off Jack's ass already! I'm
reminded of
a quote....nah...I've wasted too much time of this post already...
Steve Lacroix
Primitive Brewing (worts and all!)

Date: Wed, 3 Mar 1993 11:54:10 +0000
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)
Subject: Glass houses

In HBD #1089 george Fix asks:

> I seem
>to remember from my youth a story about glass houses and stones. Does
>anyone remember how that one goes?

Yes, I remember that one; doesn't it go:

"People who live in glass houses shouldn't"

On the same lines, I believe, as:

"Familiarity breeds"

Relax, Have fun, and keep smiling. :-)

Geoff

Date: Wed, 3 Mar 1993 08:14:34 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Texas Brewpubs

john@hopduvel.UUCP
isenhour@lambic.fnal.gov writes:

>ps to BLAST@sn01.sncc.lsu.edu

>

>>I have to make a trip to Austin, TX next week...

>>Anyone got the latest on brewpubs there?

>Brewpubs are currently illegal in TX:(

Unless you operate it as an amusement park centered around a marine-
mammals
theme, in a county containing a city the size of San Antonio. Why, then
its OK.

Want to guess who owns Sea World?

t

Date: 03 Mar 1993 10:28:22 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Diastatic malt flour

Malt flour with active enzymes makes terrible bread (but great bricks) by itself. However, adding a tablespoon (don't get carried away now) to the 6 cups or so of regular flour when making bread produces excellent results.
ed

Date: Wed, 3 Mar 1993 9:40:29 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: Belgium, brown sugar

There was mention of a beer supermarket of sorts in Brussels in a past HBD. Could someone point me to the issue, or give me info on the market if you have it. A friend is going there, and I'd like him to have full luggage on the way back ;-).

Re. brown sugar: In my book, it's virtually **required** in an English style ale. Yes, I actually add brown sugar to all-grain batches, usually 1 lb (10-15%). Purist, I'm not. Beer drinker, I am.

RussG
r_gelinias@unhh.unh.edu

Date: 03 Mar 1993 09:41:56 -0400 (EDT)

From: KLIGERMAN@herlvx.rtpnc.epa.gov

Subject: several items

I recently posted questions concerning Belgian wyeast 1214 and Whitbread Lager

Yeast (Koenig) dry and have received no responses. Has anyone used these or

have any info. on their flavor profiles, etc.? Respond by e-mail if you like.

Thanks.

Jena

Date: 03 Mar 1993 09:56:30 -0400 (EDT)
From: KLIGERMAN@herlvx.rtpnc.epa.gov
Subject: continuation

I hit the wrong key and prematurely ended my last post. Sorry.
Jena D. requested info. on honey lagers. I have made Papazian's
Propensity Lager several times and it is excellent. The flavor depends
upon the honey used.

Regarding my use of 17 month old yeast slurry kept in the frig....It did
not revive in the strarter. So this might be taken as a duatum for time
that leads to failure. Others I have done have worked after about a
year.

Date: Wed, 3 Mar 1993 09:00:33 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Dry Herbing With Coriander

Deb <poirier@inrs-ener.quebec.ca> writes:

>
> I brewed a batch of Wit last weekend, which is bubbling nicely in the
primary.
> The recipe (Miller) calls for the addition of 1 ounce of coriander seed
to the
> secondary. Do I have to boil the coriander before adding it or will
there
> be enough alcohol present to ward off any nasties? Any help would be
very
> much appreciated. Thanks in advance.
>
I didn't boil or anything, and had no trouble. But I was careful about
handling
the seeds. I didn't roll `em around in my hands or anything. I cracked
`em
open with my coffee grinder -- you could crush with a heavy glass on a
cutting
board, rolling-pin style. I think some people microwave their dry-herbs
to try
to kill nasties. I can't comment on the effectiveness of this. I
counted on
careful handling and the alcohol. Its probably nothing to worry about.

t

Date: 3 Mar 1993 10:01:04 -0500
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>
Subject: Fastest Homebrewer/dry beer

Subject: Time:9:51 AM

OFFICE MEMO Fastest Homebrewer/dry beer Date:3/3/93
I have just discovered the ultimate in quick homebrewed beer. I can, with this product make beer in 30 seconds, thus I think I deserve the title of World's Ultra-Fastest Homebrewer. The product is South Hills BEER flavored Dry Beverage. All you do is add water and presto....beer! You can make it any alcoholic strength you want by adding alcohol. You can make it alcohol free and be socially acceptable. This is the ultimate in dry beer. Just pour the powder on your tongue (anyone else ever eat a Fizzie?).

Other marketing claims tell us this product has "micro-brewery taste". Hummm, I wonder which micro? "This refreshing drink will help revitalize the weary by providing carbohydrates necessary to lift the spirit and move the body" (move over George Clinton). "You may enjoy this beverage with or without alcohol. If adding alcohol, please do not drive or undertake activities requiring sharp, mental acuity." What, we need warnings on products that contain no alcohol, but can have alcohol added? Next I expect warnings on orange juice, coffee, Kool-aid.....

Ingredients: Maltodextrine, natural and artificial beer and malt flavors, dried beer, and corn syrup solids.

This is made for the backpacking and mountaineering set in mind. Cost is \$1.59 for 8oz which comes to a whopping \$127.20 for 5 gallons.

Now for the product review. I prepared it according to package instructions, adding the package (less the small amount that I ate dry) to 1 cup of cold water (the colder, the better), and waited for the "head" to go down. I also waited for the large floating blobs to dissolve. The batch was divided in half and the recommended 1/2 tablespoon of grain alcohol was added to one.

Dry: Slightly sweet, sour and effervescent. Fun and pleasant.

Non-alcohol: Slightly cloudy. Aroma is that of licorice, no hops, no malt. Low carbonation. Taste is thin, sour with some lemon notes. Not at all beer-like. Drain food.

Alcohol: Same appearance as NA version. Alcohol present in nose with licorice. Low carbonation. Flavor is flat, the alcohol predominates over the sour, lemon flavor. Drain food.

Overall impression: a waste of perfectly good water.

I'm glad I didn't make a 5 gal batch! I guess that I will go back to more time consuming methods:-)

DanMcC

PS. The cows were picked off the Net. Am I a cattle rustler?

```
> (__)
> (oo)   U
> /-----//---V
> /  | | | * | -- | .
> *  | | | --- | | |
>   ^ ^   ^ ^
> Cow at 1 meter.    Cow at 100 meters.    Cow at 10,000 meters.
```

Date: Wed, 3 Mar 93 10:07:22 -0500
From: blossomf@ttown.apci.com (Karl F. Bloss)
Subject: New PA Homebrew Supply Shop

For those of you in the Lehigh Valley, PA or surrounding areas, there's a new homebrew supply shop you might be interested in. At the moment he's mail order only, except by appointment, since there's no retail shop. I talked to the guy for a bit and he seemed knowledgeable (at least compared to me) and quite pleasant.
Call or write and ask for a catalog:

Have A Home Brew
Chris Striba, Brewer & Owner
1322 Weaversville Rd.
Northampton, PA 18067
(215) 262-4092

Date: Wed, 3 Mar 93 09:50:37 CST
From: roddy@visual-ra.swmed.edu (Roddy McColl)
Subject: Glass Carboys in Dallas Texas - Where are they ?

My brewing friends and I are looking for some prices on glass carboys in the Dallas Texas area. Any brewers in the area who know of good prices (\$15 is the best we have so far), please let me know where and how much.

Thank you much

Roddy McColl

Date: Wed, 3 Mar 1993 10:55:57 -0500 (EST)

From: David C Mackensen <cygnus@unh.edu>

Subject: Starting that siphon!!

What I usually do is use a sanitized turkey baster to start my siphon... it's kinda hard to explain, but I usually wind up with the turkey baster full of beer and the hose too (wich is good)...

I usually suck, then let it sit for a second, then squeeze to purge the air, then suck again, let it settle, then squeeze...

now, if you keep your mind out of the gutter, we should be all set :)

it helps if the baster is at the level you are going to siphon to...

this should get the hose full of beer, then rip the baster out and away you go... and of course, empty the baster full of beer into the carboy.

-chris

- - -

Date: Wed, 3 Mar 93 11:03:22 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: efficient propane burners

Since this burner thread has started up, I thought I would share my experience with building a propane fed direct fired burner unit. My problem was to find a efficient variable output burner to both heat the mash tun through various steps without carmelizing the mash, and also be used to quickly heat large volumes of water or wort. I was aware of the Solarflo corporation from a comment in Bill Owens pamphlet on building a brewery. I got the brochure from solarflo (22901 Aurora Rd, Bedford Heights, OH, 44146, 216-439-1680) and discovered a large selection of slotted cap and impinged burners. These units are made of cast iron and feature air venting that ensures even burning and optimum combustion. The burners are very impressive units, incorporating numerous geometries and numbers of jets available. This kind of product is not cheap, the unit I selected has 24 slotted cap jets on a 10.5 inch disk. This unit ran approx \$160. I do believe it is worth the cost for larger applications. All you need other than the burner is a propane ball valve, regulator, tank and a connection means, I used 1/2 inch refridge copper tubing flared onto 1/2 inch black iron pipe. The real nice thing about this design is that it is flexible, I can lower or raise the burner height or I can adjust the flame BTUs using the Ball valve. During mashing, the distributed flame front from 24 jets allows me to rapidly raise temp without carmelization. It will also boil over my wort kettle if I let it.

Thanks to the people who responded to my filtering question, I am gathering the necessary elements and will post a synopsis when complete.

Good Brewing,

Jim Busch
Colesville, MD

Date: Wed, 03 Mar 93 10:57:09 EST
From: Jim Lando <ST403299@BROWNVN.BROWN.EDU>
Subject: Alcohol Free -- Can It Be Done?

Dear Homebrewers,
Here's a challenge for you. I'm an avid beer lover who has been told that I may not consume alcohol anymore for medical reasons. The current cast of non-alcoholic brews pales (no relation to ales) in comparison with the variety and quality of microbrew and macrobrew available for consumption. To date I have found only one non-alcoholic brew which has any hops flavor at all and this is Freeport USA made by the FX Matt Brewing Co of Utica, NY. My question then is twofold: 1) Do you know of any other non-alcoholic brews of any quality? 2) Can one homebrew a non-alcoholic beer? (short of brewing, distilling, and recarbonating) Are there solutions which do not involve huge capital expenditures? Are there yeasts which produce CO2 but not EtOH? Any info you have will help.
Thanks In Advance,
Jim Lando

Date: Wed, 3 Mar 93 09:12:37 MST
From: haney@soul.ampex.com (Kenneth Haney)
Subject: First all grain

Hi all,

Well I finally took the plunge and tried an all-grain beer. I am so excited I just had to post it. Everything seemed to go amazingly smooth without any real hic-ups. I think I need to make a bigger lauter-tun, the one I've been using for partial mashes just isn't big enough, the grain comes to the top of the bucket. Anyway here is my first attempt.

9 lbs. Munton & Fison Lager (purchased precrushed, don't have a mill)
1/2 lbs. same grain toasted for 10 min at 350 in oven
1/2 lbs. Munton & Fison Crystal Malt (No idea about L. rating)
1 oz. Kent Goldings 60 min boil
1/2 oz. Hershbacher Hallertau (sp??) 30 min boil
1/2 oz. Hersh. Hall. 10 min boil
pinch Irish Moss 10 min boil
1 pk Edme dry yeast

I used a step mash ala THCOHB. Lauter-tun got filled up to the top with grain so there was no way to keep sparge water above the grain bed, still seemed to go smooth. I only have small pots so I had to use 4 of them to hold and boil all of the wort. I also split up the hops between the pots so they all got some. I chilled with my new immersion chiller thanks to a none brewer friend that found a copper coil in his travels and gave it to me. Boy it sure beats the cold bath tub bit. It is now fermenting as we speak.

I am going to have to get a big boiling pot some day. I do have a cooler to convert to a mash/lauter-tun. Does anyone have any suggestions about what to do to convert it?????

I sure hope this batch turns out OK, because it sure was fun and not as hard as I had always thought it would be.

Ken Haney
haney@ampex.com

Date: Wed, 3 Mar 1993 11:21 EDT
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>
Subject: Millage

Not to inflame the flamers--just leave this one alone.

But on the Maltmill that I purchased, I use a clean paintbrush to clean the rollers. It gets out all of the malt dust, and I use my dustbuster to suck it up. I use a 2" inch brush--but any will do.

I suppose the only caveat is to make sure its new.

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva
Internet: oconnor@snycorva.cortland.edu

Date: Wed, 3 Mar 93 11:19:16 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Brewcap, Korea Malt, Chinook

Mike gildner asks about brewcaps. They are cheap and very useful for starting siphons. My preferred method is sucking on the brewcap when racking to a carboy with the cap on the receiving part of the siphon. Other than that just suck. Starting siphons is not all that likely to infect a batch. I am convinced all the handling while filling the siphone with water is more risky. Swill your mouth with hard liquor before starting it, if you are concerned.

It is interesting about the Korean malt as I noticed it in an oriental food store around the same time as the original mention here. It was very pale and cheap so flour seems like the likely explanation. I used to use a cheap dried malt extract that I got at a health food store for brewing. It was dark and relatively cheap. However, my girlfriend had a reaction to beer made with it, and it made Laaglander seem fermentable. I still have some for straters, but since I started canning boil dregs I haven't used it.

I have been using Chinook hops as bittering hops, and have been a little disturbed by a slightly unpleasent aftertaste from beers brewed with them. I have heard some criticism of this hop variety. Am I seeing the effect of it? If so can someone recommend a palatable high alpha bittering hop.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

Date: Wed, 3 Mar 93 12:11:13 -0500
From: cm199@cleveland.Freenet.Edu (Thomas G. Moore)
Subject: Commercial beer yeast

I'm looking for commercial beers that you can culture the yeast
out of besides Chimay and Sierra Nevada. Preferably ale yeast.
Any help would be appreciated!

Date: Wed, 3 Mar 93 11:11 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: INDEX, BS, Ranching

I noticed in yesterday's index that I had sent two messages to the Digest, subject Maltmill, which I did not. Fortunately, they did not appear in the body and I gather that Rob's Automagical software can sort out cc's from email but somehow they stick in the index.

>From: bradley@adx.adelphi.edu (Rob Bradley)
>Subject: Brown sugar.....

>Some beers, especially British ones, are brewed with small amounts of brown sugar.

If brown sugar gives you the taste you are looking for, then Reinheightsgbot be damned. However, you should know that "brown sugar" in the U.S. (thanks to the good old FDA again) is nothing but refined white sugar with molasses added. If you don't believe it, try it. I made some when I first heard this and have not bought brown sugar since.

The point is, if you only want the flavor contributed by brown sugar you might consider just using molasses and leaving out the sugar. You also have a much wider range of flavors in molasses than you do in brown sugar.

>From: atl@kpc.com
>Subject: Re: Yeast Ranching

I dealt with most of this in email but here are a few comments that may be of interest to others...

> You may have a point on simplicity, but I had more faith in the "canned" wort keeping for a long period of time at room temperature.

You run the risk of the neck and mouth of the jar contaminating the wort as you pour it out. I put my pint in the fridge and PC just before use if I need to use it directly.

> I'm not sure which flask you are referring to. I use flasks for growing my starters, but I don't boil at that point. I pour sterile, canned wort into the sanitized flask, stir in a small sample of yeast, and affix a sanitized plastic airlock.

If you use a glass airlock, you can sterilize the wort, flask and airlock all at the same time. When the wort comes to a boil, put on the lock and the

steam sterilizes and fills the lock with sterile water.

I am not trying to be hard to get along with, just hate to see people re-inventing the wheel.

> Can you give me the asian name(s) for this? I can just imagine going into my local asian grocery and trying to describe agar. :-)

Strangely enough, they call it agar agar. If you just say agar, you get a blank stare.

js

Date: Wed, 3 Mar 93 09:31:23 -0800
From: SCHREMPP_MIKE/HP4200_42@pollux.svale.hp.com
Subject: siphon starting

Here's the best siphon starting techniques I've found:

1. Put a racking tube on both ends of the siphon hose. It makes it a lot easier to handle, and helps with step 2.
2. Put a short piece (6") of siphon tube on the out-end of the thing.
3. Sterilize the whole mess.
4. Put the input end into the wort (or whatever). Hold the output end racking tube up so the siphon hose is in the air as high as possible.
5. Suck on the out-end to draw liquid up to the top of the upraised siphon.
6. Bring the siphon tube down, but keep the out end of the tube above the level of the liquid (the rest is below the liquid level).
7. Pull off the 6" piece off the end so your mouth-nasties are not going into your beer.
8. Put the out end where you want the wort to go and then lower it below the level of the liquid.

This really works. My spilled wort coefficient has dropped dramatically with this procedure. Finding a 6" piece of tubing with a slightly bigger diameter than typical tubing makes it easier to take off when the time comes.

Mike Schrempp

Beer is good
Beer is food
My favorite beer
Is what I've brewed

Date: Wed, 3 Mar 1993 09:21:22 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Opaline phytoliths and hop rash

Spring is coming and all of us hop growers are getting excited. I just got an answer to a question about hops that had been puzzling me since last harvest. Some of us hop pickers get a red rash and irritation on the backs of hands and inside of forearms when picking hops. There was some speculation last fall about the cause of this: plant juices, resins, the sticky things on the bines, etc.

Last week I had a visit from my friend Ryan Drum, the second homebrewer after my Uncle Charlie that I knew. In addition to brewing, Ryan is also a botanist and skilled in electron microscopy. His explanation of the hop rash is that the stems are covered with tiny needle-like mineral bodies called opaline phytoliths (sp?) These are broken off and get lodged in the skin, just like fiber-glass insulation. The little cuts in the skin are raw and open to further irritation from sweat or other nasties.

Ryan says that nettles have a similar phytolith and this is how the nasty oil gets into our skin when we brush against them. He mentioned hops, nettles and cannabis as all having this kind of needle-like phytoliths. A long time ago he classified plants by their phytoliths and used this to examine coprolites (fossil stools) to determine diets....

Paul.

Date: Wed, 3 Mar 93 12:37:31 -0600
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)
Subject: brown sugar or caramel malt?

In yesterday's digest Rob Bradley stated he found the "brown sugar aroma" in a beer made with malt only, no brown sugar. For several years I was under the impression that you needed brown sugar or molasses (Treacle) to get that flavor and aroma and assumed that the English ales which have that aroma do indeed use these adjuncts. like Rob, i now wonder if I haven't been mistaken. what tipped me off was my first sniff of crushed Special B malt, a belgian crystal (caramel) malt of about 200 degrees lovibond. i've used this malt is several ales now and it does indeed impart something very similar to the 'brown sugar aroma' that Rob refers to.

so my question is, does anyone have DIRECT knowledge as to which English ales use adjuncts such as brown sugar or treacle? i wonder if some of the ones which we think use these are actually using very dark crystal malts similar to special B. does anyone know if there are very dark english crystal malts which are unavailable in the U.S.

Date: Wed, 03 Mar 93 13:41:51 EST
From: Daniel Butler-Ehle <DWBUTLER@MTUS5.cts.mtu.edu>
Subject: BrewCap

To Mike Gildner <gildner@mml.mmc.com> who asked about the BrewCap:

BrewCap doesn't really make it easier to take samples. You have two tubes: one reaches up to the bottom of the inverted carboy to allow CO2 and kraeusen to escape, and the other collects yeast. In order to get a sample of the beer, you have two choices:

1) Empty all the yeast out of the yeast collection tube and let it drain until you have clear beer coming out. But the instructions say never to remove ALL the yeast from the tube. If you do this, you may cause the water trap liquid in the tube to get sucked up into the carboy.

or

2) Drain the water from the larger tube (the blowoff tube), cap it, and shake the carboy until enough beer splashes up into the end of the rigid tube inside the carboy. This gives a clearer sample than (1).

I've only used my BrewCap once. It works well, but it'll take a little getting used to. Maybe I'll use it on one of my beers next week. It should be great for repitching yeast when batches overlap because of the yeast collection tube; it's easy to remove a large sample of freshly-settled yeast.

It took me two years to get around to using BrewCap after I bought it. The main reason is that it requires that I have some way to hold a carboy upsidedown without resting it on its neck. I took a bunch of backpack straps and sewed them together in such a way that they can hold an inverted carboy by the shoulders. I then hung this setup in an upsidedown steel kitchen stool.

----- K eweenaw
R eal
Dan Butler-EhleA le
Calumet, Michigan E nthusiasts
U nited for
dwbutler@mtus5.cts.mtu.edu S erious
-or- E xperimentation in
DWBUTLER@MTUS5.BITNET N aturally
E ffervescent
the U.P.'s best homebrew clubR efreshment
----- S cience

Date: Wed, 3 Mar 93 13:06:33 CST
From: tony@spss.com (Tony Babinec)
Subject: sugar in English beers/other thoughts

A perusal of Roger Protz's "Real Ale Drinker's Almanac" indicates that a substantial fraction of English ale recipes employ adjuncts and additives such as sugar, molasses, treacle, caramel, flaked maize, and occasionally flaked wheat. Somewhere -- it may be in Terry Foster's "Porter" -- I read that in the 19th century English producers were encouraged by the Government to use sugar. Was this an effort by the Government to encourage the home island to patronize the colonial sources of sugar? In any event, the smoothness and lightness of body contributed by the adjuncts might make the preferred "session beers" less filling to the palate, thereby encouraging the quaffing of another pint. While I don't know the relative prices, it could be (and might have been) that the cost of ingredients for such a beer might be less than if it were an all-malt beer. And, the unfermentables in the less-refined sugars would contribute to aroma and flavor.

I agree with Rob Bradley that as novices we learn to stay away from sugar, but that it nonetheless has its place. So, by all means, experiment with sugars in your ales.

On Bass Ale, they are quite secretive about their process and ingredients. None of the publications I've seen, such as the Roger Protz books, say anything about ingredients such as the hops used, because the brewer isn't telling.

It also seems that an important contributor to flavor, aroma, and palate is the yeast used, and also the fermentation temperature. John The Hop Devil ("More malt, More hops"), I'd love to take some of that Fuller's yeast off your hands!

Date: Wed, 3 Mar 93 11:15:36 MST
From: pyle@intellistor.com (Norm Pyle)
Subject: hop aroma / real ale

Donald O'Connor's comments about dry hopping made me think about what the Brit's call "Real Ale". I believe this term is intended to describe ale that has been dry hopped, and that has finished fermentation/conditioning in the keg. Since this is done under pressure, this may explain the English folks' love of real ale. Actually, it probably doesn't imply dry-hopping as much as leaving hops in the keg (perhaps left from the boil), but in either case, more hop aroma would be retained in this situation.

Cheers,
Norm

End of HOMEBREW Digest #1090, 03/04/93

Date: Wed, 3 Mar 1993 11:19:02 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: Lallemand dry yeasts

C. Lyons writes:

> I'm very curious what Al's comments were on the different yeasts.
> Al, if you've had a chance to taste the above beers you've
> referred to, please comment. I'd also be very interested in
> hearing from others who have experimented with various dry
> yeasts.

Before I switched to Wyeast I used Nottingham Ale yeast quite a lot. Generally I had very good results except for two successive batches that produced a very strange flavor strongly reminiscent of that found in German wheat beers. In fact, one person who tasted it said that brewers strive to get this flavor. Well, in a pale ale it's rather out of character. I don't know why this happened. It could have been higher than normal brew temperatures (done in summer) or a contaminated batch. At any rate, I switched to Wyeast after that and haven't had any more problems. Reusing slurry from the secondary cuts down the extra cast involved.

As an aside, 1056 is REALLY attenuative! My latest was fermented with slurry from the previous (which used 1056 from the packet, via a starter)

.
In 3 days the SG went from 1.042 to 1.008. I've heard it becomes even more attenuative with successive mutations, too.

Peter

Date:Wed, 3 Mar 93 14:16:15 EST
From: William Boyle (CCAC-LAD) <wboyle@PICA.ARMY.MIL>
Subject: Raspberry beer

I am thinking about making a raspberry beer, the cost of raspberries is a bit high. I was going to use soda extract. Mix it in at bottling time (this way I can adjust the amount to my taste). Has anybody tried this? How did it turn out? Any comments will be appreciated.

B^2

Date: Wed, 3 Mar 1993 13:31:18 -0600 (CST)
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)
Subject: more info on British pubs

Hi all

I too would like to appeal to all you worldly people and locals out there. Someone posted a request for recommended English pubs and brewpubs of London some time ago. I will also be in London in the next couple of weeks. But I will also be elsewhere on the island. I plan to visit all type of places in the south of England concentrating on the Portsmouth and Bournemouth areas. I have plans to go to Bristol and Exeter. Just about anywhere in the southern half of the country is fare game.

So, if any of you have any experiences you would like to share, I would like to hear them. So far the only brewery I plan to visit/tour is the Eldridge Pope brewery. Hope they have a tasting room somewhere :). You can post privately to me, or send it to the digest. There is bound to be someone out there besides me that would find any info useful.

thanks
scott

Date: Wed, 3 Mar 93 13:09:00 CST
From: Thomas_Joe@lanmail.ncsc.navy.mil
Subject: WATER BOILING ON AN ELECTRIC STOVE

I HAVE RECENTLY MOVED TO A SMALLER PLACE THAT DOESN'T ALLOW B-B-Q'ING OR THE USE OF A KING COOKER. THEREFORE, I WOULD LIKE TO KNOW IF ANYONE HAS HAD SUCCESS BOILING THEIR WORT ENTIRELY ON AN ELECTRIC STOVE? IF SO, HOW LONG DOES IT TAKE AND CAN YOU SUGGEST ANY TIPS TO SPEED THE PROCESS WITH MY 8 GAL. CERAMIC ON STEEL POT.

- JT

Date: Wed, 03 Mar 93 10:40:39 -0800
From: tims@ssl.Berkeley.EDU
Subject: mail order hops

I am looking for the name and address of a company (I think one good one was in Oregon) which will ship hop root cuttings, from which one can grow their own hops. If someone has this and can email it to me, I would appreciate it.

Thanks,

Tim
tims@sag4.ssl.berkeley.edu

Date: Wed, 3 Mar 93 12:20:19 PST
From: "John Cotterill" <johnc@hprpcd.rose.hp.com>
Subject: Powdered Sugar
Full-Name: "John Cotterill"

I asked Micah why he used powdered sugar instead of regular sugar. He stated that the powdered sugar is easier to work with and it dissolves better. There is no chemical reason, its just easier.

BTW, as I mentioned, my experience with sugar only starters suggested that I return to good old DME. My yeast seem much happier.

JC
johnc@hprpcd.rose.hp.com

Date: Wed, 3 Mar 93 15:51:55 EST
From: Lee Menegon <necis!lmenegon@transfer.stratus.com>
Subject: Finings / Starter Wort

A recent post asked about the use of Polyclar as finings when to add and how much. I would warn against using Polyclar immediately after racking to the secondary. Both my self and a fellow brewer were experiencing high levels of diacetyl in our beers. One of the causes was the addition of Polyclar immediately into the secondary. This caused the yeast to fall out of suspension before it worked on reducing the diacetyl caused by pitching at too high a temp. 1 to 1.5 tsp is plenty to add to the secondary after a couple days of "diacetyl rest".

Starter Wort: I use the following technique for producing starter wort. After racking off the trub I add a gallon of very cold water to the trub. I let the trub, wort, hop particles settle and siphon the clear liquid in to clean bottles which I immerse in boiling water for 30 minutes. I cap these and refridgerate. This produces a starter of about 20 to 25 sg points. I was led to believe that starters should not be high gravity since yeast mutation could occur as the alchol level rises. Is this a valid assumption?

- - -

Date: Wed, 3 Mar 93 14:38 MTS
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>
Subject: Pectate enzyme

I have a very short question regarding the use of pectate enzyme. As I understand it, this enzyme can be used to break down the pectate that will set as a result of boiling a fruit, preventing the set pectate from clouding beer.

My question(s) are these: Is that statement above correct? At what point in the process is this enzyme added to the wort? (Before, after boil, in secondary...) How much is necessary?

I'm planning to use this in a cherry beer that I am making. Actually, the beer is already fermenting, and I'm planning to add the crushed cherries in a couple of days. To avoid nasties, I'd like to boil the fruit before it's added to the fermentation.

Thanks for any help,
Chuck

Date: Wed, 03 Mar 1993 17:03:58 EST
From: fahrner_t@wums.wustl.edu
Subject: forwarding address

Please send the homebrew digest to my new address: fahrner@milbrandt.wustl.edu

Thanks in advance

Tim Fahrner

Date: Wed, 3 Mar 1993 18:29 EST
From: STBLEZA@grove.iup.edu
Subject: Yeast Starter Questions

Greetings all...

I have a couple quick questions about yeast starters and survivability. First, can yeast survive being frozen for long periods of time? Does it depend on the type of yeast used? If so, does anyone have info on what type work and what types don't? Second, and health-store type Brewer's Yeast be used as a yeast nutrient? It would seem reasonable to me, since brewers yeast is killed yeast, so it should have all the things yeast wants, in all the right quantities. Now, here is what I want to do... I want to get good yeast, and make a large patch of starter which is then frozen. Then, whenever I go to add yeast to my wort or must, I just 'chip' some yeast off of my starter ice block, re-start it in a glass or jar, and add that to the wort or must. This would decrease my expense for yeast a good bit, and would be easier than trying to keep active growth going for-bloody-ever (not to mention that this would avoid all the problems with mutation). So, what do people think? If no one has an answer, I will try it out myself...

Also, to all the people I promised a review of my medieval brewing techniques to, sorry that it's taking so long, but I'm writing it up, and I'm currently bogged down at school, so...

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| "There are no choices between good and | The Dragon of | |
| evil. All choices are between the | Summer Sun and | |
| lesser of two evils, or the greater of | Winter Moon | |
| two goods." | (AKA J. Hunter Heinlen) | |
| -The Dragon of Shadow Walking and | (Bitnet:STBLEZA@IUP) | |
| Night Stalking -- a good friend RIP | (Internet:STBLEZA@GROVE.IUP.
EDU) |
+=====+=====+=====+=====+=====+=====+=====+=====+=====+
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Date: Wed, 3 Mar 1993 18:26:46 -0500 (EST)
From: Donovan Bodishbaugh <dfb@acpub.duke.edu>
Subject: Attention Grain-Brewing, Would Be Control Freaks

My feelings concerning the ridiculous running debate over AG vs. ME brewing (I can resist no longer):

You cretins have got it all wrong! The beauty of grain brewing lies not in gaining control, but in relinquishing control! Once I brewed extract beers, and they were good, but they all tasted more or less the same. Any changes in character (body, bitterness, color, strength, aroma, etc.) were totally predictable, based on my simple alterations in the recipe. There was absolutely no surprise (read adventure) in cracking a new batch. Now I grain brew exclusively, because every batch is a totally new experience. Burners, brewpots, lauter tuns, thermostatically controlled immersion heaters, circulators, chillers, every new piece of paraphenalia I employ only adds another variable and source of unpredictable complexity to my brews. Call it the Heidelberg Uncertainty Principle of brewing. My beers just get better and better, no two taste the same (regardless of using the same recipe), and, best of all, none of them tastes remotely like a commercial product. If my objective was to gradually perfect some imitation of a "classic style" by trial and error repetition, I'd buy a case of Pilsner Urquell or Guinness Extra Stout, scrape off the labels, and spend all my weekends fishing! What do you people consider to be fine art, paint by the numbers? Grain brewing allows you to unleash the infinite variability of grain combinations, complex carbohydrates, protein interactions, acid-base and redox biochemistry. The result is like ice sculpture: You can marvel at it, savor it, and enjoy it in different lights, but you can't put it in a museum. If you think grain brewing gives you more control over the finished product, you're seriously deluded. If that is what you're after, you are also missing the point.

DFB

"When the going gets tough, the weird turn pro." - Dr. Hunter S. Thompson

Date: Thu, 04 Mar 93 07:31:42 EST
From: Lloyd MacIsaac <UGF00011@vm.uoguelph.ca>
Subject: Oiling Your Mills...

When I worked in a Restaurant the chef used Vegitable Oil to keep his kitchen gadgets from rusting (esp. roasting pans). Perhaps this could be the answer for mills? Veg oil is edible and cheap. I guess Peanut oil or sesame oil might even impart an unique taste ??

Don't know if it works, but sounds better than refined motor oil!

Lloyd MacIsaac (UGF00011@VM.UOGUELPH.CA)

Date: Thu, 4 Mar 1993 08:50:45 -0500 (EST)
From: William Frederick Pemberton <wfp5p@holmes.acc.virginia.edu>
Subject: Clear Beer

Isn't Coors marketing a clear beer called Zuma (or some similar silly name)?

This clear thing is a really strange fad....

Bill

Date: Thu, 4 Mar 93 9:18:42 EST
From: roman@tix.timeplex.com (Daniel Roman)
Subject: Clear beer

Apparently Miller and some others are trying to go after a "younger" market as well as trying to go after women. They define "younger" as 21-25 ;-). Anyway, following on the coattails of the light beer wave and then the dry beer wave and now Crystal Pepsi, clear beer had to be next.

Think of it as marketing genius for the big boys to make even more money with an even more tasteless product. They won't have to spend much money on malt, just more rice and corn (remember the Bud commercial "It's the rice"). They'll charge the same price and end up with something that tastes more like Perrier than Coors light does now but has as much alcohol as a light beer.

Hopefully the FDA (or whoever is in charge of this kind of thing) won't allow them to call it beer anymore. It's really gonna give beer a bad name (or at least "WATER" down the definition of "beer"). My suggestion for a name would be "Alcoholized Seltzer". I don't know why they just don't go ahead and make seltzer by artificially carbonating it and then just add some grain alcohol, that's gotta be cheaper than going through the trouble of brewing it.

I certainly don't expect anyone to get into homebrewing to make "clear beer".
- - -

Dan Roman GENie: D.ROMAN1 Internet: roman@tix.timeplex.com //
American Homebrewers Association member Only AMIGA! /X/

Date: Thu, 4 Mar 1993 07:02:26 -0800
From: mfetzer@ucsd.edu (The Rider) (Michael Fetzner)
Subject: Re: Ranching

Ahem. All this talk of Ranching is getting to me! Look folks... they're plants. We call that farming! Ranching is for critters... Seems to be a common misconception amongst brewers. *grin*

(just some humor to throw between the maltmills...)

Mike

Michael Fetzner
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer
Bitnet: FETZERM@SDSC
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

Date: Thu, 4 Mar 1993 10:10:58 -0500 (EST)
From: bobml@msd.measurex.com (Bob LaGessee)
Subject: Re: BrewCap

Six or so months ago I tried to contact the the BrewCap Company but my letter was returned with forwarding address unknown. If anyone has their current address, please e-mail it to me. Overall the BrewCap arrangement worked well but I felt that the milk carton arrangement recommended by them wasn't as secure as I would like. Their instructions also mentioned a tripod (sold by them) for holding the carboy which also allowed it to rotate 180 degrees. I think that this would make the handling of the carboy much easier. Does anyone know anything about this contraption?

By the way Dan, Did you happen to buy your BrewCap at the Keweenaw Coop? It's one of the best coops that I've ever been to; it's also a good source of home brewing supplies. In fact, I happened to buy my BrewCap there. Also, When does your KRAUSENERS club meet? Maybe I can bring up a few of my own brews sometime to share 8^).

- - -

Domain: bobml@msd.measurex.com Bob LaGessee, Senior Software Engineer
UUCP: ...!uunet!mxmsd!bobmlMeasurex/Management Systems Division
Voice: (513) 825-3931 X303 1280 Kemper Meadow Drive
Fax: (513) 825-5393 Cincinnati, Ohio 45240, USA

Date: Thu, 4 Mar 93 15:33:41 GMT
From: des@pandora.swindon.ingr.com (Desmond Mottram)
Subject: Sugar and real ale

Speaking as a Brit familiar with local brews and breweries:

Many, but by no means all, UK breweries use small amounts of caramel or brown sugar to colour their beers. I've never heard of it being used for flavour. Other breweries use none at all and would be insulted if you suggested they did, so be careful how you ask. They use larger quantities of crystal malt instead. I can only obtain one type of crystal malt for homebrewing and it adds a lot of colour and flavour. Darker types don't seem at all common. I have a vague notion cara pils is a pale crystal malt. It is certainly not commonly used in British beers.

The excessive use of sugar in brewing is generally regarded in the UK with the same contempt and disgust as elsewhere. Only mega marketing muck makers do it, to cut costs and to hell with quality.

Real Ale in the UK is beer which has not been filtered, pasteurised or pressurised, and which is allowed to condition in the barrel. Air is drawn in as it is served, so its shelf life is 4 days max. If any hops are present they will be fresh hops added to the barrel when the beer is racked, they would NEVER be spent hops from the boil.

Some UK pubs pressurise the beer with CO2 to force it to the bar. Others keep it under a CO2 blanket to extend shelf life. The former is called "top pressure" and the latter "blanket pressure". Purists condemn both methods and say beers kept in this way are not real. CO2 adds an unpleasant prickle to real ale, though this is usually only evedent when top pressure is used. Normally real ale is handpumped. If the beer is served through a tap (or switch) or if the handpump is pulled back and left while the beer runs out, ask if they are using an electric pump or top pressure. The former is OK, the latter often is not.

PS please don't refer to England or English when you mean Britain or British. It upsets the natives no end.

Rgds, Desmond Mottram
des@pandora.swindon.ingr.com

Date: Thu, 4 Mar 93 10:31:15 EST
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Beer on a stick (was BrewCap)

Dan sez:

It took me two years to get around to using BrewCap after I bought it.
The main reason is that it requires that I have some way to hold a
carboy upsidedown without resting it on its neck.

Took me a little while too.

My suggestion:

- Stand a 5' or 6' 2x4 on end,
- Drill a hole through the top end,
- Drill another hole through it about a foot down from the first hole,
- Run each of 2 lengths of rope through the holes,
- Tie a loop in the lower rope that will hold the neck of your inverted carboy (experiment with an empty carboy),
- Tie the upper rope around the erstwhile base of the carboy, make sure that it won't slip off, if it can, re-drill one of the holes so that the ropes will be closer together,

At Brewing Time:

- Set your full carboy on the floor,
- Invert the 2x4,
- Hook the neck-loop on the neck of the carboy (watch the hoses),
- Tie the base-rope really tight,
- Holding onto the carboy, pick up the whole operation, turn it over, and rest the 2x4 on the floor (keep it balanced),
- Lean it in a corner, make sure the 2x4 won't slip, and put a bag over it.

The hoses will hang down as straight as you please and the rotary shaking to move the yeast into the neck is easy.
I hung a gallon jug further down the 2x4 to serve as the blowoff/airlock, tie this on after it's all set up.

Carl West
Waltham, Mass.

When I stop learning, bury me.

[Kinney, if you like this enough to include it in future instruction sheets, feel free to do so. I'll happily trade good illustrations for another BrewCap or two ;)]

<was that too shameless?>

Date: Thu, 04 Mar 93 11:19:48 EST
From: CW06GST <CW06GST@SJUMUSIC.bitnet@CUNYVM.CUNY.EDU>
Subject: Dry Hopping, English Beers, Just a Thought

Recent talk of dry hopping has really peaked my curiosity. I would really like to brew an ale with a strong hop nose. I have tried the standard "add at the end of the boil" method but I haven't gotten the results I would like. It seems that dry hopping is the answer, but I don't really know how to do it. The literature I have found has little or no mention of dry hopping, and the only place I have gotten any substantial information has been on HBD. From what I understand all that is really necessary is to add a quality hop plug to the secondary and let sit for a week. Is there something I'm missing? Can you use pellets? Is sanitation a problem? What type of hops are best? Any details would be greatly appreciated.

Recently someone was asking about British beers and pubs (I'm sorry, I don't recall the name). I hope you haven't left yet, you lucky @\$%! My advice is to go to as many different pubs, and try as many different beers as possible. Not only will you expand your beer horizons, but you will probably meet some very interesting people.

A couple of pubs that might be of interest are The Queen's Larder, and the Salisbury, both in London. The Queen's Larder is a small neighborhood pub, simply decorated, with a friendly atmosphere. In addition to the beer, the stilton was very nice also. The Queen's Larder is located in the Bloomsbury section of London, not far from The British Museum. The Salisbury is a much larger and more elegant pub, but they let me in anyway. In addition to the ales they had on tap, they also have some good bottled beer.

In addition to the beers available in England that have already been mentioned, one of my favorites is Flowers Strong Ale. They also make an IPA which is quite good, but IMHO the strong ale is really something special. It is available on tap, at The Sherlock Holmes Pub, located near Trafalgar Square. It's a little touristy, but at this time of year you'll probably meet some of the local chaps. If anyone knows anything more about Flowers Strong Ale, I would appreciate any information.

Finally, if there is something that you read in HBD that you find stupid, useless, inappropriate, ridiculous, etc., why don't you just be an adult and *ignore it* instead of helping to propagate useless threads.

Have Fun!
Erik Zenhausern
Bronxville, NY

e-mail: cw06gst@sjuvm.bitnet

Date: Thu, 4 Mar 93 11:13:28 CST
From: Brewmeister Gene <ezimmerm@hp.uwsuper.edu>
Subject: Assorted Questions.

I have a DoppleBock fermenting right now that has 'been at it' for about 5 weeks. I used 12 lbs extract, and 1.5 lbs grains in this brew. I also have used a starter culture (With extract, and it works GREAT!). Well, the brew started in about 8 hours after pitching and has been kept at 40 F +/- 7 F for the past 4 weeks and 5 days (two days to ensure fermentation was going well enough, actually just a day and a half). Anyway, I was wondering if anyone would have an idea when this thing will end? I know I should have taken hydrometer readings, but I hate to 'waste' this brew in anyway shape or form. I am using an 's' type air lock and the solution levels are not level and there are still bubbles on the surface of the brew...

My next question pretains to homebrew clubs in the Laramie WY area. My wife has applied to a Ph.D. program there and we would move if she is accepted. So, does anyone know of the 'brew scene' in Laramie?

Much thanks for your efforts to help me out!

Gene in Duluth

Date: Thu, 4 Mar 93 11:32:36 CUT
From: ibmpa!vpdbox.austin.ibm.com!dewey@ibminet.awdpa.ibm.com (Dewey Coffman)
Subject: Texas Brewpub Legislation

I got a call from the guys at Southwest Brewing News this morning asking me to spread the word that they are producing a Special Issue on the Texas Brewpub Legislation. If you'd like to receive a free copy of this, please CALL (512) 282-3911, and tell them you heard about it from Dewey Coffman on USENET.

(Please forward this to any interested parties)

Southwest Brewing News (512) 282-3911
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11400 Burnet Rd All opinions are mine.
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=====
Don't Bag it. 1-800-453-SMOG, This letter is printed on 100% recycled electrons.

Date: Thu, 4 Mar 1993 09:27:02 PST
From: Jeffers.Wbst129@xerox.com
Subject: Starting that siphon/bottle brushing

I have a very simple method of starting siphons. I use a plastic bottle filler tube with the little spring loaded valve in the bottom. After sterilizing the hose and tubes I rinse them with with very hot tap water. Then I put the bottle filler tube on the end of the siphon hose and rinse the assembly by opening the valve while running hot water through. I then release the valve and have a siphon hose and tube full of water. I attach the pickup tube empty and put it into the carboy. I start the siphon by pushing the bottle filler tube against the bottom of an empty bowl until the beer strts to come out. I then use one of these large black paper clamps to hold it against the bottom of my bottling bucket so my hand doesn't get tired. The flow through the bottle filler is slower but it is ever so easy to control.

Whenever I was brushing away at my bottles my mind would be dreaming of automatic bottle washers and automated spinning brushes and stuff of that sort.

I was also a little paranoid that my little bottle brush has to be coaxed to hit all the inside surfaces of the bottle. Well one day a simple idea struck me. I got a wine bottle brush, cut the loop off the end and chucked it up in my battery powered drill. The bigger diameter brush is a little harder to push in but it seems to have a better chance of hitting all of the corners. Now I power brush my bottles right in the sanitizing solution. I just have to hold the bottle to keep it from spinning, cram the brush in, pull the trigger, wobble it around as I run it down and up. I have used this on 8 or 9 batches and it is much easier. Please note that 110v drills could be dangerous if they were used in this manner.

~ Bill

Date: 04 Mar 93 13:49:36 EST
From: Jeff Frane <70670.2067@compuserve.com>
Subject: Sugar

Jack is right* about American brown sugar, one of the reasons I find it inappropriate for ales. Much closer, I believe, is something called Turbinado sugar, which I pick up at the health food store -- this is a raw brown sugar, with a very different consistency than "brown sugar" from the supermarket.

Incidentally, H L Hind's brewing text, written in Britain in the 1930s, gives representative grists for a variety of beers. He offers grain bills for pale ales with and without sugar (more with, I recall, than without). Relying on memory at the moment, it seems that there is a good deal of discussion about various forms of sugar and that "invert" sugar is preferred.

====

In reference to the production of "continental" aroma characteristics, I've found in a recent brew that a small amount of fresh Mt Hood pellets, added at the end of the boil gave the beer an astonishing Hallertau nose -- exactly like a good German lager. In larger quantities Mt Hood has its own distinctive aroma, but at this level, about 1/2 oz/5 gallons, it is easy to see why it was developed as a replacement for German Hallertau mittelfreuh.

- --Jeff Frane (gummitch@techbook.com)

*This is twice in the last week that Jack and I have agreed on something -- will the planets shift their courses?

Date: Thu, 4 Mar 93 19:30:21 +0100

From: rzy@eel.sunet.se

Subject: Caramel Flavour Ideas??

I'm an all-grain freak in search of a caramel taste in my ale. I've tried using brown sugar but with little or no success. I've also tried frying up a bit of sugar in the frypan to caramelize it. Does anyone know how the likes of Newcastle Brown, Bass, etc get that special caramel flavour with a smooth body. Any serious suggestions would be very welcomed.

Rick Zydenbos
Stockholm
Sweden (Mead Country)

Date: Thu, 4 Mar 93 14:10:09 -0500
From: rodin@ftp.com (Jonathan A. Rodin)
Subject: Re: Clear beer

Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU> writes:
> OK. I couldnt believe it, but, alas, it was on NPR. Miller will soon
> be offering a clear beer! Anyone got any details?

lencell@unmc.edu (Lance Encell) writes:
> anybody hear about Miller coming out with a "clear" beer?
> Can you believe it?

I have in front of me the Food section from the March 3, 1993 Boston
Globe.
It has an article on colorless drinks and how well they are selling. It
mentions that Miller is working on one and that Coors "is test marketing
a new product called Zima ClearMalt, which looks like a barbershop tonic,
is meant to be drunk like beer, but tastes of gin." Yuch, I think I'll
give
them a pass.

The article (which is primarily about clear soft drinks) goes on to
state:
"It's the biggest marketing fad since the 'lite' craze of the '80s." And
we all know the 'lite craze' improved American beers.

Jon

- - -

Jonathan Rodin FTP Software, Inc. voice: (508) 659-6261
rodin@ftp.com2 High Street fax: (508) 794-4488
North Andover, MA 01845

Date: Thu, 4 Mar 1993 11:26:44 -0800
From: paul@melody.rational.com (Paul Jasper)
Subject: Re: hop aroma / real ale

On 3 Mar, 11:15, Norm Pyle wrote:

> Subject: hop aroma / real ale
>
> Donald O'Connor's comments about dry hopping made me think about what
the
> Brit's call "Real Ale". I believe this term is intended to describe
ale that
> has been dry hopped, and that has finished fermentation/conditioning in
the
> keg. Since this is done under pressure, this may explain the English
folks'
> love of real ale. Actually, it probably doesn't imply dry-hopping as
much as
> leaving hops in the keg (perhaps left from the boil), but in either
case,
> more hop aroma would be retained in this situation.
>
>-- End of excerpt from Norm Pyle

Well, not really. Real Ale doesn't have to be dry hopped and solids from
the boil usually won't find their way into the barrel. Real Ale means
the
beer undergoes a secondary fermentation in the barrel (or bottle) and is
served without the use of external pressure. The word "keg" is frowned
upon by Real Ale aficionados because it means a closed system effectively
preventing any secondary fermentation. To an Englishman, "keg beer"
equates
to dead beer, pasteurized and pumped full of CO2 at the brewery/factory,
as popularized by beers like Watneys' Red Barrel in the 60s.

"Cask conditioned" ale requires the skill of the cellarman in overseeing
the fermentation after the barrel is delivered to the pub. This involves
the use of soft (porous) and hard (non-permeable) wooden plugs, called
"spiles" to "vent" the barrel to control the fermentation, the level of
carbonation and the contact with oxygen from the air. Real Ales are
usually pumped from the barrel because there is insufficient pressure in
it to propel the beer from inside. Hence, the beautiful sight of a set
of ornamental handpumps sprouting from the bar of many British pubs.
Electric pumps are fine too, as long as they draw the beer from the cask.
"Gravity dispense" involves placing the glass under the tap on the barrel
itself - the most natural way of serving a pint!

Of course, many British Real Ales are dry-hopped. This usually involves
adding a handful of fresh hops at the brewery, just before the barrel is
sent to the pub.

- --
- -- Paul Jasper
- -- RATIONAL
- -- Object-Oriented Products
- --

Date: Thu, 4 Mar 93 15:16:40 EST
From: kstiles@aluxpo.att.com
Subject: Isn't Chinook an Army helicopter?

In HOMEBREW Digest #1090 Ulick Stafford writes:

> I have been using Chinook hops as bittering hops, and have been a
little
> disturbed by a slightly unpleasent aftertaste from beers brewed with
> them. I have heard some criticism of this hop variety. Am I seeing
the
> effect of it? If so can someone recommend a palatable high alpha
bittering
> hop.

A few weeks back I solicited opinions of Chinook hops for flavor/aroma.
Summary of responses: Joseph Nall said that they were disdained for
their flavor/aroma, and recommends Centennial instead. Jack Schmidling
uses them extensively for bittering and flavor, and finds them excellent
for both uses. Scott Barrett (earlier private communication) had seen
them described as "spicy." A couple of months ago, Al Korzonis posted
Alpha and Beta acid information from Hopunion for many hop varieties.
[Enter fallible memory mode] Somewhere, the argument was made that high
Alpha bittering hops can leave harsh overtones because the Alpha/Beta
ratio is much higher than it is for the noble hops (about 1.0). By this
meric, Galena would be a better choice, though not as good as sticking
to noble varieties.

My interest in Chinooks originated with a first year harvest of almost
12 ounces. I brewed a pale ale hopped solely with home grown Chinook
hops to educate my palate. It was a generic 1.060 SG pale wort with:
(full 5 gal. boil) 3/4oz. at 60 min, 1/2oz. at 30 min, 1/2oz. at 2 min
and 1/2oz. for dryhopping in the secondary. I found the flavor to be
unusual, but not unpleasant - pretty mild hop character considering
the IBU that I had calculated (about 55, assuming Alpha=12). This
was such a popular brew that the second part of the experiment (the
effect of aging) had to be abandoned. What would be nice would be a
reference to a commercial brew X, where, say,
brew X : ChinookasAnchor Liberty Ale : Cascades.

Ah, well, back to experiments.

Kevin Stiles

Date: Thu, 4 Mar 1993 12:44:29 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: Sanitizer

>From: korz@iepubj.att.com

>

>Personally, I'm trying to move away from Chlorine as a sanitizer from a
>environmental point of view. Moving to Iodine may not be much better
>for the environment either. I'm looking for a source of Peracetic Acid
>(Acetic acid and Hydrogen Peroxide). The H2O2 quickly becomes water and
>acetic acid is plentiful in the world. Also, a few stray ppm of acetic
acid
>won't affect my brew as much as a few ppm of Sodium Hypochlorite will.

I'm no biologist either, but how's this: if you have the means to
generate and manage it, wouldn't live steam make a reasonable and
"green" sanitizing agent? Of course, it's just as nasty to, say, human
skin as it is to nasty-bugs, but like I said, you'd need some way to
manage it.

Biologists? Environmental Engineers? Plumbers? Rank amateurs?

Actually, the peracetic acid idea doesn't sound too bad. Wonder what
the Aldrich catalog has to say... (Yes, Mike, I'll be giving it back
to you any day now.)

have fun
gak
Castro Valley, California

Date: Thu, 4 Mar 93 9:51:31 CDT
From: agerhardt@ttsi.lonestar.org (Alan Gerhardt)
Subject: My Current RIMS setup

I have been a RIMS nut/experimenter since I first read Rodney's article in Zymurgy. I've used coolers, kegs, and any other container I could find to experiment.

My batch size has always been 10 gallons, and I have occasionally run into the grain bed compaction problem described by others.

I have done two things over the last few months which have helped considerably:

- (1) I started using a roller mill (yes, the infamous MM - if you put aside all the arm-waving and frothing at the mouth, it is a very good mill for the money).

My corona always seemed to produce some amount of flour, depending on how good my adjustment was. Sometimes, this flour would make a paste and clog my screen at the bottom of the mash/lauter tun.

This problem went away when I started using the roller mill.

- (2) My current mash/lauter tun is a 1/2 barrel keg with the top cut off and a drain pipe in the bottom, with a SS screen false bottom. When I start a batch, I place a "tube" formed by rolling up some SS screen in the center of the keg, resting on top of the false bottom. The diameter of the tube is about 3-4 inches. The mash is placed around the outside of the screen tube, so from a top view, it looks like a donut.

The recirculating wort now flows through the screen in the middle as well as through the bottom. Since the primary goal during the mash phase is to control temperature, it really doesn't matter that the flow is not uniform through the grain bed any more. The temperature seems to be reasonably uniform through the mash, and no compaction occurs.

Also, by having the return flow from the pump exit below the surface of the wort, I no longer have any foaming. That hopefully reduces HSE.

At sparge time, I simply reduce the flow way down, pull the tube out, and give the mash a gentle stir. After about 5-10 minutes, the wort is running clear again. I then turn the pump off, start the pre-heated sparge water flowing in at about the same rate as the wort drains out the bottom.

I have about 5 batches under my belt (figuratively and literally) using this setup, and it seems to work well.

I hope this helps give someone more ideas to keep improving the RIMS technology. More personal equipment experiences would really help the s/n ratio on the digest. One does not have to agree or approve of someone else's methods to gain benefit (food for thought) from them.

I would be very interested in hearing about what type of temperature controls anyone is using with a RIMS setup.

Date: Thu, 4 Mar 93 15:20 CST
From: korz@iepubj.att.com
Subject: Re: siphon starting/Edme... yikes!

My method for sanitizing my racking setup and siphoning:

1. Fill the priming vessel (usually a carboy) with sanitizing solution.
2. Fill the racking tube/hose with tapwater and close the plastic hose clamp
3. Dip the racking tube into the priming vessel, put the out-end of the setup into a small bowl or pitcher, place this lower than the level of the top of the sanitizing solution, open the clamp and siphon some of the sanitizing solution till you get the small bowl 3/4 full. Close the hose clamp.
4. Let this sit for 10-15 minutes to sanitize the inside of the tubes, the outside of the racking cane and the last foot or two of the out-end of the hose.
5. Remove the setup from the priming vessel and the bowl and rinse off the outside in hot water.
6. Hand it to your brew-partner to hold by the "safe-to-touch" areas (the areas that will not be in touch with the beer) or place it down on a previously sanitized place (I hang mine from the ceiling by a loop of string -- touching only at the "safe-to-touch" areas).
7. Dump the sanitizing solution into a large bucket (I ususally use my old plastic fermenter for this) just in case you need to re-sanitize. Rinse the priming vessel and add your priming solution to it.
8. Pour some hot water (or boiled water if your water has bacterial problems) into a vessel and place the in-end of the racking tube (the racking cane, in my case) into this water. Lower the out-end below the level of the water and run the siphon for a few minutes to rinse out the sanitizing solution. Make sure stop the siphon (close the hose clamp) before you run out of water.
9. Move the in-end of the setup into the beer you wish to siphon and the out-end into a slop bucket. Open the hose clamp and run the siphon till it's full of beer. Shut the clamp, move the out-end into the priming vessel and re-open the clamp.
10. By the way, I don't let the siphon run dry at this stage either. When I've finished siphoning the green beer into the priming vessel, I shut off the clamp, raise the priming vessel, move the in-end of the setup into the priming vessel, attach a sanitized bottling wand and siphon a few seconds into the slop bucket to purge the un-primed beer out of the setup.

Once I got to be good at this method, I only have to start my siphon once and just use the previous liquid to start the siphon of the liquid I want to siphon. It may sound complicated, but it's not.

I would like to recommend **against** starting a siphon with one's mouth

in the strongest possible way (even if you rinse your mouth out with hard liquor, etc.)... it's an invitation for trouble. I used to use a turkey baster, but it did not have enough volume to start the siphon in one draw, so inevitably, I would blow a bunch of air through my beer -- not good.

Kenneth writes:

>Subject: First all grain

> 9 lbs. Munton & Fison Lager (purchased precrushed, don't have a mill)
> 1/2 lbs. same grain toasted for 10 min at 350 in oven
> 1/2 lbs. Munton & Fison Crystal Malt (No idea about L. rating)
> 1 oz. Kent Goldings 60 min boil
> 1/2 oz. Hallertauer Hersbrucher 30 min boil
> 1/2 oz. Hall. Hers. 10 min boil
> pinch Irish Moss 10 min boil
> 1 pk Edme dry yeast

I humbly would like to suggest that your beer would improve much more if you switched away from Edme dry yeast. I cringed when at the end of your wonderful ingredient list, I read "Edme dry yeast." If you want to stay with dry yeast, try Lallemand Nottingham, or even better, try Coopers dry yeast.

Al.

End of HOMEBREW Digest #1091, 03/05/93

Date: Thu, 4 Mar 93 15:42 CST
From: korz@iepubj.att.com
Subject: Lager starting

In a recent post, I described *one* method that is used to start a lager fermentation, in which the ferment is started at a warmer temperature and then cooled for the main ferment. Jim Busch, in private email pointed out:

><stuff that kills some bacteria" and then raise the temperature. It's sort
><of backwards from one common way to make lagers: to start the batch at
><around 65F and then once the yeast get going, (slowly) lower the temp
>to
><40F or 45F.
>
>I personally believe this is bad advice to those wishing to brew
authentic
>lagers. Yes, starting the ferment at 65F will go a long way toward
>getting the ferment going, but it will adversely affect the flavor
>profile of the finished product.

What Jim means is that esters will be produced and you'll get the fruity flavors of an ale which you would like to avoid in a lager.

>Once the ferment gets going at 65F, the
>thermal energy will push the average internal temp up as much as 10F!
>Unless the brewer has a amazingly efficient attemperation device, the
>"lager ferment" stage would be at high kraeusen around 65-70F until the
>chiller could kick in. It can take as much as three days at 49F to
>reduce the temp into the acceptable range and by this time most of the
>primary ferment will be complete. Also, one does not want to reduce the
>temp below 48F until 90+% of the primary is complete. At this time,
>a two day rest at 42F will be adequate to reduce diacetyl levels, prior
to
>reduction to 31F for lagering. This is another personal nit of mine
that
>I frequently hear homebrewers refer to a 70F diacetyl rest. This is
indeed
>an effective way to "rush ferment" lagers as Professor Narziss has
documented
>very well. But this technique is intended to produce lagers in less
than 21
>days, total time! Even in this method, the primary is carried out at
55-58F
>and not into the 60s.
>
>This is not intended to be a flame, and I think you are doing a good job
>of informing the public of various techniques. I believe the attitude
to
>push the temperature is a result of grossly inadequate pitching
quantities,
>and is a poor substitute for healthy yeast.

He's right. I should probably mentioned the preferred method in which the starter is slowly (to avoid temp shock) cooled to, say, 50F and pitched into 50F wort. Then you can slowly bring the temp down to the 40s if you want. Note that this will give you a much slower start than the method I suggested in my original post and therefore will require much better sanitation, but if it's lager you're after, I recommend (as Jim does)

that you follow the German methods as opposed to the "rush ferments" that the American industrial giants use. Note that fruitiness is also tied to the strain and some are less fruity at warmer temps than others.

Thanks Jim.
Al.

Date: 4 Mar 1993 16:05:53 U
From: "Rad Equipment" <rad_equipment@rad-macl.ucsf.edu>
Subject: Cooper's Yeast

Subject: Cooper's Yeast Time:1:57 PMDate:3/4/93
Al says:

>The Coopers is quite fruity fermented at 65F and probably the
>best dry ale yeast I've ever tried. It's not phenolic at all
>and all the flavor is a very clean fruitiness.

My experience with Cooper's is that it has a distinct "bready" character.
I generally use Sierra Nevada cultured from a few Pale Ale bottles. I have substituted Cooper's at times when my starter didn't make the grade. I make a house ale regularly with no modifications to the recipe unless I pitch the Cooper's rather than the SNPA. The Cooper's is much less fruity with more yeast taste or, as I said, "bready". Attenuation seems to be about the same between the two. My house ale has an OG of 1.060 and finishes around 1.018 with both yeasts.

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmacl.ucsf.edu - CI\$: 72300, 61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Thu, 4 Mar 93 21:36:46 PST
From: "Joe Stone" <JSTONE@SJEVM5.VNET.IBM.COM>
Subject: All-Grain Help/BrewCap

I completed my first all-grain batch about three weeks ago. Two-and-a-half gallons are now bottled. The other two-and-a-half gallons were filtered (0.5-micron "Filter Store" filter) and are now carbonating in a keg in my fridge. I sampled the beer in between the primary and secondary and it had a pronounced "grainy" taste (grainy as in grain husk). Being my first all-grain batch, I severely underestimated the heat-retention capabilities of a Vollrath pot. I combined nine pounds of grain (one pound at a time) with a steady stream of 170oF water. The initial mash temperature was 150oF. In my haste, I immediately applied heat to the mash with a 35K BTU cooker. The Vollrath pot has a SS tooled screen in the bottom. Upon applying heat, the temperature of the water/grain-dust solution below the screen increases rapidly. By the time I could thoroughly stir the mash, the temperature was at 190oF. Oops! Not only did the temperature hit 190oF, but it took a good 45 minutes for the temperature to return to the target range. I was hoping that someone could confirm my seemingly-obvious diagnosis of the "grainy" taste.

I also have a question regarding sparging. I often read of two and three hour sparges. I use an elevated cooker/pot arrangement to bring heated water to the grain bed via a sparge ring. I have good control over the drip-rate. My question involves what is considered appropriate in terms of a sparge rate. With my first all-grain batch mentioned above, I "throttled-back" the flow rate using the spigot in the bottom of the pot. My objective was to sparge for one hour and collect about six-and-a-half gallons of wort. After about 45 minutes, the flow rate had reduced to a trickle (with the spigot now wide open). I would estimate that I collected about four gallons of wort. Does this seem appropriate? Should I be calculating my extraction rate?

I can't imagine a better siphon-starter than a BrewCap. I took a very sharp 0.5" drill bit and drilled out the main stem of the BrewCap. There is a significant amount of excess material between the I.D. and the O.D. of the main stem. I soaked the BrewCap in hot water for a few minutes and inserted my 0.5" O.D. hooked racking tube into this enlarged stem. I slid an 8" piece of tubing over the auxiliary stem into which I simply blow. The siphon starts

every time and your mouth doesn't come anywhere near your beer.

js

Date: 4 Mar 93 23:19:07 MST (Thu)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: re: Ginger beer summary

Dave Whitman <rsndww@rohmmaas.com> writes about ginger...

> Many people pointed out that the sweetness of the wort may be masking
the
> ginger flavor...

This is backwards from my experience (and some cooking experience as
well)
- a bit of sweetness usually tends to bring out spices, ginger in
particular.

>...The message is that 1) lots of recipes use about 3 oz of ginger

FWIW, we've used a lot more than that, and had good results. We used
about
9 oz in an amber ale that turned out nicely, and about twice that in a
mead. (these were 5 gal recipes) The amber ale was a prize-winner some
years ago. The mead is still young, hence a bit assertive, and you need
to
calibrate the difference in alcohol content (meads generally being a lot
stronger), but it's not excessive. Don't be too bashful! I'd say you
can
put half a pound of ginger in a serious ale, and a pound in a good mead.

> Jim Grady suggests grating the ginger rather than slicing it. For what
it's
> worth, I tasted the ginger slices after boiling, and they were pretty
> flavorless, suggesting that the flavor was successfully extracted.

That's a good test, but I wonder if you may not have boiled off some part
of the essence? (conjecture only) We have added ginger to the hot wort
or must, then transferred it to the primary and let it stay for at least
the first week or so.

> Spenser Thomas warns that he tried adding pieces of ginger to each
bottle,
> which gave good flavor, but also caused gushing...

Definitely a problem...nucleation points. Anything rough will cause CO2
to
come out of solution rapidly. (It could be a sanitation problem as you
suggested later, but I think not. It's just a matter of providing the
kind
of surface that makes CO2 bubble out.)

> (another) He has added ginger to his secondary, and that doesn't seem
to
> help, and sometimes leads to off-flavors. He speculates the pulp rots,
and
> suggests I try dried, ground ginger.

No, stay with fresh ginger. You lose too much otherwise. I'd suggest
trying to treat it more gently--get it hot enough to sterilize, but don't
boil it.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Thu, 4 Mar 93 22:23:57 -0800
From: pascal@netcom.com (Richard Childers)
Subject: bikePUBcrawl

Despite suggestions to the contrary, I have decided to go ahead and carry out this bicycle-based pub crawl, as scheduled, this Sunday, 07 March 1993.

I realize that the weather may not prove suitable but my intuition is that it will be a glorious day. Early March in San Francisco usually is.

If anyone cares to skip this bicycle ride, it may happen again, if it proves at all to be successful or reasonably well-attended, in a month or so. It's also possible some other bikePUBcrawls might be scheduled, elsewhere in the Bay Area ...

Those of you without the inclination to bicycle (Russ Wigglesworth, to be precise, but surely others as well) are welcome to meet us at the brewery, within the time range we estimate we'll be arriving within - see below for the approximate schedule.

The destination is the Marin Brewing Company, 'in Larkspur, at 1809 Larkspur Landing Circle(ph# 415.461.4677)', to quote a helpful soul. (Thanks, PDK.)
The route is described below, although it is also reachable by car as well as by ferry. (This route is also summarized below, but I include other directions for purposes of redundancy of informedness - thanks, Paul J.)

I encourage everyone to invite a friend or three. Safety in numbers ...

Here's the schedule :

Sunday 1130 arrive at south end of Golden Gate Bridge, via bicycle from Fisherman's Wharf (where car is optionally parked), or, park on ocean side of bridge, by old WWII artillery bunkers and ride bicycle over to meeting point (short stroll).

1200 depart from south end of Golden Gate Bridge, meeting on the west side of the bridge (bicycle side) between 1130 - 1200. bring a windbreaker, a backpack, and water, of course, as well as ancillary items - tools, spare tire, pump, headlight if you plan to ride at night, etc.

Over bridge, loop around to road underneath, follow around to Sausalito, through Sausalito, through Mill Valley, under 101 overpass, across marshes, to stop light @ Blythedale.

1300 Depart intersection of Blythedale, negotiate neighborhood via bike path, towards and parallel to 101, over hill and into Corte Madera, to Tamal Vista Street.

Follow Tamal Vista to end, turn right, cross 101, turn left,
follow bike path parallel to 101, into Larkspur.

1400 Arrive Larkspur, check ferry schedules, converge on pub for
cold ale and hot food.

1600 Head back to San Francisco via ferry. Windbreakers useful.

1800 Possible sunset gathering at the infamous Toronado.

Caveats :

- There won't be any good way to deal with dead bicycles en
route, so I ask everyone to

- (a) determine that their vehicles are in good shape, and

- (b) determine how they will cope with problems if they
occur (I suggest Golden Gate Transit).

I'll have a pump but I'm not a professional bike mechanic.

- Bring spare change in case you need to make calls or take a bus,
as well as bicycle locks and the like.

- Bring tools if you have them, between us we may be able to fix
any small problems that crop up.

- Mountain bikes are advised simply because they are more able to
resist flat tires through their architecture, and flats
are the single greatest nemesis of bicyclists.

- Bring some snacks, we'll be working up an appetite ...

Here's a longer but more precise explanation provided by Paul Jasper.

- -- richard

"It is obligatory, within the limits of capability, to commend the
good and forbid evil." Kitab Adab al-Muridin, by Suhrawardi

richard childerspascal@netcom.com

> Richard,

>

> I don't know about San Rafael, but a group of us often cycle from
> San Francisco to Larkspur Landing during the summer months. It is
> about 22-24 miles from the centre of SF to the Marin Brewing Company
> in the shopping area at Larkspur Landing Circle. There's a footbridge
> over the road from the ferry landing that takes you right up behind
> the brew pub. The beer is excellent, and the food is pretty good too.

>

> Our route:

>

> Cycle through Park Presidio to the Golden Gate Bridge (very pleasant,
> but check the map for the precise route). Careful as you leave the
> park: observe stop signs and the speed limit, because cops often
> hang out in the bushes on busy summer days (honest - they'll ticket
> you!) You'll cross under the bridge to get to the bike path on the
> west side of the bridge (east is for pedestrians only).

>

> Over the bridge and turn left immediately on the other side across a
> narrow pathway to take the road that winds down under the bridge.
> Follow this round the coast into Sausalito.
>
> Follow the marked bike route (there's one place where you dismount and
> carry your bike down some steps). Basically, you follow a straight
line
> all the way out of Sausalito to Mill Valley, going under the 101
viaduct.
> Eventually, you come to a junction with stop lights. Cross the road,
> the bike path continues and is quite wide. You'll reach a right turn
> into a residential street - take this. I think you pass a small
school.
>
> Keep going straight on towards 101. When you reach it, there is a
pathway
> alongside 101 that takes you over the hill - very important, because
all
> other routes involve multiple steep hills. There is a sign saying
> "Horse Hill" and something about being a rest-home for retired horses,
> and asking for donations. Funny, because you'd only see it if you were
> driving the wrong way on 101! By now you'll be looking forward to a
beer!
>
> When you reach the road on the other side of the hill, keep going
straight
> on, down the hill, towards Corte Madera. The road winds around to some
> stop lights. Cross straight over and follow Tamal Vista past the
> shopping center (Safeway, etc) on your right. You'll also pass another
> set of shops on your right, including Any Mountain, where you can pick
> up spare parts for your bike.
>
> At the end of Tamal Vista, turn right at the lights. You'll come to
101
> again, where you have a choice: you'll see a footbridge you can cross,
> or you can take the road to the right, under 101, left at the lights
> and towards the other end of the footbridge. From there, there is a
> path alongside 101. After a short distance you get to a point where
> you cycle unguarded from the traffic alongside the off-ramp from 101,
> across a bridge. Don't cross any roads, just follow the path with the
> road to your left as it curves to the right towards Larkspur. You'll
> soon see the strange structure of the ferry building. Go there and
> check on the times of the ferries, then cross the bridge to the
brewery.
>
> Mountain bikes aren't necessary for this trip. My friends with racing
> bikes probably find it less exhausting than I do (the bigger tires have
> more friction with the road). It's an enjoyable excursion, but you'll
> really be grateful for a beer when you reach the brewery, unless you
> are a lot fitter than me! I usually take BART home (you can get a
> temporary pass) from the Ferry Building in SF to avoid the hills back
> to where I live in Glen Park. I'm in no condition to attempt the
> ride home!
>

Date: Fri, 5 Mar 1993 08:14:06 EST
From: Ming-chung Lin <MARS@suvvm.acs.syr.EDU>
Subject: bikePUBcrawl
Subject: Siphoning, clear bear

Call me primitive, but I siphon beer the way we learned to siphon gas as kids.....So far I've had only one lousy batch (for totally different reasons), and a couple of award winning brews. I sterilize the tubes while doing the rest of the equipment, so my hands are pretty clean. If worried about contaminating the batch I sometimes hold the end of the tube in my hand and suck through my hand. I've done this much more often than we did gas as kids, and brew tastes much better.

Daniel Roman,,,,,You don't think that clear beer appeals to "women's taste", do you???? I was a little insulted to be put into a category of people who like that kind of thing. Perhaps you (and Miller) should find someother words to use for people who like clear beer. Women I know who drink beer (most of us brew our own) prefer strong ales and stouts.

Lisa St. Hilaire <MARS@SUVVM.ACS.SYR.EDU>

Date: Fri, 5 Mar 93 09:07:33 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: brwon sugar

OK, several people mentioned that they add "brown sugar" to their British Ale recipes, and several others have very quickly responded that in America, "brown sugar" means regular granulated white sugar with molassass-and, they usually caution, it should NOT be used.

Well, what is meant by "brown sugar" to an Englishman? Anyone know? And to those of you who mentioned that you use "brown sugar", please be specific, do you mean the American stuff, or something else?

And to those of you who say not to use American brown suger, do you have any thoughts on what to use instead?

Yankee minds need to know...

- --
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/////

name: Jimmy On balance, it is a wonderful thing that
email: fingerle@NADC.NADC.NAVY.MIL the cold war is over. -Bill Clinton
-or- fingerle@NADC.NAVY.MIL ON BALANCE?!? It's end has a down
side?
////////////////////////////////////
/////

Date: Fri, 05 Mar 93 09:18:39 EST
From: "John E. Lenz" <JELJ@CORNELLA.cit.cornell.edu>
Subject: Don't count on it Dan

In HBD # 1091, Dan Roman says: "I certainly don't expect anyone to get into homebrewing to make "clear beer"."

Dan, haven't you seen the advanced copy of the 1994 AHA style definitions?:

CLASSIC EGREGIOUS BEER-TYPE BEVERAGES

29. CLEAR BEER

Category award sponsored by CMB, the consortium of mega brewers (current membership: coors, miller, bud, though a wannabe in Boston(tm) has applied).

a) American standard clear beer--effervescent, no color, no head, no malt flavor or aroma, no fruitiness, diacetyl, or esters, imperceptible hop bitterness, flavor and aroma.

Geographic subcategories:

1) Milwaukee style--low levels of PCB's acceptable, must be in a clear bottle.

2) Colorado style--should be indistinguishable from pure Rocky Mountain spring water (except for alcohol content).

Not to be confused with Colorado Clear Bastardized Malt Beverage.

3) St. Louis style--should bear a striking resemblance to filtered Mississippi river water, but with lighter body and crisper flavor.

b) American premium clear beer--a generally "bigger" version of American standard clear beer. Geographic subcategories still applicable.

Also, look for Clear Beer Light and Clear Beer Dry for the 1995 competition.

And, for 1996, or '97 should anticipated legal hassles arise, expect to see a

Boston Clear Beer category, details relating to trademark restrictions and the

numbers of marketing weenies and lawyers required to assist in the brewing

process are yet to be worked out.

Ooogy wawa,

John

Date: Fri, 5 Mar 93 09:27:46 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: Britishmen, not Englishmen

Seconds after I posted regarding brown sugar,
Desmond Mottram says:

PS please don't refer to England or English when you mean Britain or
British. It upsets the natives no end.

Sorry, my apologies. No Offense meant.

BTW, so as to distinguish me from the denizens of Canada or Mexico D.F.,
who, like me, are technically Americans, I prefer to be known as
a Pennsylvanian.. ;*)

- --

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
/////

name: Jimmy On balance, it is a wonderful thing that
email: fingerle@NADC.NADC.NAVY.MIL the cold war is over. -Bill Clinton
-or- fingerle@NADC.NAVY.MIL ON BALANCE?!? It's end has a down
side?

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
/////

Date: Fri, 5 Mar 93 07:21:15 -0700
From: lhdsyl!pandora!vstem@uunet.UU.NET (D. Stewart McLeod)
Subject: unsuscrube me

Please take my name off of the distribution list please.

vstem@calgary.chevron.com

Date: Fri, 5 Mar 93 8:52:33 CST
From: tony@spss.com (Tony Babinec)
Subject: celis beers arrive in Chicago

Sam's, on North Avenue, had cases of Celis White and Celis Grand Cru.
Just in time for First Thursday at Goose Island!

Date: Fri, 5 Mar 93 10:21:44 edt
From: Greg_Habel@DGC.ceo.dg.com
Subject: RIMS Questions

Message:

I am submitting this for Jeff, a fellow homebrewer who is experimenting with RIMS. His statement is:
We use the standard RIMS revisited (from Zymurgy gadget issue) and the temp control works fine. Temp readout is not working well because it is subject to some EMI (electro magnetic interference) caused by all the equipment (pump, heater etc). Our real problem is the motor control which due to its open loop nature is unsatisfactory. We are looking to implement a closed loop control using a Motorola chip TDA1185A or some other integrated solution. How does your motor control work? Has anyone implemented a closed loop control?
Greg

Date: Fri, 5 Mar 93 07:54:51 -0800
From: pascal@netcom.com (Richard Childers)
Subject: Current RIMS setup9s)

"Date: Thu, 4 Mar 93 9:51:31 CDT
From: agerhardt@ttsi.lonestar.org (Alan Gerhardt)
Subject: My Current RIMS setup

.
.
.

The recirculating wort now flows through the screen in the middle as well as through the bottom. Since the primary goal during the mash phase is to control temperature, it really doesn't matter that the flow is not uniform through the grain bed any more. The temperature seems to be reasonably uniform through the mash, and no compaction occurs.

Also, by having the return flow from the pump exit below the surface of the wort, I no longer have any foaming. That hopefully reduces HSE.

At sparge time, I simply reduce the flow way down, pull the tube out, and give the mash a gentle stir. After about 5-10 minutes, the wort is running clear again. I then turn the pump off, start the pre-heated sparge water flowing in at about the same rate as the wort drains out the bottom."

I've been thinking about RIMS designs for a year or so myself, and while I'm hardly a mechanical engineer, it seems to me that it would be possible and efficient to agitate the grain bed and maintain circulation, not with a pump, but with a few sources of vibration around the container, which would massage the grain and distribute the heat very nicely, without the problem of aerating the solution.

- -- richard

"It is obligatory, within the limits of capability, to commend the good and forbid evil." Kitab Adab al-Muridin, by Suhrawardi

richard childerspascal@netcom.com

Date: Fri, 5 Mar 93 17:27:19 GMT
From: sbsgrad%sdph.span@Sdsc.Edu
Subject: Boiling on electric stove

From: Steve Slade <sslade@ucsd.edu>
Date sent: 5-MAR-1993 09:11:29 PT

Joe Thomas asks about boiling his brew water in an 8 gallon ceramic on steel kettle on an electric stove.

I've been doing this for several years now. It takes a few hours with the lid on the pot, but the water does eventually come to a boil, and maintains the boil for as long as needed. I use the one large burner on our stove, on HIGH. This tends to heat the stove top from heat reflected off the bottom of the kettle. I've found that placing aluminum foil on the stove top around the big burner prior to brewing helps the stove to survive. Before I did this I had several pieces of the stove top flake off after brewing, so beware!

Now a question I've been meaning to ask: How do I make a beer that is, for lack of a better term, thick? The best beers I have tasted have all seemed like they have more body, or greater viscosity, than the ones I brew using a partial mash. I don't want to brew a sweet beer, so using less attenuative yeast is out. Do dextrans add body without a sweet taste? I've tried using 1/4 cup flaked barley in a 5 gallon batch without much luck. Is carapils or one of the Belgian malts a better choice?

Thanks,

Steve Slade
reply to: sbsgrad%sdph.span@sdsc.edu or sslade@ucsd.edu

Date: Fri, 5 Mar 93 09:38:29 PST
From: Jack St.Clair at fmccm6 <Jack_St.Clair_at_fmccm6@ccm.hf.intel.com>
Subject: Miller Clear "ZIMA"

Yes folks, you have heard right. Miller has produced a clear liquid they are touting as a clear malt named "ZIMA". We've tried it and I suppose it will soon become a fad for the politically correct. Like Corona and a squeeze of lime. Yuk! Anyway, IMHO it tastes like 7-Up and alcohol and, again, IHMO is not very pleasant. It reminds me of my younger days in the service when we used to mix "Everclear" (198 proof alcohol) with 7-Up for that quick buzz. In ZIMA, the alcohol tast/aroma is very pronounced as is the citrus taste. I've had one and will never (yes, I mean NEVER) have another.

My son will probably like it and buy it. You know, he's the one who drinks Coors Light and calls himself a beer drinker. Viva le difference!

Jack
Folsom City, California
jack_st.clair_at_fmccm5@ccm.hf.intel.com

Date: Fri, 5 Mar 93 09:42:44 PST
From: Bob.Clark@Eng.Sun.COM (Bob Clark)
Subject: Hops in keg

I've seen only passing reference to throwing hops into the keg at keggung time. Have any of you tried this? I'm a hop head, and love both SNPA and Liberty Ale, and my dry hopping hasn't gotten me there yet.

Bob C.

Date: Fri, 5 Mar 1993 09:53:59 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: RIMS

In HBD# 1091, Alan Gerhardt <insert clever word synonymous with "says", because I can't find my thesaurus>:

>I hope this helps give someone more ideas to keep improving the
>RIMS technology. More personal equipment experiences would really
>help the s/n ratio on the digest.

Following through on an idea from George Fix, I'm working on a summary of all of the RIMS discussions from the HBD back-issues. I hope to finish it today (Friday), as I'll be out of town next week.

(Any Phoenix brewpub recommendations? Anybody there interested in having a pint bought for them? :-)

have fun
gak
Castro Valley, California

Date: Fri, 5 Mar 93 11:58 CST
From: korz@iepubj.att.com
Subject: Boiling fruit, Pectate enzyme

Chuck writes:

>I have a very short question regarding the use of pectate enzyme. As I
>understand it, this enzyme can be used to break down the pectate that
will set
>as a result of boiling a fruit, preventing the set pectate from clouding
beer.
>
>My question(s) are these: Is that statement above correct? At what
point in
>the process is this enzyme added to the wort? (Before, after boil, in
>secondary...) How much is necessary?
>
>I'm planning to use this in a cherry beer that I am making. Actually,
the
>beer is already fermenting, and I'm planning to add the crushed cherries
in a
>couple of days. To avoid nasties, I'd like to boil the fruit before
it's
>added to the fermentation.

I've never used pectic enzymes, but I have a suggestion. This worked
for me on a recent beer and in 6 months, no gushers, therefore, no
infection. I surmised that any nasties would be on the OUTSIDE of the
fruit, therefore, I simply dipped the frozen cherries in very hot (212F)
water, for 15 seconds. I figured that the coldness of the frozen centers
would keep the pectins from setting. Well, they did a little bit, but
most of the cloudyness settled out and the beer is quite clear for a
fruit
beer. Perhaps you might want to consider freezing and blanching like I
did and then also using a bit of pectic enzyme? I'm also eager to learn
about pectic enzymes, so I hope someone out there tells us more about
them.
I'll bet there's something in the Fruit and Beer issue of Zymurgy (sorry,
don't recall which issue it is) on pectic enzymes, but I haven't had the
time to read all of it.

Al.

Date: Fri, 5 Mar 93 13:12:48 EST
From: rowan@forest.rutgers.edu (Andy Rowan)
Subject: Re: Ranching

Michael Fetzer writes:

>Ahem. All this talk of Ranching is getting to me! Look folks...
they're
>plants. We call that farming! Ranching is for critters... Seems to be
a
>common misconception amongst brewers. *grin*

Now I'm not so sure! Let's look at this for a moment. Let's see...
Back in our younger days (or mine anyway), Zappa used to sing
that he wanted to move to Montana (soon) and be a dental floss tycoon,
"just me and the pigmy pony, out by the dental floss bush."
So dental floss is evidently a plant, too, but I don't recall him
ever saying he was going to be doing *farming*.

Maybe to be safely generic we should be talking about "yeast husbandry,"
(too gender-ist, I guess), or "yeast-o-culture" (no, then people
would think it was a cult).

Yeastology? Yeasticism?

Those of us from the Atlantic coast of the US could call ourselves
"yeasterners."

```
=====
| Andy Rowan |
| Cook College Remote Sensing Center |
| Rutgers University, New Brunswick NJ | --> on the banks of the Raritan
| rowan@ocean.rutgers.edu | "I love that dirty water"
=====
```

"Yeast is yeast, and west is west..."

Date: Fri, 5 Mar 93 12:16 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Pectic Enzyme, Oil

>From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>
>Subject: Pectate enzyme

Can't answer any of your questions regarding beer but...

My last batch of cider was made from apples just about too far gone to use.

The juice looked more like watery apple sauce than juice. Nothing settled out in the overnight settle and after fermenting it still looked like apple sauce. It sat for months with no change even though I racked it several times.

Several weeks ago I racked again and added pectic enzyme and was astounded to find it crystal clear in the morning with two inches of apple sauce on the bottom. This stuff is like magic.

>From: Lloyd MacIsaac <UGF00011@vm.uoguelph.ca>
>Subject: Oiling Your Mills...

>When I worked in a Restaurant the chef used Vegetable Oil to keep his kitchen gadgets from rusting (esp. roasting pans). Perhaps this could be the answer for mills?

Good point. The instructions that accompany each mill recommend exactly that for people living in very humid climates of if it is to be stored for a long period of time.

>Don't know if it works, but sounds better than refined motor oil!

Just a point to keep in mind, machine oil is not much different from mineral oil which is taken as a remedy for various and sundry maladies. I wouldn't suggest drinking it but on the other hand, there is no reason to believe that it is inherently toxic.

>From: des@pandora.swindon.ingr.com (Desmond Mottram)

Interesting article but I have never quite understood why this...

>PS please don't refer to England or English when you mean Britain or British. It upsets the natives no end.

Trying to understand this has lead me to realize that there is no name for people who live in the USA and some Canadians, for example, get insensed if you call them Americans and others if you don't.

>From: Jeff Frane <70670.2067@compuserve.com>

>*This is twice in the last week that Jack and I have agreed on something -- will the planets shift their courses?

That would be trivial compared to the real sign from on high.... the day when Jay H responds to my request to read his Beer Forum.

>From: Richard Stueven <gak@wrs.com>

>Subject: Re: Sanitizer

>I'm no biologist either, but how's this: if you have the means to generate and manage it, wouldn't live steam make a reasonable and "green" sanitizing agent?

I suspect that steam is very commonly used in commercial operations but you correctly identified the problem at home. Producing and controlling it is not a trivial problem compared to sloshing a little iodine around.

js

Date: Fri, 5 Mar 93 11:12:03 PST
From: Keith A. MacNeal HL01/T09 225-6171 05-Mar-1993 1410 <macneal@pate.
enet.dec.com>

Subject: Mail order hop cutting source

In the March 4 edition of HBD, Tim S. asked people to e-mail him info about mail order sources for hop cuttings. I tried but couldn't get through on the address he posted, so I'll post the info to HBD:

Tim,

There is a chain of stores called Worm's Way which sells hop root cuttings. They have stores in MA, MO, and FL. They are primarily a garden supply company specializing in hydroponics. They also feature homebrewing supplies. There is one near where I live. I plan on stopping in soon and picking up some hop cuttings myself. They do mail order. Here's the phone number for the store in Worcester, MA. They might be able to direct you to a store closer to you or maybe mail you some themselves.

Worm's Way
(508)797-1156

You might want to call 800 information and see if they have a toll free number.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Fri, 5 Mar 1993 13:35:54 -0500
From: Nick Zentena <zen%hophead@CANREM.COM>
Subject: Re: electric stoves

>
> Date: Wed, 3 Mar 93 13:09:00 CST
> From: Thomas_Joe@lanmail.ncsc.navy.mil
> Subject: WATER BOILING ON AN ELECTRIC STOVE
>
> I HAVE RECENTLY MOVED TO A SMALLER PLACE THAT DOESN'T ALLOW B-B-Q'ING
> OR THE USE OF A KING COOKER. THEREFORE, I WOULD LIKE TO KNOW IF ANYONE
> HAS HAD SUCCESS BOILING THEIR WORT ENTIRELY ON AN ELECTRIC STOVE? IF
> SO, HOW LONG DOES IT TAKE AND CAN YOU SUGGEST ANY TIPS TO SPEED THE
> PROCESS WITH MY 8 GAL. CERAMIC ON STEEL POT.

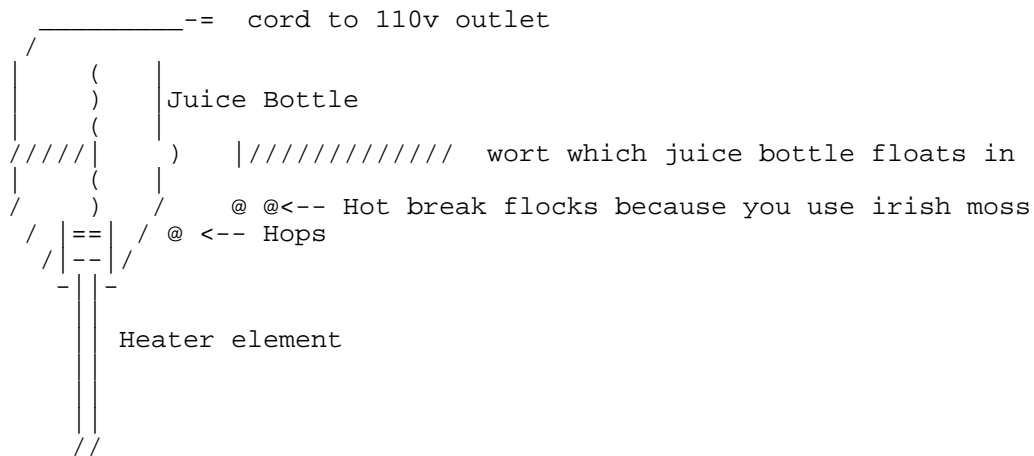
Before I starting using a propane burner I never had any real problems with using my electric stove. Just set the kettle up so it sits on two elements. It takes awhile to come to a boil and you have to leave the lid on to get a good boil but it works. Usually when the water is heating up I have other things to do.[i.e crushing grain]

Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Fri, 5 Mar 1993 14:33:00 +0000
From: "Bill (W.R.) Crick" <heybc@bnr.ca>
Subject: Boiling on an electric stove

Joe Thomas asked about boiling an 8 gallon pot on an electric stove. What yo need is a HotRod (tm). Get a 220v electric hot water heater element of the type that screws into the tank. Get a 1 or 2 litre plastic juice bottle, and cut the bottom off of it. Hook a 110v cord to the element, and screw the element into the neck of the juice bottle so the element sticks out. See graphic below. Float this sucker in you pot to give the stove a help. Also useful for raisnin temperature of cooler type mash tuns. Note at 110v the element will be approx 1/4 the power rating for 220v. We have 3000 element that yields about 750w.



Bill Crick

- Disclaimer:1. Don't build this.
2. Use a ground fault protected outlet.
3. Don't get the cord wet.
4. Be careful
5. Don't build this.
6. I take no responsibility for anything related to this post.
7. This is my opinion, not BNR's

Date: Fri, 5 Mar 93 11:33:20 PST
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)
Subject: RE: WATER BOILING ON AN ELECTRIC STOVE

Date: Wed, 3 Mar 93 13:09:00 CST
From: Thomas_Joe@lanmail.ncsc.navy.mil
Subject: WATER BOILING ON AN ELECTRIC STOVE
In HBD 1091, Joe Thomas writes,

> I HAVE RECENTLY MOVED TO A SMALLER PLACE THAT DOESN'T ALLOW B-B-Q'ING
> OR THE USE OF A KING COOKER. THEREFORE, I WOULD LIKE TO KNOW IF
ANYONE
> HAS HAD SUCCESS BOILING THEIR WORT ENTIRELY ON AN ELECTRIC STOVE? IF
> SO, HOW LONG DOES IT TAKE AND CAN YOU SUGGEST ANY TIPS TO SPEED THE
> PROCESS WITH MY 8 GAL. CERAMIC ON STEEL POT.

Before I got my outdoors propane burner set up, I used to boil my wort on a standard GE electric kitchen stove burner. I, too, was using a ceramic on steel pot. I found the burner to be most inadequate.

I also found several methods to improve the situation.

- To get the wort hot initially, I used two smaller stainless pots which has aluminum-clad bottoms. When the stuff was boiling, I moved it to the big ceramic on steel pot.

(BTW, I still use the same pot, and am still unhappy with it. I have yet to find a place to buy a 6 gal and up stainless pot of decent construction with an aluminum-clad bottom [the aluminum transfers the heat better]).

- Before I hit on the use two burners with the smaller pots idea, I would heat up the large pot faster by putting on the lid, then first placing pot holders all over the top, then secondly draping kitchen towels over that, with the towels hanging down the sides to help hold the heat in.

You can tell by the sound when you need to take the lid off to avoid boil-over. It is risky until you know though, and I did create one heck of a mess before I got the system down!

- If the burner does not put out enough heat to sustain a full boil with the lid off, then put the lid on between stirs after it hits the full boil. When you hear it going real good, take the lid off and stir it around for a bit. The full boil will continue with the lid off for a while, then die back down. Time for the lid again.

That is all the advice I can offer you on that one. Best of luck!

gdh

Date: Fri, 5 Mar 93 16:27:04 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Sparge efficiency

When people indicate the degree of extraction they get for all grain batches what technique do they use? I do the following:
After sparging I stir the contents of the brew pot and take a sample of the well mixed liquid. I measure and temp adjust the specific gravity.

I multiply this value times the volume in the brew pot and divide the total by the number of pound of grain.

eg. an sg of 40 in 7 gallons of liquid = 280 total sg points
divided by the 10 lbs of grain = 28 pts per lb.

I have acidified my sparge water, verified my grain bed temp was over 150 made sure that the Corona cracked grain was not under milled and verified complete conversion using iodine tests of the stirred mash. I have not had

haze or clarity problems with my beer. Sparge time is about 1.5 hours using

a zappap lauter tun with a 1" false bottom. What am I doing wrong that prevents me me from getting to the next level of all grain snobbery the thirtysomething level of extraction all grain snob??

- - -

Date: Fri, 5 Mar 93 15:52:56 PST
From: lawson@acuson.com (Drew Lawson)
Subject: Re: Ranching

> Ahem. All this talk of Ranching is getting to me! Look folks... they're
> plants. We call that farming! Ranching is for critters... Seems to be a
> common misconception amongst brewers. *grin*

Just to educate you (as someone else educated me a month ago in
alt.folklore.urban), yeast are not plants according to modern
biological taxonomy. The fungi are in a different kingdom from the
plants.

Drew Lawson If you're not part of the solution,
lawson@acuson.com you're part of the precipitate

Date: Fri, 5 Mar 93 18:48:11 -0600
From: sagard@digi.lonestar.org (Steve Agard)
Subject: Re: Dallas Carboys

Roddy McColl asks, in HBD #1090, where a homebrewer can find a carboy for under \$15. Several suggestions:

1. Work a deal with a local homebrew shop on a used 5 gal carboy. there's an excellent shop in the area.
2. Mail order a 6 or 7 gal carboy - it's a bit more expensive, but I think Miller and Papazian recommend this size over a 5 gal. I've seen a 7 gal Italian carboy (real homebrewer's art...) for ~\$25. (I use a 5 gal secondary, but a 7 gal bucket as primary)
3. Call one of the bottled water suppliers and ask for an empty glass carboy (there are a lot of plastic ones around), for which you'll be asked to pay the deposit (~\$8).
4. Go to Whole Foods, or some other quality supplier, and buy a 5 gal w/water (~\$15 including deposit) and use the water in your first batch (makes great SNPA if not distilled water) and the carboy is yours.

Cheers.

Steve Agard

Date: Fri, 5 Mar 1993 22:55:46 -0500 (EST)

From: DDICICCO@USC.PPPL.GOV

Subject: Peracetic acid

A recent thread concerning the possible use of peracetic as a sanitizer prompted me to search for some information on this compound. The Merck Index lists peracetic as "a powerful oxidizer, strongly corrosive to tissue, explodes violently upon heating to 110 deg. C." Coupled with the fact that one liter costs \$90, this information left me wondering if any significant benefit could be realized by using this compound. Anyone have any practical experience with this substance?
[Cool glass of Chlorox, anyone? ;)]

Darrell DiCicco
Princeton

End of HOMEBREW Digest #1092, 03/08/93

Date: 6 Mar 93 10:09:00 +1000
From: BELLAGIO_DAVID@Tandem.COM
Subject: RE: Boiling Water on Electric Burner

Joe Thomas wonders about boiling water on an electric stove. I have an electric stove that I use for my brewing and have learned some lessons. The first lesson is that if you are doing a full 5-6 gallon boil it takes a long time to boil (about 40 minutes). The second lesson is that if you do a full boil for an hour, your element will last about 3 batches before becoming extremely warped (thus decreasing contact surface and increasing boiling time and heat directed elsewhere). This warped element eventually leads to a melted connector (this actually happens after batch #7 since I was alternating between both my big burners). So, then I went to the appliance part store and had to buy a connector plug, two reflector shields, a regular large burner, and an extra heavy duty canning burner. The canning burner cost \$35.00 and I highly recommend it! It has extra support and is raised higher than the stove top. It also has a higher heat output. Now, I boil my wort and don't have to worry about the heat and weight warping my burner. I would think a way to decrease the boiling time would be to start boiling a gallon of water on both burners, once they are close to boiling, put one in the other and refill the empty one with a gallon and bring it to near boil. Keep doing this until you have the desired amount in your big boiling kettle and it should all be near boiling then. I have not done this since I am lazy. Have fun.

Super Dave

bellagio_david@tandem.com

Date: Sat, 6 Mar 93 18:54:19 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: survey results

I posted in 1089 about brown sugar. I asked HBD readers who had experience using brown sugar to write with me. The results are mixed but generally positive.

In HBD1090, Russ Gelinias said:

> Re. brown sugar: In my book, it's virtually *required* in an English
> style ale. Yes, I actually add brown sugar to all-grain batches,
usually
> 1 lb (10-15%). Purist, I'm not. Beer drinker, I am.

In HBD1091, Rick Zydenbos said:

> I'm an all-grain freak in search of a caramel taste in my ale.
> I've tried using brown sugar but with little or no success.

I had four people e-mail me about their experiences brewing with modest amounts of brown sugar:

Respondent #1 brewed with:

2 packages Northwestern Gold Malt Extract
1/2 # 80 L crystal
2 c. North American dark brown sugar (about .8 #)

The result:

> ...[it] was a big hit with my friends, and a number even remarked that
it
> was quite similar to BA but with more carbonation and hop aroma. There
was
> no 'cidery' flavor, but a nice caramel/molasses note in the beer which I
> thought was appropriate.

Respondent 2:

80% all-grain
20% US domestic brown sugar

The result:

> ...Well the beer was well received by
> some and not liked by others. I now know the flavor and I personally
> don't like it. As said, others do. I can now taste it in some
> draught English bitters

BEWARE:

> .. When I brewed the 20%
> batch it smelled like H2S--sulfury rotten eggs during the ferment.
> It tasted fine, but the basement stunk during primary. This is the
> only time I've ever had sulfur smell in primary and it was the only
> time I used brown sugar, so the two might be related...

Respondent 3 says he took my recipe for

> Bass Ale from Cat's Meow and cranked it up.

10# 2-row Klages Malt
.5# Cara Pils Malt
.5# Crystal Malt, 90L
1# brown sugar, added to boil

The result:

>First Place in Classic Pale Ale category in an AHA competition

Respondent 4 brewed:

> ...a Bass-ale type beer, the recipe compiled from 3-4 others
>in the CM and elsewhere, and I did use 1 lb. brown sugar

The result:

> I think it tastes great.

Other notes:

Arf sez:

> you might consider just using molasses and leaving out the sugar.

I've experimented with molasses in the past. It never gave me the
caramel flavor I sought. Just a heavy molasses-ey flavor.

Donald O'Connor suggests Belgian Special B. I'm going to give that
a try. A good solution for the purists, too.

Cheers,

Rob (bradley@adx.adelphi.edu)

Date: Sat, 6 Mar 93 19:02:29 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: demerara & turbinado

"Turbinado" and "Demerara" are the "real" brown sugars. They are both partially refined cane sugars. I've heard it said that they are, respectively, the American and British names for the same thing. However, turbinado is very pale, lighter than a brown paper bag. Demerara is about as dark as a brown beer bottle.

Demerara is readily available in the UK. Can UK readers confirm whether turbinado is the same thing called "Trinidad" sugar by Dave Line?

As Jeff Frane said, turbinado is available in North America in health food stores. When I lived in Toronto, I could buy demerara, imported from the UK, in homebrew shops. My respondent #2 tells me it can be bought from Great Fermentations in Santa Rosa, CA, but in the form of sugar cubes!!!!

North American supermarket brown sugars are refined cane sugar with molasses added. (HBDers must be getting sick of hearing this: I said it in HBD1089. Arf repeated it in 1090, as though it was news. In 1091 Jeff Frane said "Jack is right". Is it a fact yet?) Some questions: since molasses is a by-product of the refining process, what's the difference between a solution of turbinado and a solution of refined white sugar with the appropriate amount of molasses? Could a chemist tell the difference? Could a yeast cell? Are there nasty trace chemicals in the supermarket brown sugar because of the refining process? Did respondent #2's H2S smell arise because his brown sugar was doctored with sulfurized molasses?

Cheers,

Rob (bradley@adx.adelphi.edu)

Date: Sat, 6 Mar 93 19:46:10 MST
From: pyle@intellistor.com (Norm Pyle)
Subject: Older, but not sweeter / Cloudy

I seem to have two problems with my homebrews, which I will discuss separately.

The first problem I've had from my very first brews. It involves sweetness, or a lack thereof. As my beers age, they seem to lose the sweetness they had when they were younger. I'm comparing the flavor profile from a 1-month old brew to a 3-month old brew (since bottling). This has happened with extract brews, partial mashes, and all-grain'ers. I really like my beers when they are young, but as they age, I like them less and less. The hop bitterness starts to overpower them, as the sweetness fades. Others have reported hoppiness fading with time, but with this problem, it seems to gain prominence. Anyway, I suspect the hop-fade reports really refer to aroma, less so than bittering. So, this sounds like an infection problem, right? Bacteria/wild yeasts eating up the "unfermentables", etc. etc. Well, none of my brews have ever experienced gushing. The worst its ever gotten is some bottles having more carbonation than others, which I attributed to poor mixing of the priming sugar (this hasn't happened in quite a while). Of late, I can't discern a difference in carbonation between the "young" beer and the "old" beer. Of course, comparing a 3-month old beer to the memory of a 1-month old beer is difficult at best. Help? Comments? I'll discuss my sanitation procedures in another post if that seems to be the tack to take.

Second problem: my all-grain brews (3 to date) are, without exception, cloudy. I do a simple single-stage infusion at 150-158F. I've used American and British 2-row. I try to do a mash-out, but I know the temperature isn't 165F+ like it should be (I don't think mash-out would have anything to do with this anyway). Do I need to a protein rest? At what temp? I mash in a cooler, so upward infusion is doable, but I'd only like to do it if necessary. BTW, the cloudiness doesn't make them any less tasty, but a friend says he likes all-grain because he can get his beers much clearer than with extracts (probably among other reasons as well). What gives? Thanks for your (collective) advice. It will be appreciated.

Cheers,
Norm

Date: Sat, 6 Mar 93 20:59:11 PST
From: "Joe Stone" <JSTONE@SJEVM5.VNET.IBM.COM>
Subject: Carboy Cap vs BrewCap

As many of you probably recognized, I made a mistake in referring to my 0.5"-drill-bit-modified-hooked-racking-tube arrangement as an altered BrewCap.
It is simply an altered \$1.50 Carboy Cap (which is actually better ... a BrewCap runs \$13.00)

js (a.k.a. Joe Stone)

Date: Sun, 7 Mar 93 15:33:00 -0500
From: roy.rudebusch@travel.com (Roy Rudebusch)
Subject: Re: Making a Corona malt ready

From: roy.rudebusch@travel.com

breiden@dsuvax.dsu.edu (Danny Breidenbach) writes:
OK -- I weighed the alternatives and my budget and got a Corona -- I
wanted a Maltmill -- but \$50 more is \$50 more. Maybe later ...
anyway -- now that I have this Corona -- now that I've assembled it --
I seem to remember hearing about various tweaks and modifications to
make it better for malt ---

Jack Scmidling:
JS:>Tighten both nuts that hold the thing together first. No matter
JS:>what anyone tells you, these must be tight. Then adjust the large
JS:>wingnut so that something the thickness of a dime will just barely
JS:>pass between the two plates. You must have a gauge on both sides at
JS:>the same time to do this.

Well said! But I would like to elaborate:

First, disassemble and wash with dishsoap.

Remove and do not replace the inner snap ring. The only purpose for this
ring was to prevent from losing the steel ball when it is disassembled!

To remove the snap ring just turn in the adjustment screw till the
ring is pushed out.

Remove the cotter key from the shaft and adjust the plate so it is more
perpendicular to the shaft. The mobile plate needs to run a parallel
course to the fixed plate. The hub may give some options for refitting.
Also the cotter key may need to be replaced.

File the end of shaft so it smooth and flat.

Crush on!

* OLX 2.2 * Corona Mill

Date: Sun, 7 Mar 93 23:09:12 -0600
From: hpfcla.fc.hp.com!melkor!rick (Rick Larson)
Subject: Alan's RIMS Implementation, Part 1

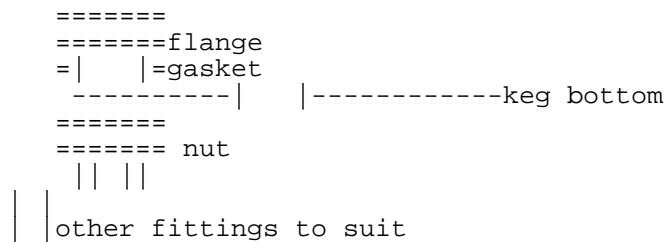
Here is part 1 of some text I received from Alan Gerhardt about his RIMS implementation.

- -----Alan's-Text-----

Hi Rick,

I built my mash tun by getting a 15.5 gal keg, using a metal cutting blade in a circular saw to cut the top off at the top seam where the handle ring is welded on. As it turns out, the groove at that weld tends to guide the blade, so it is easy to get a straight cut. Be sure and use safety glasses, however, because sparks and metal bits will be flying. Make sure you follow all the normal safety tips for working with kegs as well.

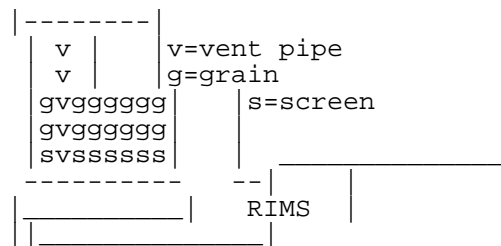
I then drilled a drain hole in the bottom, and used a brass "cooler drain" fitting. The fitting has a nut and a gasket, which gives a good seal, and is threaded on the inside as well. I then attached the required pipe/fittings to connect the drain to my RIMS unit.



I used a water heater jacket as insulation by cutting it in approx thirds, and wrapping three layers around the keg and securing it with duct tape.

For a false bottom, used a piece of 3/8" copper tubing formed in a circle to fit the bottom of the keg, and soldered a straight piece as an extra support across the center. Picture an international "NO xxx" symbol and thats what it looks like. A piece of stainless screen rests on top. I also soldered a 1/2" copper coupling to one side of the inside of the copper ring into which I stick a vertical piece of copper tube as a vent stack which sticks above the grain bed. This limits the compaction of the grain bed by the suction from the RIMS pump. If you're not using a RIMS, then you don't need the vent stack, and you have a conventional mash/lauter tun.

My plumbing is set up as follows:



x

drain
w/valve

On the next installment, I will describe the construction of my
RIMS unit, which is patterned after the original Rodney Morris unit.

Cheers,
Alan

- - -

Rick Larson rick@adc.com, melkor!rick@cs.umn.edu
ADC Telecommunications, Inc. ...!uunet!melkor!rick
Minneapolis, MN 55435(612) 936-8288

Date: Sun, 7 Mar 93 23:11:08 -0600
From: hpfcla.fc.hp.com!melkor!rick (Rick Larson)
Subject: Alan's RIMS Implementation, Part 2

Below is the remaining text I received from Alan.
- -----

outside of the cap (with hole drilled in it), and the element just screws into the end of the pipe. The supplied gasket makes a water tight seal. The element is easily removed for inspection/cleaning, although cleaning is seldom required if a clean water rinse and recirculation is performed after use.

I put the thermistor inside of a .125" copper tube, and sealed it in epoxy, being careful not to short it out. The tube is inserted through the stopper so that it sticks into the fluid flow.

The Radio Shack thermometer Rodney used is no longer available, so I didn't put that through the stopper too. I use an external digital thermometer instead.

I put the whole thing into a wood case, with the inlet and outlet tubes sticking out through drilled holes. I connect to the unit using plastic tubing and band clamps.

I built a pump speed control per Rodney's design and it works fine.

I have not been able to get his temperature controller to work yet, and am currently using a toggle switch instead.

As he recommended, I used a GFI outlet inside my box, from which I get all power. That is in my opinion, a very wise investment.

I set the whole system up on two Workmates, one for the RIMS unit, and the other for the mash tun. The whole thing disassembles and stores so I have my garage back when done.

Observations:

- (1) At full flow, the outlet stream will sometimes generate a LOT of foam in the mash tun if not properly directed.
- (2) Sparging is a snap now. I just add as much water as my mash tun will hold, raise to 165-170 degrees, and recirculate for about 30 minutes. My efficiency is typically 30-31/lb/gal, for 6 row malt (Stew's Brew malt), just short of Miller's numbers. For larger quantities of malt (not as much room for more water), I plan to drain/replace the sparge water as required.
- (3) A proper grain grind is just as important as always.
- (4) The wort runs incredibly clear by the time you are sparging, and no husks or other particles make it into the boiling kettle.
- (5) If you are contemplating building a RIMS, don't scrimp on the pump or the heating element.
- (6) You have to be crazy or an obsessive tinkerer to go to this much trouble.

I hope this helps somebody !

Cheers,
Alan

- - -

Rick Larson rick@adc.com, melkor!rick@cs.umn.edu
ADC Telecommunications, Inc. ...!uunet!melkor!rick
Minneapolis, MN 55435(612) 936-8288

Date: Mon, 8 Mar 93 07:49:20 EST
From: Dave Whitman <rsndww@rohmmaas.com>
Subject: Thicker Beer Body

To homebrew@hpfcmi.fc.hp.co
X-Mailer: LeeMail 1.2.4

In HBD #1092, Steve Slade asks:

>How do I make a beer that is, for
>lack of a better term, thick? The best beers I have tasted have all
seemed
>like they have more body, or greater viscosity, than the ones I brew
using
>a partial mash. I don't want to brew a sweet beer, so useing less
>attenuative yeast is out. Do dextrans add body without a sweet taste?
I've
>tried using 1/4 cup flaked barley in a 5 gallon batch without much luck.
Is
>carapils or one of the Belgian malts a better choice?

I'm using 0.5 lb maltodextrin powder in my latest batch in an attempt to
improve body. I added it in the hopes of improving body without
increasing
color, but I tasted the powder prior to addition, and it had very little
taste.
As such, you might give it a try to increase body w/o sweetness.

I'm also interested in cara-pils malt. Could someone post a nano-
tutorial on
its use? From reading, I thought I could treat cara-pils as a very low
color
replacement for crystal malt, just steep it in my brew water while
heating to a
boil, then filter off before adding my extract. However, the guy at my
local
brew store told me that it needs to be mashed to allow conversion. I
don't
want to let enzymes chew the nice dextrans down too much, since the whole
point
is to get some viscosity. What's the story?

Dave Whitman

Date: Mon, 8 Mar 1993 13:59:34 +0100
From: lennart@mistral.btj.se (Lennart Sandberg)
Subject: Japanese hops

I found while shopping a package of seeds and it said japanese hops,
Humulus Scandens (H. japonicus). The package says it's a fast growing
creeper, few flowers. It was a serie of seeds called Grandmothers flowers
and this plant was to remind of the time when it was law to grow hops for
beermaking. I presumed its either a mutant or a japanese relative.
Teenage mutant ninja hops ?? ;-)
Because it wont flower very much I doubt it has any use in beermaking,
anybody with more info?
Of course I had to buy it.

/lennart

lennart@mistral.btj.se or lennart@mistral.btj.se@mail.swip.net depending
on mailhost.

Date: Mon, 8 Mar 93 8:49:01 EST
From: Steve Zabarnick <steve@snake.appl.wpafb.af.mil>
Subject: Recurring infections

Date: Mon, 8 Mar 93 09:45:34 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Re: a carboy for under \$15

sagard@digi.lonestar.org (Steve Agard) writes :

> 1. Work a deal with a local homebrew shop on a used
> 5 gal carboy. there's an excellent shop in the area.

Beer and Wine Hobby up here in Woburn MA sells used
7 gallon glass carboys for \$14.95

I bought one. Didn't look very used. Works great and
the price was right.

I think these ones are pickup only, no mail order.

Tim

Date: Mon, 8 Mar 93 10:00:10 EST
From: Joe Rolfe <jdr@wang.com>
Subject: Last Call - Belgian Ale "Bitching"

hi all,

last call for those of you who have questions/problems or comments on Pierre Rajotte's Belgian Ale book. I will take these questions/complaints to Pierre this Saturday whilst visiting and return the comments to you. all comments welcome, if you wish reponse in private - indicate so in your email. this way you can "holler" as loud as you like without public interruption..... Last call!.....email to jdr@wang.com

thanx in advance!...

- - -

joe rolfe
jdr@wang.com
508-967-5760

Date: Mon, 8 Mar 93 9:42:14 CST
From: tony@spss.com (Tony Babinec)
Subject: some comments on sugar

HBD is in one of its cyclical sugar threads. Here are a few thoughts on sugars.

Sugars such as American cane sugar (American table sugar) are highly refined sugars that, from the standpoint of brewing and your yeast, are fully fermentable. Molasses is a thick syrup produced when sugar is refined. American light brown sugar and dark brown sugar are highly refined sugar with some of the molasses added back in. From this, it does not follow that you cannot or should not use them in your brewing. As I understand it, brown sugar has some unfermentables that will impart flavor to the finished beer.

Demerara sugar is a light-colored, partially refined sugar. Did you know that there is a Demerara River in Guyana? This must have been (still is?) a sugar-producing area. Turbinado sugar is a less-refined, darker, sticky sugar. You might be able to find these in health food stores.

"Sugar in the Raw" is a light amber fine-crystal sugar available in commercial supermarkets (in the Chicago area, anyway) in 2-pound boxes. "Raw Hawaiian Sugar" is an amberish rock-candy sugar available in 2-pound bags.

If you cannot find demerara or turbinado sugar, permit me to suggest that in recipes calling for demerara sugar, use Sugar in the Raw or Raw Hawaiian Sugar if you can find them, or use light brown sugar, and that in recipes calling for turbinado sugar use dark brown sugar.

Molasses is available in at least two forms -- as mild molasses or as a stronger blackstrap molasses. I've avoided the blackstrap molasses but have used mild molasses in a few recipes. I didn't have a good idea how much to add, but I started with small additions on the order of 1/4 - 1/2 cup, as I didn't want the flavor to dominate.

Finally, Rajotte's "Belgian Ales" suggests that Belgian brewers use sugar for coloring. The grain bills of Rajotte's homebrew recipes typically feature only small amounts of crystal malt or highly roasted malts, if any. Instead, he suggests that for pale beers use pilsner malt and refined sugar (or consider a light honey such as clover honey or alfalfa honey), and for color use small amounts of crystal malt or brown malt and use darker candi sugar. I think it's a great suggestion, though I don't know how to calculate the color contribution of darker sugars to the finished beer!

Date: Mon, 8 Mar 93 11:54:23 EST
From: <mgerard@engin.umich.edu>
Subject: Clear beer...

There is a recipe in Cat's Meow called "Sima" that calls for brown sugar and priming sugar bittered with lemons. It sounds like this new "Zima" is priming sugar with lemons (or something similar).

Here's my recipe for dull clear beer:

5 gallons water
1 lb rice
1 lb corn sugar
4 lbs priming sugar
1 oz cheap hops

Boil hops alone for 1 hour (there's nothing to be added to the water/wort)

Add priming sugar

Ferment

Result: A clear beer with no body (what a great marketing strategy)!

Mike
Ann Arbor, MI

Date: Mon, 8 Mar 93 12:01:44 -0500
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Recurring infections

I started homebrewing two months ago and have had two out of three batches go sour. The first batch was the only not to bad. For all batches I used a plastic bucket primary and a glass carboy secondary. I sanitized all surfaces with bleach solution for each batch (I was especially careful for the last batch). I preboiled all the water for the last two batches. The first batch used dry yeast, the last two used liquid.

Any ideas on what I am doing wrong? I'm getting very frustrated! Should I throw out my plastic primary and get another glass carboy?

All advice is appreciated.

Steve

Steve Zabarnick
steve@snake.appl.wpafb.af.mil OR
zabarnic@udavxb.oca.udayton.edu

Date: Mon, 8 Mar 93 12:13:07 EST
From: roman@tix.timeplex.com (Daniel Roman)
Subject: Clear beer and women

Ming-chung Lin writes:

> Daniel Roman,,,,,You don't think that clear beer appeals
> to "women's taste", do you???? I was a little insulted
> to be put into a category of people who like that kind of
> thing. Perhaps you (and Miller) should find someother
> words to use for people who like clear beer. Women I know
> who drink beer (most of us brew our own) prefer strong ales
> and stouts.
>
> Lisa St. Hilaire <MARS@SUVU.ACS.SYR.EDU>

Whoa! I was just listing Miller's et al marketing reasons for creating "clear beer". Did it sound to you like I agreed with them? Perhaps I was negligent in not stating that my source for the info was the Daily News and that these are not the opinions of the author etc. etc. etc. but I did not expect to get jumped on for that. Just thought I'd "CLEAR" :-> that up before any more FemiNazis attack me.

My wife's favorite style of homebrew is my Oatmeal Stout, and though she does not take an active part in the brewing process (though I've tried to get her involved), she is more than happy to consume a wide variety of the homebrew, especially the dark stuff.

BTW Lisa, I take it you are using someone else's account?

Dan Roman GENie: D.ROMAN1 Internet: roman@tix.timeplex.com //
American Homebrewers Association member Only AMIGA! /X/

Date: Mon, 8 Mar 93 09:33:33 -0800
From: pascal@netcom.com (Richard Childers)
Subject: Marin, Bicycles, and the Marin Brewery

"Date: Thu, 4 Mar 93 22:23:57 -0800
From: pascal@netcom.com (Richard Childers)
Subject: bikePUBcrawl

"Despite suggestions to the contrary, I have decided to go ahead and carry out this bicycle-based pub crawl, as scheduled, this Sunday, 07 March 1993."

For those interested, the day was great, and so was the ride. A bit of fog while crossing the Golden Gate, but this also was an indicator of the wind's minimal presence. Across in Marin, the fog evaporated and was not seen until we crossed the Bay via ferry that evening.

The route is pretty straightforward ... down to Sausalito, along the bike path, under 101, across Blithedale in Mill Valley, right at the school, then along Lomita to 101, right, onto the bike path paralleling 101, over the hill and down into Corte Madera. Cross at the light, onto Madera, which becomes Tamal Vista. Go to the end, turn right, cross the freeway at the pedestrian bridge, then continue along, parallel to 101, back onto the bike path, along 101, down the off ramp, bearing right with the road, into the parking complex of the Larkspur Golden Gate ferry landing.

It all sounds very complex but the secret is that everyone uses this path all of the time and it is well established, as well as quite intuitive. In every case but one - at the school, where the right turn is unobtrusive - choices were either obvious, IE, straight ahead, or intuitive, IE, in order to cross the freeway I needed to zig-zag a bit but the goal was obvious.

We checked the schedule, then crossed the pedestrian bridge to the shopping complex Marin Brewery was within. We sat outside, on the patio, at a small table. (There were only three of us - both, friends, neither HBD readers but both interested in brewing.) The beer was good, but it was not noteworthy ... although my tiredness may have had something to do with this perception. The food, also, was good but not noteworthy, and the fish & chips, a touch oily.

However, the clam chowder was excellent, and next time I'll have a bowl of that and skip the fish & chips. Their hamburgers may be much better, I'll have to see another time.

Afterwards, we returned to the ferry building and boarded ... returning, we put two bikes in my truck and drove up to meet the third person, at the Toro-nado ... thence, homeward.

Overall, one of the best benefits of this ride is seeing just how easy it is to cover 20-plus miles in under two hours. (We did it in 2:08 and loafed a lot.) Another thirty minutes of riding and I could have been up in San Rafael, picking up brewing supplies at Great Fermentations ... and, of course, there are many other nice rides in Marin, as well as some nice picnic spots we passed en route. Although the brewery was not as rewarding as I thought it should be, the ride amply compensated for this lack ... and I will return to the brewery again.

One problem is the meeting place - where we met was not immediately obvious, although it is the southmost end of the bridge, and it is on the west side, and it is the beginning of the bike path, as clearly denoted by the very large sign at the beginning of the crossing, which directs bike riders to go down the ramp and under the bridge, to the other side ... I hope this did not cause anyone any inconvenience.

- -- richard

"It is obligatory, within the limits of capability, to commend the good and forbid evil." Kitab Adab al-Muridin, by Suhrawardi

richard childerspascal@netcom.com

Date: Mon, 8 Mar 93 12:39:30 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Infusion mash Stout

I intend to make a stout using a single infusion mash with the major component of the grain bill being a British Pale Ale malt. But I want to know if I should worry about the fact that my roast and flaked barley have not been exposed to a protein rest - usually I make stout using lager malt with a protein rest, quite successfully. Is the likely problem a stuck sparge or simply poor conversion of the adjuncts?

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

Date: Mon, 8 Mar 93 11:50 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: False Bottoms, Efficiency

From: "Joe Stone" <JSTONE@SJEVM5.VNET.IBM.COM>

>In my haste, I immediately applied heat to the mash with a 35K BTU
cooker.
The Vollrath pot has a SS tooled screen in the bottom. Upon applying
heat,
the temperature of the water/grain-dust solution below the screen
increases
rapidly. By the time I could thoroughly stir the mash, the temperature
was
at 190oF. Oops!

Welcome to the ranks of us drones who have blindly built the "standard"
version of the scaled down commercial mash tun only to find it poorly
suited
for home brewing. The following is the relevant section from my soon to
be
published article on Kettle Mashing.....
.....

The key to the system is the screening device and the spigot for the
kettle.
The first one I made was to be used in conjunction with an overlaying
false
bottom. The false bottom was a stainless steel plate the size of the
kettle
bottom with a zillion holes laboriously punched into it. It created no
end
of problems on the very first batch. Mash got under it and scorching
was
just about impossible to control. So in disgust, I pulled it out,
continued
the mash and assumed a disaster was at hand.

Much to my incredulous delight, when I opened the spigot, the wort ran
clear
after less than a cup of turbid runoff. I have since made about 50
batches
using only the screen device and get very consistent and respectable
extract
yields.

.....

If anyone would like a copy of the entire article, drop me mail.

>From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
>Subject: Sparge efficiency

>What am I doing wrong that prevents me from getting to the next level
of all
grain snobbery the thirtysomething level of extraction all grain snob??

Probably just telling the truth and not fudging the numbers :)

We have been through this a zillion times and my opinion is that

instrumentation error and measurement technique can easily account for +
/- 5
points of uncertainty. 28 is well within the range of nominal. On my
last
batch I got 33 and the only thing I changed from the previous batch (30)
was
the malt.

The most important thing is that, once you are in the ballpark, with
what is
expected, you should worry less about what others get and more about
establishing a meaningful measurement technique that will give you
consistent
and meaningful results. If you change a process or ingredient, you want
to
know that any change in yield results from that and not from sloppy
measuring.

It is perfectly legitimate for example, to include the liquid in the
trub you
throw out in your volume determination but you must keep this in mind
when
you compare results with others and you must do it all the time. The
same
applies to reading the hydrometer. If you fudge to the top of the
meniscus
or the bottom, you must do it consistently and keep in mind that it has
about
a 4 point effect on the bottom line when comparing with others.

js

Date: Mon, 8 Mar 1993 09:48:15 -0700
From: Michael Howe <howe@gwl.com>
Subject: Celis Beers

Hello all,

All this talk of the various Celis beers arriving in cities around the nation has gotten me excited. My brother sent me an article from the Austin daily newspaper about Celis a while back. The article stated that Celis was going to be introduced in a number of test markets around the nation. COLORADO was one of the lucky states.

I live and work in the Denver,CO area (Englewood to be specific) and have yet to see Celis anywhere here (believe me, I've looked). Has anyone in this area seen Celis at any of their local liquor stores? If so, could you please show me to the promised land :-). Any help would be greatly appreciated. I am getting tired of trying to EXPLAIN Celis White to people. I'd rather just give them a bottle of it...

Reply via e-mail if you prefer.

Michael Howe e-mail : howe@gwl.com
Software Engineer II
The Great West Life Assurance Co.
Englewood, CO

Date: Mon, 8 Mar 1993 11:02:34 -0700

From: colesa@spot.Colorado.EDU

Subject: Nalgene bottles

Nalgene makes 20 litre (about 7 gallons) PLASTIC bottles that have the following features:

- 1) Large mouth
- 2) Screw top cap
- 3) Large handles to carry it
- 4) Best of all, a spigot about 3/4 inch above the bottom of the bottle

The biggest problem would obviously be sanitation, but these bottles are designed for laboratories, and the large mouth would make cleaning easier than a narrow mouthed carboy. Punch a hole in the cap for the fermentation lock, and I think it would make one hell of a closed fermenter. They cost about \$23.

Anyone use these before, and if so, how did it work?

Adam Coles *
Senior, Bioengineering * Sure I'll wear a three piece suit...
College of Engineering * As long as it's jeans, t-shirt,
CU Boulder * and a leather jacket!

Date: Mon, 8 Mar 93 11:12:57 MST
From: stevel@chs.com (7226 Lacroix)
Subject: Wierd Science etc.

Ya know, one reason I like the HBD is all the home science info I pick up. The Hot Water heater element trick is sooooo cool (really!) and I like the responsible nature of the poster....but hey, we're adults (well most of the time) and if you whoever said Home Brewing wasn't risky business!!!

On another note, during my travels in Mexico, I learned that at least one culture on the continent has a name for USAers and Canadians that relates to the land mass....most Mexicans call USAers North Americans...

I thoroughly enjoyed the humorous posting about the Clear Beer Catagories....sorta reminds me of of Old Frothingslosh...point of order.

..
Coors tested a product named "Zima" last summer. If Miller is using "Zima" as a product name, all of you weaselly lawyer-types might want to take time out from you "Boston"tm adventures to get on this fat cow. Oooooooh doesn't it make your nipples hard to think of yourself in the middle of a spat between these two well funded cowboys????

Well, back to work...and keep those fun science projects coming!!!!!!
Steve Lacroix
Primitive Brewing (and wierd science student extraordinaire)

Date: 08 Mar 1993 14:05:42 -0500 (EST)
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>
Subject: questions from a new snob :')

Well, I finally did it. Yesterday I brewed my very first all-grain batch. Back in December I asked for some tips and got them, so a very belated thanks to Jay Hersh and Tim Norris (lauter tun designs), Rob Thomas (strike heat/mash temp formula), Jeff Benjamin and Spencer Thomas (general all-round advice), and Jack (quick delivery of a MALTMILL--for the record, mine had no debris and only a very light coating of oil which I took care of with a toothbrush and some really crummy roasted barley I had laying around).

Some observations and questions:

First, things went pretty well. Temperature control in my picnic cooler was harder than I expected and sparging was easier than I expected. I got about 28 points a pound. The runoff cleared *very* quickly, like within a quart or two. (I suspect Jack's mill is the reason why.) And about this business of the iodine showing conversion at the top of the cooler but not with the wort from the spigot: I didn't experience this phenomenon. At the beginning of the mash, both top and bottom turned black; at the end of the mash, neither did. So, who knows....

In terms of time, I would say that I only spent about 2 hours longer than my extract batches, and much of that was due to fumbling on my part since I don't have my technique down yet. Naturally, it took me longer to crush the malt than the pound or so of specialty grains I was used to using, but the sparge took place while the rest of the runoff was heating up on the stove, so that didn't really add much extra time (I've been doing full-volume boils). As far as I could see, only the hour or so mash represented any significant time over and above an extract batch.

Now the questions. First, in yesterday's digest, Joe Stone asks how long the sparge should take. I've got the same question. Miller, people in my club, and lots of other folks talk about the sparge slowing to a trickle. Mine didn't. It did slow a little, but never to a trickle. If I'd've wanted to, I could have run it out like gangbusters. Again, my guess is that Jack's mill

is why, and for me the length of the sparge seems to be strictly under my control. So, how long should I make it? The most convenient is to finish the sparge right as the wort on the stove is coming to a boil. Is this reasonable? Is longer better (more sugars?), or is shorter better (fewer tannins?)?

Second, what's the deal on acidifying the mash? Miller says to get the pH to 5.0 to 5.5. I checked right after doughing in, and it was like maybe 6.3. I thought to myself, "Man, this is my first all-grain batch. I've got a lot more important stuff to worry about than acidifying the mash." Also, I remembered Miller saying something about not fighting the "natural inclinations of the malt." So I remembered not to worry, decided to let the malt naturally inclinate, and opened the day's first homebrew. What should I do in the future?

Finally, should I acidify the sparge water? Charlie P.'s silent on the matter, Miller says to acidify to a pH of 5.7, and Noonan spouts of a typically let's-make-it-harder-than-it-needs-to-be Noonanism, something like acidify if the pH rises .7 during sparge but never more than .2 unless the azimuth of the moon corresponds to the declination of blah, blah, blah..
..
What should I do and how important is it?
Thanks a bunch, folks,
- --frank

End of HOMEBREW Digest #1093, 03/09/93

Date: Mon, 8 Mar 93 19:54:56 GMT
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)
Subject: Sanitizing Chemicals

To all you technicals out there (and laymen like me), If I could get some clarification on sanitation please.

In my last post to the HBD, I asked about the techniques of using a secondary fermentation vessel, and a consensus on the amount of different priming agents that could be used. Many replies suggested I get a plastic bucket and mix the priming agent with the beer in the bucket, then bottle from it.

Well I made the batch using a secondary and bottled it before getting a bucket, we will see how it turns out. I am a bit concerned about the tremendous amount of fermentation activity for 3 days, then nothing. But, that is another matter.

This weekend I acquired a 5 gal pail (Carl West was right, check out Chinese Food places [HBD #1041], not only do they get oil in them, but soy sauce as well). I took it home to clean it up (yuch! :-b), using massive amounts of Tide laundry soap, mass quantities of water and an old sponge. I got to thinking while in the midst of this mess, how should I really be cleaning and sanitizing this thing.

A discussion was held in HBD issues 1030 through 1055 about cleansing agents, disinfectants, food vs. lab grade plastics and the like. What bothers me is that nothing was really definitively stated about cleaning plastic pails.

It was noted that Iodine and Iodophor shouldn't be used because they stain, and the plastic absorbs/leeches back the chemicals. Detergents shouldn't be used because they leave surfacants which are detrimental to the brew. If peracetic acid (acetic acid+H2O2) will dissolve an un-jacketed bullet, I'm not going to use it on my equipment. Finally, a lot was said about using chlorine bleach, but no one seems to agree about how to use it (concentration vs contact time etc.), or if it should really be used, again because of the absorption/leeching problem(s).

I know, I know, RDWHAHB. Really though, is there an accepted method and or chemical to use, and what is it? The bucket originally had soy sauce in it, then apparently was used as a frying oil/grease repository. Pretty gross stuff before "cleaning". I realize that the beer will be in the bucket for only a short time, but I would hate to ruin a good batch of beer during the bottling process just because I didn't clean the plastic right.

Suggestions are welcome, but again, is there a DEFINITIVE answer with regard to HDPE plastic?

Noch einmal, bitte!! Mark

Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil
Information Technology Laboratory (601) 634-2921
Waterways Experiment Station
Vicksburg, Mississippi USA

Date: Mon, 8 Mar 1993 14:33:24 +0700
From: ifby546@ccwf.cc.utexas.edu (Joe H. Barfield)
Subject: Carboy for under \$15

St. Patrick's of Austin sells 7 gal. carboys for \$10. They advertise in the back of Zymurgy.

Contact Lynne O'Connor at (512) 832-9045. Don O'Connor had a HBD post on hop aroma last week.

Joe Barfield, Publisher, Southwest Brewing News, ifby546@ccwf.cc.utexas.edu

Brewnews from Arkansas, Arizona, Louisiana, New Mexico, Oklahoma & Texas. 406 W. 35th, Austin, TX, 78705. 512/467-2225. (FAX)512/282-4936.

Subscrips
- \$12/yr.

Date: Mon, 8 Mar 1993 14:44:19 +0700
From: ifby546@ccwf.cc.utexas.edu (Joe H. Barfield)
Subject: Texas Brewpub Legalization

Folks, Texas Brewpub Legislation is in committee. Please write & call the following legislators this week. All the major changes that would make the proposed bad legislation into good legislation will be considered as you read this. If you have any questions please email me. I didn't know if this was the correct forum for BPub legalization issues but I figured a brewpub is a perfect place for homebrew clubs to meet! Please forward to all Texans who like beer. Thanks Joe Barfield, Publisher, SWBN

- - - -

Southwest Brewing News Brewpub Legalization Guide. 3/8/93. Please forward to interested friends.

Brewpub n. A brewery that sells its own beer on premise. Or a Restaurant that brews its own beer. Legal in 42 states. Something Texas needs to legalize to join the rest of the civilized nation.

Folks, we can legalize brewpubs this year. All you have to do is call and write to the following legislators and voice a few simple requests.

What to tell the legislators: Key consideration: BE BRIEF!

These folks are busy. If as many folks call in as we hope, we could possibly end up alienating some V.I.P.'s if we drone on. It really won't hurt if you limit your calls to the following three statements.

1. "I support brewpub legalization in the TABC Sunset Bill"

The bill considered is referred to as the T.A.B Sunset Bill. There are identical bills introduced in the Senate and the House.

2. "I want brewpubs to have the right to sell for on and off-premise consumption."

Currently, the legislation disallows sales for off-premise consumption. Most states allow people to purchase a refillable container with which to carry beer purchased at the brewpub home for consumption. Currently many bars in Texas enjoy this right. Why should this privilege be denied to brewpubs in Texas?

3. "I want brewpubs to have the right to limited self-distribution."

Brewpubs generally start small. So small that it's not worth a large distributor's effort to distribute a brewpub's products to local venues.

In

order to supply a local area with fresh products, a brewpub has to initially be able to distribute its own products. This may be as few as a couple of kegs per week to a nearby bar. As the brewpub grows, it becomes more rewarding to each party if a distributor handles a brewpubs contracts.

In fact, in California, brewpubs can distribute their beer, yet over 95% of

California's brewpub beer is distributed by beer wholesalers.

Who to contact:

Write to and call the following important people: (and communicate the 3 phrases listed above)

1. Sponsors of Senate Bill #622: Senator Carriker (512) 463-0130, Speak with Mark Moran, Legislative Aide.

Senator Ike Harris, Co-author (512) 463-0108, Speak with Tiffany Wehner, Staff Assistant.

Senator Carl Parker, Co-author (512) 463-0104, Speak with David Gonzales, Legislative Aide.

2. Sponsors of House TABC Sunset Bill: Representative David Cain (512) 463-0476, Speak with the receptionist.

Representative Ron Wilson (512) 463-0744

3. Members of Committees reviewing the bill

Senate State Affairs Committee

O. H. (Ike) Harris, Chair 463-0108

Peggy Rosson, Vice Chair 463-0129

Steve Carriker 463-0130

Don Henderson 463-0107

John Leedom 463-0116

Eddie Lucio 463-0127

Gregory Luna 463-0119

Jane Nelson 463-0122

Jerry Patterson 463-0111

Dan Shelley 463-0106

David Sibley 463-0109

Royce West 463-0123

John Whitmire 463-011 House Licensing and Administrative Procedures Committee

Ron Wilson, Chair 463-0744

Dan Kubiak, Vice Chair 463-0600

David Cain 463-0476

Ben Campbell 463-0478

Bill G. Carter 463-0482

Mario Gallegos 463-0614

Tony Goolsby 463-0454

Paul Hilbert 463-0572

Delwin Jones 463-0542

Garfield Thompson 463-0716

Ken Yarbrough 463-0648

4. Your local Senator and House Representative a. Call them at the phone numbers listed on back page

b. Write to them at the following addresses:

The Honorable [Representative] The Honorable [Senator]

The House of Representatives The Senate of Texas

P.O. Box 2910 P.O. 12068

Austin, TX 78768-2910 Austin, TX 78711-2068

If you aren't sure who your legislator is, call your county voter registration office and ask for the names of your House Representative and

Senator. Your county's voter registration telephone number should be on your voter registration card or in the county section of your telephone book's blue pages. If you can't find the number call 1-800-253-9693. They may be able to tell you your senator & representatives' names.

Attend the Public Hearings:

Call the bill tracking service at 1-800-253-9693. You can follow the progress of the bills as they are reviewed by committees. Remember, the bills in question are referred to as the "TABC Sunset Bill". HB335 is NOT

the Brewpub bill. By all means, attend the public hearing! Sign up in support of Brewpub Legalization. When your turn to testify is announced say

"I support brewpub legalization. I defer my comments to (the designated spokespeople)." We will be at the hearing in advance and will let you know

who will speak on Brewpub Legalization's behalf. Of course you have the right to speak on your own behalf, but exasperating the committee members by droning on will hinder rather than help us. Remember, please BE BRIEF. Questions can be referred to Joe Barfield, Publisher, Southwest Brewing News at ifby546@ccwf.cc.utexas.edu

Address mail to 406 W. 35th, Austin, TX 78705. (512) 467-2225.

SUPPORT FRESH BEER IN TEXAS!

Joe Barfield, Publisher, Southwest Brewing News, ifby546@ccwf.cc.utexas.edu

Brewnews from Arkansas, Arizona, Louisiana, New Mexico, Oklahoma & Texas. 406 W. 35th, Austin, TX, 78705. 512/467-2225. (FAX) 512/282-4936.

Subscrips

- \$12/yr.

Date: Mon, 8 Mar 93 15:03:29 MST
From: Rick Myers <rcm@col.hp.com>
Subject: Ranching or Farming?

> Just to educate you (as someone else educated me a month ago in
> alt.folklore.urban), yeast are not plants according to modern
> biological taxonomy. The fungi are in a different kingdom from the
> plants.

OK, yeast are fungi. But, have you ever heard of a mushroom ranch? I
think not. Most fungi grow from the soil. I brew beer and raise yeast
on my 5 acre farm. Therefore, yeast must be "farmed"...

:-)
- - -

Rick Myers
rcm@col.hp.com

Date: Mon, 8 Mar 93 14:48:05 GMT
From: Rob Simpson <robs@charles-cross.plymouth.ac.uk>
Subject: Places to go in Brussels

I am due to go to Brussels this week-end. Any recommendations as to where to go and what to see whilst there? Anyone know of any breweries that welcome visitors/have tours etc.?

Thanks

Rob
robs@cx.plym.ac.uk

Date: 08 Mar 1993 19:10:03 -0500 (EST)
From: Sandy Cockerham <COCKERHAM_SANDRA_L@LILLY.COM>
Subject: WOMEN,BEER,AND THE HBD

I HAVE TO AGREE WITH LISA ST.HILAIRE. I THINK IT IS RUDE FOR SOME OF YOU ALL TO LUMP US IN THE CLEAR BEER LOVERS BECAUSE OF OUR GENDER. I TOO PREFER DARKER BEERS AND WILL ONLY DRINK A LAGER WHEN ABSOLUTELY NOTHING ELSE (INCLUDING DIET COKE) IS AVAILABLE. WHILE I AM ON MY SOAPBOX...I AM INSULTED BY JACK (AND OTHERS) USE OF THE TERM 'WET DREAM' IN THIS DIGEST. IT IS UNCALLED FOR AND IS TASTELESS IN THIS FORUM. THIS DIGEST IS TO HELP US BREW BETTER BEERS, AND TO ENHANCE BEER APPRECIATION. ...NOT TO BE INSULTING..... FLAME AWAY, I DON'T CARE!! SANDY C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

Date: Tue, 9 Mar 93 03:01 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: White beer: let's talk turkey

The arrival of Celis has spurred an interest in brewing white beers, and in addition some HBDers have expressed a desire for more recipes on the net. The following recipe and comments should provide a good start for people who want to get ready for their summer white beer drinking.

CITADELLE WHITE (5 gals.)

5 lbs. 2-row pale malt
3 lbs. Belgian wheat malt
.75 lb. hard red winter wheat
.5 oz Styrian Goldings (6.8% AA), boiled for 60 minutes

10 grams ground coriander (boiled 10 minutes)
zest of 4 oranges and one lime (added after end of boil)
12.5 ml 88% lactic acid (added at bottling)
110 grams corn sugar in 4.75 gallons for priming

Hoegaarden white yeast cultured from brewery sample

OG: 1.042
FG: 1.012

Procedure:

Strike with 8 quarts @ 135F for 20 minute protein rest at 122-124F; Add 1 gallon boiling water to raise to 145F, then heat to 158F for 30 minute sacchrification; add 2 gallons boiling water for 10-minute mashout at 170F; transfer to lauter tun and let sit 20 mins, then sparge with 6 gallons water @ 180F. I stopped sparging at 1.008, collecting 6.25 gallons at 1.037. Boiled for 90 minutes and cooled with immersion chiller.

Tasting notes:

Lemon/gold color with a substantial haze and white head. Slightly orangey aroma. Light to medium body with full, almost moussy carbonation. Light to moderate tartness with subtle but pleasant coriander flavor, some orange present but faint. Aftertaste mostly tart and coriander-ish. I wouldn't go head to head with Celis White, but this is unmistakably a white beer and will make for excellent hot-weather drinking.

Specifics:

Grain bill--The basic bill is 60% barley malt, 30% wheat malt, and 10% raw wheat. The latter was purchased at my local food coop for \$0.55/lb. I would increase the gravity to 1.046 next time but think these proportions provide good results with little trouble. The raw wheat was absolute hell to grind, but there were no problems with the mash and sparge. Thanks to Jim Busch, the sultan of wheat beer, for help with the grain proportions.

Hops: Anything will do as long as it's not too caustic or spicy. Go for something noble-ish. My target was 14 IBU.

Yeast: A local brewer brought back yeast from the Hoegaarden brewery, but I don't think the yeast choice is critical. This yeast has less character than the Celis, so anything that

ferments reasonably thoroughly and has some character should do.

Coriander: 10 grams (about 2 teaspoons) gave good but not strong flavor, to my palate a bit more than the Celis white but not anywhere near excessive.

Orange: I purchased some dried orange peel at my coop, and boiled 2 grams in one gallon of water as a test. The result had a very unpleasant, ham-like flavor and aroma. The same applied when I used dried McCormick peel, and even fresh peel (though a little less so). I did NOT want this flavor in my beer (if you don't believe me, try it!). For this reason I used the Papazian fruit method, adding the peel just after the boil for sanitation reasons. This worked pretty well, though most of the aromatics were scrubbed during the fermentation; I used a 6.7 gallon carboy for a single-stage fermentation, and for the first 3 days it smelled like orange juice. If you want more orange aroma, add some peel to your secondary. Since Sunkist oranges aren't curacao oranges, I added the peel of one lime for some tartness and character. Can't tell if it helped, but it sure didn't hurt.

Lactic acid: At time of bottling the beer was 4.7 pH, and not tart. I added lactic acid (available from the Malt Shop in Wisconsin) to taste, starting with 10 ml. 2.5 additional ml brought it to about where I wanted it, and the pH at that point was +/- 4.3. However, I dosed it according to taste, not numbers. The result was right on target, taste-wise, and I'm thoroughly sold on the use of this stuff.

Thanks to the many HBDers who provided information on their experiments with this ingredient.

Please note that this recipe will not make you two cases of Celis or Hoegaarden, but I think you'll do fine with it. Some tweaking to bring it in line with your own tastes, and I hope the notes will save you some time, effort, and experimentation.

Phil Seitz
PSEITZ@MCIMAIL.COM
Arlington, VA

Date: Mon, 8 Mar 93 22:08:25 CST
From: mrmike@geta.life.uiuc.edu (Mike McCaughey)
Subject: Cornelius keg FAQ

A long time ago some kind soul posted a FAQ-like document on Corny keg cleaning, handling and filling systems. Alas, now that I'm ready to take the plunge, I can't find it in my own archives or at Stanford. Could someone send me a copy or point me to where it is on the archives?

Alternately, since questions about soda-pop kegs keep uh, popping up (sorry), it might be a good idea to put one together for the Stanford archives. I'm willing to put it together, but I am obviously not a keggng expert and will need to solicit your advice.

Send mail to me directly to avoid clogging the digest.

Tanks and Regards,
mrmike
mrmike@geta.life.uiuc.edu

Date: Mon, 8 Mar 93 22:27:15 EST
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: Peracetic acid; sodium hydroxide

Darrell said:

) A recent thread concerning the possible use of peracetic as a sanitizer
) prompted me to search for some information on this compound. The Merck
) Index lists peracetic as "a powerful oxidizer, strongly corrosive to
) tissue, explodes violently upon heating to 110 deg. C." Coupled with
) the fact that one liter costs \$90, this information left me wondering
) if any significant benefit could be realized by using this compound.
) Anyone have any practical experience with this substance?

I myself have wondered why a couple of the hbd luminaries have announced their intentions to use this stuff for sanitation purposes. In any event, I think you can roll your own by mixing strong acetic acid and strong hydrogen peroxide. Now, the glacial acetic is cheap, and so is 30% h2o2. (Stay away from the 50% stuff.)

BUT: Not having tried this, I can't tell you whether or not it blows up in your face.

- - - - -

In a similar vein, I just tried using sodium hydroxide (lye; caustic soda) to clean some hoses. All I can say is, WOW.

I added about 1 oz of a saturated, filtered solution of sodium hydroxide (about 1 part NaOH to 2 parts water) to 3-4 inches of warm water in my sink and dropped in the offending hoses, which included one blowoff tube coated inside with hop and protein scudge. (Needless to say, I was wearing a nice, thick pair of rubber gloves.) The stuff *immediately* came off the tube into the water, much as water soluble ink might have. A few minutes soak and a little swish, followed by a thorough rinse, and, voila, squeaky clean tubes.

Although the handling precautions are considerable, I would recommend this to anyone who has a tough cleaning problem. (But obviously you should keep lye away from your aluminum utensils unless you want to dissolve them.) I may begin using it to clean my carboys after messy primary fermentations.

=====O Fortuna, velut Luna, statu variabilis=====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052
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Date: Tue, 9 Mar 93 11:37:11 GMT
From: des@pandora.swindon.ingr.com (Desmond Mottram)
Subject: Re: English/British

> >PS please don't refer to England or English when you mean Britain or
> >British. It upsets the natives no end.

My somewhat flippant remark provoked so many inquiries by mail I felt a post to clarify was in order, despite having nothing to do with homebrew. I'll keep it short and suggest follow-ups to soc.culture.british or by mail.

Britain / British Isles / UK mean practically the same thing. England does not. Britain comprises England, Wales, Scotland, Northern Ireland, the Isle of Man and the Channel Islands. The English are of predominantly Northern European extraction: Saxon and Dane. All the others are predominantly Celtic and were there before the Romans came. They all have their own languages and culture. (If you visit England take a trip into Wales and you'll see bilingual road signs).

Owing to political and economic domination by England, a fierce nationalistic pride is possessed by the Welsh, Scots and Irish, who do not wish to see their national identity submerged and dominated by the English. So they don't like it when they are referred to as "English". British is OK but if you know the person's origin, Welsh, Scot/Scottish, or Irish is better.

Only Northern Ireland is in the UK. Eire is not. They are Irish, period. "Brit" is a common term of abuse there.

Is this recognisable to some of you? Funny lot humans...

Rgds, Desmond "a good Irish name that" Mottram

Date: Tue, 9 Mar 93 7:10:14 EST
From: "Peter J. Burke" (FSAC-PMD) <pburke@PICA.ARMY.MIL>
Subject: [To: rianhard: New Home Brewing Store in N.J.]

Please excuse if this is sent twice,
I don't know why it does that...

- ----- Forwarded message # 1:

Date:Tue, 9 Mar 93 7:05:45 EST
From:Peter J. Burke (FSAC-PMD) <pburke@PICA.ARMY.MIL>
Subject: [To: rianhard: New Home Brewing Store in N.J.]
econner@PICA.ARMY.MIL
cc: pburke@PICA.ARMY.MIL
Subject: New Home Brewing Store in N.J.
Message-ID: <9303090705.aa21707@FSAC3.PICA.ARMY.MIL>

Greetings,

A new home brewing store opened in Cranford NJ a few days ago.
They don't have a credit card machine yet, but have mostly
everything else that Teaneck & Red Bank have.

The Brewmeister
115 N. Union Ave
Cranford, NJ 07016
(908) 709-9295

GSP south to Cranford Exit (just past Union tolls)
This puts you on North Avenue (going towards Cranford)
At first light (gas station) make a right (Elizabeth St.)
At blinking light (next light) make a left (North Union Ave)
You follow this road going over a small bridge and past a church.
It is in the center of town on the right side next to a
Hallmark-type store.

Mon, Tues, Wed: 12:30 - 8:00pm
Thurs: 12:30 - 9:00pm
Fri: 12:30 - 8:00pm
Sat: 10:00 - 6:00pm
Sun: 12:00 - 3:00pm

As you can see, mighty convinent hours.
The proprier is the secratry of a local home brewing club
(They meet at Sandy Hook every month).
He plans on keeping a fresh rotating grain stock with
specials from different countries every month.

PROST !

- ----- End of forwarded messages

Date: Tue, 9 Mar 93 7:34:41 EST
From: Jpetty@PICA.ARMY.MIL
Subject: Brew Supplies

The following may be of interest to HBD readers; I have no affiliation.

Red Bank Brewing Supply
Red Bank, N.J.
1-800-779-7507

In addition to a complete line of brewing supplies, They claim to have staff who serve on advisory panels to commercial breweries and publications. They maintain an on site pilot brewery to insure quality of materials and offer courses for brewers. They specialize in hard to find and unusual equipment and supplies as well as metal fabrication for custom brewing fixtures. Their prices are very reasonable.

Date: 09 Mar 93 08:12:27 EST
From: CHUCKM@PBN73.Prime.COM
Subject: weisse bier

Hi BrewFolk,

I'm interested in peoples experiences brewing Bavarian Weisse Bier. I have read Warner's book and still have some questions.

Re: Weisse beer yeast

Wyeast 3056 is the only commercial weisse yeast I know of. Warner indicated in his book that some German brewers prime their Weisse biers with lager yeast and some do not. Does this mean that some are primed with the same yeast that they are fermented with? If yes, are any of these biers available in the US and is their yeast re-culturable. In the Gadgets issue of Zymurgy, Warner was written up in the winner's circle section for Weisse Bier. His recipe said he used yeast cultured from a bottle of German Moy Weisse Bier. -- Has anyone ever seen this in the US?

Re: Mashing

Warner maintains that decoction is the only way to go and barely had two or three sentences about infusion. Any comments?

Your replies will be greatly appreciated,
Chuckm@pbn73.prime.com

Date: Tue, 9 Mar 1993 08:40:04 +22306512 (CST)
From: dhholscl@rs6000.cmp.ilstu.edu (David Holsclaw)
Subject: Newbie Questions

Guys and Gals of the brewing world,

I starting brewing about six months and six batches ago, and I have several questions that I am sure will make me look foolish but I would like to have answers.

For the record I have Charlie P's book and just purchased Dave Miller's The Complete Handbook of Home Brewing so if you could point me towards chapters or sections (that answer my questions) that I might have missed or not fully understood at the time I read them, that would probably save bandwidth and make everyone very happy. :)

I have been adding specialty grains (crystal, chocolate, etc.) to my brews and IMHO they are turning out great!! My question pertains to the purpose of the specialty grains. Do they simply impart a flavor to the beer? I realize they have little or no enzymes so 'no' conversion of the starches can take place like in a real mash. Right?

My second question is about using flaked maize as an adjunct. My wife likes Miller Genuine Draft. I know, I know, I can see the flames coming already. I am slowly converting her over to 'real' beer, but I aldo told her I would attempt an American Lager with some corn in it. Can I simply boil these little devils, strain and add to the wort or do the starches provided by the maize also have be coverted through a mash with malts containing enzymes?

If anyone has any extract recipes for this type of beer I would greatly appreciate seeing them.

Thanks to all who have taken the time to read all of this and reply.

I have learned a lot from the collective wisdom of the net and wish you all great beers.

- -- David Holsclaw
- -- dhholscl@rs6000.cmp.ilstu.edu

Date: Tue, 9 Mar 1993 09:32:12 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Sparge Times & water pH

Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>

>So, how long should I make it? The most convenient is to finish the
>sparge right as the wort on the stove is coming to a boil. Is this
>reasonable?

Whether its reasonable depends, of course, on how long it takes your
stove to
raise the wort to a boil 8-) One of the brewers in my club starts
heating the
boiling kettle after its about 1/3 full, and by the time the last of the
sparge
is running into the kettle, it been boiling for 10-15 minutes. His beers
are
consistently among the very best in the club. This technique saves him
maybe 45
minutes per brewing session. Not bad, eh?

>Is longer better (more sugars?),

Yes

>or is shorter better (fewer tannins)?

Yes

My favorite authority (Miller) says the sparge should take 45 minutes to
an
hour. He says this gives a good balance between extraction and avoiding
tannins. It has worked well for me. My wheat ale took about 1:15 -- my
other
beers work like yours -- I have to close the spigot to make the sparge
take more
time. I insulate my lauter tun and keep a lid on it to keep it hot. I'm
using
a grain bag in my bottling bucket, which I fitted with a false bottom
made from
the lid of the bottling bucket. Keeping the grain bed hot makes
controlling the
runoff rate much easier --it becomes a matter of throttling the thing
down.
I've changed my technique a bit since I made the wheat ale, so I'm
expecting it
to go better next time.

I have been acidifying my sparge water, but I'm not convinced it makes a
difference, at least in higher-gravity, dark beers. In the lighter beers
(1040
or less) I'm sure the effect would be more pronounced because there's
less stuff
in there to mask the tannins. Your comments on Noonan's book gave me a
big
grin, but in his defense, he's writing mainly for commercial brewers
(small
scale and pilot plant operators), and the key in that game is batch-to-
batch

consistency, in the extreme. What should you do? HMMMMMM. If you notice any kind of astringency in your beer, try acidifying your sparge water. Astringency leaves a kind of dry, chalky feeling in your mouth. The other thing you might try is testing the pH of the last cup of your runoff. If the pH is above 5.5, try acidifying. The other thing to keep in mind is that all this depends on the grains you use. Dark, roasty malts tend to make the mash more acidic than light malts. If you want to experiment with your techniques, make measurements, and write down what you do, just as they taught you in chemistry lab 8-)

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Tom Leith InterNet:  trl@wuerl.WUstl.EDU
4434 Dewey Ave.      CompuServe:  70441,3536
St. Louis, Missouri 63116
    "Tho' I could not caution all
314/362-6965 - Office  I still might warn a few:
314/362-6971 - Office Fax  Don't lend your hand
314/481-2512 - Home + Infernal Machine to raise no flag
    atop no Ship of Fools"
=====
=====
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Date: Tue, 9 Mar 93 10:34:12 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: re: Older, but not sweeter / Cloudy

Hi All,

In HBD#1093, Norm Pyle writes:

>The first problem I've had from my very first brews. It involves
>sweetness,
>or a lack thereof. As my beers age, they seem to lose the sweetness
>they had
>when they were younger. I'm comparing the flavor profile from a 1-
>month old
>brew to a 3-month old brew (since bottling). This has happened with
>extract
>brews, partial mashes, and all-grain'ers. I really like my beers when
>they
>are young, but as they age, I like them less and less. The hop
>bitterness
>starts to overpower them, as the sweetness fades.
>...
>So, this sounds like an infection problem, right?
>Bacteria/wild yeasts eating up the "unfermentables", etc. etc. Well,
>none of
>my brews have ever experienced gushing.

Well, *something* is reducing the complex sugars after bottling, and
since you are not getting gushers, it doesn't seem likely that it's
bacteria. My guess would be that you are using a highly attenuative
yeast.
What strain of yeast are you using? Also, if you are reusing yeast
across
several batches, the strain will become noticeably more attenuative after
a few batches.

>Second problem: my all-grain brews (3 to date) are, without exception,
>cloudy. I do a simple single-stage infusion at 150-158F. I've used
>American
>and British 2-row
>...
>Do I need to a protein rest?

Could you provide a little more detail, Norm? Is the beer cloudy at
room temperature, or does it become cloudy after the beer is chilled?
If it's cloudy at room temperature, the problem is probably not excess
protein, but a starch haze. A too-fine crush of the malt results in
excessive flour and pulverizing of the husks, which leads to poor
filtration during sparging. Check your crush, and make sure the husks
are
intact or nearly so.

If the beer is clear at room temperature but becomes cloudy when
chilled,
you have chill haze (don't worry, it's not contagious :-)). Chill haze
is
a reaction between long chain proteins and tannins in the beer. There
are
many ways to treat this problem. A protein rest of 115F-120F for 30
minutes
will reduce the long chain proteins that cause chill haze, however, this

is generally not necessary with highly modified British 2-row malt. Fining with 1 teaspoon of Irish moss 30 minutes before the end of the boil will help settle out the proteins. You could also fine with polyclar at the end of secondary fermentation, just before bottling. Polyclar helps to settle out the tannins that react with proteins to cause chill haze.

Also in HBD#1093, Steve Zabarnick writes:

>I started homebrewing two months ago and have had two out of
>three batches go sour. The first batch was the only not to
>bad. For all batches I used a plastic bucket primary

This suggests to me that you may have scratched the primary while cleaning it after your first batch. Once a plastic fermenter is scratched, it becomes very difficult to sanitize properly. Check your primary carefully for scratches, and if there are some, replace it.

Frank Tutzauer writes about his first all grain batch:

First, let me congratulate you on joining the ranks of the snobbish elite :-) :-) (smileys included for the humor impaired)

>First, in yesterday's digest, Joe Stone asks how long the
>sparge should take. I've got the same question. Miller, people in my club,
>and lots of other folks talk about the sparge slowing to a trickle. Mine
>didn't. It did slow a little, but never to a trickle. If I'd've wanted to, I
>could have run it out like gangbusters.

If your runoff slows to a trickle when the tap is wide open and the tun full of water, this is a problem, the mash is starting to set.

I experimented with runoff rates for a while trying to determine the optimal rate. I started running off about 1 gal/15 minutes, or 90 minutes for 6 gallons, and carefully measured and recorded my extraction rate. Gradually, I sped this up until I got to 1 gal/8 minutes, or just over 45 minutes for 6 gallons. At rates higher than this, my extraction began to drop. Of course, this is based on my brewing environment (geometry of my tun, my procedures, etc.), your mileage may and probably will vary. Don't be afraid to experiment.

>Is longer better (more sugars?), or is shorter better (fewer
>tannins?)?

I think tannin extraction is more a function of pH and the amount of sparge water used, rather than the runoff rate. As sparge water is added, sugars are extracted, and the pH of the mash becomes more alkaline.

Eventually, you get to the point where more tannin than sugar is being extracted, you want to stop before this occurs. So, sparge at the fastest rate possible without extraction dropping off, and use both your hydrometer and your palate to determine when to stop. I start tasting the runoff and monitoring the gravity as I get close to 6 gallons collected. For my setup, when the gravity gets to ~1.010 the taste of tannin first becomes

noticeable, and this is when I stop sparging.

>Second, what's the deal on acidifying the mash? Miller says to get the pH to
>5.0 to 5.5. I checked right after doughing in, and it was like maybe 6.
3.
>...What should I do in the future?

The amylase enzyme works well at the pH range Miller recommends.
Adding
a small amount of gypsum to the mash should do the trick.

>Finally, should I acidify the sparge water?

This question should be a FAQ, if it isn't already. Unless you have an extreme water situation, this should not be necessary. In my case, I have a private well with extremely hard water. I had an astrigency problem with my beers because the pH of the mash was getting too alkaline during sparging. Acidifying the sparge water helped me, but I'd guess it's not necessary in your case, judging by the pH of your mash after doughing in.

Now that I've answered your questions, could you answer one for me?

>I got about 28 points a pound.

>but the sparge
>took place while the rest of the runoff was heating up on the stove

How are you measuring your extraction rating with part of the wort on the stove, and part of it still coming out of the tun?

Cheers,
Jim

Date: Tue, 9 Mar 93 08:01:34 -0800
From: pascal@netcom.com (Richard Childers)
Subject: Plastic Primaries & Marin Brewery Directions

"Date: Mon, 8 Mar 93 12:01:44 -0500
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Recurring infections

"I started homebrewing two months ago and have had two out of three batches go sour. The first batch was the only not to bad. For all batches I used a plastic bucket primary and a glass carboy secondary."

It is a truism, I have been told, that plastic is hard to sanitize, especially inside any scratches in the inside surface. It has been a major effort, after every brewing session, to not place all of my paraphernalia inside my plastic mega-container, which naturally would hold everything very nicely. But I've resisted the temptation.

Despite this, I still don't use the plastic vat for anything but short periods of exposure, and often leave a powerful bleach solution within it with the lid on tight, for weeks, when not in use. I use it as a temporary container for inducing hot breaks before racking, as well as an intermediate holding place while adding corn sugar before bottling, but never for long periods of time (IE, over an hour).

"Any ideas on what I am doing wrong? I'm getting very frustrated! Should I throw out my plastic primary and get another glass carboy?"

Don't throw it out but do invest in a second glass carboy, it's not a waste of money, IMHO.

"Date: Mon, 8 Mar 93 09:33:33 -0800
From: pascal@netcom.com (Richard Childers)
Subject: Marin, Bicycles, and the Marin Brewery

"The route is pretty straightforward ... down to Sausalito, along the bike path, under 101, across Blithedale in Mill Valley, right at the school, then along Lomita to 101, right, onto the bike path paralleling 101, ..."
^^^^^

Um, that was a left, FEI.

- -- richard

"It is obligatory, within the limits of capability, to commend the good and forbid evil." Kitab Adab al-Muridin, by Suhrawardi

richard childerspascal@netcom.com

Date: Tue, 9 Mar 93 08:31:14 MST
From: pyle@intellistor.com (Norm Pyle)
Subject: Celis Substitute?

Michael Howe reports that he hasn't seen Celis White in Colorado. Sorry, Michael but I haven't seen it here yet, nor have I even tasted it, but I have a suggestion. Try Sunshine Wheat by the New Belgium Brewery in Fort Collins.

This is the first wheat beer I've ever truthfully enjoyed. It is spiced in the Belgian tradition with coriander and orange peel, as CW is reported to be. It is just a wonderful, full bodied wheat beer with some very interesting flavor components. I'd like to try CW as a comparison, but until I find in our neck of the woods, SW will do just fine.

Cheers,
Norm

Date: Tue, 9 Mar 93 10:40 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Raw Sugar

>Rob (bradley@adx.adelphi.edu)
>Arf repeated it in 1090, as though it was news. In
1091 Jeff Frane said "Jack is right". Is it a fact yet?)

That was established in the first sentence.

> Some questions: since molasses is a by-product of the refining
process,
what's the difference between a solution of turbinado and a solution
of refined white sugar with the appropriate amount of molasses?

Not much.

>Could a chemist tell the difference? Could a yeast cell?

Not likely.

Let me caution you that the terms used in the industry are a lot like
those
in any other, i.e. they mean different things to different people. I am
not
an expert on sugar but while shooting "Orchids vs Hamburgers", we spent
a day
filming at a sugar refinery in Costa Rica and everything coming out of
the
centrifuge (turbine?) was called turbinado. Raw sugar usually means
the
evaporated and crystalized juice from the cane crusher. It can also
mean the
output of the centrifuge after most of the molasses has been removed or
even
a fairly light colored sugar with all the molasses removed. It is also
the
trade name for a Yuppie product that has nothing to do with anything.

What this refinery called raw sugar were kilo sized blocks in the shape
of
truncated cones about 5 in in diameter at the bottom. These are
available
everywhere in Central America and used in a popular drink called agua
dulce.
One drops the block in boiling water and pulls it out when the water is
appropriately sweet and it is served like tea, but of course in a glass.

We brought one of these home in 1985 and needless to say, have most of
it
still intact. As a result of this thread, I bashed it up with a hammer
and
ran it through a MM and can now use it in tea.

Now if Jeff will give us the nod, we can move on and wind up laser
lables.

>From: pyle@intellistor.com (Norm Pyle)

>Second problem: my all-grain brews (3 to date) are, without exception,

cloudy.

Your process description leaves out any information about fermenting procedure. Given time, I have never made a beer that would not clear. I do

however, always use secondary fermentation and highly recommend it as SOP for high quality beer.

How long is your primary?

How long is your secondary?

What kind of yeast are you using?

js

End of HOMEBREW Digest #1094, 03/10/93

Date: Tue, 9 Mar 93 10:48:25 CST
From: bliss@csrd.uiuc.edu (Brian Bliss)
Subject: protein rest / sparging technique

Ulick Stafford <ulick@bernini.helios.nd.edu> writes:

>I intend to make a stout using a single infusion mash with the major
>component of the grain bill being a British Pale Ale malt. But
>I want to know if I should worry about the fact that my roast and
>flaked barley have not been exposed to a protein rest - usually
>I make stout using lager malt with a protein rest, quite successfully.
>Is the likely problem a stuck sparge or simply poor conversion of
>the adjuncts?

It won't make the sparge stick any more than usual (no problems since I switched to a copper-pipe manifold), though you could get poor conversion of the adjuncts.

If you're aiming for gainness, you want to increase the protein content of the finished product. By all means go ahead and eliminate the protein rest, even if you use lager malt. The result is excellent head retention, creamy mouthfeel, and additional haze, which is no problem in a stout.

- - - - -

Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu> writes:

>First, things went pretty well. Temperature control in my picnic cooler was
was
>harder than I expected and sparging was easier than I expected. I got
about
>28 points a pound. The runoff cleared *very* quickly, like within a
quart or
>two. (I suspect Jack's mill is the reason why.)

I assume you used a slotted copper pipe manifold which will not stick. I cut too many holes in mine, and the runoff is actually too fast for great extraction. I was always having stuck sparges with a Zapap lauter tun. Crushing the grain with a Maltmill only made a minor difference. Shorter mash times helped the most - I think the husk material begins to decompose after about 90 minutes and tends to clog a false bottom.

Anyway, now my technique is as follows: 1) crush all the grain and place in cooler, stir (dry) to mix. 2) hook a siphon hose up to the outlet, and gently upward-infuse with 163F water, to avoid oxidation. when the water is well above the level of the grain, you can (gently) stir the (thin) mash without any additional oxidation. 3) To mash out, drain a gallon or two, heat to 170F, and return to the mash. This can all be done (gently) through the siphon hose, simply by lowering or raising the kettle. 4) drain completely, possibly recirculating .5-1 gal. 5) siphon in 170F acidified sparge water. Again, backwards, through the copper pipe manifold. 6) repeats step 4, then 5 and 4 again if you wish.

>From an oxidation standpoint, it would be preferable to be able to sparge with water running just under the surface of the mash, while it is being drained from below. The copper pipe manifold drains so quickly that the sparge water does not run evenly through the grain bed, leading to poor extraction when this is done. Perhaps this would work if there were fewer slots in the manifold (mine

currently is 7 ft long, with ~100 slots in it, 1 slot per inch), and if the slots were closer together farther away from the outlet.

>Now the questions. First, in yesterday's digest, Joe Stone asks how long the
>sparge should take. I've got the same question. Miller, people in my club,
>and lots of other folks talk about the sparge slowing to a trickle. Mine
>didn't. It did slow a little, but never to a trickle. If I'd wanted to, I
>could have run it out like gangbusters.

One of the advantages (disadvantages) of a copper pipe manifold. The disadvantage is that if it runs too fast, you get poor extraction. If you try to slow it down, you're only draining wort through the slots nearest the outlet.

>The most convenient is to finish the sparge right as the wort on the stove
>is coming to a boil. Is this reasonable?

The first running from my setup are around SG 1.100, which will caramelize easily if I heat it too vigorously. I usually wait until I collect a full 7 gallons before I start heating towards a boil. If you do heat the first runnings earlier, so it gently to avoid caramelization, and do not splash the hot wort when you add the second runnings later, to avoid oxidation.

>Second, what's the deal on acidifying the mash? Miller says to get the pH to
>5.0 to 5.5. I checked right after doughing in, and it was like maybe 6.3.

If I preboil my mash water, mine always comes out 5.3-5.5, so I don't worry about it. (it's impossible to use pH papers accurately with dark malts anyway, due to the staining action). If you don't boil the mash water to drive off the chlorine, the buffering action will insure that the pH never gets low enough, unless you add massive amounts of acid (gypsum won't do it), which will adversely affect the flavor of the final product.

>Finally, should I acidify the sparge water? Charlie P.'s silent on the
>matter, Miller says to acidify to a pH of 5.7, and Noonan spouts of a
>typically let's-make-it-harder-than-it-needs-to-be Noonanism, something like
>acidify if the pH rises .7 during sparge but never more than .2 unless the
>azimuth of the moon corresponds to the declination of blah, blah, blah.
...
>What should I do and how important is it?

The consensus is to try to get it down below 5.8. For me, this works out to be about .5 tsp of acid blend in 5 gal water. If you add, say 1 tsp, then the pH of the sparge water will drop further (to 5.0 or below), but as soon as the sparge water mixes with the wort in the grain bed, the buffering action will raise the pH back to the 5.2-5.5 range. better to overdo it (slightly) than under do it.

bb

Date: Tue, 9 Mar 93 10:02:25 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Cloudy, questions

Norm Pyle writes:

> Second problem: my all-grain brews (3 to date) are, without exception,
> cloudy.... What gives?

Eliminating the particles that can cause hazy beer happens at two points in the brewing process (and neither one is in the mash, although I suppose your mashing technique may have a small effect). The first is during the boil, where proteins coagulate. This is known as "hot break". I've heard a good hot break referred to as "egg drop soup", and sometimes you see 1-2 inch long strands of goo rolling around in your boil. The second is during cooling, where more protein particles coagulate. This is the "cold break". To make things confusing, both the process and the resulting sludge from the boil are called "hot break", but the result of the cold break process is called "trub". Go figure.

Here are some tips I've collected to help you maximize your breaks :-)
and maximize your chance at clear beer:

Hot Break:

1. Make sure you have a full, rolling boil (can't be stirred down).
2. Try adding Irish moss about 10-15 minutes before the end of the boil. This is supposed to provide nucleation sites for the protein strands so they settle out.
3. Leave the hot break in the kettle. I use a copper Chore Boy wrapped around a 4" piece of slotted copper tubing to siphon with, and that seems to filter nicely.

Cold Break:

1. Cool the wort as quickly as possible after the boil.
2. Cool to as low a temperature as possible. Noonan states that you don't get effective cold break until you cool to 50F or so. I think that's a little much, but if you can cool to 60F or so you'll get a much better cold break.

If your beer is still cloudy, you can try racking to a secondary and fining to get the remaining particles out of suspension. After racking, add a teaspoon of gelatine dissolved in water. As the gelatine settles, it should carry a lot of the particulates with it.

Frank Tutzauer has a few questions after his first all-grain batch.

> Joe Stone asks how long the sparge should take. I've got the same question.

I haven't really seen a consensus on this in the Digest. My experience is that a 20 min. sparge suffices to get me a 30-33 pts/lb/gal extract rate, but your mileage may vary. Others insist a 2 hour sparge with lots of recycling is the way to go. Try experimenting, and make sure you taste the runoff. Your tastebuds will be your biggest guide for avoiding tannin extraction.

> Second, what's the deal on acidifying the mash?
> Finally, should I acidify the sparge water?

It depends on your local water. Where I live, the water is naturally

soft and I haven't worried about it (in fact, I've never even checked the pH of my mash or sparge water). Regulating the pH seems to be a way of reducing tannin extraction, so if your beer doesn't come out overly astringent, you probably don't need to adjust anything.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com

Hewlett Packard Co. Fort Collins, Colorado

"Midnight shakes the memory as a madman shakes a dead geranium."

- T.S. Eliot

Date: Tue, 9 Mar 93 11:52:28 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Lager Starter?? General Comments

I will be brewing a lager soon. I use a refridgerator with Hunter Air stat for temp control. The controls on the fridge are broken so my choices are on / off. This limits my lagering temp to 40F. Given this constraint what is the promary fermentation temp I should use for Wyeast Bohemian yeast?

When producing a starter I plan to pop the bag at cellar temp 65F. What temp should the starter I pitch to be? Should I pich it at 65 and cool it to 60 let it reach full krausen, pitch this to a 2nd larger starter solution at 60 and cool to 55F and pitch this to the 55F wort? I plan to deal with the long lag time of cool initial wort temp by having a large amount 2-3oz of starter slurry. Am i corect in my assumption that pitching at to high a temp while reducing lag time can produce flavors and ester inappropriate for a pilsner?

Norm mentions having problems with his all grain brew remaining cloudy: did you iodine test the stirred mash? or just mash for x minutes? did you recirculate the first few gallons of sparge? did you rack off the trub? Taking the above steps I have not had a clarity problem with AG brews.

I protein rest all grains for 15 to 30 minutes even highly modifeied British grain. I find that the time to (mash only) == (mash + protein rest).

Beer loses sweetness in bottle. Attenutive yeast, like 1056, will continue to ferment complex sugars making for a less sweet beer over time. My sweet brown ale became a dry brown ale with 1056 yeast.

Acidified mash water reduces the amount of tannins that can be leached ot during the sparge. It helps reduce astringency and can improve yield.

- - -

Date: Tue, 09 Mar 1993 13:27:42 EST
From: rosenthal@aclcb.purdue.edu
Subject: Weizen Request

Greetings,

I would be grateful if someone could post a good all grain weizen recipe. I am relatively new to the all grain business, so any specifics on the mashing process with the additional wheat malt would also be helpful. Thanks in advance!

Additionally, for those individuals in the northern Indiana/southern Michigan region, there is a relatively new brewpub in Mishawaka (not sure of the spelling) Indiana called Mishawaka Brewing. The food is pretty good and the beers are quite nice, especially the Founders Day Classic Stout. The quality may not be up to that of the brewpubs found on the west coast, but there's not very many in this particular area (except Chicago).

Scott Rosenthal
Purdue University

Date: Tue, 9 Mar 93 14:20:07 EST
From: Dave Whitman <rsndww@rohmmaas.com>
Subject: Ginger beer update

To homebrew@hpfcmi.fc.hp.co
X-Mailer: LeeMail 1.2.4

I racked my ginger beer into the secondary last night. As in the wort, the beer had very little ginger flavor. This despite 3 oz of ginger added during boiling.

To attempt to correct this, I added 4 oz of shredded ginger root to the secondary. I dropped the whole root into a cup of boiling water for 10 minutes to sanitize. I figured that the short boil and low surface area of the uncut/ungrated root would minimize loss of volatiles while sanitizing at least the outside. After boiling, the root was grated in a sanitized food processor, and the grated material was added into the secondary (along with the boil water, which smelled strongly of ginger).

I'll taste again at bottling time, and post how it worked out.

Dave Whitman
PROFS/OV: smtp(rsndww) * "Slime molds have 13 sexes, but is this
internet: rsndww@rohmmaas.com * arrangement stable?"
US Mail: get real. * Science; Vol 257, p324 (17 July 1992)

Date: Tue, 9 Mar 93 14:03:53 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: RIMS

We had the good fortune of having Conrad Keys at this years Bluebonnet, which was held last weekend. He was hoping to bring his first production RIMS model, but this unfortunately was not possible. He is wisely seeking insurance coverage for his system, and they have required that changes in the wiring be made before they extend coverage. He did come with a brochure on the system which contained a detailed picture of his prototype. Given the average homebrewer's skill at reverse engineering, this may provide a lot of grist for one's mill (so to speak). Conrad indicated he would sent copies free of charge to anyone who requests one.

I was reluctant to give out much detail in my review because I consider Conrad as a good friend, and I would have a hard time sleeping at night if I said something that was not in his best interest. However, he was very candid about things at the Bluebonnet, and the following is a summary of his ideas about RIMS:

1. There are three crucial design parameters. These are the following:
 - a. Type of crush used to mill the malt
 - b. Geometry of the mash tun
 - c. Diameter of the tubing used in the recirculationIt will come as no surprise that a corona is not appropriate, and any mill which gives too fine of crush will experience the problems described by Bob Jones in his post. The other two parameters are system dependent, and Conrad recommends that those who are designing RIMS cut themselves as much slack as possible in this area. For example, the optimal configuration in his 1/2 bbl. system is quite different than with the 2 bbl. system.
2. Top flight pumps are also crucial. Most pumps will eventually give a laminar flow. Some, however, will cause foaming at the start and at the end. These should be avoided.
3. Less than optimal yields will occur if there are temperature gradients in the system during the mash. This tends to be more important for the larger versions than the small one described in Rodney Morris' articles. I personally am not a "yield uber allen" type. My bottom line is the finished beer itself. If it is to my taste in the case of my beer, or to another's taste in the case of their beer, then whatever procedures used will not be faulted by me. In any case, those wishing to increase the yield of their RIMS may want to investigate the heating used with an eye to removing thermal gradients. Obviously this depends very sharply on the geometries involved.

George Fix

P.S. The Bluebonnet was a great success. I was really proud of the dignified and refined behavior of the participants. There were, at the very most, only 2 or 3 fistfights, a new record for Texas! Seriously, it was a lot of fun, and we were all grateful for the entries sent in from outside our region.

Date: Tue, 09 Mar 93 15:37:21 EST
From: "Mark Rich-mpr8a@acadvm1.uottawa.ca" <MPR8A@acadvm1.uottawa.ca>
Subject: Easymash

**** OPEN MSG TO JACK SCHMIDLING**** (did I spell that right?)

Hi Jack...

I've been reading the digest for a while now, and am considering the shift to all-grain. I have been slowly gearing-up, and recently lucked into a used 8 gal SS stock-pot with a spigot already attached. I remember reading a few posts about your Easymasher(tm) setup, and I'm curious to know how much trouble it would be to sort of "borrow" (brown-nose-mode on) your skill and experience. I was hoping you could see your way clear to sharing the basics of your design with me. Please please please please. I will- of course - understand, should you not wish to part with it.

Grovellingly yours, Mark

Date: Tue, 9 Mar 1993 14:02:55 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: bottle conditioning takes a long time?

Recently I posted an item in which I expressed concern over my beer not conditioning. After regularly experiencing 3 day ferments, and reading about how conditioning occurs "rapidly" I was upset to find almost no pressure in the bottles after 4 days. I then tried experiments by modifying three bottles as follows:

- (a) add 1/4 teaspoon extra sugar directly
- (b) add 1/16 teaspoon (roughly measured) of dried yeast directly
- (c) put 1/4 teaspoon of dried yeast in 25 ml water to rehydrate and pour 5 ml of slurry into a bottle

This is to report the results of that experiment, since people have expressed interest.

The summary is that I was indeed too hasty. Two weeks later and the bottles had conditioned beautifully. In comparing each of bottles a,b and c above with an unmodified bottle, there is virtually no difference between b, c and the standard bottle, at least as far as carbonation is concerned. There seems to be a very subtle difference in flavor, but so subtle that it can be effectively ignored. In my case I suspect the M&F dried yeast I added is less attenuative than the WYEAST 1056. There may have been a difference if it was the other way around.

As far as bottle (a) goes, yes it's more carbonated, a bit too much so.

The bottom line is to not expect bottle carbonation within two weeks. TNCJHB suggests some beers are ready to drink in days, but this will be strongly dependent on the yeast used.

Thanks to everyone who replied to my original note.

Peter

Date: Tue, 9 Mar 1993 15:20:57 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: American Black Malt

For those who are using American black malt in their beers, I thought the following might be interesting. It's from an article by Roger C. Briess, of the Briess Malting Co., in the October 1986 issue of Brewer's Digest, a professional publication. As far as I know, Briess is the only American malthouse producing black malt. This article was what convinced me to use only British black malt in my beer (since upgraded to include malts from Germany).

"Black malt is specifically produced for coloring value. Extract and enzyme activity are inconsequential.

"Historically, black malt imparted an astringent, harsh, smoky flavor to beer. Beers dating back several hundred years could tolerate such flavor profile due to high gravity worts. We have been successful in eliminating this undesirable characteristic to make the product compatible with the lowest gravity beers, such as 'light' beer.

"The proper application is in the mash tun; however, black malt flour may be added to the kettle for minor color adjustments.

"Coloring value has been empirically established at 0.08 lb/US Bbl to increase beer 14 degrees Lovibond. The value is linear. It was established in our pilot brewery in Chilton and corroborated by cooperative tests by select commercial breweries."

Briess black malt, in other words, is the brewing equivalent of decaffeinated coffee.

- --Jeff

Date: Tue, 9 Mar 93 17:52 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: In need of some history

Awhile back some pinhead posted an article titled "Wave of Wort". It appeared in the HBD around Sep/Oct/Nov. If someone knows which digest number the post appeared in or has the digest on disk, could you please send it to me by email. Thanks in advance.

chris campanelli

ps. Thank you, yes, I know about the archive site. I figure this is the easiest and fastest way to go.

Date: 9 Mar 93 16:46:00 +2000
From: BELLAGIO_DAVID@Tandem.COM
Subject: Cheap 5 Gallon Carboys

I don't know about 7 gallon carboys (I got my used one through mail order for \$10.00 plus \$8.00 shipping), but for brand new 5 gallon carboys, try your local Corning Glass outlet. They have them for \$8.99 brand new. I compared them to the ones for sale at the beer stores and they are exactly the same only \$7.00 cheaper! While you are there, pick up some foot, half yard, and yard classes in stands for magnitudes less than the beer store. The one I go to is in Gilroy Ca. I assume they are nation wide.

Super Dave

bellagio_david@tandem.com

Date: 10 Mar 93 11:31:00 WET
From: "ONREUR::JSAMPSON" <JSAMPSON%ONREUR.decnet@onreur.navy.mil>
Subject: Real Root Beer and Cancer

While catching up on my cross-discipline reading on the train this morning, I came across a very interesting paper on natural vs. synthetic carcinogens in the diet (L. S. Gold, et.al., Science, vol. 258, pg 261, 9 Oct 92, "Rodent Carcinogens: Setting Priorities"). Since many of us long for the taste of REAL root beer, I thought it would be interesting to compare the banned chemical safrole (the primary carcinogen in sassafras) with other known carcinogens.

The paper ranked 80 natural and man-made chemicals shown to cause cancer in laboratory rats. First some definitions:

TD50 = the daily lifetime dose (milligrams of chemical per kilogram of body weight per day) which halves the proportion of rats which remain cancer-free at the end of a standard lifetime.

HEPR = (Human Exposure/Rat Potency) the percentage of TD50 received by a 70 kilogram human for the given lifetime intake rate, i.e.,

(mg chemical per day) / (70 kg)/(TD50 for that chemical).

HEPR (%)	HUMAN EXPOSURE (PER DAY)	RAT CARCINOGEN
4.7	Wine (250ml)	Ethanol (30 ml)
2.8	Beer (12 oz; 354 ml)	Ethanol (18 ml)
1.4	Mobile Home Air (14 hrs/day)	Formaldehyde (2.2 mg)
0.4	Regular Home Air (14 hrs/day)	Formaldehyde (598 ug)
0.3	Lettuce, 1/8 head (125 g)	Caffeic acid (66.3 mg)
0.2	Real Root Beer (12 oz; 354 ml)	Safrole (6.6 mg)
0.1	Apple, 1 whole (230 g)	Caffeic acid (24.4 mg)
0.1	Mushroom, 1 (15 g)	various hydrazines
0.1	Basil (1 g of dried leaf)	Estragole (3.8 mg)
0.07	Pear, 1 whole (200 g)	Caffeic acid (14.6 mg)
0.07	Brown Mustard (5 g)	Allyl isothiocyanate (4.6 mg)
0.06	Diet Cola (12 oz; 354 ml)	Saccharin (95 mg)
0.04	Coffee, 1 cup (from 4 g)	Caffeic acid (7.2 mg)
0.03	Celery, 1 stalk (50 g)	Caffeic acid (5.4 mg)
0.03	Carrot, 1 whole (100 g)	Caffeic acid (5.16 mg)
0.006	Bacon, cooked (100 g)	Diethylnitrosamine (0.1 ug)
0.002	White bread, 2 slices (45 g)	Furfural (333 ug)
0.002	DDT, daily avg before ban	DDT (13.8 ug) (before 1972)
0.001	Tap Water, US avg (1 liter)	Chloroform (83 ug)
0.00003	Approximate HEPR of upper-bound risk estimate used by US regulatory agencies to control exposure to man-made chemicals.	
0.00000006	Captan (synthetic pesticide), US daily avg residue intake	Captan (11.5 ng)

g = gram, m = milli-, u = micro-, n = nano-, l = liter

Please note that HEPR is NOT a direct estimate of the risk of a human getting cancer, but rather is an index of relative carcinogenicity. Thus, all it seems you can say is that drinking one bottle of real root beer entails about the same risk of cancer as eating two fresh, unsprayed, organically-grown apples.

Again, this is not my field, so I suggest anyone with an uncontrollable

urge to flame first read the whole paper and then refer their
professional
comments to the authors.

John A. Sampson
Office of Naval Research European Office

Date: Wed, 10 Mar 93 12:49:16 GMT
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : British pubs

I came here to GB 3 years ago and was disappointed at the number of tied pubs which offer only one brewery's products. The best opportunity for beer education is to find a festival. These are advertised in the CAMRA mag "Whats Brewing", presumably available to non-subscribers from the London office. There is a festival somewhere in the southern regions about fortnightly. One tip: most brew is past its best after 2 days, so go early. Continental festivals are also starting to find their way in there, eg, Cantillon in Belgium seem to have regular beer breakfasts!

- - -

Conn V Copas
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Date: Wed, 10 Mar 93 08:54:28 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Peracetic Acid and Other Strong Cleaners!

With all of this talk about using peracetic acid, let me just give people a brief warning. Mixing peroxides and acids is not to be taken lightly.

We use a 3:1 mixture of a mineral acid (I will not name it) to 50 percent hydrogen peroxide as a method of removing photoresist from wafers. This mixture is called 'piranha etch' as it is very powerful. It will very strongly attack any organics, skin included.

Also, the cleaning power of such a mixture diminishes very rapidly. If allowed to stand for a while before use, its essentially just the same as using the acid by it self. The oxidizing power of the hydrogen peroxide is short lived.

Someone mentioned that the Merck Index talked about peracetic acid being explosive at 110C. Peroxides can be very unstable. A few years ago, the bomb squad had to remove hundreds of vials of peroxides from Thomas Edison's lab in NJ as he had lots of old peroxides sitting around for 50 to 75 years.

I have found that plain old unscented chlorine bleach is a very effective cleaner. Stuborn 'gunk' from a vigorous primary can easily be removed by just filling the carboy with water and adding a little bleach and letting it sit for a week. It is also safer than many of the more concentrated cleaners.

Similar warnings go for using strong caustics like sodium hydroxide. They are dangerous stuff, so please don't take they're use lightly. Its roughly equivalent to using draino as a cleanser.

Just some things to think about. Read up on these cleaners before you use them!

Tim

- ----

Timothy J. Dalton tdalton@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

Date: Wed, 10 Mar 93 07:56 CST
From: fjdobner@ihlpb.att.com
Subject: Non-Alcohol Brews

To The Gentleman Asking About Non-Alcohol Brewing,

To be a purist, non-alcoholic beer is a contradiction. For if it does not have alcohol it cannot be legally called beer. However, as long as we we're being picky the commercial versions of NA beers are not precisely NA beers. They contain something under 0.5% alcohol.

Recently, I saw an article written about such beverages and I just wanted to pass this information along to someone who really could use it. It was prepared by the Copley News Service.

Basically brewers employ either of two methods to achieve a non-alcoholic product:

1. The older technique takes beer that has been made in the usual way and evaporates the alcohol by heating the brew in a vacuum chamber, which allows a low boiling point. Kingsbury and Kaliber are made this way. The principal problem here is to avoid changing the taste of the brew by cooking it. In addition, this process would be very impractical for one of more modest means like most homebrewers.
2. A more modern method, used by most of the German brewers, uses intense cold and rapid extraction of the yeast to arrest the brewing process before too much alcohol forms. This technique seems to leave a lot of the sugar in the brew and therefore gives it a sweet taste.

The second option would seem to give homebrewers a chance to attempt a low-alcohol beverage. Assuming that you make ales, chilling the fermenting wort sufficiently would be practical in a refrigerator. In addition, the remaining yeast could be fined with your favorite fining (I would probably use polyclar since it would seem to be able to work with the high gravity liquid).

The resulting beer would not be the same, but much sweeter. It depends upon your taste. I have not read the HBD since you posted and I wonder whether you have heard similar words from others but I hope this helps. I hope you can drink beer in some way or other.

Good Luck.

Frank Dobner

Date: Wed, 10 Mar 1993 09:21:31 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: help! nonstop fermentation

Dear Colleagues:

Words of consolation, anyone? My wife and I finally collaborated on a batch of HB and despite the initial excitement, we have a problem on our hands. Here's the dope:

1 can (4lbs.) Ironmaster "Special Lager" malt extract
packet of Isohop extract (included with above)
2 lbs. corn sugar
1/2 lb. maple syrup
2 oz. apricot wine flavoring ("Wines Inc.")
11.5 g sachet Edme dry yeast

It was a 50-minute boil with apricot extract only going in the last five. I rehydrated the yeast in warm water shortly before pitching. O.G. was 1.050 and when I racked to secondary three days later it was 1.018! Now here's the problem: *that was exactly four weeks ago and fermentation has not stopped.* Bubbles still rising, a cute layer of foam still on the surface. I've never encountered this before. I've always been a careful sanitizer, but should I assume something got by me this time? Temperature has been 58-62F for the duration. Don't pick on me for using corn sugar (it was the first time I've done so in years--my last few batches were nearly non-alcoholic and my checking account was low: MEA CULPA). And yes

I'll be going to liquid yeast for my next one. But what about now? Down the loo?

Thanks for you advice or condolences via e-mail.
Kirk Anderson

Date: 10 Mar 1993 9:21 EST
From: dab@cc.bellcore.com (dave ballard)
Subject: new jersey brewpub legalization

Hey now- A friend of mine has become involved with the campaign of one of New Jersey's gubernatorial candidates and would like to start bending some people's ears about brewpub legalization. Does anyone know exactly where this matter stands right now and where I can get some more information about it?

Thanks in advance...

dab

=====
=
dave ballard
dab@cc.bellcore.com
=====
=

Date: 10 Mar 1993 10:38:46 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: English and British

Can I use the term English and England when referring strictly to England and not Scotland or Wales? It seems to me that in the original post the person wrote England and meant England, and not Britain. I try to be precise, and if in conversation I wish to refer to the UK I say Britain or UK, but if I mean England alone I say England. In fact two years ago I went to England and Wales, never quite made it to Scotland. Can I say I went to England and Wales? Or do I have to say I went to Britain?
ed

Date: Wed, 10 Mar 93 15:17:00 +0000
From: DAMON_NOEL/HP0800_01@mailhub.cs.itc.hp.com@mailhub.cs.itc.hp.com
Subject: plastic pails

re the reuse of plastic pails...a data point...in my early brew days in an effort to save money I came by several "food grade" pails which had contained pickles. I cleaned them with every thing I could think of in every concentration to no avail. Some cleansers would seem to do the job, but in a few days the pickle smell would reappear. I concluded that the plastic had absorbed the taste/smell and was exuding it over time. I threw them out and would not recommend reuse of containers which had liquid in them...soy sauce???? not a common adjunct!

Date: Wed, 10 Mar 93 08:30 EST
From: "C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc3.adc.ray.com>
Subject: Bubble gum aroma during primary ferment

Based on recent discussions recommending Nottingham dry yeast I decided to try it. One major difference I've observed so far that a strong bubble-gum aroma is given off during the primary fermentation. Last night, my son entered the room where the fermentation was occurring and asked if he could have some bubble gum too. So this is not in my mind. What gives? Has anyone else ever observed this?

Chris
LYONS@ADC3.ADC.RAY.COM

Date: Wed, 10 Mar 1993 10:44:19 -0500 (EST)
From: Chris Mackensen <cygnus@unh.edu>
Subject: Mashing Questions

Okay, I seem to be still confused about mashing...

-what is a protein (enzyme) rest and at what temperature?

-what is a good temperature to keep your mash so that the enzymes don't break down the complex sugars? I am more concerned about a heavy malty taste (not caramelly taste) than the alcohol content.

-what temperature converts starches over to sugars?

-what "normal" order or succession should each of temperature categories be in? does it matter?

any help would be most appreciated...
thanks,
-chris

- --.
David (Chris) Mackensen
dcm2@kepler.unh.edu, dcm2@bifur.unh.edu I am the Time Daemon
+++++
+++++
"Hi... My name is Hobbes. I'm the product of a malicious 6-year old's twisted and destructive imagination. Would YOU like to be my friend?"

Date:Wed, 10 Mar 93 11:43:40 EST
From: William Boyle (CCAC-LAD) <wboyle@PICA.ARMY.MIL>
Subject: Crystal malt

I have a question about crystal malt. Crystal malt will add body, sweetness and color to a beer. These three contributions will vary depending on the lovibond of the malt. I feel that any crystal malt should add the same amount of unfermentables to the beer, this in-turn should add the same amount of body and sweetness to the beer. I think some of the sweetness may be masked by the flavor of darker crystal malt, but the increase in body will be the same for any crystal? Am I wrong for thinking like this?

On a side note in my dictionary beer is defined as a beverage made from malt, hops, yeast, and water. It does not say malted barley, so the clear beer can be called beer is it is made from malted rice or corn? I know it really does not matter but its a thought.

B^2

Date: Wed, 10 Mar 93 11:51:05 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Filtration, pt 1 of 2

Filtration for homebrewers:

After brewing for several years, I finally had an occasion that called for me to consider filtering my beer. What happened is that in my quest to brew true to style beers, I used a different yeast strain, specifically a Weihenstephan Altbier strain (no, it is not from Wyeast). I calculated out a Alt bier recipe of 40 IBUs, 11% CaraMunich malt and 2 row grist to yield an OG of 12P (1.048). All went as planned, ferment was vigorous and a ton of yeast was skimmed off of my open fermenter. The beer was kegged and lagered at 31F for 3 weeks. After sampling this beer many times during the lager stage, it became apparent that the yeast was refusing to flocculate. I mean were talking milkshake looking stuff (kinda like Widmer "HefeWeizen" :-). So, I decided to do some research on home filtration. I had just won a copy of the AHA 92 conference transcripts and noticed that Steve Daniels wrote about filtering his beers. I was aware of The Filter Store and some of their products since a local brewer uses the standard kit to filter some of his beers. Steve also recommends using this basic kit. He claims to have tried all sorts of filters and found a "happy medium" using a .5 micron sterile filter. This is indeed the filter sold with the basic kit from the Filter Store. Now, I am quaffing a few ales with my local Brewmaster friend and we are discussing the merits of filtration and specifically the degree of filtration required. Old Dominion Brewing CO, where my brewmaster friend brews, filters using a plate filter and removing down to 5-7 microns. Another Baltimore brewpub does a similar level of yeast removal. The beers produced from these breweries have a fine degree of clarity to them. Not sparkling crystal clear, but certainly quite clear. I also feel the flavor from hops and malt and overall mouthfeel of these beers is very good and devoid of any "thinness" or lack of head retention. At this point, I decided to post a inquiry to the HBD on filtration methods. I got three responses, two of whom were using .5 micron sterile filters and one who said his was 2 microns. So, I was at a dilemma stage, where my professional brewer friends were claiming to not go below 5 microns to avoid

stripping the beer of important flavor elements, especially proteins, whereas people who actually used the home filter methods seemed happy with .5 micron sterile filtration. I decided to ask Dr. Fix, who provided the following:

>From gjfix@utam.uta.edu Wed Mar 3 14:22:15 1993
Jim:
Content-Length: 1736
X-Lines: 32
Status: RO

>A quick question, how many microns is a yeast cell? I need to
>buy a filter to clarify my Altbier that is real yeasty, despite
>being lagered at 31F for 3+ weeks. What I want is a real coarse
>filter, I am not interested in removing chill haze, I just want
>to remove yeast. Any ideas on the coarsest filter that will do
>the trick? All I read is about people using .5 micron filters
>and I believe this is smaller than I need.

Yeast cells vary from 5 to 10 microns. My own filter is a Zahm+Nagel cartridge which is precoated with DE. The cartridges come in 3, 1, and .45 micron sizes. I use the 3 micron version for my own homebrew. We also use this size for BRD brew pubs. Some yeast will make it through this type of filtration (don't ask me how!), but only at very low levels. >(apparently any very young cells can be smaller than 3 microns and thus >make it through the filter, JB)
Plating with SDA has indicated that the counts rarely go above 20-25 cells/100 ml, which is next to nothing considering we pitch at a rate of 10 million cells/ml. I have found that a 1 micron filtration will eliminate yeast, but will also start to compromise the beer's foam stand. Pedios, if present, will also make it through. They are only .8 microns in diameter. A filtration at .45 microns will remove everything, but it has a very negative effect on both beer foam and flavor. These defects in "sterile filtration" are well recognized. Nevertheless, many micros (as well as large breweries) are starting to filter at the submicron level. They claim their unpasteurized bottled beer tastes better after 3-4 weeks in the trade than it would if the sterile filtration were not used. They are likely correct, but I personally would do what ever it takes to keep the bugs out, and not go below a 1 micron filtration.
Take care.

George Fix

end part one.....

Date: Wed, 10 Mar 93 9:52:36 CST
From: tony@spss.com (Tony Babinec)
Subject: wit beer recipe and comments

Here's a wit beer recipe (for 5 gallons) and comments:

5 pounds pale malt
1 pound wheat malt
2.5 pounds flaked wheat
0.5 pounds flaked oats
hersbrucker hops to 18 IBUs
20 gms ground coriander seed
5 gms dried orange peel
2 gms ground cardamom
yeast: Wyeast Belgian

Process was an upward step infusion mash:

110 degrees F for 45 minutes
122 degrees F for 45 minutes
144 degrees F for 30 minutes
150 degrees F for 90 minutes
mash out

Spices were added in the last 10 minutes of the boil.

Flaked wheat is available from homebrew shops, but can also be found in health food stores or natural food sections of supermarkets. I MUCH prefer flaked wheat to raw wheat berries. The flaked wheat is already gelatinized. The raw wheat berries should be boiled and gelatinized, and that's a mess. Also, there are different wheats available, and it's not clear to me that what's available in the health food stores is the same wheat as the Belgians use. The wheat malt in the above grain bill was a hedge, and in retrospect could have been flaked wheat.

Flaked oats are available from homebrew shops, but rolled oats (such as Quaker oats) could be used.

Somewhere in Michael Jackson's writings, I'm pretty sure he says that Hoegaarden Wit has a grain bill as follows:

50 parts barley malt
45 parts wheat
5 parts oats

While my grain bill used a bit more barley malt than these proportions would suggest, I was nervous about conversion and my starting gravity. Not to worry -- the deliberate low temperature rests and long rest times did the trick, and I got about a 1.050 beer.

Ground coriander is a great spice, and I thought that 20 gms would not be too heavy-handed. Incidentally, there are different types of coriander seeds available. Instead of going to the spice rack of your favorite grocer, go to a spice specialty store to seek out the larger coriander seed that is more "noble" -- that is, aromatic and flavorful.

Ideally, the orange peel should be from the curacao orange. Here's a thought -- use a dash of orange curacao liquor in the beer. I

used McCormick dried orange peel to no apparent bad effect. If I were to do things again, I might up the amount a bit, or substitute something fresher.

Cardamom is a very elegant spice with a lemon-citrusy aroma and flavor. I use it lightly for background flavor and character.

Wyeast Belgian is a strong-gravity performer, but I used it here in a conventional-gravity beer. It did contribute a bit of its own flavor, though somewhat muted. I racked onto the yeast cake from a just-racked beer, and maybe that contributed a bit of pleasant dryness to the beer. I'd love to get my hands on Hoegaarden or Celis yeast, and failing that, might use Wyeast "London."

The suggestion in HBD to add a dash of lactic acid for some tartness sounds like something to try. As the acid is quite concentrated, it shouldn't take much.

End of HOMEBREW Digest #1095, 03/11/93

Date: Wed, 10 Mar 93 12:12:38 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Filtration, pt 2 of 2

Filter post, pt 2.....

So, armed with this information, I called The Filter Store and asked about coarse yeast filters. They informed me of a 5 micron and a 1 polypro 99.9% efficient filter. I ask about adaptability to my whole house filter and they agree that it is compatable. I order the 5 micron filter. I need to build the connectors.

The filter connects are 3/4" female NPT. So, I buy 2 3/4" male to 1/2" sweat copper connectors, and two 1/2" sweat to 1/4" thread bushings and two 1/4" threaded hose barbs. Soldering these together, and screwing in the hose barbs results in a solid 3/16" id hose to 3/4" filter union.

I buy a \$13 cheapo whole house filter from Hechingers, and my cartridge arrives. I filter the still beer through the 5 micron filter after sanitizing

the kegs with Iodophor and the filter with Vigilquat. I push lots of hot water through the filter to rinse prior to use.

The beer is noticably clear, with some haze remaining but no real detectable

yeast cloudiness. The beer vastly improved in flavor. The cartridge was quite

discolored, due to lots of yeast captured. I back flush with hot water and

soak overnight in a caustic solution. The filter is stored in a ziploc bag

containing water and a sanitizer of your choice. For my first filtering, I

only filtered 10 gallons, so I do not know the volume limitations of this filter. It is claimed to filter 150 -250 gallons of beer, but I suspect that with good cleaning it will last longer.

Conclusion:

I am quite satisfied with my 5 micron filter. It did what I wanted, removed the yeast, resulting in a polished product. I am quite sure that it would have been crystal clear with a .5 micron unit, but I suspect that flavor and head retention would have suffered. Note that a 5 micron filter is not a sterile filter and as such the brewer needs to have a good grasp on on proper sanitation techniques, but I suspect those of us using kegs and filters already have a good feel for sanitation.

Good brewing,

Jim Busch

PS: my Altbier was made using all Liberty hop pellets. The IBU was calculated to be around 40, but the bitterness perceptions to me are much less. This hop has an alpha of 4.0 and is the latest american attempt to produce domestically a hop with characteritics of Hallertau. I detect a grassy aroma from this hop, but at times it does appear to remind me of a hallertau essence.

Date: Wed, 10 Mar 93 12:43 EST
From: Scott Knowles <NECHO%NCSUMVS.BITNET@ncsuvm.cc.ncsu.edu>
Subject: Wort chiller using dryice

BREWERS,

The fellas and I were bottling a batch of winter Lager the other evening, and talk turned (as it will) to the Next Batch. We hit upon an idea that is simple, straightforward, and seemingly foolproof; why not cool a hot wort with dry ice? Think about it: No wort-chiller hardware, no sink full of icecubes, no floating the wort kettle in the cold swimming pool out in the back yard. Just cold wort, fast.

Has anyone tried this? Does it make sense? Seems to to me, but then we were relaxing and having a homebrew at the time.

In my lab at work, dry ice is available and free. (It can't be recycled...) I'm sure I could add enuf to the kettle to drop the wort temperature 75 degrees C in maybe two minutes. Follow this with vigorous stirring to re-oxygenate the wort, then pitch.

I invite comments and criticisms on this idea. Tell me now, before we burn \$20 worth of grain and yeast trying it.

If this works out, we plan to go to extremes and cool the next batch with liquid nitrogen...

Scott Knowles * I love beer. Is that such a crime? *
<nEcho@NCSUMVS>

Date: Wed, 10 Mar 93 11:46 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: APOLOGY

>From: Sandy Cockerham <COCKERHAM_SANDRA_L@LILLY.COM>
>Subject: WOMEN, BEER, AND THE HBD

>WHILE I AM ON MY SOAPBOX...I AM INSULTED BY JACK (AND OTHERS) USE OF
THE
TERM 'WET DREAM' IN THIS DIGEST. IT IS UNCALLED FOR AND IS TASTELESS IN
THIS
FORUM.

I have already apologized both publicly and privately for that but you
aparently missed it and I hereby extend the apology personally to you.

Having said that, it reminds me a bit of the time I flamed someone for
using
the term "anal" and got flamed back en masse for my ignorance of
classical
psychoanalysis and Freud.

I don't claim Freud as the source for this one but I do think you'al are
being a bit harsh. "Tasteless and uncalled for" are a far cry from
"insulting". I may be tasteless but I would never intentionally insult
a
stranger.

>From: joseph@joebloem.maple-shade.nj.us (Joseph Nathan Hall)
>Subject: Peracetic acid; sodium hydroxide

>In a similar vein, I just tried using sodium hydroxide (lye; caustic
soda) to clean some hoses. All I can say is, WOW.

It is a powerful saponifier, i.e. it turns grease into soap and is used
by
lots of commercial brewers for cleaning kegs. I do not know to what
extent
it is bacteriacidal but it cleans very well.

>I added about 1 oz of a saturated, filtered solution of sodium
hydroxide
(about 1 part NaOH to 2 parts water) to 3-4 inches of warm water in my
sink.....

For us unwashed masses.... it is also known as Draino.
A teaspoon in a cup of water will do the trick.

>From: dipalma@banshee.sw.stratus.com (James Dipalma)

>This suggests to me that you may have scratched the primary while
cleaning it after your first batch. Once a plastic fermenter is
scratched, it becomes very difficult to sanitize properly. Check
your primary carefully for scratches, and if there are some,
replace it.

Far be it for me to question the wisdom of the ages but I have (had)
used the
same plastic primary since the early 70s and have not had an infected
beer

since a few months after I started to read the Digest. I attribute the record to one or both of two procedure changes.

Number one on the hit list was Red Star Yeast, contamination is built in at no extra cost. You also need to find out who actually produced the yeast you use to make sure it is not one of the many brands of re-packaged Red Star.

Number two was to ignore the usual instructions for making a sanitizing solution from bleach, i.e. 1 oz bleach to the gal or even 5 gallons of water.

After cleaning the fermenter with a sponge and Ivory, I rinse it and put in about a cup of bleach. I then put on the lid with a stopper in the hole for the air lock and slosh it around thoroughly and set it aside till the next use. Next time I need it, I slosh it around again, dump out the bleach and rinse it carefully. I guarantee, there is no scratch deep enough to evade this treatment.

If you use iodine, I would suggest the same procedure with maybe an oz of juice to a cup of water.

I now use my 10 gal mash kettle for primary and much prefer this because I can avoid all chemicals by simply boiling some water in it to sterilize it.

js

Date: Wed, 10 Mar 1993 10:05:04 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re: Sanitizing Chemicals

I tried sending this directly to u4imdmre@cpc41.cpc.usace.army.mil, but I got a "Host unknown" bounce. So I post.

I have always used unsented Clorox bleach at 2 fl.oz./5gal to sanitize HDPE buckets. Contact times anywhere from 15min to 1 week. Then rinse with tap water. I often throw all of the equipment I need in the bucket for a while, then empty everything out and rinse. Then use th bucket for priming or fermenting. Never had any infections (knock on wood) or any damage to the plastic. The only problems I have had with bleach is leaving stainless steel (or most any other metal) in it for more than a half hour is can cause oxydation.

I don't know about using Tide though. I use Tide for a lot of things (including laundry, of all things), but not for my brew equipment. For that I use Cascade automatic dishwashing detergent. I have heard that that will not kill the head retention.

Sherman

Date: Wed, 10 Mar 93 13:08:18 EST
From: rich@bedford.progress.COM (Rich Lenihan)
Subject: Cleaning plastic buckets

One thing that will work for getting critters that are hiding in the cracks of plastic buckets is boiling water. I have an old plastic primary that has since been retired to bottling bucket. Before brewing I preboil 7+ gallons of water and transfer it to the plastic bucket. This makes the bucket very hot. Try this before you attack it with chemicals.

I then use a dilute bleach (1 tbsp/gal) for 15 minutes to sanitize before bottling. I do not recommend storing high concentrations of bleach in plastic for any length of time. The plastic will absorb the chlorine and even give off an odor of chlorine. Trust me. I *know*.

-Rich

Date: Wed, 10 Mar 93 11:05:06 PST
From: "Tom Childers" <TCHILD@us.oracle.com>
Subject: Re: Celis White Recipe

In HBD 1086, Alan Derr asked about a recipe for Celis White...

I've made three extract-based batches of Belgian ale over the last few months, refining the recipe towards my personal preferences. A few weeks ago, I finally got to taste Celis White, and (surprise!) my latest batch is very similar to Celis.

Basically, just use Papazian's "Who's In The Garden Grand Cru" recipe, reduce the malt and honey a bit, and slightly bump up the hops.

"Tamalpais Wit" ("tam-ul-PIE-us vit", or "der schlafen dame weiss" for you who don't speak coastal Miwok and Belgian)

4-3/4 lbs light dried malt extract (or 5-1/2 lbs light malt syrup)
2-1/4 lbs orange blossom (or other light) honey
1 oz Hallertauer (boiling), 6 HBU
1/2 oz Hallertauer (flavor)
1/2 oz Hallertauer (aroma)
1-1/2 oz freshly crushed coriander seeds
1/2 oz dried orange peel
Wyeast #1214 Belgian ale yeast

Papazian suggests a 1-1/2 gallon boil, but I've been doing full 5-gallon boils with great success. After 45 minutes, add the flavoring hops and half of the coriander; after 55 minutes add aroma hops, remaining coriander and orange peel for the last 5 minutes. Ferment at 72 degrees F.

I pitch the yeast (in a 1-qt starter) at about 78 degrees F to get the primary fermentation going quickly. This beer is ready to prime and bottle after about 10 days. The classic Belgian ale characteristics really come through when you ferment this ale at a slightly warm temperature, as others have pointed out in earlier digests.

Since Celis White is made with wheat malt, I'm going to start experimenting with replacing some of the malt extract with wheat extract...
-tdc

Date: Wed, 10 Mar 93 14:41:15 CST
From: todd@gold.rtsq.mot.com (Todd M. Williams)
Subject: cooker summary available soon...

Greetings All,

In HBD 1090 I spouted off and offered the following.....

>Last month I groveled in the following manner...

>SNIP<

>>What I want to do is convert my cajun cooker from a propane
>>unit into a natural gas unit. Can I do this?? If so, does anyone
>>know what is involved? How much it might cost?? Where to get parts??
?

>I am in the process of preparing a summary and will send it to whoever
>>wants it. I guess this thread was covered over the summer (before I
>started reading HBD) so I won't waste any more bandwidth posting the
whole
>summary. So if you want it, send email to the address below, with a
subject
>of "cooker summary", and I will forward it to you.

Well, guess what...I received over 40 requests. I guess that means
I should just go ahead and post it. However I am still compiling data.
I want to include info from a couple of vendors. The reason for speaking
with vendors is that the King Kooker company does not sell any burners
that they recommend for indoor use. (thanks Mike O'Brian at pico-
Brewing
Systems in Ypsilanti,MI). I guess the two major concerns are generation
of heat and exhaust gasses, and depletion of oxygen. I guess 100K+ BTU
might be a bit much for indoor use. Anyway the complete summary will
be posted next week. Sorry it's taking so long. (10 days were spent
visiting 18 of CA's finest brewpubs :-D hey gak, did you get that mug
yet?)

I will post the cooker summary ASAP....

Todd Williams
Downers Grove, IL.

Moderation sir, aye, moderation is my rule. 9 or 10 is reasonable
refreshment, but after that it's apt to degenerate into drinking

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-----  
-----/  
/ -rwxr-xr-x 1 todd employer 69 Feb 10 1958 OPINIONS /  
/ lrwxrwxrwx 1 employer other9 Jan 01 1970 OPINIONS -> /dev/null  
/  
/-----  
-----/  
-----
```

Date: Wed, 10 Mar 93 11:10:54 PST
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)
Subject: Wet Dream

In HBD 1094 Sandy C. makes the comment,

>WHILE I AM ON MY SOAPBOX...I AM INSULTED BY JACK (AND OTHERS) USE OF
THE TERM
>'WET DREAM' IN THIS DIGEST. IT IS UNCALLED FOR AND IS TASTELESS IN
THIS FORUM.
>THIS DIGEST IS TO HELP US BREW BETTER BEERS, AND TO ENHANCE BEER
APPRECIATION.
> ...NOT TO BE INSULTING.....
>FLAME AWAY, I DON'T CARE!!

I seriously doubt that Jack (or others) are trying to insult you or anybody else with this term. I certainly am not bothered by it. This is not foul language, nor does it demean the female readers, as would commenting that they sometimes get "on the rag," which no one, of course, has done.

gdh

Date: Wed, 10 Mar 1993 13:46:48 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: re: Older, but not sweeter

Jim Dipalma writes:

> What strain of yeast are you using? Also, if you are reusing yeast
> across
> several batches, the strain will become noticeably more attenuative
> after
> a few batches.

Doesn't this depend on the yeast? I seem to remember reading that 1056
is
subject to "attenuative mutation" but that 1098 doesn't change much at
all.
Can anybody expand on this?

Peter

Date: Wed, 10 Mar 93 16:49:28 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Yeast Slant ?? / Mashed stout / Kegs

I have just been given a slant of
I have been given a slant of Weinstephan 3407 yeast. What information do
people have on this variety. What temp should I ferment / lager, what
are
its flavor charecteristics, is it stable for reculturing? Please post
responses to HBD or send to lmenegon@necis.ma.nec.com

Re infusion mashed stout:

I do not mash the dark grains with pale malt, it makes the iodine test
nearly impossible to read and the acidity of the highly kilned malts may
over acidify the mash. I steep the grains and add them to the mash
kettle
at mash out.

Re keg sanitation:

I fill my keg with water and add acouple Tbs of Bead Brite . I use a golf
tee or nail to depress the spring loaded valves of the liquid out and
tilt
the keg until a little of the sanitizer solution drips out. i repeat
this
for the gas in connection too. I then top off the keg close it shake it
ing water. Drain rinse with some more boiling water. Drain. Finally I
add
1 quart of boilning water apply CO2 and blow the water out thru your tap.
Your keg should now be sanitized , its liquid out tube clean and be
filled
with CO2 so oxidation should be minimized when you rack in the brew.

Date: Wed, 10 Mar 93 17:05:39 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Yeast strain ??

requeI

I

I requested information on a slant i recently recieved the yeast type is Weinstphan 3470 not 3407. What do people know about it. The slant was cultured from a large amount of slurry out of the secondary from a west coast breew pub.

Please post responses to the HBD or to lmenegon@necis.ma.nec.com

- - -

Date: Wed, 10 Mar 93 15:41:48 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Celis Substitute?

Norm Pyle writes:

> Try Sunshine Wheat by the New Belgium Brewery in Fort Collins.
> This is the first wheat beer I've ever truthfully enjoyed. It is
spiced in
> the Belgian tradition with coriander and orange peel

Just so someone isn't disappointed -- not all Sunshine Wheat is done in the White beer style. In fact, most is just an American pale ale-style wheat similar to that done by other micros. The White-spiced bottles of Sunshine Wheat were from a special batch that was one-time only, as far as I know. (Apologies to you non-Colorado folks who don't have access to either version. I guess you'll just have to come for a visit :-).

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Wed, 10 Mar 93 14:58:18 PST
From: mrozek@gandalf.etedsg.TRW.COM (Eric M. Mrozek)
Subject: Re: Powdered Sugar

Dear Mr. Powdered Sugar,

(sorry I don't remember your name; I deleted the HBD from last week with your response in it. 8^o

Yes, the powdered sugar with the cornstarch is often called confectioner's sugar, but not always (I checked at the grocery store last night). I originally pointed out the cornstarch issue so that people wouldn't blindly buy powdered sugar and end up with the cornstarch version.

By the way, I mis-quoted the sugar/cornstarch ratio. It's not 70%/30%, but rather 97%/3%.

Eric

Date: Wed, 10 Mar 1993 16:57:37 -0800 (PST)

From: gummitch@techbook.com (Jeff Frane)

Subject: Weat beers

Having read Eric Warner's book (good beginning), Chuck had some questions about weizen yeasThe Yeast Culture Kit Co. (I think that name is right) has an authentic weizenbier yeast strain you might want to track down; unfortunately, they are no longer selling retail so it will take some sniffing. But I believe you will have better results with that than with the Other wheat beer strain, for the time being.

I don't believe any of the wheat beers currently imported fm Germany use the fermentaion strain in bottling, and in any case most have been pasteurized. The strain Warner used was brought back from Germany. (By the way, I was on the panel in Milwaukee that awarded his blue ribbon and I vouch for the fact that the man knows exactly what he's talking about in regard to weizens.) In the fall, Admiralty Distributing, here in Portland, will be imported Schneiderbrau, which Warner mentionsand the importer assures me the fermentation strain and bottling strain are the same (he just got back from a visit). You certainly can't ask for a more authentic yeast than that!

Although I view some claims about decoction mashes with considerable skepticism, I would certainly take Warner at his word!

- --Jeff

Date: Wed, 10 Mar 93 19:15:26 PST
From: "Joe Stone" <JSTONE@SJEVM5.VNET.IBM.COM>
Subject: All-Grain Process

Let me try it this way. If anyone out there feels that they have a
"process"
for use with a mash-lauter/boiling vessel from the Brewer's Warehouse in
Seattle or from Precision Brewing Systems in Staten Island would you
please
email it to me. Thanks.

Joe

Date: Thu, 11 Mar 1993 08:58:16 -0500
From: William James Harrison <harriw3@rpi.edu>
Subject: Supplies in Memphis, YN

That is Memphis TN, USA. I am moving soon and would like to know if there are any homebrew shops in that area or if I will have to go through mail order distributors. Any help with this and/or names of brew pubs in that neck of the woods is greatly appreciated.

On another note, I recently started a batch of Wyeast (American) for reculturing and I am curious on how many recultures can be achieved before mutation/contamination. (BTW - I used a reculturing technique recently posted on the HBD, maybe 2 weeks ago)

Jim

Date:Thu, 11 Mar 93 11:16:01 EST
From: "Robert J. Napholz" (GC-HSI) <rnapholz@PICA.ARMY.MIL>
Subject: beer & food fest

Hello all

I'm looking for extra tickets for the beer & food fest. @ South Street
Sea Port (New York) on March 15. If you have any extra tickets please
call me.

Thanks Rob N.

work 201 724 7583

home 908 850 4204

Date: 11 Mar 1993 09:27:26 -0400 (EDT)

From: KLIGERMAN@herlvx.rtpnc.epa.gov

Subject: cider

In October I made an apple cider and thanks to the advice on the HBD, I added sugar water after a few months and it cleared very well with a gravity of about 0.992 down from 1.054. I would like to bottle it as a sparkling cider. Should I wait longer or bottle it with about 3/4 cup of sugar now and let it age in the bottle? Should I continue to let it age in the carboy, or will I endanger killing the yeast. I used Whitbread dry ale yeast. Thanks.

Date: 11 Mar 93 11:54:11 EST
From: ESF01%ALBNYDH2.bitnet@UACSC2.ALBANY.EDU
Subject: How do I build & use a slotted copperpipe manifold?

Hello HBD'ers,

I have a 4.50 gallon Gott Picnic Cooler that I'd like to use as a mash / lauter-tun for partial mashes. My question concerns the different false bottoms one uses in the bottom of the cooler. How do you build a Phil's Phalse bottom, a screen type false bottom and a slotted copperpipe manifold? How do you use each type?

Can I use two 4 gallon stock pots for boiling the extract instead of one 8 gallon stock pot?

** Ed Frommer - BPSM Vital Records Networking Systems **
** 733 Broadway Albany, NY 12237 Phone:(518)474-5245 **

Date: 11 Mar 1993 10:08:30 U
From: "Rad Equipment" <rad_equipment@rad-macl.ucsf.edu>
Subject: Slotted Copper

Subject: Slotted Copper Time:8:39 AMDate:3/11/93
According to Mr. Bliss on slotted copper manifolds:

>If you try to slow it down, you're only draining wort through the
>slots nearest the outlet.

My manifold has about 10' of 1/2" pipe overall with slots every 1/4",
everywhere. It exits the tun and connects to a 5/8" hose which has a
tubing
clamp across it which controls the flow. I sparge by running the water
onto the
top of the grain bed allowing an inch or more of standing water to cover
the
bed. I then drain at a rate which gets me about 10 gallons of wort in an
hour,
keeping the inch of water on the grain bed until I'm within a gallon or
so of
my desired total. Then I shut off the sparge water and drain the bed dry.
I
typically get a yield of 31 or 32. On my last batch, 14 gallons of mild,
I got
35!

I don't see how I could be getting these numbers if I wasn't getting good
coverage of the sparge flow through the grain bed. Nor do I see why
restricting
the flow out of the manifold would have the effect described by Brian.

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmacl.ucsf.edu - CI\$: 72300,
61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Thu, 11 Mar 93 13:38:06 EST
From: "John DeCarlo" <jad@pegasus.mitre.org>
Subject: Sanitizer Utilization

>From: arf@genesis.mcs.com (Jack Schmidling)

>>From: Jay Hersh <herh@expo.lcs.mit.edu>

>>is this right, 1 oz to 1 gal.?? That is 10 times the amount recommended
>>for usage. If this is indeed correct does this test really tell us
>>anything since the concentrations are an order of magnitude above what
>>people normally use??

>>hoping that was a typo....

>No typo. I also used bleach neat or at least 2:1 when I used it. It is
>all relative and I find the long contact times discomfoting. For
example,
>unless one uses 5 gallons of sanitizer in a 5 gallon keg, how can one
ever
>be sure of a one minute contact time? If used at higher concentrations,
>one can simply slosh a small amount around for a minute and get a more
>effective sanitization than doing the same with a small amount at the
>recommended concentration.

I didn't see any definitive comment on this while I tried to find some
quotes from microbiologist acquaintances. But, I didn't want to leave it
alone.

My information is that sloshing "a small amount around for a minute", no
matter how high the concentration, is generally ineffective for
sanitization.

That is why people use 5 gallons of sanitizer in a 5 gallon container,
because "sloshing" doesn't work well. Of course, those of us who use
bleach use the 1-3 tablespoons of chlorine bleach in 5 gallons of water
as
our 5 gallons of sanitizer. It may take 15 minutes to effectively
sanitize, but at least it does a good job of that.

>As rinse water is not a problem around here, I don't mind more thorough
>rinsing and it is still far less than I had to do with bleach.

Of course, rinsing is only a problem with bleach if you use so much that
it
doesn't quickly evaporate. When you use the amount mentioned above and
then empty all 5 gallons of sanitizer out, you are left with a few drops
of
water that have at most 200 ppm of bleach in them. The little bleach
left
in those few drops evaporates very quickly and doesn't require any
rinsing
of any sort.

It clouds the issue because some people are able to "sanitize" with tap
water and not get infections, so even if you use a not-very-effective
method like sloshing pure bleach around for a minute, you might not get
bit
by an infection.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Thu, 11 Mar 93 13:41:55 EST
From: "John DeCarlo" <jad@pegasus.mitre.org>
Subject: Re: Sanitizer

>From: Richard Stueven <gak@wrs.com>

>>From: korz@iepubj.att.com

>>

>>Personally, I'm trying to move away from Chlorine as a sanitizer from a
>>environmental point of view.

>I'm no biologist either, but how's this: if you have the means to
>generate and manage it, wouldn't live steam make a reasonable and
>"green" sanitizing agent? Of course, it's just as nasty to, say, human
>skin as it is to nasty-bugs, but like I said, you'd need some way to
>manage it.

As others have mentioned, many commercial breweries use steam to
sanitize.

I remember that the Old Dominion Brewery here in VA didn't get that in
the
plans or something, and it cost them something like an extra \$60,000 or
more to get the steam piped ten or twenty feet to the vessels to be
cleaned.

OTOH, I have seen ads for used steam cleaning apparatus for under \$3,000
in
my local newspaper.

I say go for it!

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Thu, 11 Mar 93 14:00:34 EST
From: Don Sharp 11-Mar-1993 1401 <sharp@rumor.enet.dec.com>
Subject: Ninkasi - Brewing an Ancient Beer

Not TOO long ago someone posted a note here about having scanned images of a magazine article about an archaeological study of brewing methods in ancient Mesopotamia. Well, I contacted that person (although I've lost your name/address, sorry!), and after some amount of laborious tedium with image format conversions, spell checking and such, I converted those scanned images into a text file. It's about 450 lines long, so I hesitate to post it to this digest unless I have some reason to think it would be valued.

Here's the lead paragraph of the article:

Did beer come before bread? To answer the question scholars helped concoct a Mesopotamian brew from a 3,800-year-old recipe etched in clay. By Solomon H. Katz and Fritz Maytag.

If this sounds interesting why not send me mail - if I get too many responses to satisfy I'll just post to the digest - if not so many I won't waste space.

Don
sharp@rumor.enet.dec.com

Date: Thu, 11 Mar 93 13:56 CST

From: korz@iepubj.att.com

Subject: irish moss/lager starters/sanitizers/non-alc beers/non-stop ferment/rests/zests

Jeff writes:

>2. Try adding Irish moss about 10-15 minutes before the end of the
> boil. This is supposed to provide nucleation sites for the protein
> strands so they settle out.

I believe that the attraction is electrostatic and not simply nucleation sites.

Lee writes:

>When producing a starter I plan to pop the bag at cellar temp 65F.
>What temp should the starter I pitch to be? Should I pitch it at 65 and
>cool it to 60 let it reach full krausen, pitch this to a 2nd larger
>starter solution at 60 and cool to 55F and pitch this to the 55F wort?
>I plan to deal with the long lag time of cool initial wort temp by
>having a large amount (2-3oz) of starter slurry. Am I correct in my
>assumption that pitching at to high a temp while reducing lag time
>can produce flavors and ester inappropriate for a pilsner?

Sounds like a good plan to me. I feel you are correct about the high start temp creating unwanted esters and your plan will minimize this.

Tim writes:

>With all of this talk about using peracetic acid, let me just
>give people a brief warning. Mixing peroxides and acids is not
>to be taken lightly.

I agree -- I'm glad you mentioned this. One thing I had *NOT* planned to do is make my own!

>We use a 3:1 mixture of a mineral acid (I will not name it) to 50
>percent
>hydrogen peroxide as a method of removing photoresist from wafers.
>This mixture is called 'piranha etch' as it is very powerful.
>It will very strongly attack any organics, skin included.

Ick. Not my idea of fun or "not worrying."

>I have found that plain old unscented chlorine bleach is a very
>effective cleaner. Stubborn 'gunk' from a vigorous primary can easily be
>removed by just filling the carboy with water and adding a little
>bleach and letting it sit for a week.
>It is also safer than many of the more concentrated cleaners.

I've found this too, but my intention was to minimize the amount of un-natural chemicals I was dumping down the drain. Acetic acid and H2O2 seemed much more "green" than Chlorine Bleach or Iodine. Am I right? Perhaps in the concentrations we are using them (and given the concentration of the Acetic Acid needed for it to be useful), perhaps 200ppm Chlorine bleach solution or 25ppm Iodophor is more "green?" Can someone who really knows confirm or correct this assumption, please?

Frank writes:

>prepared by the Copley News Service.

>

>Basically brewers employ either of two methods to achieve a non-alcoholic

>product:

>

>1. The older technique takes beer that has been made in the usual way and

>evaporates the alcohol by heating the brew in a vacuum chamber, which allows

>a low boiling point. Kingsbury and Kaliber are made this way. The principal

>2. A more modern method, used by most of the German brewers, uses intense

>cold and rapid extraction of the yeast to arrest the brewing process

>before too much alcohol forms. This technique seems to leave a lot of the

>sugar in the brew and therefore gives it a sweet taste.

Remind me not to trust the Copley News Service. You see, there is a third method, which is used by at least one mega-brewer, in which a semi-permeable membrane is used to extract the alcohol by osmosis and a fourth method in which a special yeast is used that does not produce much alcohol.

- - - - -

Kirk writes:

Subject: help! nonstop fermentation

>1 can (4lbs.) Ironmaster "Special Lager" malt extract

>packet of Isohop extract (included with above)

>2 lbs. corn sugar

>1/2 lb. maple syrup

>2 oz. apricot wine flavoring ("Wines Inc.")

>11.5 g sachet Edme dry yeast

>

>It was a 50-minute boil with apricot extract only going in the last five.

>I rehydrated the yeast in warm water shortly before pitching. O.G. was

>1.050 and when I racked to secondary three days later it was 1.018! Now

>here's the problem: *that was exactly four weeks ago and fermentation has

>not stopped.* Bubbles still rising, a cute layer of foam still on the

>surface. I've never encountered this before. I've always been a careful

>sanitizer, but should I assume something got by me this time?

Temperature

>has been 58-62F for the duration. Don't pick on me for using corn sugar

Several possibilities:

1. 58-62F is pretty cool for some yeasts, although I was under the impression that Edme was a voracious fermenter.

2. Could the apricot wine flavoring have some preservatives in it? Did its instructions say to use it in the ferment or at botting?

3. You may have a wild yeast in there that's eating the more complex sugars. It may not be your sanitation -- the Edme may have had a small amount of wild yeast along with the primary yeast.

I have a yeast that takes six or more weeks to ferment out even at 68F!

Chris writes:

>

> -what is a protein (enzyme) rest and at what temperature?

A protein rest is a time period in your mash schedule in which proteolytic enzymes break large proteins into smaller proteins and amino acids. The larger proteins will give you chill haze so you want them out of your beer. The smaller proteins that are created from the big ones will give you head retention and bigger mouthfeel. The amino acids are needed by the yeast for nutrition. Most malted barleys currently available are fully-modified, so a protein rest is not really necessary. Historically, only undermodified (which is rare these days) pilsner malt *required* a protein rest, but many brewers still incorporate one in their mash schedules. The temperatures for a protein rest are between 122F and 131F according to Charlie, if my memory serves correctly.

>

> -what is a good temperature to keep your mash so that the enzymes don't >break down the complex sugars? I am more concerned about a heavy >malty taste (not caramelly taste) than the alcohol content.

You would want to do the saccharification rest at the higher end of the saccharification range which is roughly 148F to 158F. Therefore, mashing at 158F will give you the most dextrinous wort, which appears to be what you are seeking. Along with this high mash temperature, you may also want to increase the malt in the recipe to achieve this "heavy malty taste."

>

> -what temperature converts starches over to sugars?

That's the saccharification range, above.

>

> -what "normal" order or succession should each of temperature >categories be in? does it matter?

(Optional) protein rest, followed by the saccharification rest, followed by mashout at 168to170F. You *must* work from the cooler rests up to the warmer rests or, for example, you will denature the proteolytic enzymes if you do the saccharification rest first. There is also an acid rest, which I believe is at 95F, used to lower the pH of the mash (this is if you want to strickly follow Reinheitsgebot and avoid chemical acidification of your mash).

>

>David (Chris) Mackensen

^^^^^^^^^^

If you brew a sweet stout, I've got a suggestion for its name.

Tony writes that he would avoid dried orange peel in his next Witbier recipe.

Yesterday, I was reading Pierre Rajotte's Belgain Ale in which he mentions that the brewers there use *dried* orange peel. Well, this makes sense, because I don't think there are many Curacao Oranges growing in Belgium. I used fresh orange zest (4 oranges) in the last 5 minutes of the boil in a semi-recent batch and it was not very noticable -- I'm just saying that switching to fresh zest doesn't automatically mean you will get more out of it. I will be trying dried next time, primarily because making fresh zest

is a pain and also because commercially-made dried zest is more consistent, making the recipe more reproducible.

A1.

Date: Thu, 11 Mar 93 15:29:35 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: Hallertauer porters

Anybody out there have experience using Hallertauer/Mt. Hood
in top fermented porters? Please share with the HBD or at least
e-mail me.

Thanks,

Rob (bradley@adx.adelphi.edu)

Date: Thu, 11 Mar 93 14:38:23 ???

From: kurka@bmcw.com

Subject: A few observations regarding cleaners and sterilizing agents.

Experiences I have had with chlorine as a sterilizing agent is that it has the possibility of giving an "off" flavor to the brew. Whether or not

this was a case of not rinsing the equipment well enough after the chlorine soak is not known.

Soon after an experience like this, I switched to Sodium Bisulfate as my primary sterilizing agent and have had fine success with it. If the equipment is not rinsed well, a white residue can be easily seen and dealt with.

(I find it to be a fair check on if the equipment has been cleaned well enough).

A boiling water dip for bottles and caps is also recommended. Sterilizing glass jars and lids during any food canning process is done in this manner. (Since we are "Canning" liquid food, we can look to the food canning process for a few tips). This step also will crack bottles that may be weak and might crack when actually put under pressure.

Does anyone have a list of any Homebrew mail order catalogs?

Also, If any of you have used them, Your comments would be appreciated.

Thanks for all the postings to HBD. We in Boise Idaho need contact with the "real" beer drinkers of the world.

SPK (kurka@bmcw.com)

Date: Thu, 11 Mar 93 14:14:16 PST
From: Richard Saunders <richsa@microsoft.com>
Subject: Two Seperate Questions on: Kegging and Bitterness

1. My friends and I have twice attempted the Fraternity House Ale (a 5 gallon version) from the AHA Winner's Circle recipe book. Both times the beer has come out alright except for a kick-you-in-the-zipper bitter after taste which, as you can imagine, is very unpleasant.

While this recipe is kind of heavy on the hops I have a hard time thinking that this is the problem. I have boiled lots of hops for more than an hour before and had it turn out fine. Also, for the second batch instead of adding the finishing hops to the boil we just strained the wort through them at the end. I did read something recently (can't recall where) that said boiling crystal malt can result in bitterness. It is possible that we let the one step mash heat up too high. There were several times when we had to reduce the heat. Any other ideas or suggestions, or has anyone else seen this with crystal malt before?

2. I have just started kegging my beer (xmas present resulting from heavy-handed hinting) and love it. There are basically two recommended ways of carbonating that I have come to know. One is to prime with 1/3 cup corn sugar when transferring into the keg - essentially treating the keg as a big bottle. The other (recommended by the local brew supply where the kegging system is from) is to simply let the beer ferment out, shoot it with 25 - 30 lbs of CO2, shake well, and let sit in a cold area for 3 days.

The second method is the one that I just used (unfortunately it was on the problem batch mentioned above). This turned out great. Wonderful, full creamy head and just enough carbonation in the beer.

My question is - there must be merrits to both but I can't seem to find them spelled out anywhere. Could people please edjamacate me?

Hasta,
Rich

Date: Thu, 11 Mar 93 15:55:13 PST
From: klein@physics.Berkeley.EDU (David Klein)
Subject: RIMS Summary

I have been following the recent RIMS discussion with interest, and hope to build a system in the near future. Thus I have gone back through the digest and collected all RIMS posts that I could find (I looked back to Jan 91) I edited the collection of posts down so as to ommit repeats (One design was given if full twice) and comments by people who have not actually built a system

Since I have gone to the effort, I am more than happy to share the results with all those who are interested in designing a system, or improving their own. Simply write me, and I'll send it out to you (It is too long to post).

Also I would much appreciate a copy of the original Maltose Falcons RIMS aricle I have no idea of how to get it, and would love a copy from someone.

Finally Questions:

- 1) what pumps have people sucessfully used?
- 2) ditto for thermisters and vessels (does everyone use a keg?)
- 3) has anyone checked for thermal gradients?
- 4) channeling is always an issue for sparging, but I've not seen it for RIMS, has anyone checked?
- 5) mention has been made about automated mash systems of different design what are they? (What is Milspaw's design?)
- 6) if anyone around the bay area has set up a system, or simply wants to share plans, I'd see them (a bay area RIMS conference??)

Dave

Date: 11 Mar 1993 19:45:02 -0500 (EST)

From: WESTEMEIER@delphi.com

Subject: Cleaning plastic pails

A recent posting lamented the difficulty of getting strong food smells and odors out of plastic pails and the like:

>I cleaned them with everything I could think of in every
>concentration to no avail. Some cleansers would seem to do
>the job, but in a few days the pickle smell would reappear. I
>concluded that the plastic had absorbed the taste/smell and
>was exuding it over time. I threw them out

We have had very good luck locally in removing the stains AND the smells from pickle containers by simply leaving them out in bright sunshine for two or three days.

So simple it just doesn't occur to people, but try it!

- -- Ed Westemeier, Cincinnati, OH

End of HOMEBREW Digest #1096, 03/12/93

Date: Thu, 11 Mar 93 17:32:19 -0600
From: sagard@digi.lonestar.org (Steve Agard)
Subject: Re: Cleaning Bucket/Cleaning Bottles

In HBD #1094 Markham Elliot asks:

Q: [paraphrased] how do you clean the oil and soy sauce out of a food grade bucket?

A: I would suggest using TSP. I am thankful that it had been recommended by many of the homebrew experts on the net for removing labels.

One night, I obtained 30 1-pint beer bottles (previously Sapporo, Kirn, & Asahi) from a Japanese restaraunt. They make homebrew look good, are smaller than wine bottles, require less capping than U.S. domestic bottles, and are the perfect size for Bitter, Stout (and my SNPA-like). ;)

Getting these bottles was not fun, but getting them clean and label free was easy :(> The bottles all had lables (both paper and foil), as well as, tobacco & food particles (fish, ginger, wasabi, soy sauce, grease, etc.) on them.

I added 1 lb TSP (from hardware and paintstores), and 1 1/2 cups chlorine, to a trashcan with the beer bottles (which had been filled with just enough warm water to cover all the bottles).

I let this covered for 2 weeks, and then removed the bottles (while wearing rubber gloves - chemical resistant ones from a hardware store). Most of the lables had simply fallen off. The 4 or 5 lables that were still on were removed by rubbing the ridged fingers of the gloves across them once or twice. None of the lables had any ink left on them. The food parts had been broken down.

I rinsed out/off each bottle, and then placed in a bathtub of warm water & let sit for 2 hours (probably overkill, but someone at a homebrew shop warned not to get any in the bottle or I'd never get a beer head). I then ran the bottles through the dishwasher twice (I usually the dishwasher to sanitize the bottles, but I don't like to ignore advice from those of you with more experience...). I bottled with these 3 1/2 weeks ago. Had one yesterday... tasted great, with lots of carbination and great head retention.

Hope this info helps. Cheers!
Steve

Date: Thu, 11 Mar 93 21:25 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Pumps

>From: gjfix@utamam.uta.edu (George J Fix)

> 2. Top flight pumps are also crucial. Most pumps will eventually give a laminar flow. Some, however, will cause foaming at the start and at the end.

I am still waiting for an answer to my question, "Why RIMS?" but as a chronic tinker, I can't resist following the discussion.

I now pump my beer from lauter tun to kettle, from kettle to primary and from primary to secondary and have solved the foaming problem in a very simple manner. I simply put the appropriate resistor in series with the motor and a separate switch to provide a low voltage startup. Once the beer has driven all the air out of the system, I switch to the normal voltage and foaming is no longer a problem. Perhaps some such system could be used for the RIMS system.

I am using the pump from the kitchen sink of my motor home so it is 12 VDC and makes it pretty easy. However, I assume a standard light dimmer would work on most small AC pumps and would be even more flexible.

>From: "Mark Rich-mpr8a@acadvm1.uottawa.ca"
>Subject: Easymash

>I remember reading a few posts about your Easymasher(tm) setup, and I'm curious to know how much trouble it would be to sort of "borrow" (brown-nose-mode on) your skill and experience. I was hoping you could see your way clear to sharing the basics of your design with me.

A copy of my article on Kettle Mashing is winging its way to you at the speed of light. Not knowing what your spigot looks like, I can't really make any suggestions other than saying that there must be some way of attaching a tube to the spigot on the inside of the kettle. The article includes a description and parts list so you can buy the stuff (or equivalent) at a hardware store.

>From: gummitch@techbook.com (Jeff Frane)
>Subject: American Black Malt

>Briess black malt, in other words, is the brewing equivalent of decaffeinated coffee.

Sounds more like decaffeinated coffee with the coffee flavor removed,
vis.

FDA Brown #3.

>From: fjdobner@ihlpb.att.com

>Subject: Non-Alcohol Brews

>To be a purist, non-alcoholic beer is a contradiction. For if it does
not
have alcohol it cannot be legally called beer.

I think you got that a little mixed up. It can not be called NA if it
has
more than .5% alcohol in it. I suspect Big Brother would be delighted
if
milk produces called milk, beer. Think of all the tax he could collect.
There is no alcohol tax on NA so the law is to prevent brewers from
slipping
out from under the tax.

>From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)

>Subject: help! nonstop fermentation

>Now here's the problem: *that was exactly four weeks ago and
fermentation
has not stopped.* Bubbles still rising, a cute layer of foam still on
the
surface.

First of all, what does it smell like? Until a few weeks ago, I would
have
predicted you used Red Star because I had a batch do that but it smelled
like
mold, tasted terrible and you said you used EDME.

I had a recent batch do that with pure cultured, Pilsener Urquel yeast.
It
bubbled furiously for weeks at 60F but turned out to be a pretty good
beer.

I think the proof of the pudding is in the eating.

js

Date: Fri, 12 Mar 93 7:56:02 MST
From: seiferth@cobra.cs.unm.edu (Justin Seiferth)
Subject: Sanitizing

With all the continuing talk of sanitizing agents, I'm suprised there hasn't been more talk of my favorite agent- boiling water. It doesn't require rinsing, is environmentally safe and must be effective as it's all I use - even for mead batches which sit in the secondary for months and I've never had an infected batch. I just boil the water in my wort container for 10 minutes or so and then use it to sanitize the primary.

I sanitize my secondary by pouring hot tap water into the carboy- letting it warm up and then adding about 2 gallons of boiling water. It seems to work great.

Date: Fri, 12 Mar 93 9:41:36 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Keg sanitation / carbonation

Some of the text of my recent post on keg sanitation was missing:
After filling the keg and letting some out of the 2 connectors
I top it off with water and shake to ensure good mixing of the
Beed Brite. (this is the missing part) I let this sit over nite.
I then drain the sanitizer into a carboy or another keg and
proceed with the boiling liquid rinses.

Since I forced hot water out with CO2 the keg is filled with it,
its heavier than air. I rack into the keg the CO2 blanket helping
reduce the potential for aeration. To force carbonate I set the
keg in my refrigerator, ideally it would be about 32F and
pressureize to 30lbs. I DO NOT SHAKE THE KEG. This could cause
your clear beer to get cloudy due to particles racked in. I then
adjust the pressure 2 more times in 12 hour intervals. I raise the
fridge temp to serving temp. and pour off about a quart or two of
foam this lowers the pressure and removes solids from the keg.
As the foam settles I drink the beer.

- - -

Date: Fri, 12 Mar 1993 10:27:41 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: sanitize keg, "German" porter

I've been sanitizing kegs by filling them with a couple of gallons of boiling water, seal, pump in some CO2, open the tap to let some hot water out, and then let sit for 30 minutes or so. The heat will kill off any nasties, and there's no rinsing involved. The keg should already be clean, btw.

Rob asked about "German" hops (Hallertauer/Mt.Hood) being used in a porter. Just so happens in my younger/dumber days (before I became an all-grain snob ;-), that I went even further, making an extract porter with Hallertauer hops *and* Wyeast German ale yeast, #1007 I think it is. Certainly not a "classic" porter, but perhaps the best extract brew I ever made: clean, creamy, malty, and a wonderful hop nose. Isn't it perhaps likely that in the early days of porter, continental hops were used? Perhaps even German yeast? What does Foster's Porter book say?

Russ G.

Date: Fri, 12 Mar 93 10:40:42 EST
From: jeff344@voodoo.lerc.nasa.gov (Jeff Berton)
Subject: Doppelbock Names

It's well known that, traditionally, doppelbocks are named using the "-ator" suffix, as in the familiar "Celebrator" or "Salvator" doppelbocks.

Just for fun, I decided to generate a nearly comprehensive list of English words that end this way. On my Unix box, I simply used "grep" for the string "ate" on the dictionary file (usually in /usr/share/dict on most Unix machines), and changed "ate" to "ator" globally in an editor.

There were, of course, a few words I rejected. Some obvious misspellings occurred, such as "watermelon" becoming "watermelon"; and also a few occurrences of senseless words, such as "roommator" and "prostator." I made a single pass through the list and deleted these obvious mistakes.

Here are a few potential doppelbock names my search turned up. Apologies if they have been used before....

-Names Schwarzenegger or Eastwood would be proud of:
Annihilator, Assassinator, Dominator, Eliminator, Eradicator, Exterminator,
Devastator, Detonator, Liquidator, Gladiator, and, of course, Terminator.

-Names for scientists and engineers:
Accelerator, Collimator, Correlator, Numerator, Denominator, Differentiator,
Lubricator, Exponentiator, Evaluator, Radiator...

-Names relating to the alcoholic nature of beer:
Decimator, Exhilarator, Hallucinator, Incapacitator, Intoxicator, Sedator,
Perspirator...

And many others. Some examples I don't think anyone would want to use. For example: Nauseator, Regurgitator, Urinator, Flatuator, and a few other more offensive names I will avoid mentioning. :-)

The complete list is 594 records long, and hence, too lengthy to post here.

I would be happy to e-mail the file to anyone who is interested.

- ----- Jeff Berton; jeff344@voodoo.lerc.nasa.gov; (216) 977-7031 -

- ----- Aeropropulsion Analysis Office, NASA Lewis Research Center -

- ----- "If headquarters is interested, we're interested!" -----

Date: Fri, 12 Mar 93 9:43:40 MST
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Re: slotted copperpipe manifold

> I have a 4.50 gallon Gott Picnic Cooler that I'd like to use as
> a mash / lauter-tun for partial mashes. My question concerns the
> different false bottoms one uses in the bottom of the cooler.
> How do you build a Phil's Phalse bottom, a screen type false bottom
and
> a slotted copperpipe manifold? How do you use each type?

I don't know anything about Phil's, but a screen type false bottom requires installing a controllable spigot in the cooler. IMHO, a copper manifold is easier to build, more effective for sparging, and doesn't require modifications to your cooler.

I have fairly detailed plans for my manifold system. They're long, so I won't post here unless there is a great demand. Email me if you'd like them. BTW, this system is a scaled down version of the lautering system used at New Belgium Brewing here in Fort Collins CO.

At the risk of sounding snobbish :-), if you're going to outfit your cooler this way, you'll already have most of the equipment you'll need to go all-grain. A large kettle for boiling is the only other thing you'll need, and

> Can I use two 4 gallon stock pots for boiling the extract instead
> of one 8 gallon stock pot?

yes, you can use two pots in a pinch (I've done it myself). A risk is that you won't get consistent hop extraction between batches, since the volume of wort being boiled is a factor in the extraction rate. A larger kettle will make life much easier, though.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Fri, 12 Mar 93 11:02:53 CST
From: bliss@csrd.uiuc.edu (Brian Bliss)
Subject: sparge manifolds

Russ Wigglesworth writes:

>According to Mr. Bliss on slotted copper manifolds:

>>If you try to slow it down, you're only draining wort through the
>>slots nearest the outlet.

>My manifold has about 10' of 1/2" pipe overall with slots every 1/4",
>everywhere. It exits the tun and connects to a 5/8" hose which has a
tubing

>clamp across it which controls the flow. I sparge by running the water
onto the

>top of the grain bed allowing an inch or more of standing water to cover
the

>bed. I then drain at a rate which gets me about 10 gallons of wort in an
hour,

>keeping the inch of water on the grain bed until I'm within a gallon or
so of

>my desired total. Then I shut off the sparge water and drain the bed
dry. I

>typically get a yield of 31 or 32. On my last batch, 14 gallons of mild,
I got

>35!

I sparge in a 1' & 2.5' square cooler, with a grain bed depth anywhere
from 7"-14". The pipe is only 5/16" id and 7" long, with slots every
inch. The last time I tried keeping the H2O above the top of
the grain was with ~20 lbs of grain => 10"-12" deep. I verified by
taste testing that different areas of the bed were better rinsed than
others. I only got 20 pts/lb (this is based on the wort that actually
makes it into the primary - If you count spillage & the gallon of trub
that I leave behind you get significantly higher figures).

What are the dimensions of your cooler? How deep is the grain bed?
Is the pipe 1/2" inside diameter or outside? (that's a big pipe).

>Nor do I see why restricting

>the flow out of the manifold would have the effect described by Brian.
Its kind of hard to explain, especially w/o graphics. The problem is
analogous to that encountered with your auto's exhaust manifold.
Compare with a set of racing headers. Visions of "sparge headers"
fill my mind...

I still need more experimentation with my new setup.

bb

Date: Fri, 12 Mar 93 10:45:52 EST
From: woessner@psych.purdue.edu (Leo Woessner)
Subject: hot break

(Adendum to privous posting)

A lot of Hot Break seemed to collect when I boiled the wort. This being my first all grain experience I did not try to filter it out and it is now in my carboy. What is a easy and efficient method of leaving the hot break and/or cold break in the pot. I do not have a wort chiller so I put both of my 14 qt. pots in the sink filled with ice and cold water. The break is floating violently
-ly arround in my Carboy. Is this a problem. How can I eliminate it next time??..?

THanks in advance
Leo Woessner

Date: Fri, 12 Mar 93 10:29:46 EST
From: woessner@psych.purdue.edu (Leo Woessner)
Subject: lautering

I finally tried my first all grain batch. Everything went fine. My extractin.....
extraction was a little low I got 23 pts/lb. I used the step mashing procedure given by Papazian. Mashing was easy, complete conversion occurred within 40 mins...
But lautering was a little more tricky. I am using a Zapat (bucket in a bucket) lauter tun. While filling the tun it over flew a little. Another problem I had was getting the proper crush for the grain. I am using a Corona mill. The
How long should I recirculate the wort?? I recirculated about 4 gallons. The
wort never seemed to clear more than after the first gallon or so.

Questions:

- 1) What does a good crush look like?
- 2) How to achieve a good crush using a Corona?
- 3) How clear is clear when lautering?
- 4) How long to recirculate using a Zapat tun.

Recipe:

8# British 2-row pale ale malt
1/2# crystal malt
1/2 teaspoon gypsum in mash
1 teaspoon gypsum in sparge water
4 oz Heshaberker Halertau(sp??) (60min.)
1oz Heshaberker Hallertau (steep 10 min)
1 teaspoon Irish moss (boil 15 min)
Whitbread ale yeast (started early in the morning)

og 1039

HBU's = 11.6

I used two 14 quart ss stock pots to mash and boil in. The recipe was taken from the Cats_Meow. It is Frane's House Ale. Thanks Frane

Thanks in advance for all comments/suggestions..

Leo Woessner

Date: Fri, 12 Mar 93 11:54 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Sanitizer, NA Secrets

>From: "John DeCarlo" <jad@pegasus.mitre.org>
>Subject: Sanitizer Utilization

>I didn't see any definitive comment on this while I tried to find some quotes from microbiologist acquaintances. But, I didn't want to leave it alone.

Me either/too.

>My information is that sloshing "a small amount around for a minute", no matter how high the concentration, is generally ineffective for sanitization.

Well, I would certainly like to see the details of that information. Frankly, I have my doubts. Pure bleach, sloshed around a keg or bucket would leave a thin film on the surface that would be far higher in concentration than a full keg of weak solution. That film would remain on the surface, long enough before evaporating, to provide an effective bactericide. I also suggest that in a closed container, either a keg for a few minutes only, or a plastic carboy with a lid, indefinitely, the gas evaporated inside would provide ample security.

I switched from dry to liquid yeast so I can be convinced but someone is going to have to try harder on this one.

>From: korz@iepubj.att.com
>Remind me not to trust the Copley News Service. You see, there is a third method, which is used by at least one mega-brewer, in which a semi-permiable membrane is used to extract the alcohol by osmosis and a fourth method in which a special yeast is used that does not produce much alcohol.

And a fourth which nobody wants to talk about. Once the alcohol is reduced to the lowest practical level by what ever method, they simply dilute it with water to get at least a 50% reduction.

Perhaps you were being polite when you tasted mine but it does certainly seem to be one of their dirty little secrets.

js

Date: Fri, 12 Mar 93 10:12:13 -0800
From: atl@kpc.com
Subject: Sanitization Survey

I have been following the threads on sanitization with great interest. I have been brewing for about 10 years off and on, and am now all-graining and yeast culturing (please no snob thread!). I have yet to get an infected batch, even though my sanitization procedures are *very* lax compared to most of what I read here. I use a solution of a couple of tablespoons of household bleach to a couple of gallons of warm water, wet the walls of my scratched plastic fermenters let it sit a couple of minutes (usually, sometimes shorter) and rinse it out with unfiltered, unboiled tap water.

The only tyhing I can think of that would explain my complete lack of problems is that I have always lived in areas with chlorinated city water. I would like to run a survey, asking folks to send me email with the following info:

- 1) How many batches have you brewed?
 - a) > 10
 - b) 10-50
 - c) > 50
- 2) How many infected batches have you had?
- 3) What source of water do you use?
 - a) city
 - b) bottled
 - c) well
- 4) Do you filter any tap water you add to your wort?
- 5) Do you boil any tap water you add to your wort?
- 6) What sanitizer do you use?
 - a) Chlorine bleach
 - b) iodophor
 - c) b-brite
 - d) other (please describe)
- 7) Do you rinse with tap water?
- 8) Please describe (concise please) you sanizitation method (exposure length, rinse method, etc.)
- 9) if you think I have missed any critical info, please tell me.

I'll post a summary as time allows!

Thanks,
Drew

Date: Fri, 12 Mar 1993 11:05:04 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: On Brewing Sugar

As penance for quoting an author while relying on memory alone, I have typed the following material on brewing sugars from H Lloyd Hind's "Brewing Science and Practice", which was written in the 1930s and stands as the best source of information on traditional British brewing practice. There is a great deal of very technical information about the production of various sugars and their chemical/physical structure, some of which may not even be accurate given advances in the physical sciences, and in any case is well beyond our needs. There is also information about specific sugar blends produced for the British brewing trade, but without brand names; in any case, the information is more than 50 years old so I left it out.

=====
BREWING SUGARS

230--Sugars as Malt Adjuncts

Various sugars and starch conversion products can be added in the copper to supplement the fermentable extract formed in the mash tun by conversion of the starch of malt, but similar restrictions in respect of the quantity used apply as with cereal adjuncts, on account of the lack of nitrogenous yeast nutrients. They provide a means for varying the composition of wort, within limits set by the requisite balance between sugars and non-sugars, supply extract which may be either entirely or only partly fermentable, give characteristics of fullness and flavour that are appreciated in some cases, increase the stability of beer by replacement of nitrogenous extract and yield beer that will become more readily and rapidly brilliant than when brewed with malt alone. Primings are strong solutions which must not, in this country, exceed 1150 specific gravity but should not be much less. They are sometimes added in the fermenting vessel at the close of primary fermentation but, more frequently, in storage tank or cask to promote rapid condition and, in some cases, on account of their flavour. The sweet and luscious flavour of some sugars does not entirely disappear when the sugar has been fermented but gives additional fullness to the beer. In some cases, sugars which are not entirely fermentable are selected.

The sugars used in brewing comprise

- (1) Cane sugar, derived from the sugar cane and, much less frequently, from sugar beet.
- (2) Invert sugar, made by inversion of cane sugar.
- (3) Starch sugars, including corn syrups and glucose, manufactured by the conversion of the starch of cereals, usually maize [that's _corn_, Norte Americanos].
- (4) Mixtures of these, their utility in copper or cask depending on their flavour and fermentability.
- (5) Caramels, made from cane sugar or glucose.
- (6) Lactose or milk sugar, which is only used in very small quantity in some milk stouts.
- (7) Honey, even less used.

Maltose, which might appear to be the most suitable sugar to replace

that formed from malt in the mash tun, is not used in the pure state, but exists as a constituent of corn syrups with dextrin and glucose. Lactose differs from cane sugar, invert sugar, maltose and glucose in that it is unfermentable by ordinary brewery yeasts, while certain of the higher starch conversion products are appreciated because they are only partly or slowly fermentable.

(231) Cane Sugar

The sugars obtained from the sugar cane, sugar beet, sugar maple, certain palm or the stem of sorghum are, when purified, of identical chemical composition. All of them are sucrose. The natural juices from which they are derived, however, differ very considerably in flavour owing to the many other substances which they contain. For example, the root of the beet contains a larger proportion of mineral salts than the sugar cane and decomposition products are formed with the larger quantities of lime necessarily used in the course of clarification, which give an objectionable flavour to the juices and raw sugar. These render the latter unfit for consumption until refined. The raw sugars from the cane are, on the other hand, very luscious but they do not all taste the same, varying considerably according to the place in which the cane was grown or the treatment they received during extraction and preparation, characteristic differences being found in sugars from Cuba, Java, Barbadoes, Trinidad, St. Domingo, Mauritius, etc. Since the value of cane sugars in brewing depends so largely on the flavours they communicate, even after all the sugar itself has been fermented, the principal source must be the sugar cane, which yields juices possessing these properties in their most attractive form. The final product of the refineries, from whatever source it originally came, is among the purest substances commercially obtainable, but it lacks the distinctive characteristics of flavour demanded in brewing. As a source of carbohydrate extract it is unexcelled and can be used without hesitation under circumstances in which those flavours are not required, but the raw or partially refined sugars from the cane are more attractive in most cases.

[... some technical information on the refining process deleted ...]
Usually the lusciousness of the sugars increases with greater proportions of other substances derived from the cane, some of which are in a colloidal state, and many such sugars, among them West Indian and Brazil sugars of comparatively low polarisation, are used in brewing on account of the fulness and sweetness they give. Other low polarising sugars, such as that from Mauritius, have a somewhat acrid after-flavour. On account of these different flavours, great care must be exercised in selecting brewing sugars, fermentation tests being desirable as the original flavour is not always a good guide to that left after the sugar is removed.

[...]

Cane sugar is used both in the copper and as a priming. Raw sugars of good class are generally employed for the former purpose and when of good class are generally employed for the former purpose and when of suitable purity should not contain excess of undesirable substances or micro-organisms. Sugars of this type and pure crystals can also be used for priming but candy sugar is preferred by many. Cane sugar is rapidly inverted when added to cask, the change being generally complete in about 24 hours. This process is believed to be an essential preliminary to fermentation. It is carried out by the enzyme invertase or sucrose secreted by the yeast and does not appear to affect the fermentative activity of the yeast or influence the rate of fermentation. Baker and Hulton found that cane sugar and invert primings were fermented at sub-

stantially the same rate in beer under ordinary cellar conditions and that about one-third of either sugar still remained unfermented after 7 days in cask when added at normal priming rates.

[Hind goes on to offer technical information about the cane sugars used in brewing: refined crystals, candy sugar, brown sugar and yellow crystals. "The yellow crystals represent the high grade products turned out at many cane factories, and of which Demerara sugar is well known."]

Date: Fri, 12 Mar 93 13:43:20 -0600
From: ifby546@ccwf.cc.utexas.edu
Subject: **Texas BPub Legalization Update**

Texas Brewpub Legalization Guide - March 12, 1993
Action Item: Call & Write The House Committee by Monday, March 15!

Brewpub n. A brewery that sells its own beer on premise. Or a Restaurant that brews its own beer. Legal in 42 states. Something Texas needs to legalize to join the rest of the civilized nation.

*** The House Licensing and Administrative Procedures Committee is bringing up the bill Monday, March 15. Call and write to the 11 members of that committee ***NOW (March 12, 13, 14,15)***, before the bill leaves the committee. Then hammer the Senate Committee. The Bills are House Bill #1445 & Senate Bill #622. Any other "brewpub" bills are superfluous and shouldn't be refered to at this time.***

What to tell the legislators:

Key consideration: BE BRIEF! These folks are busy. If as many folks call in as we hope, we could possibly end up alienating some V.I.P.'s if we drone on. Please limit your calls to the following three statements.

1. "I support brewpub legalization in the TABC Sunset Bill"
The bill considered is referred to as the T.A.B.C. Sunset Bill. There are identical bills introduced in the Senate and the House. (House Bill #1445, Senate Bill #622). The Brewpub portion of the bill is section #74.
2. "I want brewpubs to have the right to sell for on and off-premise consumption."
3. "I want brewpubs to have the right to limited self-distribution."

Who to contact

This is a priority issue! The House Bill will be going to committee the week of March 15!

Write to and call the following important people: (and communicate the 3 phrases listed above)

****House Licensing and Administrative Procedures Committee (House Bill 1445)***Priority****

Ron Wilson, Chair...512/463-0744, Delwin Jones...463-0542, Dan Kubiak, ViceChair...463-0600, David Cain...463-0476, Tony Goolsby...463-0454,

Ben Campbell...463-0478, Bill G. Carter...463-0482, Mario Gallegos...463-0614, Paul Hilbert...463-0572,...Garfield Thompson...463-0716, Ken Yarbrough...463-0648

Your local Senator and House Representative

Write to them at the following addresses:

The Honorable [Representative] The Honorable [Senator]
The House of Representatives The Senate of Texas
P.O. Box 2910 P.O. 12068

Austin, TX 78768-2910 Austin, TX 78711-2068

If you aren't sure who your legislator is, call 1-800-253-9693. They may

be able to tell you your Senator & Representatives' names.

Attend the Public Hearings:
I'll post when the Public hearing is. Stay tuned.

Remember, the bills in question are referred to as the "TABC Sunset Bill". HB335 is NOT "the" Brewpub bill. At this point in time neither is HB1425. Remember, please BE BRIEF.

Other Questions can be referred to: Joe Barfield, Southwest Brewing News at ifby546@ccwf.cc.utexas.edu 512/467-2225 Address mail to 406 W. 35th, Austin, TX 78705. -FAX (512) 282-4936
Watch for future updates to the SWBN BREWPUB LEGALIZATION GUIDE

Sample Letter:

VOTE YES FOR BREWPUBS
The Honorable
The House of Representatives (or The Texas Senate)
P.O. Box 2910 (or P.O. Box 12068)
Austin, TX 78768-2910 (or 78711-2068)

Dear Representative (or senator)

As an avid beer connoisseur, I would like to endorse economically viable brewpub legislation.

Brewpubs provide jobs, increase the tax base, increase tourism, increase capital investments, and stimulate interest in locally-produced products served straight from the brewery. They do not threaten the existing system.

Please consider revising the TABC Code to allow small breweries: 1) the right to sell for both on and off-premise consumption, and 2) the right of limited self-distribution. The great State of Texas will benefit from a burgeoning niche industry currently enjoyed in 42 other states.

Please vote YES for the Sunset Bill's expanded brewpub legislation.
Sincerely, JoeTax-payer&voter&beer-drinker

Joe Barfield, Publisher, Southwest Brewing News, ifby546@ccwf.cc.utexas.edu
Brewnews from Arkansas, Arizona, Louisiana, New Mexico, Oklahoma & Texas.
406 W. 35th, Austin, TX, 78705. 512/467-2225. (FAX)512/282-4936.

Date: Fri, 12 Mar 93 8:11:24 CST
From: dewey@sooner.ctci.com (Dewey Coffman)
Subject: Texas Brewpubs, almost here..

You say you want brewpubs in Texas? You say you haven't had time to call and voice your opinion? NOW IS THE TIME.

On Monday, 3/15/93, the House Licensing and Administrative Procedures Committee will vote on the changes in the TABC Sunset Bill regarding Brewpubs, this is were it died last time(2 or 4 years ago). They need to know that you support this, you don't want the bill watered down so that no one can afford to do it(this is talk of \$12,000 license fees or no offsite sales). Call them and say:

"I support ECONOMICLY VIABLE brewpub legalization in the TABC Sunset Bill"
The bill considered is referred to as the T.A.B Sunset Bill. There are identical bills introduced in the Senate and the House.

If you have time, call each and every one of them. If not, just call Ron Wilson and Dan Kubiak. Print out this list and call over the weekend, fill up their answering machines. Give the list to friends either electronically or hardcopy. Let's not blow it this time.

House Licensing and Administrative Procedures Committee
Ron Wilson, Chair (512) 463-0744
Dan Kubiak, ViceChair (512) 463-0600
David Cain (512) 463-0476
Ben Campbell(512) 463-0478
Bill G. Carter (512) 463-0482
Mario Gallegos (512) 463-0614
Tony Goolsby(512) 463-0454
Paul Hilbert(512) 463-0572
Delwin Jones(512) 463-0542
Garfield Thompson (512) 463-0716
Ken Yarbrough (512) 463-0648
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Questions can be referred to Joe Barfield, Publisher, Southwest Brewing News at ifby546@ccwf.cc.utexas.edu
Address mail to 406 W. 35th, Austin, TX 78705. (512) 467-2225.
SUPPORT FRESH BEER IN TEXAS!

- - -
Joe Barfield, Publisher, Southwest Brewing News, ifby546@ccwf.cc.utexas.edu
Brewnews from Arkansas, Arizona, Louisiana, New Mexico, OKLA & Texas.
406 W. 35th, Austin, TX, 78705. 512/467-2225. (FAX)512/282-4936.
Subscrips
- \$12/yr.

Date: 12 Mar 1993 13:49:31 -0600 (CST)

From: BLAST@sn01.sncc.lsu.edu

Subject: Boiling pots?

After several boilovers using a small enamel canner on my stovetop, I am ready to get a larger pot. I have read (Papazian, Miller) that Aluminum is to be avoided.

If not Aluminum, then the only choices seem to be enamel or stainless. Where can one obtain a reasonably priced 32 qt. boiling pot?

I checked the local (Baton Rouge, LA) restaurant suppliers, they only carry Aluminum. Since restaurants apparently use predominantly Aluminum for boiling, what's the difference between wort and restaurant food that makes Aluminum unsuitable for wort? Is it the acidity of wort and/or its contact time w/the Aluminum? Or what?

Thanks,! What's the difference between a used car salesman
Bruce Ray ! and a software salesman?
Deep C Software ! One knows when he's lying, the other sells software.

Date: Fri, 12 Mar 93 12:02:57 -0800
From: eurquhar@sfu.ca
Subject: second mail-order hop source for Canada

There was some talk a while back about where hop rhizomes could be found in Canada. Well, just received my March/April copy of Harrowsmith magazine and noticed an ad for a mail-order brew store in Ottawa called the "Hop Stop" advertising hop rhizomes for sale. Therefore, I decided to pass on the two sources I know of for hop rhizomes in Canada.

mail: Hop Stop, 1661 Montreal Road, Ottawa, Ontario K1J 9B7
FAX: 613-748-3052
Tel: 613-748-1374
Don't know anything about this business but they offer a free catalogue.

The other source of hop plants I know of is Richter's in Goodwood, Ontario. They list the beer hop varieties: Cascade, Hallertauer, Mount Hood, Nugget and Willamette for sale as plants at \$7.00 a plant in their 1993 catalogue. Their stock is really expanding so it quite possible that more varieties will be available in the future. I have ordered from them before and the plants while often pricey were very healthy and arrived in perfect condition. Get them to throw in their catalogue. It's probably the most informative and interesting herb catalogue produced by anybody.

mail: Richters, Goodwood, Ontario, L0C 1A0 Canada
FAX: 1-416-640-6641
Phone: 1-416-640-6677
They accept Visa and Mastercard for payment and ship to the States as well.

As always I don't have any involved with either company. Hope this is of help.

Eric Urquhart eurquhar@sfu.ca
Dept. of Biological Sciences,
Simon Fraser University, Burnaby, BC CANADA

Date: Fri, 12 Mar 1993 15:35:20 GMT
From: POIRIER@IREQ-CCFM.HYDRO.QC.CA
Subject: second mail-order hop source for Canada
Subject: Indoor boiling

Hi all,

There's been some discussion lately of boiling indoors on electric stoves. One poor fellow was boiling in 4 pots on his stove, another was burning out his elements. Well I did 2-pot boils for about 25 batches. And then I saw the light. As a new convert, I feel that I must share my happiness with all of you:

I converted an old scratched 7 gallon plastic primary bucket into a boiler. I used 2 1kW heating elements from a scientific surplus company @4.50 USD each, so this is definitely a cheap approach. The great thing about it is how effortless the boil becomes - no boilovers, easy cleanup. I cannibalized my counterflow chiller, which was tough to sanitize and constantly clogging with hops anyway, and now just sanitize an immersion chiller during the boil. The trub and hops drop to just below the level of the spigot, and from there I splash it out into the primary. MUCH easier! I have been brewing my brains out since I switched.

If anyone would like more info on the supplier, just drop me a line: <poirier@inrs-ener.quebec.ca>. And thank you to all who responded to my coriander question.

While I'm at it, I'll be in San Francisco, San Diego, and all points between in April. (I've already booked a tour with Anchor!) Any beer type suggestions (sent privately, of course) would be greatly appreciated. Thanks.

Deb

Date: Fri, 12 Mar 93 15:54:45 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: sanitizing Agents Revisited

korz@iepubj.att.com write:

Re: Sanitizing Chemicals

> I've found this too, but my intention was to minimize the amount of
> un-natural chemicals I was dumping down the drain.

I don't think that the amount of bleach we use in sanitizing is significant compared to other uses. One bottle of bleach from the store will last me for quite a while. Bleach used to wash white clothes seems to go much faster.
(Note: We can't use bleach at home in the wash due to the iron in the water...it makes some really nice rust colored clothes)

> Acetic acid and H2O2 seemed much more "green" than
> Chlorine Bleach or Iodine.

I would agree with that assessment. Both CH3COOH and H2O2 will decompose in somewhat more friendly products. Using *DILUTE* versions of this may be alright. By dilute, I mean vinegar and hydrogen peroxide that you can buy in the pharmacy or grocery store. I'm not sure on the specifics of using these two in a mixture at low concentrations. Then again, as I was informed in e-mail, using vinegar and steam is an old and accepted method in Germany and it seems safer to me. Steam cleaning/sterilizing may be a good way to do it. But not everyone has a steam line in their house.

kurka@bmcw.com write:

Re: A few observations regarding cleaners and sterilizing agents.

> Experiences I have had with chlorine as a sterilizing agent is that
> it has the possibility of giving an "off" flavor to the brew. Whether
or not
> this was a case of not rinsing the equipment well enough after the
chlorine
> soak is not known.

Something else that was just being discussed in e-mail. One possible drawback to using bleach as a sanitizing agent is the formation of byproducts that you can taste. You probably formed some chlorophenols; they are readily tasteable at the ppb level. Rinsing the chlorine out better should solve the problem.

Tim

Date: Fri, 12 Mar 93 14:54 CST
From: korz@iepubj.att.com
Subject: Re: dry ice chilling/lye/bitter Frathouse Ale

Scott writes:

BREWERS,

>We hit upon an idea that is simple, straightforward, and seemingly
>foolproof; why not cool a hot wort with dry ice? Think about it:

There's no guarantee that the dry ice doesn't have wild yeast spores
or bacteria in it.

Jack writes:

> For us unwashed masses.... it is also known as Draino.
> A teaspoon in a cup of water will do the trick.

I've heard that Draino has other stuff in it besides Sodium Hydroxide or
Potassium Hydroxide. I've heard that Red Devil brand Lye is all NaOH or
KOH (I don't recall which). Check the label and use the pure stuff.

Further, Jack writes:

> Far be it for me to question the wisdom of the ages but I have (had)
used the
> same plastic primary since the early 70s and have not had an infected
beer
> since a few months after I started to read the Digest. I attribute the
> record to one or both of two procedure changes.
>
> Number one on the hit list was Red Star Yeast, contamination is built
in at
> no extra cost. You also need to find out who actually produced the
yeast you
> use to make sure it is not one of the many brands of re-packaged Red
Star.
>
> Number two was to ignore the usual instructions for making a sanitizing
> solution from bleach, i.e. 1 oz bleach to the gal or even 5 gallons of
water.
>
> After cleaning the fermenter with a sponge and Ivory, I rinse it and
put in
> about a cup of bleach. I then put on the lid with a stopper in the
hole for
> the air lock and slosh it around thoroughly and set it aside till the
next
> use. Next time I need it, I slosh it around again, dump out the bleach
and
> rinse it carefully. I guarantee, there is no scratch deep enough to
evade
> this treatment.

I've read the opposite, but would note that the usual way that a mild
bacterial/wild yeast infection becomes apparent to us homebrewers is
gushers. Now I don't mean to imply that Jack has infected beer (I've
tasted recent batches and indeed it does not taste/smell infected), but
I know that Jack kegs rather than bottles. A minor infection in a keged
beer would not be apparent, whereas the same level of infection in a
bottled
beer would cause gushing. It also depends on how long you keep the beer.

Certainly Stainless Steel is a much better choice for a fermenter than plastic.

Richard writes:

>1. My friends and I have twice attempted the Fraternity House Ale (a 5
>gallon version) from the AHA Winner's Circle recipe book. Both times
>the beer has come out alright except for a kick-you-in-the-zipper
>bitter after taste which, as you can imagine, is very unpleasant.

>

>While this recipe is kind of heavy on the hops I have a hard time
>thinking that this is the problem. I have boiled lots of hops for more
>than an hour before and had it turn out fine. Also, for the second
>batch instead of adding the finishing hops to the boil we just strained
>the wort through them at the end. I did read something recently (can't
>recall where) that said boiling crystal malt can result in bitterness.
>It is possible that we let the one step mash heat up too high. There
>were several times when we had to reduce the heat. Any other ideas or
>suggestions, or has anyone else seen this with crystal malt before?

Boiling crystal or any other barley malt will give you astringent flavors which are, sort of bitter, but sort of not. Peel a dark grape and just chew the skin -- that's tannins -- is that the flavor you reported? If so, then it's the boiling of the grains. Also note that bitterness (especially in the finish) can be intensified considerably by hard water -- sulfates especially. Are you adding a lot of Epsom Salts, Gypsum or other sulfates?

Al.

End of HOMEBREW Digest #1097, 03/15/93

Date: Fri, 12 Mar 93 15:39:21 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: PH meters / Lauter Tun design

Recently there was a thread on PH meters. I would like to know wher can I get one, what is the price and what comments do people have on specific models. I have heard of one model called " Check It" any details??

I currently use a 5 gallon plastic bucket with a 1" high false bottom and spigot on the side as a lauter tun. This container is jacketed with 1" of foam so it does a good job of maintaining the temp of the grain bed. I have considered building a new lauter tun with a copper tubing manifold and center drain using a 5 gallon food grade bucket. Is this an improvement in design, cent vs side drain. I also have a Cornelius keg with a seam leak near the top. I have considered cutting the top off and making a lauter tun out of it. What is the ideal height of grain bed for a 5-6 gallon batch? Would this keg tun be better for 3 gallon batches is it to narrow and tall for 5 gallon batches.?

Please post responces to the net or
lmenegon@necis.ma.nec.com

Date: Fri, 12 Mar 93 12:57:48 PST
From: Brew Free Or Die 12-Mar-1993 1553 <hall@buffa.enet.dec.com>
Subject: re: Two Seperate Questions on: Kegging and Bitterness

In HBD #1096:

>From: Richard Saunders <richsa@microsoft.com>
>Subject: Two Seperate Questions on: Kegging and Bitterness

>1. My friends and I have twice attempted the Fraternity House Ale (a 5
>gallon version) from the AHA Winner's Circle recipe book. Both times
>the beer has come out alright except for a kick-you-in-the-zipper
>bitter after taste which, as you can imagine, is very unpleasant.

>
>While this recipe is kind of heavy on the hops I have a hard time
>thinking that this is the problem. I have boiled lots of hops for more
>than an hour before and had it turn out fine. Also, for the second

I think the heavy hops is exactly the problem. I considered brewing this
beer
last fall, but, beforehand, I went through the math to determine the
bittering
levels, using Jackie Rager's wonderful equation from the Zymurgy special
issue
on hops. I recall ending up with something like 110 I.B.U. for Ron
Page's
Fraternity House Ale. That's not beer - that's beer-flavored bitterness!

I think the recipe is bogus (I don't implicitly trust any of the award-
winning
recipes that Zymurgy publishes). Change the hops bill, down to about 35-
55
I.B.U. (use one-third to one-half the bittering hops recommended). Or,
design
your own recipe, based on F.H.A.

- - -

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"Adhere to Schweinheitsgebot
Don't put anything in your beer that a pig wouldn't eat" --David Geary

Date: 12 Mar 1993 16:51:07 -0500
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>
Subject: yeast 34/70

Subject: Time:4:45 PM
OFFICE MEMO yeast 34/70 Date:3/12/93
>From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
>Subject: Yeast Slant ?? / Mashed stout / Kegs

>I have been given a slant of Weinstephan 3407 yeast. What information
do
>people have on this variety. What temp should I ferment / lager, what
are
>its flavor characteristics, is it stable for reculturing? Please post
>responses to HBD or send to lmenegon@necis.ma.nec.com

Fred Scheer (Frankenmuth Brewery) wrote a short article on this yeast
strain in
American Brewer, Summer 1989, pg 19. He uses this yeast for his lagers.
All
his beers tend to be very clean, rich and malty in a broadly Bavarian
style.
This yeast was chosen because of the use of 6-row malt, high available
amino
acids, low zinc, 20 BU with a good dose of hop aroma, 7 day primary
ferment,
and need for good flocculation in the lagering tanks.

Here is the data from the article.
Wort analysis:
plato-11.5
apparent attenuation-83.20%

The article indicated that he pitches 1/2L yeast suspension per hL of
wort
(12-14 million cells/mL) due to the low (41F, 5C) pitching temperature.
Primary fermentation is 7 days. Fred makes the following points and
considers
them to be required.
-good aeration of wort (8-20 mg/L)
-wort free of hot trub
-minimum of cold trub
-34/70 works best at low temp. (41F-45F, 5C-7C)
-after 2 to 3 generations a higher than normal ester component appears.
Don't
pitch >6 times.
-low lagering temp (0-2C) to encourage good flocculation.

The bottom line is that if you are using domestic malt like Fred (Breiss,
I
think) and want to make Bavarian style dark, bocks or amber (Vienna or
marzen)
beers, this culture should do nicely if you ferment COLD and pitch lots
of
yeast.

Good brewing
DanMcC

Date: Fri, 12 Mar 93 14:45:58 PST
From: Brew Free Or Die 12-Mar-1993 1745 <hall@buffa.enet.dec.com>
Subject: re: demerara & turbinado

In #1093:

>From: bradley@adx.adelphi.edu (Rob Bradley)
>Subject: demerara & turbinado

>"Turbinado" and "Demerara" are the "real" brown sugars. They are
>both partially refined cane sugars. I've heard it said that they
>are, respectively, the American and British names for the same thing.
>However, turbinado is very pale, lighter than a brown paper bag.
>Demerara is about as dark as a brown beer bottle.

There's another "brown sugar" available that hasn't been mentioned yet,
probably because it's not commonly seen (at least I'd never seen it
before last fall). It was brought to my attention by Steve Stroud, who had some in
his cupboard. It's a product called Sucanat (r), and it's 100% evaporated
sugar cane juice. It is unrefined, dried, granulated cane juice, with no
additives and no preservatives. On the container is written "All vitamins,
minerals and other nutrients of cane juice retained, nothing added, only water
removed". There's a chart on the back comparing it to brown sugar, white sugar,
dried maple syrup, liquid honey, and dried malt extract. It is loaded with
minerals and nutrients! It has twice the potassium of brown sugar, 250 times the
potassium of white sugar. It still contains Vitamins A, C, B6, zinc,
magnesium, and calcium, while white sugar has none of those. Yeast
should love it.

It is manufactured by NutraCane, Inc., 5 Meadowbrook Parkway, Milford, NH
03055.
Phone is (603) 672-2801.

I got a 2 kilogram can of it at Bread and Circus in Cambridge, MA for \$8.
69. They have since gotten it in bulk, and with your own container it's even
cheaper. I have never seen it sold retail anyplace else (I just left a
message on NutraCane's answering machine about availability - I'll report back
what I find out).

My intention was to brew a Triple using it, but so far it's only gotten
as far as my coffee cup. It has a wonderfully assertive toffee-ish, caramel
flavor. It's not crystalline like turbinado sugar - it's more powdery/
granulated and the flavor is much stronger. Good stuff, and highly
recommended in coffee - you'll have to wait until I brew my Triple to get a report on
that.

- - -

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"Adhere to Schweinheitsgebot
Don't put anything in your beer that a pig wouldn't eat" --David Geary
"Pigs would eat Sucasat" --me

Date: Sat, 13 Mar 93 9:53:47 CST
From: Brewmeister Gene <ezimmerm@hp.uwsuper.edu>
Subject: Water filter questions...

Salutations all!
I have decided to filter the water I use for brewing in my apartment. Because it is an apartment and my wife and I will be moving in the summer, I didn't install it to the water lines, instead fitting a temporary attachment to the faucet. I've heard of others using such a temporary filter system and was wondering if anyone had suggestions as how to store the wet filter once I am finished with it? I am thinking of just letting the thing sit out 'till dry then putting it away. Perhaps in the freezer. Sounds wierd, I know, but since I want to filter out Cl, I thought it would be rather stupid to store it in some kind of solution. I should mention this is a charcoal and poly filter. (Water Pic's Under sink IF-10 model to be exact.) The freezer, I'm thinking, would inhibit growth of anything, and if I were to get most of the water out, there shouldn't be any problem with cracks from ice pressure... Well any ideas would be helpful.

Gene in Duluth

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*****  
*****  
* Eugene Zimmerman* 'Real men don't eat quiche' *  
* University of * 'Wisdom is but the loss of innosence valued' *  
* Wisconsin, Superior * *  
* English Ed and Comp Sci * *  
* Majors* *  
*****  
*****
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Date: Sun, 14 Mar 93 00:58:15 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: First and second runnings

Back in December, I posted a speculative article about brewing in the traditional British "three runnings" method. To summarize, using information from Dave Line's Big Book of Brewing and a little algebra, it appeared that one could make:

Strong ale @ 1072
Pale Ale @ 1046
Shandy @ 1043

by using, per US gallon of final yield for each of the three, 5 pounds UK 2-row malt and 2.2 US gallons of mash water.

As a variant, I scaled the recipe up to 2 gallons and collected and brewed the first runnings according to the posted recipe. I decided to sparge afterwards and collect what amounted to the second and third runnings together. Given the desirability of a 5-gallon batch size, I figured I'd add a little water and malt extract to the kettle to stretch the brew length up to 5 gallons. (No all-malt fixation here :-)

Summary: overall success!! As I suspected, I got more yield in the first runnings than predicted from Line's figures. And that was despite cutting the mash water down to 2 gallons. I compensated by adding a little more than a pound of dry malt extract. Here are the details:

Strong Ale

10 lb Munton & Fison 2-row mild ale malt
1 1/2 oz Willamette whole hops 60 minute boil - 4.2% alpha acid
1/4 oz Willamette whole hops 30 minute boil - 4.2% alpha acid
1/4 oz Willamette whole hops 10 minute boil - 4.2% alpha acid

Wyeast 1056, second generation, half of a one-quart starter

Mash with 2.5 gallons water at 151-154F. Mash-out at 172F. Transfer to lauter tun with 1.5 gallons foundation water at 172F. Recirculate, let settle 30 minutes. Draw off first runnings (a little more than 2.5 gallons).

Yield: 9 quarts. Original gravity: 1080
Estimated bitterness: 48 IBU

Primary ferment: 7 days. Rack to two one-gallon jars.
Specific gravity at racking: 1025.
This beer was racked on February 11 and hasn't been bottled yet.

Celtic Ale

Spent grains from strong ale
5 oz Chocolate malt
19 oz Light dry malt extract
1 oz Bullion pellets 60 minute boil - unknown alpha acid
1/2 oz Willamette whole hops 10 minute boil - 4.2% alpha acid
1/2 t. Irish moss 10 minute boil

Wyeast 1056, second generation, half of a one-quart starter

Steep chocolate malt in 1 pint water. Add to mash tun after draining first runnings for the strong ale. Add 2.5 gallons water at 172F to mash tun and let settle 15 minutes. Sparge as usual with water at 172F to collect 4.5 gallons. Add dry malt extract and sufficient water to boiling kettle.

Yield: 5 gallons. Original gravity: 1035.
Estimated bitterness: 24-37 IBU (based on bullion @ 5-8% alpha acid;
Line estimates 4-9%, Papazian 8-9%).

Single-stage fermentation: 9 days.
Bottled with 5/8 cup corn sugar. Final gravity: 1011.

If I do say so myself, this is a great low alcohol beer.
It was ready to drink after about 5 days. It's 4 weeks in the bottle today and there's hardly any left :-)

Fred eckhardt, in The Essentials of Beer Style, lists Grant's Celtic Ale at-----

OG 1034, FG 1008, IBU 38.

Date: Sun, 14 Mar 93 21:04:18 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Where Did My Saaz Nose Go ?

When I bottled this batch of Alt Bier last week, it had a wonderful Saaz nose to it, from dryhopping in the secondary. Now, a week later, it's carbonated, ready to drink, and has no Saaz aroma at all...

Where did it disappear to ?

Other than the loss of nose, it's quite good! Tasty and bitter.

Partial Mash Recipe

=====

2.0 lbs Klages 2 Row,
0.75 lb Crystal, 40 Deg. L
0.5 oz Chocolate Malt
4 quarts water

30 min 122F Protein Rest, 1 Hr. 152 F Starch Conversion,
5 min 168 F mash out. Sparge with ~ 2 gallons 170F

Then add 5.375 lbs Telfords light english extract, total volume
of boil, 5 gallons.

1 oz. galena (12%), 0.5 oz Nothern Brewer (7.1%) 60 min
0.5 oz saaz (3.8%) 30 min

Boil 1 hr, chill with wort chiller to 60F

Repitch with Wyeast 1056 from secondary of an Irish Ale. (Bottled previous
day)

OG=1.042

After 13 days, Dryhopped with 0.5 oz Saaz (3.8%) for 8 Days more.

FG = 1.012

Wonderful Saaz aroma at bottling (3/4 cup corn sugar used)

So where did it go ?

Tim

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Timothy J. Dalton tjdalton@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

Date: Mon, 15 Mar 93 13:39:29 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: BrewPubs in Europe

My brewing partner is going for a three-week tour to Europe. Does anyone here know of any interesting brewpubs or homebrewer's attractions along the following route: Amsterdam - Koln - Prague - Budapesht - Viena - Munich. ???

In the event he would like to buy brewing supplies to bring home with him, do you know of a place where he could get them, in one of the towns he'll be visiting?

Thanks in advance,
Nir

Date: Mon, 15 Mar 93 13:32 PST
From: SOMAK%FITKJES2.BITNET@SEARN.SUNET.SE
Subject: Metallic taste, old hops

I cultured yeast from the bottle of Chimay White. Now it has been one week in the bottles and I wonder the strong metallic taste it has. I remember somebody remarked the same thing in HBD sometimes ago. Is it peculiar for the Chimay yeast to produce metallic tastes, or is there something wrong in my procedures? It was fermented in glass carboy and temperature was about 22 Celsius. Fermentation was single stage and it lasted two weeks.

I have also another question concerning old hops. I have Saaz hops which a friend of mine brought one and half year ago from Germany. They are stored in room temperature. At first there were no problems with them, but later I noticed that beer brewed with them was cloudy, not clear. Could the old hops have caused this? I think I have read somewhere (HBD?) that there can be problems with old hops.

Markku Koivula

Date: Mon, 15 Mar 93 07:21 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Extract Efficiency

We have pretty well beaten to death the topic of extract efficiency but I don't think we have discussed the most obvious way to determine what is going on in our beer.

We all know how to divide gallons by pounds and multiply by gravity to come up with points/pound/gallon. Some even apply this to some arbitrary numbers of available starch and arrive at a percentage efficiency.

Well, the other way to do it is to weigh the grain before mashing (easy and routine) and then compare this with the weight of the spent grain after mashing and drying (not so easy). If dried to the same moisture content as the original grain, we arrive at an absolute figure for conversion of grain to beer stuff.

This past weekend I made a batch with 10 lbs of malt and ended up with 8 gallons at 1.040 for a calculated extraction of 32pts/gal/lb.

After drying the spent grain and allowing for trub solids and a small amount lost in the drying process, it weighed 2.7 lbs. This means that 73% of the malt ended up in my beer. This is exactly the figure reported by Noonan as what can be expected from the types of malt I used.

I am not sure just what this proves other than the fact that the EASYMASH process works as well as any other far more complicated methods of mashing and sparging.

js

Date: Mon, 15 Mar 93 09:18:51 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: publications from the AHA

Just received my first ever Zymurgy and the accompanying catalog of stuff the AHA offers. And I have some questions.

1) Anyone have an opinion on "Winners Circle?" How many recipes are in this? What is the ratio of extract to grain recipes? Is it better/worse/same/just-different from Cat's Meow?

2)How about Terry Foster's "Pale Ale?" How many all-grain and extract recipes? The description given says "Recipes and data given in English and metric..." English as in American units, or english as in imperial units?

3) They offer a Special Issue six pack which includes the all-grain, troubleshooting, gadgets, yeast, hops, and beer styles special issues, but does not include the malt extract issue. Is that one worthwhile? Since some of these date back to the mid 80's, and I keep hearing how things keep improving for the homebrewer, are any of these out of date? Does anyone feel that any of these could be skipped, or conversely, that any of these are the best thing ever committed to paper?

Any opinions are welcome. Please use private email. Thanks!

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/////

name: Jimmy On balance, it is a wonderful thing that
email: fingerle@NADC.NADC.NAVY.MIL the cold war is over. -Bill Clinton
-or- fingerle@NADC.NAVY.MIL ON BALANCE?!? It's end has a down
side?

////////////////////////////////////
/////

Date: Mon, 15 Mar 93 10:07:08 EST
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: sparge manifolds

I use a 10-gal Gott cooler, with a "three-pipe" manifold of 3/8"OD copper, slotted every .75 - 1 in. It's arranged as a circle with one diameter. One end of the diameter connects to the spigot, the other end has a "down pipe" that I use for underletting and suction breaking. I have a ball valve on the outside that lets me easily control flow rate.

I get great flow and decent extraction from this setup. This weekend, I made a "wit" beer (thanks to Phillip Seitz for the recipe). Depending on whether I counted the unmalted wheat, I got somewhere between 28 and 31pts extract in a 45minute sparge (5lbs Belgian Pilsener malt, 3 lbs M&F wheat malt, 1 lb soft wheat "berries"), stopping at 1.010. The grain bed was about 6" deep (to the 3.5 gallon mark in the cooler). I opened the valve so that I got between 2 and 3qts/5min flow. I recycled about a gallon. I had absolutely no problem with sticking, despite the wheat (there was a layer of icky gray-brown sludge on top of the grain bed when I drained the cooler).

I won't belabor the advantages of the slotted-pipe system, except to note that I think the "downpipe" is a fantastic addition to the usual setup. I find that underletting my infusions makes it a lot easier to get a consistent temperature throughout the mash because you're putting the hot stuff at the bottom, whence it will rise, instead of on top, where it will just sit.

I'm happy with this system, that's for sure.

Date: Mon, 15 Mar 93 10:11:20 -0500

From: esonn1@cc.swarthmore.edu

Subject: Oxygenated Water?

I live in an area where the tap water is cloudy when it first comes out of the spigot, but if you let it sit a few minutes, it clears up. A friend of mine told me the water is cloudy because they "oxygenate" it. I have never heard of this before. Is my friend right or is he full of it? If he is right, is it bad for brewing? I know I could boil the water if I am worried about water quality, but as an extract brewer, I would rather not spend the time boiling all that water. Thanks in advance.

Eugene Sonn

Date: Mon, 15 Mar 93 09:23:37 CST
From: krueger@comm.mot.com (Kevin Krueger)
Subject: Wyeast Abuse !!

I hope noone takes action, but I may have been guilty of Wyeast abuse !!

I broke the seal on my Bavarian Lager package and let it bulge. Unfortunately, my week didn't go as planned and the package had to bulge to full proportions. I definitely expanded the package to maximum size! The week really fell apart and the Wyeast package not only travelled several hundred miles, but also was put through several temperature changes of more than 30-40 degrees. When I finally had a chance to make my starter, I opened the package and it didn't smell 'clean.' It seemed that there was some odor there that I didn't feel comfortable with. I decided to make the starter anyway and the yeast developed nicely in the starter, but I am very hesitant to use this yeast for brew. Does anyone think my worries are valid or is yeast hardy enough to go through all my abuse ??

Please don't take away my brew kit, I'll be better to my yeast next time !!

Kevin

Date: 15 Mar 1993 10:36:31 -0500
From: Chris McDermott <mcdermott@draper.com>
Subject: ?SS Cleaning Agents?

?SS Cleaning Agents?
OK, now that were on to this cleaning agents thread I've got a question.
I've recently developed a problem with really stubborn scorchs and stains on the inside of my SS boiler.

The problem stems from the method I use to achieve a good stove top boil. I straddle the pot over two gas burners and use some heavy duty aluminum foil to direct the flames that poke out from under the pot up its sides es. Well this works GREAT as far as getting a good boil goes.

The problem is that the top of the pot, above the level of the liquid, gets very hot and any wort splashed on that part of the pot gets really burned on.

I can take off the crudge with a copper scrubber but some dark black stains remain. Is sodium hydroxide an appropriate cleaning agent to use in this case, i.e. will it remove the stains and is it safe for SS? If not are there other alternatives?

Thanks,

—
Christopher K. McDermott Internet: mcdermott@draper.com
C.S. Draper Laboratory, Inc. Voice:(617) 258-2362
555 Technology Square FAX: (617) 258-1311
Cambridge, MA 02149 (USA)

Date: Mon, 15 Mar 93 9:46:52 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: "German" porter

Russ Gelinas writes:

> Rob asked about "German" hops (Hallertauer/Mt.Hood) being used in a
> porter. Just so happens in my younger/dumber days (before I became an
> all-grain snob ;-), that I went even further, making an extract porter
> with Hallertauer hops *and* Wyeast German ale yeast, #1007 I think it
is.
> Certainly not a "classic" porter, but perhaps the best extract brew I
> ever made: clean, creamy, malty, and a wonderful hop nose. Isn't it
> perhaps likely that in the early days of porter, continental hops were
> used?

I can't comment on the history of porter, but I can say that a porter
of mine that used Kent Goldings, Hallertauer, and Cascades (!!) just
won a 2nd place at the Fort Collins, CO Mashfest. My original recipe
uses Perle and Cascade, but I was out of Perle when I made this batch.
The Hallertau were used solely as bittering hops, so the English and
American hops dominated.

I think I'll switch back to Perle next time, but isn't being able to
tinker with elements like that part of the fun of homebrewing?

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: 15 Mar 1993 08:55:41 U
From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.edu>
Subject: More on copper slots

Subject: More on copper slots Time:8:30 AMDate:3/15/93
Brian Bliss says:

>I sparge in a 1' & 2.5' square cooler, with a grain bed depth anywhere
>from 7"-14". The pipe is only 5/16" id and 7" long, with slots every
>inch. The last time I tried keeping the H2O above the top of
>the grain was with ~20 lbs of grain => 10"-12" deep. I verified by
>taste testing that different areas of the bed were better rinsed than
>others. I only got 20 pts/lb (this is based on the wort that actually >
makes
it into the primary - If you count spillage & the gallon of trub
>that I leave behind you get significantly higher figures).

>What are the dimensions of your cooler? How deep is the grain bed?
>Is the pipe 1/2" inside diameter or outside? (that's a big pipe).

First, it is my understanding that in order to accurately compute yield
you
MUST CONSIDER THE TOTAL VOLUME of wort, either pre or post boil (the
yield will
not change since the concentration goes up as the volume decreases during
boil).

I mash in a 48 quart Igloo cooler with interior dimentions perhaps 12"
wide by
24" long. My manifold is made of 1/2" ID copper pipe. The shape of the
manifold
is the same as the bottom of the cooler with 2 additional lenghts of pipe
running in the long direction. That makes a rectangle with 4 long runs
spaced
about 4" apart. The long pipes are joined at both ends with a network of
tees
and elbows and 1'2" pipe. There is an exit tee in the middle of one of
the end
assemblies which couples to a fitting which runs through the wall of the
cooler. All of the pieces of pipe (including those used in the end
assemblies)
are slotted half way at 1/4" intervals. The tees and elbows are left
intact.
The manifold is placed in the cooler with the slots facing down. The
concept is
to create a flow similar to that of a false bottom so that the sparge can
flow
through the bed to an "exit" at any point in the mass.

I have mashed as much as 35 lbs of grain in this set-up and as little as
15
lbs. My worst yield so far has been 26 points. I attribute it to a too
fast
sparge (maybe 20 minutes).

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmac1.ucsf.edu - CI\$: 72300,
61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Mon, 15 Mar 93 11:58:03 EST
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: ~r beer-cancer

Date: Mon, 15 Mar 93 12:00:25 EST
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: re: beer, root beer and cancer

In HBD1095 John Sampson brought to our attention a very interesting article appearing in Science, (vol. 258 pg 261) on natural vrs. synthetic carcinogens. The fact that wine and beer were at the top of the list alerted me to read the article myself.

In that article "Rodent Carcinogens: Setting Priorities", the authors try to support their hypothesis that naturally occurring chemicals have not been as rigorously tested as synthetic chemicals for being potential carcinogens. This was done by using an index (HEPR) measuring the percent of the equivalent (by weight) amount of daily lifetime rat dosage required to halve cancer free rats at the end of a standard lifetime. Some of the values are:

HEPR (%)	HUMAN EXPOSURE (PER DAY)	RAT CARCINOGEN
4.7	Wine (250ml)	Ethanol (30 ml)
2.8	Beer (12 oz; 354 ml)	Ethanol (18 ml)
0.3	Lettuce, 1/8 head (125 g)	Caffeic acid (66.3 mg)
0.2	Real Root Beer (12 oz; 354 ml)	Safrole (6.6 mg)
0.1	Apple, 1 whole (230 g)	Caffeic acid (24.4 mg)
0.06	Diet Cola (12 oz; 354 ml)	Saccharin (95 mg)
0.04	Coffee, 1 cup (from 4 g)	Caffeic acid (7.2 mg)
0.001	Tap Water, US avg (1 liter)	Chloroform (83 ug)
0.00003	Approximate HEPR of upper-bound risk estimate used by US regulatory agencies to control exposure to man-made chemicals.	
0.000000006	Captan (synthetic pesticide), US daily avg residue intake	Captan (11.5 ng)

g = gram, m = milli-, u = micro-, n = nano-, l = liter

One of the conclusions of this paper is:

"Our results indicate that many ordinary foods would not pass the regulatory criteria used for synthetic chemicals."

They also point out that items which are high on the list may not actually be a risk for human cancer even though they are thousands of times the HERP equivalent to the one-in-a-million worst-case risk used by the EPA.

One conclusion John made was

>Thus, all it seems you can say is that drinking one bottle of real root
>beer entails about the same risk of cancer as eating two fresh,
>unsprayed, organically-grown apples.

Due to the non-linear and sometime non-monotonic effects I think all you can say is: if we have similar metabolisms as rats then drinking 500 root beers a day entails the same risk as eating 1000 apples a day. Non monotonic effects occur in fruits and vegetables, which actually reduce your risk of cancer (when taken in moderation) due to the presence of anticarcinogenic antioxidants and vitamins.

Fortunately for us, (and the reason I'm posting this article to HBD) is that these non-monotonic effects also occur to some degree with beer (alcohol).

According to studies based on the drinking habits of over 275,000 middle aged men drinking one beer a day actually reduced their risk of cancer by about 10%. Details of these studies can be found in "Alcohol and Heart Disease", in Nutrition Action Health Letter, Vol 19, Nov. 1992, published by the Center for Science in the Public Interest (Someone in the HBD forum gave a nice summary of this article a few months ago but I forgot who it was). At two beers a day your cancer risk is back to what it is with no alcohol, but your risk of heart disease remains lowered by about 20%. According to the HERP table if you drink 36 bottles of beer a day and have a rat's metabolism you have a better than even chance of developing cancer at some time in your life. However, as long as we drink in moderation we can follow our first commandment of "Relax, Have a Homebrew" without worry of cancer. (Of course if you drink 36 bottles of beer a day you probably won't worry too much either!)

As far as root beer goes, I personally wouldn't worry about having one made with real sassafras, but I am unaware of both any beneficial effects from moderate studies, nor of other studies that (I should hope) have been done on other aspects of safrole toxicology which put it on the EPA hit list in the first place.

Bill Szymczak
Gaithersburg, MD

Date: Mon, 15 Mar 1993 09:58:06 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Overkill with TSP; Er, I forget...

> From: sagard@digi.lonestar.org (Steve Agard)
> Subject: Re: Cleaning Bucket/Cleaning Bottles

>
>
> A: I would suggest using TSP. I am thankful that it had been
> recommended by many of the homebrew experts on the net for
> removing labels.

>
> I added 1 lb TSP (from hardware and paintstores), and
> 1 1/2 cups chlorine, to a trashcan with the beer bottles
> (which had been filled with just enough warm water to cover
> all the bottles).

>
> I let this covered for 2 weeks, and then removed the bottles
> (while wearing rubber gloves - chemical resistant ones from
> a hardware store)

>
Steve, this is a classic case of overkill. From my own experience with TSP, you could have gotten away with a few tablespoons added to the water (without the Chlorine, especially since you're going to sanitize the bottles later anyway) and pulled the bottles out (without gloves) within a couple of days -- and gotten the same results. Not that what you did was wrong, just that you could have save yourself money, trouble and time.

> of warm water & let sit for 2 hours (probably overkill, but
> someone at a homebrew shop warned not to get any in the
> bottle or I'd never get a beer head). I then ran the bottles
> through the dishwasher twice (I usually the dishwasher to
> sanitize the bottles, but I don't like to ignore advice
> from those of you with more experience...).

As you suggest -- overkill. Rinsing the bottles thoroughly under the tap (or with a jet bottle washer, better yet) for a few minutes is plenty -- the homebrew shop was Wrong. TSP washes out thoroughly and easily (especially if you hold your concentrations now a bit from the 1# level) and shouldn't have any effect on your beer's head. Forget the bath, forget the dishwasher, rinse them thoroughly and sanitize them in the oven (350 for 90 min.).

I would like to second Bruce Ray's query about the use of aluminum in brewing kettles. The only truly "authoritative" voice I've heard on the subject is Dr. Michael Lewis, at the UC Davis' brewing program. Lewis says the only thing wrong with aluminum is that it's a crummy metal-- in other words that it dents easily and is not as strong as stainless steel (or as beautiful as copper). A year or more ago there was a raging argument here about Alzheimer's Disease, with the more reliable voice being someone (Russ?) who worked in a University hospital where the conclusion was that there was no link.

I have recently mashed a couple of batches in an aluminum kettle with good results (although I forget what they were...) -- there is definitely NO tinny flavor, which is one of the claims made against aluminum.

How about some real data?

- --Jeff

Date: Mon, 15 Mar 93 12:02 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Manifold, Draino

>From: Jeff Benjamin <benji@hpfcbg.fc.hp.com>
>Subject: Re: slotted copperpipe manifold

>At the risk of sounding snobbish :-), if you're going to outfit your cooler this way, you'll already have most of the equipment you'll need to go all-grain. A large kettle for boiling is the only other thing you'll need, and

At the risk of sounding commercial, if one has a large kettle and an easymasher (note lower case, indicating that one purchases the stuff to build it at the hardware store for about \$10) installed in it, one does not need the cooler or the manifold.

>From: woessner@psych.purdue.edu (Leo Woessner)
>Subject: lautering

>I finally tried my first all grain batch.

HURRAY! Another snob is born.

> 1) What does a good crush look like?

Less than 10% flour... Defined as that which passes through a 100 mesh screen and lots of husks intact or minimally broken. The major source of problems is with grinders that pulverize the husks.

>2) How to achieve a good crush using a Corona?

To be technical, one does not crush with a Corona, one grinds. Having said that, they can be adjusted to minimize the amount of husk ground up but the price one pays is a course grind on the malt. For repeatable results, use a set of gages or shims about .050" in thickness, inserted between the plates on opposite sides. Adjust the wingnut tension so that they can just be slipped out. Ignore all other advice suggesting that washers or shims be placed between the main frame and the adjustment frame, they do nothing but move the point at which the "proper" setting is achieved.

> 3) How clear is clear when lautering?

Just about as clear as the beer you are hoping to drink.

> 4) How long to recirculate using a Zapata tun.

Until it runs clear. When you get around to building an easymasher, it will

take about one cup, sometimes two.

>From: korz@iepubj.att.com

>I've heard that Draino has other stuff in it besides Sodium Hydroxide or Potassium Hydroxide. I've heard that Red Devil brand Lye is all NaOH or KOH (I don't recall which). Check the label and use the pure stuff.

Good advice. I was only making a point of reference. I use only lye. BTW, I got so excited about the stuff that I tried a number of things over the weekend.

I was cleaning a keg that had some sediment that did not want to squirt off so I poured a little lye in it and it washed right off after less than a minute of contact.

While cleaning up the mash tun to prepare it for fermenting I decided to attack some long ignored scorches with the lye and it worked like magic.

I filled my cruddy looking coffee pot with a strong solution and after about an hour and a rinse, it literally sparkles.

>A minor infection in a keged beer would not be apparent, whereas the same level of infection in a bottled beer would cause gushing. It also depends on how long you keep the beer.

I have developed the habit of bottling a sixer of each batch I make just to check on shelf life. Although there has been no infection thus far, we have noted a significant drop in the flavor quality of the beer. We opened a four month old bottle last week and both agreed it "tastes like extract beer".

That is not snobbery, just part of our lingo here, reminiscent of the bad old days. Most of them also seem to lack much ability to retain a head and seemed lacking in carbonation. This is all beer bottled since I started c/p bottling. Beer drunk within a few weeks of bottling is as good as draft but it seems to lose a lot over time.

The good news is I have to discipline myself to save it that long and the bad news is if you want it to keep forever, you will have to make BUD.

js

Date: Mon, 15 Mar 1993 15:07 EST
 From: Carlo Fusco <G1400023@NICKEL.LAURENTIAN.CA>
 Subject: My Lauter Tun

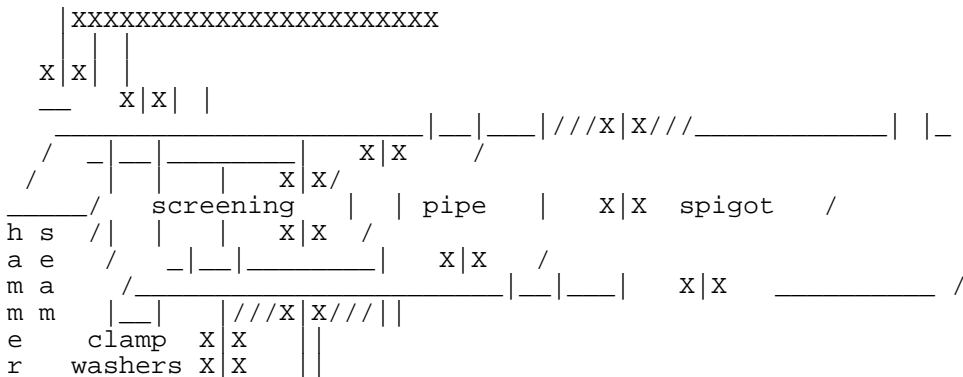
Hello Fellow Brewers,

I would like to share an invention of mine with you. I was having trouble with a the double bucket later tun so I made a new one. I took a 7 gallon pail and used a knife to cut a 1/2 inch hole near the bottom. I then went to the hardware store and bought a brass spigot for an outdoor faucet, some steel 3/4 inch threaded washers [the kind used by electricians to attach things to the outlet box], 2 inches of copper pipe, a clamp, and a 6X6 inch sheet of galvanized door screening.

I put the thing together by first putting a washer onto the spigot. Then I screwed the spigot into the bucket, after heating the hole with hot water. I then screwed the second washer into place and tightened the whole thing so that the spigot did not twist. I then rolled the screening to give me a diameter of 1/2 inch and I used a clamp to attach it to the 2 inch piece of pipe. Using a hammer, I folded over the edges and banged them flat to produce a seam...but keep the 1/2 inch diameter inside the rolled up screening. The 1/2 inch pipe fits perfectly into the back of the spigot and can be easily removed for cleaning.

I also attached a 3 inch piece of garden hose to the outflow side of the spigot and fitted into it a 4 foot section of 1/4 inch clear tubing. This tubing goes right into the boiling pot to reduce HSA.

Now I have a later tun that is easier to control the outflow and really easy to use. I am now considering using this as a mash/lauter tun, much like the cooler method. But first I have to learn to do that type of mashing. Right now I still only use this as a lauter tun and a hopback to remove hop leaves from the cool boiled wort.




```
e |   ><
d _____|   ><
   bucket wall>_____<
```

I hope this ascii drawing shows what I was trying to explain.

I remember a post some time ago showing the pro's and con's of the different lautering methods. For this single point drain, it stated that the grain near the edges did not get sparged. I have found this not to be true. I tasted the grain from the edges and it was not any sweeter than the grain found at the top of the grain bed, but this may only be true for me and I know some others will disagree with me. But, I am very happy with this setup and I also managed to get 32 pts/lb/gal using this method, compared to 26 pts/lb/gal using the double bucket technique.

Carlo Fusco email: g1400023@nickel.laurentian.ca
Dept. Biology
Laurentian Univ.
Sudbury, Ontario

Date: Mon, 15 Mar 93 12:12:35 PST
From: bwalker@instruct.CapCollege.BC.CA (Bob Walker 2152)
Subject: Add to homebrew

Please add : bwalker@instruct.CapCollege.bc.ca (Bob Walker) to
the homebrew list. Thanks

Date: Mon, 15 Mar 93 12:53:33 -0800
From: atl@kpc.com
Subject: Reduction of Wort volume during boiling

After sparging, I usually end up with 6-8 gallons of sweet wort. I usually boil for 90 minutes total, 30 minutes before hop addition, 45 minutes for boiling hops and 15 minutes for flavor hops. I also do not cover the pot, as I find it impossible to keep a vigorous boil going without boilover if the pot is covered. After this, I usually end up with about 4 gallons of bitter wort, and must top up with filtered cold tap water. I do not see any dramatic hot or cold break, and end up with about 1" of precipitated goop (tm) in the bottom of the primary fermenter. Am I boiling too vigorously? Should I put the lid on the boiling pot? I would really rather not have to top up the fermenter.

Drew

End of HOMEBREW Digest #1098, 03/16/93

Date: Mon, 15 Mar 1993 16:16:35 -0600 (CST)
From: Colin R Kelly-1 <kell0170@student.tc.umn.edu>
Subject: Re: Stuck fermentation?

Hi, all,

I have a question about a batch I'm brewing at the moment. I think the fermentation is stuck, but I'd like some input from the rest of you out there.

I'm making an American Pale Ale using Wyeast #1056. I broke the inner seal of the yeast package, last Tuesday night, intending to brew on Thursday. By mid-Wednesday, the package was ready for use. Thursday afternoon, after the boil, the wort took quite a while to cool. Since I don't have a chiller at this time, I put the bucket outside, surrounded by snow (Minnesota). It still didn't cool very fast, and I was running low on time, so I pitched the yeast at about 83 degrees and placed the vessel in our basement which is about 64 degrees. 24 hours later there was no sign of fermentation, so I brought it upstairs, hoping that a change of temp would get it kick started. After a few hours in a 75 degree room, it started bubbling. It reached a peak of about 2 bubbles per second Saturday afternoon, then fell off to almost nothing. The other batches I've brewed, had a much longer and healthier fermentation than that. Any suggestions or comments would be appreciated. Please send replies to my email address. Thanks.

I think I'm going to go get some more yeast, and see if that works.

Later,
Colin

```
*****  
***  
Colin Kelly * Cottleston,Cottleston,Cottleston Pie  
kell0170@student.tc.umn.edu * A fly can't bird, but a bird can fly  
_o * Ask me a riddle and I reply,  
_`/<,_ * "Cottleston,Cottleston,Cottleston Pie."  
(*)(* * -- Master Pooh  
*****  
***
```

Date: Mon, 15 Mar 1993 18:15 EST
From: "O! Gerek, I'm Mike Rego" <MREG01@vax.clarku.edu>
Subject: Cara-pils haze

I've been reading the digest for a few weeks now, and it seems to be very helpful in answering novice questions. So, here is my first posting:

My first attempt at a lager was a modified version of Papazian's Crabalocker German Pils, and I brewed it on 2/21/93. The ingredients were 3 kg (6.6 lb) Ireks Munich light unhopped extract, .5 lb Cara-pils malt, 1.5 oz Hallertauer (boiling), .5 oz Saaz (boiling), .5 oz Hallertauer (flavor), .5 oz Saaz (flavor), 1 oz Hallertauer (aroma), and 14 gm European lager yeast (G.W. Kent).

The Cara-pils was put in a muslin bag in 1.5 gal water and removed when water began to boil. Then the extract and boiling hops were added. The flavor hops were added at 30 min, and the aroma hops were added for the last 2 min of a 60 min boil.

It fermented for 5 days at room temp in plastic primary (it just wouldn't start in the cold 50 degree closet). I guess this makes it a steam beer, right? Anyway, then I moved it back to the cold closet until 3/10/93 (10 days in primary). It was then racked to the glass secondary. At that point it was very cloudy, and disappointingly an amber color. It has been five days now, and the haze has mostly settled.

My questions are: Did the Cara-pils cause the haze? (I used it to give it a little more body, but have since learned that it is not like other specialty grains.) I've heard of using gelatin for trapping the haze, is this a good idea, and if so how to do it. And lastly, if I do use gelatin should I be concerned that it would trap all the yeast too? (I do need some yeast in my bottles for carbonation.)

Thanks for the help.

Mike Rego

Date: Mon, 15 Mar 93 17:27:36 -0600
From: sagard@digi.lonestar.org (Steve Agard)
Subject: Help: Teflon a problem?

I've followed previous threads about stainless vs aluminum pots, and read papazian's and miller's recommendations. I've used a 5 gal SS brewpot (\$24.95) up til now.

The problem with this size pot is that I can only brew 4-1/4 gal wort. I'd prefer to brew a full batch (for reasons I've read), and when I start doing all-grain batches, I'll need a larger pot.

I've found a 6 gal aluminum pot with "Silver Metallic" interior coating. I suppose this is Teflon with a name intended to suggest of Silver Stone. The pot has insulated handles. The lid is see-through, and has 1 small (sneaker shoe-lace eylet) vent in it. It was only \$60.

My question is this: If anyone has tried brewing in a Teflon or Silver Stone coated brewpot, what were your results? If you haven't tried this, your opinion is still welcome.

Thanks in advance,
steve

Date: Tue, 16 Mar 93 07:39:16 EST
From: thutt <thutt@MAIL.CASI.NASA.GOV>
Subject: Malt Mill

How does one go about getting a Malt Mill? Seems no one around here has them. Is that because it is mail order only?

Could someone please provide the necessary information so that I will be able to get a Malt Mill? (address, phone, cost, etc., etc.)

Thanks.

Taylor Hutt
Championing worldwide usage of Oberon-2!

Date: Tue, 16 Mar 93 12:44:10 +0100
From: dejonge@tekserv.geof.ruu.nl (Marc de Jonge)
Subject: BrewPubs in Europe

In HBD1089 Nir Navot writes:

>My brewing partner is going for a three-week tour to Europe. Does anyone here

>know of any interesting brewpubs or homebrewer's attractions along the
>following route: Amsterdam - Koln - Prague - Budapesht - Viena - Munich.
???

>In the event he would like to buy brewing supplies to bring home with him, do

>you know of a place where he could get them, in one of the towns he'll be

>visiting?

Amsterdam: Brouwerij 't IJ: (Haven't got the adress but the Tourist Office

might know)

microbrewery, I think they still give tours

Rob van Gelder : (Utrechtsestraat 3##?)

reasonable quality brewing supplies

British,Dutch,Belgian malts

German,British and Bohemian hops (mostly leaf)

(and an interesting collection of pot-stills,

chillers, and fractioning columns.....)

Countless bars and cafes that have over five special beers on tap,
mainly belgian mega-swill like Hoegaarden,de Koninck,Leffe etc.:)

There used to be a place called 'Gollem' which had over 200 beers, I haven't been there in years.

Brewpubs are not very common: It's hard to beat the imported prices.

Marc de Jonge dejonge@geof.ruu.nl

Date: Tue, 16 Mar 1993 9:28:15 -0400 (AST)
From: AGRANT@mta.ca (ANDREW GRANT)
Subject: Favorite Brew

I'd like to ask anyone of you out there, if you have a fovorite brew ! I would hope you do, but does anyone have one that is very easy to mix together. This isn't the first time i've brewed, but i've only used the cans of malt and corn sugar, so i'm looking for something a little different.

Thanks,
- --Andrew

Date: 16 Mar 1993 08:35:45 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: Fraternity House Ale

Dan Hall sez:

>I think the heavy hops is exactly the problem. I considered brewing
>this beer
>last fall, but, beforehand, I went through the math to determine the
>bittering
>levels, using Jackie Rager's wonderful equation from the Zymurgy special
>issue
>on hops. I recall ending up with something like 110 I.B.U. for Ron
>Page's
>Fraternity House Ale. That's not beer - that's beer-flavored
>bitterness!

Ah, I didn't know that the recipe is Ron Page's, but that certainly
explains
it. Ron is a great brewer from New England, but he has also admitted
that he
likes to keep his recipes secret and rarely puts down the exact recipe
formulation on an entry form. This recipe is clearly one of those cases
where
he fudged the numbers on the hop bill.

It also points out the need to analyze a recipe and see whether it is
reasonable before you brew it. The AHA definitely should have done that
to all
of the recipes in the 'Winner's Circle' before they published it.
Beginning
brewers don't need nasty surprises like Ron's FH Ale.

Steve

Date: 16 Mar 1993 08:57:47 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: Succanat (tm)

Well, since Dan Hall let the cat out of the bag:

I've been using Succanat (tm) for the last few years. It's a great (even better) substitute for demerara or turbinado sugar in brewing. It is organic, unpurified, evaporated cane juice with no additives. It looks like a brown, powdery/crystalline solid, similar to dark dry malt extract though less homogeneous in appearance. According to the info on boxes of the stuff, it has a nutritional make-up very close to malt extract with similar calorie, fat, and protein counts. It is also chock full of trace minerals and vitamins, unlike any processed sugar. Expensive perhaps??? Nahhh, at the Bread and Circus (in Central Sq., Cambridge, MA) it is in the bulk bins for \$1.49/lb. I've also seen it on shelves of local health food stores.

I've successfully used it many times in British-style ales - bitters, pale ales, scotch ales - and the yeasties love it. As Dan surmised, it does seem to have a toffee-ish, caramel flavor. I'm not sure that I'd use it in a tripel (I'd go for straight corn sugar to keep the color down) but a dubbel might do well from its addition.

Give it a go.

Steve Stroud

Date: Tue, 16 Mar 1993 8:17:20 -0600 (CST)
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)
Subject: a beer drinking UK visitor gives thanks

Hi all

Just a short note to thank all those who sent me information on
pubs and places to see whilest in England and Wales. With any
luck, I'll have some stories to tell when I get back. See ya in a
coupla weeks.

scott

Date: Tue, 16 Mar 1993 9:43:54 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: too much time

<Jack's description of drying/weighing spent grains etc.>

> I am not sure just what this proves other than the fact that the [????
] ;-)
> process works as well as any other far more complicated methods of
mashing
> and sparging.

What it proves is that you've got too much spare time! I can't even find
the
time to keg a finished batch....

Russ G.

Date: Tue, 16 Mar 1993 08:41:04 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Caustic Remarks

arf@genesis.mcs.com (Jack Schmidling)

>
> > 4) How long to recirculate using a Zapata tun.
>
> Until it runs clear. When you get around to building an easymasher,
it will
> take about one cup, sometimes two.
>

Well, without getting into an argument here, my experience with a
camp-cooler mash tun, using British malts, is that I get a clear runoff
in about the same volume. There is occasionally a little flour in the
first pint or so but from then on it's clear sailing.

> >From: korz@iepubj.att.com
> >I've heard that Draino has other stuff in it besides Sodium Hydroxide
or
> Potassium Hydroxide. I've heard that Red Devil brand Lye is all NaOH
or
> KOH (I don't recall which). Check the label and use the pure stuff.
>
> Good advice. I was only making a point of reference. I use only lye.
BTW,
> I got so excited about the stuff that I tried a number of things over
the
> weekend.
>

Once again, without trying to start a fight, I would say that using lye
requires more than a little caution. It's not that the stuff doesn't
clean, just that it can also do a number on soft parts of the human body
- -- like eyes. If you observe careful brewers in micro- and
macro-breweries, I think you'll find them using highly caustic compounds
only in closed systems; when they're used for cleaning small parts,
etc., they are handled with a great deal of caution, using rubber gloves
(and hopefully safety glasses). Personally, I'm a little absent minded
(must be the aluminum), and I prefer to use cleaners that take a little
longer but aren't likely to melt my eyeballs.

>
> I have developed the habit of bottling a sixer of each batch I make
just to
> check on shelf life. Although there has been no infection thus far,
we have
> noted a significant drop in the flavor quality of the beer. We opened
a four
> month old bottle last week and both agreed it "tastes like extract
beer".
> That is not snobbery, just part of our lingo here, reminiscent of the
bad old
> days. Most of them also seem to lack much ability to retain a head
and
> seemed lacking in carbonation. This is all beer bottled since I
started c/p
> bottling. Beer drunk within a few weeks of bottling is as good as
draft but
> it seems to lose a lot over time.
>

> The good news is I have to dicipline myself to save it that long and
the bad

> news is if you want it to keep forever, you will have to make BUD.

>

I think the reality is that beers that are bottle-conditioned last --
well, not forever -- but far longer than cp-filled bottles that haven't
been filtered and stabilized to death. Of course, those of us in the
Great NW are known to hop our beers to a point of petrification, so
that's probably a factor. Then again, it's definitely not Bud.

- --Jeff

Date: Tue, 16 Mar 93 10:12:42 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Copper lautering manifold, Part 1

I've had enough requests for instructions for my sparge manifold that I decided I'll go ahead and post them. The article will be split into two parts so the digest daemons won't reject it due to length.

The manifold is made up of 1/2" copper tubing, along with tees, endcaps, and elbow fittings. It looks sort of like a tree branch; a main stem with arms coming off of it, alternating left and right. One end of the stem is capped, the other end leads to an elbow that angles up 90 degrees to a standpipe. Here's an ASCII pic I hope will make it clear:

```

  | end cap
  |
  | tee +-----] cap
  |
  | [-----+
  |
  | +-----]
  |
  | [-----+
  |
  |
  | elbow /
  | 90 deg up ----->=====
  | standpipe siphon hose
  | (this would be coming out of the screen)

```

The length of the stem and the length and number of arms can be adjusted to fit whatever kettle or cooler you use. The manifold should fit exactly in the the bottom of the vessel when you're done.

The arms of the manifold each have a number of slots cut in them, spaced a couple of centimeters apart, not quite halfway through the tube (I used a hacksaw to make them). You can also use a hacksaw to cut all the other pieces of tubing, but buying a \$5 tubing cutter will make life a lot easier. The tees, caps, and elbow fitting will already fit very neatly, so you don't even have to solder anything together.

When assembled, the slots will face down to the bottom of the vessel. This is to keep the grain from clogging them, and so you don't leave a half inch of wort in the bottom. The standpipe should come up the side of the vessel to just below the rim, so you can put the lid on.

You will need to come up with some way to connect your siphon hose the the 1/2 inch standpipe. We found a 1/2" to 3/8" ID reducer fitting and a short piece of 3/8" OD tubing will connect nicely to a standard vinyl siphon hose:

```

-----==
| /___ 3/8" _____|-----|siphon hose
1/2 inch copper|redu |-----|
| cer_|-----|_____
| /
-----==

```

Also, the reducer and 3/8" OD copper need to be soldered so they don't suck in air, since they're the only fittings that sit above the liquid level. [Note: soldering copper is easy; it requires a few cents worth of plumbing-safe solder and flux and a \$15 propane torch. Ask the

friendly folks at your local hardware store.]

(to be continued...)

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com

Hewlett Packard Co. Fort Collins, Colorado

"Midnight shakes the memory as a madman shakes a dead geranium."

- T.S. Eliot

Date: Tue, 16 Mar 93 10:14:25 MST
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Copper lautering manifold, Part 2

(...continued)

As you might have guessed by now, you don't need a drain hole in your vessel at all; just have the standpipe up the side of the kettle and siphon from there. You could somehow attach the manifold to a drain, but I don't think it's worth the trouble.

The manifold rests right on the bottom of the vessel, and my "spigot" is simply a hose clamp at the end of the siphon hose. Buy one of the plastic hose clamps that has variable click-stops.

Clean the manifold with hot water. Since it isn't soldered, you can just disassemble it when your done. You can clean it with a small bottle brush if you like, and if you're worried, you can soak the pieces in a metal-safe sanitizer like ChemPro. Whatever you do, *don't* try to clean it with bleach. Bleach and copper don't get along very well. And clean the manifold thoroughly with soap and hot water before using it for the first time to remove oils and such used while manufacturing the tubing.

Here's how the thing works: assemble the manifold and place it in the vessel, slots down. Add your mash water and grain on top of it. When the mash is done, attach the siphon hose to the standpipe and start the siphon going into another vessel. As the level of the mash water drops, add your sparge water so the water level stays an inch or two above the grain bed. When you run out of sparge water, or decide to stop adding water, let the siphon run until all the water has been siphoned out. You'll be amazed, this system gets almost every single drop!

This manifold system has a number of advantages:

1. No need to modify your pot/cooler, so it can still be used for other things.
2. You don't have to transfer the mash to another container
3. No transfer means your grain bed won't get compacted, so your sparge won't stick.
4. No transfer means your grain bed won't drop in temperature.
5. You're using the suction of a siphon, not just gravity, to draw off the liquid. This also lessens the chance of a stuck sparge.
6. The wort runs off clear after only a quart or so.

Of course, this isn't the only lautering system that has these advantages, but it has worked well for me.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Tue, 16 Mar 93 10:00:04 PST
From: Birkeland Joel RYYF20 <ryyf20@tempeccpb.sps.mot.com>
Subject: SNPA culture beginner questions

I have a couple of beginner questions on culturing yeast from Sierra Nevada Pale Ale.

I have tried culturing SNPA yeast using the following procedure:

- 1) Prepare an SG 1.040 highly hopped wort, strain out hops, and return to boil for another 15 minutes in covered pan.
- 2) Carefully sterilize a pyrex measuring cup by boiling for 30 minutes. Cover with Al foil which has been flamed. Cool wort by placing covered pan in ice cubes.
- 3) Open SNPA, pour out almost all beer, sterilize bottle top using alcohol and flame. Pour cool wort into SNPA bottle, add airlock, wait.
- 4) After 1 day, contents of SNPA bottle at high krausen. Step culture into Erlenmeyer using similar paranoid sterilization procedures.
- 5) After 1 more day, culture in Erlenmeyer at high krausen, looks good.

At this point everything seems OK, but when I went to pitch, I smelled the starter, and it smelled vaguely of bubblegum, which I have been told is a sign of possible contamination. Lacking an alternative, I pitched it anyway.

I would appreciate any comments on the above procedure, especially if accompanied by alternatives which are known to work. I have used liquid cultures before, with success, by the way.

Also, provided I can get the procedure to work, I would like to know if anyone uses cultures from SN Porter or Stout. I haven't seen this mentioned anywhere.

Thanks a lot for all your help.

Joel Birkeland
birkelan@adtaz.sps.mot.com

Date: Tue, 16 Mar 1993 09:33:05 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re: pumps

> I am using the pump from the kitchen sink of my motor home so it is 12
VDC
> and makes it pretty easy. However, I assume a standard light dimmer
would
> work on most small AC pumps and would be even more flexible.

A light dimmer is not the right thing, they modulate the duty cycle
rather
than control the voltage. There are motor speed controls that are made
for
bathroom fans and such that are much like the dimmers, but should work
better.

Date: Tue, 16 Mar 1993 11:45:30 -0600 (CST)
From: SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh)
Subject: Lye, Vierka yeast

greetings.

About lye: I discovered last weekend that lye is the principal ingredient in the rubber-gloves species of oven cleaners, so Jack's experience with shining up everything in sight doesn't surprise me. Personally I am of the opinion that violent chemicals have no place in food prep, so I don't use 'em, but to each their own....

About Vierka yeast: Has anyone used this stuff before? I used one of their wine varieties for a mead last weekend, and it still ain't bubblin'. The weird part was, instead of the little yellow globs I'm used to in dry yeast packets, there were what looked like dried herbs in the package. I assumed they were the equivalent of Budweiser's beechwood chips, i.e. flocculation assisters coated with yeast, but then they could have been dried leaves sold as yeast, too.... Is this normal, and does it require special treatment?

thanx

| James W. Smith, NASA MSFC EP-53 | SMITH@epvax.msfc.nasa.gov |
| "Unstable condition: a symptom of life" --Neil Peart of RUSH |
| Neither NASA nor (!James) is responsible for what I say. Mea culpa. |

Date: Tue, 16 Mar 93 11:45 CST
From: korz@iepubj.att.com
Subject: Re: Where did my Saaz nose go?

Tim writes:

>When I bottled this batch of Alt Bier last week, it had a wonderful
>Saaz nose to it, from dryhopping in the secondary. Now, a week later,
>it's carbonated, ready to drink, and has no Saaz aroma at all...

A year or so ago, I heard of the results of a test that was done by several brewers from Chicago Beer Society, in which they bottled part of a batch with Zapata Smartcaps (now called PureSeal) and part with regular caps. A blind tasting by experienced BJCP judges resulted in the following determination: the hop nose of the PureSeal bottles was much fresher and prominent. For those unfamiliar with PureSeal (aka Smartcaps), they are made with an oxygen-scavenging plastic which also is an oxygen barrier for up to (I believe) 6 months. It appears as if the first thing that oxygen reacts with and ruins is the hop nose. Tim: Could the loss of the Saaz nose be due to air in the headspace?

Al.

Date: Tue, 16 Mar 1993 12:51:29 GMT
From: POIRIER@IREQ-CCFM.HYDRO.QC.CA
Subject: Re: Where did my Saaz nose go?
Subject: Plastic boiler info

Hi all,

Well I was inundated with requests for more information on my plastic boiler setup, so I'll just post the basics here:

I took an old plastic primary, 6.5 Imperial gallons, originally from my local homebrew supply shop, now well past retirement age. I drilled a hole for the spigot (a used plastic drum tap) about 1 inch from the bottom, and for the two heating elements, I drilled holes 90 degrees CW and CCW from the spigot, about 2 and 3 inches up.

The elements are "1 kW, 115 VAC. Chrome plated copper heating element. Features automatic shutoff when not immersed in water. Complete with mounting nut and gaskets. Designed for through wall installation in a 1-9/16" dia. hole (3/16" thick approx.). Electrical connection via recessed 3-wire socket; supplied with mating 3-wire stub cord, 12" long; opposite end stripped. Size 4-3/4" long x 3-1/2" wide. New. Wt, 1 lb. Order No. TM89HVC5702...\$4.50 US." H & R Company, 18 Canal Street, P.O. Box 122, Bristol, PA 19007-0122. Sales 1-800-848-8001 Fax 215-788-9577 Business Office 215-788-5583.

Things to keep in mind:

- The gaskets suck. I made my own with the stuff you buy in sheets at the hardware store. And the gasket that came with my drum tap turned to mush.
- You'll have to put your own plug on. The nice thing about the electrical connector through thw bucket wall is that you just unplug the element when you're manipulating the bucket, so there are no cords in your way.
- It takes the 2 elements to get a good boil going, but only one to keep things humming nicely. I plug one in the outlet on my stove, and one in a countertop outlet.
- So far no leaks or problems. My local homebrew shop is now trying them, with good success, and in fact plans to sell them to customers (gee, maybe I could ask for a commission....Maybe some 2-row....). It's true that the plastic is not rated for these temperatures, but I've been told that neither is the electrim bin.
- No scorching so far. The elements get coated in hot break material that needs to be cleaned off, but that's it.

I only picked plastic because it was easy. I'll stick with it as long as it works. When I get around to it, though, I have a 12 gallon SS Labatt's keg that I got at a scrapyard for 25 bucks (about 1.50 US...), which I'll

fit with the elements.

If anyone has any questions or suggestions, please let me know.

Deb

Date: Tue, 16 Mar 93 10:47:25 MST
From: "Steve Kurka" <kurka@bmcw.com>
Subject: San Francisco brew pubs

Does anyone have suggestions regarding brewpubs in San Francisco?
I'll be there this coming weekend (3/20/93). Please email to (kurka@bmcw.com)

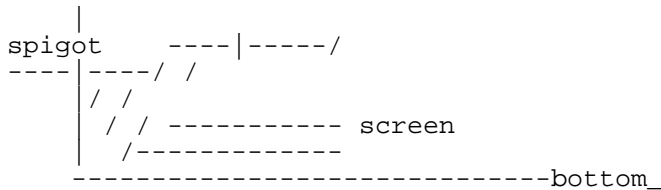
Thanks Steve

Date: Tue, 16 Mar 93 12:33 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Lauter Tun

>From: Carlo Fusco <G1400023@NICKEL.LAURENTIAN.CA>
>Subject: My Lauter Tun

Congratulations of proving that you have a world class mind, capable of re-inventing the easymasher.

Just a few suggestions that you may find useful. If you use soft copper tubing instead of pipe, you can put a double bend in in so that the screen sits right on the bottom.



Upon reading it again, that is the only suggestion I can offer. You will get mountains of mail wailing about your use of window screen but I used it for months and it works just fine.

Aside from the simplicity, the advantages of this system are as follows:

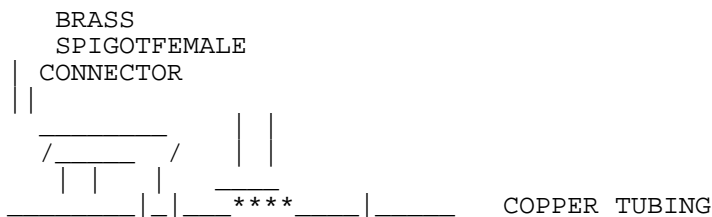
The wort will run clear almost immediately and re-circulating gallons of turbid runoff becomes other people's problems. This leads to the other advantage...

You can thoroughly stir the mash several times during the sparge without disturbing the "filter bed" because it re-establishes itself so easily.

You thereby know for certain that you are getting maximum rinsing of the grain by the sparge water. Contrary to popular opinion, the potential for extract efficiency with this system is greater than in any other, as of result of this feature.

>I hope this ascii drawing shows what I was trying to explain.

Thanks for the stimulus. I have been too lazy to make one but as they say, a picture is worth a thousand words. So here is what I came up with...



```
 /  _____X_____  _____  //
   / /  ****  _____  / /  /SS SCREEN
  /_/  |  / /  |
 | / /  /-----#####
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 -----BOTTOM-----
```

>From: atl@kpc.com
>Subject: Reduction of Wort volume during boiling

> After sparging, I usually end up with 6-8 gallons of sweet wort. I usually boil for 90 minutes total... end up with about 4 gallons of bitter wort...

First of all, there is a big difference between 6 and 8. If it is 6, ending up with 4 after 90 min is just about right. Frankly, I do not think there is such a thing as too vigorous a boil. If you lose too much wort, just start with more. I would figure on about a gallon per hour of boil.

Under no circumstances, do you want to cover the kettle. Part of the reason for boiling is to concentrate the wort.

js

Date: 16 Mar 93 13:49:13 EST
From: CHUCKM@PBN73.Prime.COM
Subject: weisse bier and decoction

Hello all,

Thanks to those who responded to my questions regarding Weisse Bier. Anyway, This weekend I brewed a 1/2 batch (2.5 gal) using a single decoction process (my first time). My recipe for this was

3 lb german wheat
1.5 american 6 row
1/2 oz hallertau pellets
yeast bavarian weisse (3056 I believe)

I saved about 1.25 quarts of wort for kreusen.

I mashed in with 1 quart/pound of water. My first question is: when I pull my decoction for separate heating and boiling it is not very liquid, and indeed, during boiling it gets pastey(starts sticking to bottom). Should I have added more water during this phase so it is not so dry?

Also, re: lautering and extraction effeciency.... is there a relationship between duration of lauter and extraction rate. My lauter for this exercise was fairly quick (10 min) and I ended with a 1.038 wort.

It is currently fermenting nicely and doing fine.

Chuckm

Date: Tue, 16 Mar 1993 13:10:00 EST
From: Bill Ridgely FTS 402-1521 <RIDGELY@A1.CBER.FDA.GOV>
Subject: Baseball/Beer Request

I'll keep this short so as not to take up too much bandwidth on a not-specifically-homebrew-related subject.

The editors of BarleyCorn, the Mid-Atlantic Region Brewspaper, are writing a special report on the beer scene at minor league ballparks, and they have asked me to kindly poll the readership on the subject.

If anyone out there has stories or anecdotes about beer-enlightened minor league club owners or stadium operators, ballplayers with an affinity for good beer (or homebrew), whatever - please submit by private e-mail. Even names of individuals who might provide further info would be helpful.

This report will be nationwide in scope, so please don't limit responses to the east coast.

Thanks in advance for your help.

Bill Ridgely

E-mail: ridgely@cber.cber.fda.gov

Date: Tue, 16 Mar 93 07:53:13 MST
From: stevel@chs.com (7226 Lacroix)
Subject: Sugar and Out of work Cold Warriors....

Following the thread on sugars recently, I have been a little surprised to see no mention of Yellow D sugar...Purchased in my local upscale (read over-

priced) market the label claims differences between it and Turbinado, etc.
I'll bring the label to work to leave more info for you folks who might be interested.

As for the gentleman using the Navy's computer to access the HBD and then post out of context quotes from YOUR commander in chief...you've obviously shown us yet another abuse of tax dollars.....thanks...and the down side of the end of the Cold War.....is worth it!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Steve Lacroix
Primitive Brewing

Date: Tue, 16 Mar 93 14:16:09 PST
From: Jack St.Clair at fmccm6 <Jack_St.Clair_at_fmccm6@ccm.hf.intel.com>
Subject: Brewers in Portland, Oregon?

Hi fellow brewers,

There is a possibility that I will be transferred to the Portland area sometime this summer. Can anyone out there tell me about the Homebrew situation in the area? Brewpubs? Supply shops? Homebrew Clubs? I will probably be living in the Hillsboro area and would really like to meet some new brewers.

To help keep the bandwidth narrow, please respond via private mail. Especially, if you are a homebrewer at Intel. Any information will be greatly appreciated.

Thanks,
Jack
Folsom, California
jack_st.clair_at_fmccm5@ccm.hf.intel.com

Date: Tue, 16 Mar 93 17:30:14 EST
From: woessner@psych.purdue.edu (Leo Woessner)
Subject: yeast culturing

I am trying culture the yeast from several bottles of SNPA. I boiled up three cups of water with six tablespoons of DME and cooled the mixture. I then poored the wort into a steril half-gallon jug. I then poored all but the last inch of the SNPA out of five bottles. I shook the remaning inch of SNPA in order to get the yeast in solution and poored the dregs into the half-gallon jug. Nothing happened for 2 1/2 days, the brew never fermented very fast. At the peek it fermented at maybe 1 bouble per 30s. Is this slow fermentation normal?? By THE Way (BTW) I did vigorously shake the wort to ariate the wort before adding adding the SNPA yeast. How do you culture yeast from a bottle? Should I assume it is OK?? How can I tell if it is infected?? Is the yeast OK?
Thanks in advance
Leo Woessner

Date: Wed, 17 Mar 93 0:04:10 CST
From: Jacob Galley <gal2@midway.uchicago.edu>
Subject: Moderate drinking & minimal cold catching

While we're on the topic of alcohol and health again, I saw an interesting but superficial tidbit on CNN Streamline News a couple nights ago. According to CNN, "a group of British researchers" has released a study showing that moderate drinkers have "a much lower chance" of catching a cold than folks who drink rarely or never.

This is all the info that was given. I'd like some more details, but haven't seen anything in the NY Times or the Wall St. Journal since then. Does anyone know more?

Cheers,
Jake.

"What's so interdisciplinary about studying lower levels of thought process?"
<-- Jacob Galley / gal2@midway.uchicago.edu (more obnoxious quotes in my .plan)

End of HOMEBREW Digest #1099, 03/17/93

Date: Wed, 17 Mar 1993 00:48 EST
From: Carlo Fusco <G1400023@NICKEL.LAURENTIAN.CA>
Subject: Dry Rye Stout and my lauter tun

Hello fellow brewers,

Yesterday I posted a message about a new lauter tun I made. I forgot to mention that a dear friend or mine, Glenn, had a lot to do with the original design. Also, I would like to acknowledge Jack for his Easymasher which was unintentionally reinvented.

Well, since recipes in the HBD are becoming few and far between, I thought I would share a great stout with you all. It happens to be the first product of my new lauter tun.

Dry Rye Stout

Author: Carlo Fusco <g1400023@nickel.laurentian.ca>
Digest: ?????

Ingredients:

8 lbs 2 row malt
1.1 lbs flaked rye
1/2 lb cara-pils malt
3/4 lb roast barley
1/4 lb black patent malt
1/4 lb chocolate malt
1/4 lb crystal malt [80L]

3 oz Fuggles leaf hops [4.2%- for 60 min. ->12.6 HBU]
1 oz Goldings leaf hops [5.2%- for 10 min.->0 HBU]
pinch Irish moss

WYeast London Ale[1028]--starter made from new packet

Procedure:

Grind all grains and place them into the mash.
Mash in at 71C (160F). Temperature should drop to 66C (152F).
Mash for 2.5 hrs at 66C (152F). Mash out for 5 min at 76C (169F).
Sparge 6gal @71-76C (160F-169F). Boil for 1 hour. 3 oz of Fuggles for 60 minutes. 1 oz of Goldings and Irish moss for last 10 minutes
Cool, remove trub, and pitch.

Ferment at room temperature 20C (68F) until fermentation ceases. About 10 days. A single stage fermentation was used. Then bottle or keg as desired (I kegged it).

Comments:

This has got to be the best stout I have ever made. Since I have made the move to all-grain, this will be the only stout recipe for me. The flavour is dry and what you would expect from a stout. The rye and the cara-pils has made it very thick, just like Guinness. If I have to adjust

anything, I would add more hops...say about another 1/2 oz of Fuggles for the 1 hour boil. This stout is thick, very dark, overly smooth and won't stay in my glass for very long.

Method All Grain
Original Gravity: 1.060
Final Gravity: 1.020
Single Stage Ferment: 10-14 days

Carlo Fusco.....g1400023@nickel.laurentian.ca

Date: Mon, 15 Mar 93 07:28:07 MST
From: pyle@intellistor.com (Norm Pyle)
Subject: PU yeast

Jack writes:

>I had a recent batch do that with pure cultured, Pilsener Urquel yeast.
It
>bubbled furiously for weeks at 60F but turned out to be a pretty good
beer.

Where did you get PU yeast, Jack? All of the PU I've bought (and I've
bought
a _lot_) has been filtered (no sediment).

Cheers,
Norm

Date: Wed, 17 Mar 93 07:46:23 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Vierka Yeast, Saaz Nose

SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh) writes:
Subject: Lye, Vierka yeast

> About Vierka yeast: Has anyone used this stuff before?
I used Vierka's Dark Munich yeast for the batch of Dunkle
thats sitting in the secondary right now. (First attempt
at an all grain batch. It was pretty easy).

I haven't had any problem with it so far.

> The weird part was, instead of the little yellow globs I'm
> used to in dry yeast packets, there were what looked like dried herbs
> in the package.

The Dark Munich is white in the packet.
Its a dark tan/brown in the secondary.
Pretty good flocculator too. As primary ended, the yeast nicely sank
to the bottom and stayed there.

> I assumed they were the equivalent of Budweiser's
> beechwood chips, i.e. flocculation assisters coated with yeast, but
> then they could have been dried leaves sold as yeast, too.... Is this
> normal, and does it require special treatment?

Don't know about your yeast, but all I did was rehydrate in 1 cup
of 110F water. And they happily were fermentin' away in under 24 hours.

korz@iepubj.att.com writes:
Subject: Re: Where did my Saaz nose go?

> For those unfamiliar with PureSeal (aka Smartcaps), they are
> made with an oxygen-scavenging plastic which also is an oxygen barrier
> for up to (I believe) 6 months. It appears as if the first thing that
> oxygen reacts with and ruins is the hop nose. Tim: Could the loss of
the
> Saaz nose be due to air in the headspace?

Oxygen was suggested as the culprit in some email I received too.
The wort underwent minimal aeration during racking. (Siphoned from
secondary into bottling bucket, then into bottles with a
bottle filler). Air in the headspace could be the problem.
I'll have to see if any of the nose recovers or if its gone for good.

Tim

Date: Wed, 17 Mar 1993 08:36:27 EST
From: Ming-chung Lin <MARS@suvvm.acs.syr.EDU>
Subject: bleach and precipates on glass

I usually use bleach as a sanitizer, but have had some slight misfortunes, besides smelly hands and spotty clothes.....

Some comments on soaking things overlong in bleach, one is that is corrosive to metals, or perhaps the term is that is a metal oxidizer. In any event it will eat away at metal. The other regards bleach solution in glass containers. I sometimes leave a bleachy solution in the glass carboy to soak, then forget about until I need it again. The problem is that something precipitates out of the solution onto the glass and won't rinse off. I tried scrubbing the precipitate off with a carboy brush and was surprised when the brush popped out the side of the carboy. What usually works is to empty and rinse the carboy and soak it in a strong vinegar solution, I suppose someother acid solution would also work. That gets rinsed out well, then I again sterilize the carboy w/ bleach. I also got a nasty precipitate on some grolsch bottles I left to soak in strong bleach sol'n. They are still waiting for a cleaning. I plan to try TSP. Does anybody have experience w/ this problem? I live in Syracuse, NY. We don't have especially hard tap water (at least judging by how soap suds up in the shower), but we do live over massive limestone deposits.

Right now we're living under 3 ft of new snow!!!!

P. S. I have to agree w/ Jeff Frane about working with strongly alkaline solutions. They have the potential to be more caustic than acid solutions, partly because they do NOT rinse off very easily, as all of us working w/ bleach should know. I have a small scar from ONE DROP of NaOH sol'n that jumped out of the beaker while the sol'n was being mixed. SO BE WARY!!!!

Lisa St. Hilaire <MARS@SUVVM.ACS.SYR.EDU>.....YES, I'm using Ming-Chung's account.....

Date: Wed, 17 Mar 93 09:13:39 EST
From: johnw@NADC.NADC.NAVY.MIL (J. Williamson)
Subject: yeast starter (help!!!)

>From johnw Tue Mar 16 13:12:16 1993
Received: by NADC.NADC.NAVY.MIL (5.59/1.0)
id AA03557; Tue, 16 Mar 93 13:12:06 EST

Date: Tue, 16 Mar 93 13:12:06 EST
From: johnw (J. Williamson)
Subject: yeast starter (help!!!)
To: hpfcmi.fc.hp.com@homebrew
Subject: yeast starter (help!!!)
Cc: elser, johnw
Status: RO

I was hoping to brew a lager this past weekend when I ran into trouble getting a yeast starter going. I was hoping that someone out there in HB land could shed some light on the situation and perhaps save me starting over. Here are the particulars:

Thursday evening I broke the inner package on a pack of Wyeast pilsen lager yeast (sorry, forgot the number). The package of yeast was dated 8 February. By Friday morning the pack had expanded to about 3/4 to 1 inch in thickness. I pitched this into 3/4 quart of wort I had prepared the evening before. The wort starter was made by mixing 3 Tbs of an amber DME with 3/4 quart water in a 1 1/2 quart clean juice jar. I capped the jar and shook vigorously to mix well. I then uncapped the jar, covered with tin foil, and put into a 16 quart kettle with about 4 inches of water. I brought the water in the kettle, with the jar of wort, to a boil and simmered for about 1/2 hour to sterilize. The kettle was covered during the boil and simmer. I then let the wort cool to room temperature (65F) overnight. The next morning was when I pitched the yeast from the pack. That was last Friday. To date nothing, nadda, zilch, has happened. I've kept the supposed starter capped with aluminum foil and in a paper bag to avoid exposure to light. The wort has remained around 65F. Nothing!!!. I did shake vigorously after adding the yeast. Several times since I've sloshed the wort around thinking that maybe it needed more aeration, nothing. The only thing that has changed is that when I slosh the wort around it does foam (some gas coming out of solution?)

Does anyone have any ideas. I don't want to brew 5 gallons of wort only to pitch a dead starter but then again I have no way of telling if this starter is dead or not.

I called the supply house where i got the yeast and they mentioned that the low pressure storm system which just came through Phila may have caused the starter to mis-start. This seems suspicious to me, however, because I've never heard of problems at higher elevations where atmospheric pressure is also less than at sea lever.

[CAny help you'all can give would be immensely appriciated [D [D [D [D [D [D [D [D [Dreiciated. I don't have a cooling system for brewing lagers and this may be the last chance of the season I have. If I have to get another pack of yeast then so be it but I'd like to have the advise of some of you experts before doing so.

cheers,
JW

Date: Wed, 17 Mar 93 9:09:59 EST
From: rri!jreid@vtserf.cc.vt.edu (Joe Reid)
Subject: Falling Krausen

I have a question about when the krausen begins to fall after 2-3 days of very active fermentation. As the krausen falls I am left with (real technical term here) "brown sludge" stuck to the sides of my primary (plastic bucket).

The fermentation slows rapidly after this, and if I scrape the sludge into the beer it begins fermentating again.

The question is, should I be scraping this sludge back into the beer? Am I doing something wrong to be getting the sludge in the first place? This has happened to all of my batches (batch #5 should be falling today or tomorrow) and all of my batches are extract/DME (kits with DME not corn sugar (though this did happen on my first batch with was cornsugar)). My method is bring 1.5 gals of water to a boil, add about 4 lbs of liquid extract and about 5 cups of DME (about 2 lbs) and boil for 10-15 minutes. Cool in a sink of cold water (bath style) and transfer into primary, top to 5 gals, stir vigorously, and pitch (my tap water is about 45F, so 3-2 gals of 100F wort and 2-3 gals of 45F water cool nicely once in the primary.

Any hints would be appreciated.

Also looking for "Killian's" style recipes (Irish red ale/lager, ales preferred, extract or partial mash preferred though an all-grain might lure me into starting do to all-grains (I have a wort chiller on the way, should be here today))

- - -

Joe Reid - UNIX Systems Administrator
jreid!rri@vtserf.cc.vt.edu
jreid@vtssi.vt.edu
vpcjoe@vtcs1.bitnet

if you can't tell, I'm a programmer, all my parentheses match up, no matter how many levels deep.... :)

Date: 17 Mar 1993 10:05:14 -0400 (EDT)
From: KLIGERMAN@herlvx.rtpnc.epa.gov
Subject: finland

I'll be traveling to the Espoo-Helsinki area of Finland in mid-April
I would be interested in meeting any homebrewers, or be referred to
brew pubs, breweries, or local beer in the area. Please reply by
HBD or e-mail. Thanks
Andy

Date: Wed, 17 Mar 93 10:06 EST
From: "C. Lyons / Raytheon-ADC / Andover, MA" <LYONS@adc1.adc.ray.com>
Subject: Follow up on Succanat

I've been following the thread on Succanat and have a few follow-up questions. My main question is if anyone has any thought as to the SG/lb/gal number. I have been trying to duplicate "Old Peculier" with out much success. I have re-read Dave Line's book and he suggests that the secret is with the priming sugars used. He recommends using Black Treacle for priming. I've been told that Molasses is similar to Treacle, and that using it for priming is not the same as using it for primary fermentation. Apparently, alot of the aroma+ of the molasses is scrubbed during primary fermentation, whereas it is trapped when priming at bottling. From Charlie's book (TNCJOHB) he recommends using 1 cup of molasses for priming, when substituting molasses for the standard 3/4 cup of corn sugar. Does anyone think that using Succanat for priming will help in simulating "Old Peculier". Any suggestions for the amount to use at priming would be appreciated!

Thanks in advance,
Chris

p.s. I did call the manufacturer, and was told it can also be purchased at the Rockingham Mall in Salem, NH. (but only sold in 1 & 2 lb quantities there).

Date: Wed, 17 Mar 1993 08:40:13 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Beer Questions

> MREG01@vax.clarku.edu writes:

> My questions are: Did the Cara-pils cause the haze? (I used it to
> give it a little more body, but have since learned that it is not
> like other specialty grains.) I've heard of using gelatin for
> trapping the haze, is this a good idea, and if so how to do it.
> And lastly, if I do use gelatin should I be concerned that it would
> trap all the yeast too? (I do need some yeast in my bottles for
> carbonation.)

Mike,

The Cara-pils may have contributed to your haze but it may be other factors too. Haze is nothing to worry about. It is easily removed.

Standard

haze precautions are (1) a good rolling boil to produce a hot break in which whiteish brown gunk seems to come to the surface (2) irish moss. It's

a good idea to boil this for the last 5 min or so of your boil to give the

protein something to stick to which will sink. (3) Cold break. Snow is not

very good at cooling things down. In fact it's a pretty good insulator.

Some snow melts but then a layer of air will form between the pot and the snow and it will take a long time to chill. Putting the pot in the bathtub

or sink with ice water works better. (4) The beer may clear on its own.

Wait until it's done fermenting and see if it's clear. (5) If none of those

work then gelatin can be added to the fermenter. Mix a pack of unflavored gelatin with about a cup of warm (but not boiling water). Just pour it in the fermenter. If you keep the fermenter cold after that it will precipitate even more quickly. It may take some yeast out of suspension but

I usually add the gelatin a day or two before I'm ready to bottle. There will definitely be enough yeast left for conditioning. I've had numerous haze problems (usually because I forget or skip one of the steps above) but

I've always been able to clear my beer eventually.

Good Luck.

Geoff

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--+

| Geoff Reeves: Space Science Division, Los Alamos National Laboratory |
| reeves@sstcx1.lanl.gov or essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax (505) 665-4414 |

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| A brewery is like a toothbrush. Everyone should have their own. |

+-----

--+

Date: Wed, 17 Mar 93 10:45:25 EST
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: Where to get a "Malt mill".

To Taylor Hutt - The Malt mill is available via mail from "Beer and Wine Hobby" in Woburn MA. 1-800-523-5423. The price for the non-adjustable model is \$119. I'd recommend the adjustable model (about another \$20) because 6 row barley has smaller kernels and a tighter adjustment is helpful here. I don't know if BWH carries the adjustable but I've seen it locally (20 miles north of Boston).

I'm seriously thinking of junking my Corona and getting the Malt mill. I've used it and it's great.

Tony Verhulst

Date: 17 Mar 1993 07:58:07 PST
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>
Subject: Homebrew Digest #1099 (March 17, 1993)

*** Reply to note of 03/17/93 00:46
Subject: Homebrew Digest #1099 (March 17, 1993)
I've read some posts regarding the use of lye as a cleaning agent. I use it regularly on my glass primary fermenter... but a definite word of caution.
Water alone will NOT entirely clean this stuff off the glass, and it took a batch of soap-suds beer (which went down the sink) to make that point. I now rinse with a weak citric acid solution after using lye and have had no further supprises.

| If it's good for ancient druids runnin naked thru the woods |
| drinkin strange fermented fluids then it's good enough for me. |
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

Date: 17 Mar 93 09:30:07 EDT
From: CRD@imagesys.com (Chris Dukes)
Subject: Sterilized bottles

I have been following the thread on sterilization/sanitization, but have yet to read anything regarding what to do once the bottles have been sterilized, other than fill them with homebrew. ;-)

Once the bottles are boiled, bleached, NaOH'ed, etc. . .where do you keep them before they are filled and capped? I am concerned about nasties falling into the bottles while they are waiting to be filled. Should I bottle a six or twelve pack at a time to make sure no bottles are waiting too long?

I have been cleaning the whole bunch and then filling and capping. I believe I have run across an infection in one or two bottles (not the whole batch). Therefore I have concluded that either the bottles weren't sterilized well enough, or something got into the bottle after sterilization.

Any help/advice on the subject would be greatly appreciated. All grain snobs and lowly extract brewers responses are more than welcome! ;-)

-Chris Dukes crd@imagesys.com Image Systems Technology, Inc.
Product Manager Rensselaer Technology Park
CAD Overlay Products 385 Jordan Road
Troy, NY 12180
Tel:518-283-8783 Ext. 550 Fax:518-283-8790

Date: Wed, 17 Mar 93 10:03:05 MST
From: Steve Dempsey <steved@longs.lance.colostate.edu>
Subject: Re: Vierka yeast

In HBD #1099 SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh) writes:

> About Vierka yeast: Has anyone used this stuff before? I used one
> of their wine varieties for a mead last weekend, and it still ain't
> bubblin'. The weird part was, instead of the little yellow globs I'm
> used to in dry yeast packets, there were what looked like dried herbs
> in the package.

I asked this question some time ago when I tried the Vierka mead yeast.
It seems the funny stuff is rice hulls used as the culture medium.
While this might work ok when the yeast is fresh, it seems to get in
the way of drying/processing. So you get a lot less active yeast
than other brands, which are all yeast and no rice.

In practical terms, these yeasts need a starter to work up to reasonable
pitching quantities. Or you could pitch multiple packets to get enough
for a shorter lag. Even with a starter, the one I tried took 3-4 days
to get going in 500ml. I don't think the yeast is very viable to begin
with. I did end up plating out the culture to make sure I had something
clean. It turned out to be one of my best meads ever.

```
===== Engineering Network Services
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Date: Wed, 17 Mar 93 09:05:52 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Murphy Creek Brewery, Fast mashing & stolen kegs

Well I finally got up to Murphys with Micah to see the brewery he is working on. Well there is a lot of work to be done, but Micah says he could brew beer now if he had to. They (Murphy's Creek brewery) are waiting for the wheels of BATF and all the assorted agencies to do their thing for liscensing. While I was there I was looking at some of the specs on malt, hops and yeast etc. and a quote from GW malt stated that the conversion time for their pale malt (Harrington) is 5-7 minutes! Has anyone ever tried to sparge after a 10 minute mash? Sounds like a good test for Jack S. with all that time to burn!

Micah also relayed a comment he heard from a supplier of kegs. The supplier said that the big boys are going after some people who own thier kegs. We're talking about both the 15 gal sanke and the 5 gal cornelious style. The guys comment was that even if you bought the keg legally from someone, they did not have the right to sell their property. Therefore you purchased stolen property. I would imagine the likelihood of coke or pepsi going after someone is remote, since they are going to the bag approach for their syrupes. However, I wouldn't say the same for the megabrewerys, about their 15 gal SS kegs. I know a lot of micros are using these kegs and have seen cases where they have bondo over the original owners name. Micah is buying all new LEGAL kegs for their operation. Does anyone know of a case where the megabreweweys have went after someone? I hear tale that it HAS happened on the east coast.

Bob Jones

Date: Wed, 17 Mar 1993 12:05:35 -0500 (EST)
From: P_LABRIE@UNHH.UNH.EDU (Paul LaBrie)
Subject: questions on yeast/priming sugar for a barleywine

Last December I made an all-grain barleywine which appears to have some promise. My questions are: 1) how much priming sugar should I be using (I currently have the barleywine racked off to 2 - 1 gal glass jugs fitted with airlocks). 2) I used CWE Plus Wine Yeast, ala Dave Line, which seemed to handle the fermentation OK...my question is "will this yeast sufficiently reactivate in the presence of the priming sugar or should I be looking at some alternative?"

I have a pretty good idea for priming sugar amounts, but am honestly looking for opinions as this is my first attempt at a barleywine. I admit to being particularly nervous about the ability of the CWE yeast to see its way through the bottle conditioning/carbonation phase, if only because I've never tried this stuff before. Any comments would be appreciated.

FWIW, all of my other beers are kegged -- I hate washing bottles 8-(

- paul -
P_LABRIE@UNHH.UNH.EDU

p.s. I gave the second runnings of the barleywine sparge to a neighbor who brews extract beers...it provided a nice adjunct (probably a poor choice of terms here) to a batch of his stock bitter.

Date: Wed, 17 Mar 93 11:08:27 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: sugar request, data point on aging

I recently brewed an extract-based Bass-alike using Demarara that I really like. My only thoughts on improving this beer next time around are, "more of everything"! (My motto is, moderation in all things, but especially in moderation.) One thing I would especially like more of is the effect I perceive from the brown sugar stuff, and from the descriptions given of "succanat" recently, I'm itching to try it. However, I haven't lived in Boston for a few years, and consequently I don't get to Bread and Circus all that much. Can I mail order this stuff from somewhere?

And how do you pronounce "succanat"? Suck a gnat? Sue can not?

Secondly, for what it's worth I cracked open a couple of bottles of extract brewed steam beer last night that were about a year old. They tasted pretty crummy (but still better than Bud :) !!) I'm not using oxygen-eating caps, but it might make an interesting experiment - not that I let brews sit around for very long at my house, anyway....

Jonathan Knight
Grinnell, Iowa

Date: Wed, 17 Mar 1993 09:36:32 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: RIMS

Quite some time ago, in an HBD long since passed, I prevaricated:

>Following through on an idea from George Fix, I'm working on a summary
>of all of the RIMS discussions from the HBD back-issues.

I haven't forgotten, and I haven't been able to read an HBD since that
very day, so if you've flamed me for forgetting and then for forgetting
your flame, forget it.

The check's still in the mail...don't abandon hope! (Until I tell you
to abandon hope. Then, and ONLY then, should you abandon hope.)

have fun
gak
Castro Valley, California

P.S. How's that for a zero-content article?

Date: Wed, 17 Mar 93 10:13:37 -0800
From: tims@ssl.Berkeley.EDU
Subject: Culturing Sierra Nevada Yeast

Dear Joel,

Your procedure for culturing sierra nevada sounds fine, as far as amateur homebrewing goes (which is certainly where I stand as well). Real yeast culturers do much more, isolating single colonies on specially prepared slats and all, and some homebrewers do this too. Short of going that far, I think you are doing the right thing.

HOWEVER, I have stopped doing what you do after I lost too many contaminated batches. When I stopped culturing the yeast at the bottom of the bottles, I have had no contaminated batches. I began to suspect that it was not my culturing procedure, which was similar to yours, but that maybe the yeast at the bottom of the bottles wasn't all that pure, and culturing it adds exponentially to the bad population. Due to the easy availability of good SN yeast (Wyeast 1056 is close to SN) in packages, I just get this. Usually, I make a starter.

When I added in all my bad batches, it was certainly not cost effective to culture the yeast.

Relax, ...

Tim Sasseen

Date: Wed, 17 Mar 93 14:31:46 EST
From: envkas@sn370.utica.ge.com (Karl A. Sweitzer)
Subject: ...more manifold ideas

Here is my variation on Jeff Benjamins system...

```
/ flush tube to clean out manifold before sparging
/
e--t-t-t--e   -
|             | = 1/2 in rigid copper tubes w/ slots
|             | T = 1/2 by 3/8 t fitting
|             | e = 1/2 in elbows
|             | t = 1/2 in t fitting
|             | - = short pieces of rigid copper tubing
e--t-T-t--e   -
|
| 3/8 in clear plastic drain tube thru end of cooler
```

The flush tube runs vertically up the end of the cooler and has a cap on it during the mash stage. When I am ready to start sparging, I run water thru the flush tube until the run off is clear. The run off is recycled onto the top of the mash to filter back thru the mash.

This flush idea came from Brewing Lager Beer by G. Noonan.

I adapted it to the cooler manifold concept and have been very happy with the outcome... until my last batch. The flush tube came off while I was stirring the mash. I then fished the manifold out with a bent coat hanger and put the flush tube back on. The only problem was that my drain tube came off without my knowing it. I ended up with a open ended 3/8 in plastic tube for a manifold. The grain bed formed the filter, but the rate at which the wort ran off was painfully slow, only a very fine trickle. At the time I thought it was because I had ground my grains finer to get a higher extract (last time I will do that again anyway).

The next time I plan to dimple the end of each copper tube with a center punch (punch from the inside of the tubes). This will form a tighter fit that can still be disassembled.

Karl Sweitzer

envkas@sn370.utica.ge.com

Date: 17 Mar 93 10:29:12 U
From: "Michael Blongewicz" <esri!mailgate.boris!mblongewicz@uunet.UU.
NET>

Subject: Chili Pepper Beer

Subject: Time:3:24 PM
OFFICE MEMOChili Pepper Beer Date:3/16/93
Hey folks,

With Cinco de Mayo quickly approaching, I'm in need of a good/well tested extract#004# chili pepper recipe. My biggest question is how many chilies and what form the chilies should be in, for a 5 gallon batch. If anyone has such a recipe or the necessary information, just email it to me at mblongewicz@esri.com.

Thanks

Michael

Date: Wed, 17 Mar 93 14:47:33 EST
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: Re: Copper lautering manifold

In HBD1099 Jeff Benjamin describes a sparge manifold system which connects to a siphon hose as follows:

>You will need to come up with some way to connect your siphon hose the
>the 1/2 inch standpipe. We found a 1/2" to 3/8" ID reducer fitting and
>a short piece of 3/8" OD tubing will connect nicely to a standard vinyl
>siphon hose:

```
>-----  
>| /___ 3/8" _____  
>|1/2 inch copper|redu |-----|siphon hose  
>| cer_|-----|_____  
>| /  
>-----
```

>Also, the reducer and 3/8" OD copper need to be soldered so they don't
>suck in air, since they're the only fittings that sit above the liquid
>level. [Note: soldering copper is easy; it requires a few cents worth
>of plumbing-safe solder and flux and a \$15 propane torch. Ask the
>friendly folks at your local hardware store.]

Instead of soldering on the reducing coupling you could also use a brass compression reducing coupling. To go from 1/2 inch copper tubing to 3/8 OD flexible copper tubing you will need a 5/8 to 3/8 reducing coupler since the OD of stiff 1/2 copper tubing is 5/8". (Bring samples of you tubing to the hardware store to make sure.) Before siphoning you must make the fitting tight using two wrenches.

I've been using a similar setup for my last 2 all grain batches except I use an "I" formation with the standpipe coming up from the center:

```
Looking down from the top  
tee  
    cap[----x----]cap  
    |  
    |  
    |  
O tee with standpipe coming up  
|out of the page  
|  
    cap[----x----]cap  
    tee
```

I stole ideas from this forum, possibly from some remarks Jeff made a few months ago, and agree with the advantages he mentions.

Date: Wed, 17 Mar 93 14:31 CST
From: korz@iepubj.att.com
Subject: Re: stuck ferment/cara-pils/favorite recipes

Colin writes:

>I'm making an American Pale Ale using Wyeast #1056. I broke the inner
>seal of the yeast package, last Tuesday night, intending to brew on
>Thursday. By mid-Wednesday, the package was ready for use. Thursday
>afternoon, after the boil, the wort took quite a while to cool. Since I
>don't have a chiller at this time, I put the bucket outside, surrounded
by
>snow (Minnesota). It still didn't cool very fast, and I was running low
on
>time, so I pitched the yeast at about 83 degrees and placed the vessel
in
>our basement which is about 64 degrees. 24 hours later there was no sign
>of fermentation, so I brought it upstairs, hoping that a change of temp
>would get it kick started. After a few hours in a 75 degree room, it
>started bubbling. It reached a peak of about 2 bubbles per second
Saturday
>afternoon, then fell off to almost nothing. The other batches I've
brewed,
>had a much longer and healthier fermentation than that.

You certainly gave the yeast a shock if you dumped them from room temp
into
83 degrees, but not nearly as bad as if you would have suddenly LOWERED
their
temperature 10 degrees. I recently started a batch with Wyeast #1056 and
I pitched a 500ml, 72F starter into 72F wort (the great thing about
immersion
chillers is that if you overcool, you can easily warm the wort up with
hot
water just as easily). I then set the fermenter into a 61F room (DUH!)
and
let the yeast do their thing. They promptly did absolutely nothing, for
two
days. When I moved it upstairs to the study (69F), they started in a few
hours. When I closed the door, to keep the carboy (covered with a couple
of brown garbage bags) darker, the temp dropped down to 60F (DUH!!). The
yeast slowed down again. When I opened the door and warmed up the room,
they started again. They've probably rebelled against me and spewed all
kinds of phenolics into my ESB. Let's hope not. I know much better than
to do this (really), but I haven't been giving my beer the attention
lately that it deserves or used to get. Back to the question...

At 75F, I could see the 1056 fermenting out the whole batch in 2 or 3
days. This would not be surprising. The beer would jsut tend to be
a bit frutier than if the ferment was done at 70F throughout. Check the
gravity. If its gravity is 35% to 25% of the original gravity, then
it's done. If the gravity is significantly higher than this, then you
may have a stuck ferment, but I doubt it. Stuck ferments are usually
caused by sudden changes in temperature in the *middle* of a ferment,
not the beginning. Once the yeast starts, if the temp doesn't vary
widely, the yeast will just ferment till they run out of sugars.

Mike (the palondromist) writes:

>My first attempt at a lager was a modified version of Papazian's
>Crabalocker German Pils, and I brewed it on 2/21/93. The ingredients

>were 3 kg (6.6 lb) Ireks Munich light unhopped extract, .5 lb Cara-pils
>malt, 1.5 oz Hallertauer (boiling), .5 oz Saaz (boiling), .5 oz
Hallertauer
>(flavor), .5 oz Saaz (flavor), 1 oz Hallertauer (aroma), and 14 gm
>European lager yeast (G.W. Kent).
>
>The Cara-pils was put in a muslin bag in 1.5 gal water and removed when
>water began to boil. Then the extract and boiling hops were added. The
>flavor hops were added at 30 min, and the aroma hops were added for the
>last 2 min of a 60 min boil.
>
>It fermented for 5 days at room temp in plastic primary (it just
>wouldn't start in the cold 50 degree closet). I guess this makes it
>a steam beer, right? Anyway, then I moved it back to the cold closet

Right.

>until 3/10/93 (10 days in primary). It was then racked to the glass
>secondary. At that point it was very cloudy, and disappointingly
>an amber color. It has been five days now, and the haze has mostly
>settled.
>
>My questions are: Did the Cara-pils cause the haze? (I used it to
>give it a little more body, but have since learned that it is not
>like other specialty grains.) I've heard of using gelatin for
>trapping the haze, is this a good idea, and if so how to do it.
>And lastly, if I do use gelatin should I be concerned that it would
>trap all the yeast too? (I do need some yeast in my bottles for
>carbonation.)

If it's cloudy in the fermenter, it's most probably the yeast. Perhaps this yeast you used is not a good flocculator. I suggest not worrying, bottling it when it's ready, letting it carbonate at room temp for two weeks, and then lagering it in the bottles between 35F and 40F to settle the yeast. Another cause for the haze may be bacterial, but let's hope it's not. If the beer was clear at room temp, but threw a haze when chilled, that would be chill haze and would be partly due to the tannins you extracted from the husks of the Cara-pils. I remove my specialty grains (in extract+specialty batches) at 170F. I was tasting three of my beers last night and one seemed more astringent than the other two. I checked my brewing log, and there it was: "accidentally boiled grains for 10 minutes." No haze by-the-way, probably because I used a wort chiller and got a great cold break. I've even stopped using Irish Moss -- I felt it was reducing my head retention.

Now, who was it that started the rumour that Cara-pils is not like other specialty malts? I have been treating it just like any other Crystal malt with no problems. The one difference is that U.S. Dextrin Malt (another name for Cara-pils) which is made from scrawny 6-row grains is hard as ball bearings! You could break a tooth on that stuff! The DeWolf-Cosyns Cara-pils is made from 2-row and is nice and plump and not at all like US Cara-pils. Bottom line is, that Cara-pils is just very pale Crystal Malt (7.87L or 15 EBC for the DeWolf-Cosyns).

Andrew writes:

> I'd like to ask anyone of you out there, if you have a favorite
>brew ! I would hope you do, but does anyone have one that is very easy
>to mix together. This isn't the first time i've brewed, but i've only
>used the cans of malt and corn sugar, so i'm looking for something a
>little different.

Get a copy of The Cat's Meow from the archives. It contains a lot of

our (the HBD) favorites and will give you a lot of great recipes. On the subject of favorite brews, I have a lot of favorites, depending on my mood, I could not have one favorite recipe -- I'd get bored with it.

Al.

Date: Wed, 17 Mar 93 14:46 CST
From: korz@iepubj.att.com
Subject: Re: SNPA culturing/boiling/more on yeast culturing

Joel writes:

>I have a couple of beginner questions on culturing yeast from
>Sierra Nevada Pale Ale.
>
>I have tried culturing SNPA yeast using the following procedure:
>
> 1) Prepare an SG 1.040 highly hopped wort, strain out
> hops, and return to boil for another 15 minutes in
> covered pan.

1040 is a bit high. I suggest 1020 and I don't hop my starters at all.
You can if you want -- the hops will reduce the chance of bacterial
infection, but I would avoid "highly hopped," but that's just a gut
feeling, not based upon anything I've read.

> 2) Carefully sterilize a pyrex measuring cup by boiling
> for 30 minutes. Cover with Al foil which has been
> flamed. Cool wort by placing covered pan in ice cubes.
>
> 3) Open SNPA, pour out almost all beer, sterilize bottle
> top using alcohol and flame. Pour cool wort into SNPA
> bottle, add airlock, wait.
>
> 4) After 1 day, contents of SNPA bottle at high krausen.
> Step culture into Erlenmeyer using similar paranoid
> sterilization procedures.
>
> 5) After 1 more day, culture in Erlenmeyer at high
> krausen, looks good.
>

>At this point everything seems OK, but when I went to pitch, I
>smelled the starter, and it smelled vaguely of bubblegum, which
>I have been told is a sign of possible contamination. Lacking
>an alternative, I pitched it anyway.

Perhaps a result of higher-than-usual temperatures. I suspect that
everything was okay.

>Also, provided I can get the procedure to work, I would like to
>know if anyone uses cultures from SN Porter or Stout. I haven't
>seen this mentioned anywhere.

I've cultured from SN Porter (I believe it is the same OG as the SNPA)
but not the Stout (which is only a few points higher in OG, so I don't
see a problem with it). Culturing from SN Celebration Ale and Bigfoot
Barleywine is not recommended.

Jack writes:

> up with 4 after 90 min is just about right. Frankly, I do not think
> there is
> such a thing as too vigorous a boil. If you lose too much wort, just
> start
> with more. I would figure on about a gallon per hour of boil.

I disagree. A vigorous boil we want, but in most cases (i.e. for most

styles) we don't want to caramelize the wort. The higher the heat, the more the wort caramelizes. This would not be good in a Pils style.

> Under no circumstances, do you want to cover the kettle. Part of the reason
> for boiling is to concentrate the wort.

I agree, but for a different reason. When the wort is above 140F, SMM (inherent in malt) is being converted to DMS, which gives your beer a cooked-corn aroma. DMS, luckily for us, is quite volatile and boils off, but only if you boil at least partly uncovered. A simmer won't cut it -- it has to be a good, rolling boil, however, the kettle does not have to be completely uncovered. I partially cover my kettle (about 1/2 to 2/3) to reduce heat loss so I can get a good rolling boil with *less flame*, thereby reducing caramelization. Before I ripped out my electric stove and put in a gas one, I would need to partly cover the kettle just to get the water to boil!

Leo writes:

>I am trying culture the yeast from several bottles
>of SNPA. I boiled up three
>cups of water with six tablespoons of DME and cooled
>the mixture. I then poured
>the wort into a sterile half-gallon jug. I then poured
>all but the last inch of
>the SNPA out of five bottles. I shook the remaining
>inch of SNPA in order to get
>the yeast in solution and poured the dregs into the
>half-gallon jug. Nothing
>happened for 2 1/2 days, the brew never fermented
>very fast. At the peek it
>fermented at maybe 1 bubble per 30s. Is this slow
>fermentation normal??

Consider the size of the batch and the gravity (which, by the way, was good for a starter). Consider that a regular 5-gallon batch would have almost 27 times the wort. That equates to almost a bubble per second. Not bad. If the wort was 1040 or 1050 or 1060, you could have expected 2 bubbles per second, but 1 bubble/30 sec for a 24 ounce, 1020 starter is just fine.

>By The Way (BTW) I did vigorously shake the wort
>to aerate the wort before adding
>adding the SNPA yeast.

Good.

>How do you culture yeast from a bottle?

Just like you said, but in a Erlenmeyer flask, in which I boil and cool my wort -- I let the wort sanitize it's fermentation container. Just another great suggestion I snagged from the HBD (by the way -- don't try to sanitize a plastic airlock with the steam from the boiling wort -- it will melt -- I know... glass airlocks are on order.)

>Should I assume it is OK??

Cautiously assume it's OK.

>How can I tell if it is infected??

Taste and smell, apart from microscope work and plating on differential media. I use my tastebuds and leave the lab work to George Fix and Mike Sharp.

>Is the yeast OK?

Sounds like it's just fine.

Al.

Date: Wed, 17 Mar 1993 15:56:15 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Ph meters...

Hi,

I finally broke down and bought a ph meter.[The hanna unit that American brewer sells if it matters]
I now have three questions:

- 1) can I just use distilled water to calibrate at ph7?
- 2) can I expect this thing to be reasonably calibrated just out of the box? Or should I just check to make sure?
- 3) Finally is there anything I should look out for?

Thanks
Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

End of HOMEBREW Digest #1100, 03/18/93

Date: Wed, 17 Mar 93 16:42:36 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: sterilization, aeration, filtration.

I've been reading an interesting book the last week:

The Biotechnology of Malting and Brewing, by J.S. Hough
(Cambridge Univ Press, 1985)

Anyway, while reading it, i've run across a few things that
answer recent threads on r.c.b and in HBD

All are quoted without permission.

Steam Sterilization: (p.49)

"Steam is also use for sterilisation but can only be fully effective if
it is saturated and operates in hot equipment. There must be ample
opportunity for the condensate to escape as the equipment heats up.
At least 30 min steam treatment at 1 bar over pressure after the
equipment
has heated to 100C is necessary to achieve sterilisation of a
cleaned piece of equipment."

Wort Aeration: (p. 91)

"Aeration of wort is needed for yeast growth. Specifically it is
required in small amounts (5-15 mg/l) by the cells in order to
synthesise unsaturated fatty acids and sterols for intracellular
membranes...Air will provide a maximum of 8 mg/l dissolved oxygen.
Some strains of yeast however require more than this and oxygen is
substituted for air."

Yeast Size: (p. 96)

"A typical brewing yeast cell will, when fully grown, be between 8
and 14 um diameter and have a mass of about 40 pg when dry. Thus,
10¹² dried cells will weigh 40 g."

Control of Infections: (P. 111)

in austenitic stainless steel vessels,
"The sequence is wash thoroughly by water, using high pressure
revolving jets or static spray balls in the vessels. When the
water has drained, hot caustic soda (usually with
some sodium hypochlorite) is used as a detergent-sanitizer.
The caustic soda kills microbes effectively and is an excellent
dissolver of protein. It is not however suitable for dissolving
and keeping in suspension calcium salts, therefor additions
of various polyphosphates, metasilicates or guconates may be made.
The hypochlorite is a source of free chlorine and therefore a strong
bactericide; it also enhances the cleaning power of the
detergent. Free chlorine is however a dangerous agent of corrosion
of stainless steel if the pH of the solution falls to neutrality or
below."

Filtration: (Pg. 143-147)

Several filtration techniques are talked about. Its too long to post.
Bottom line is that diatomaceous earth (kieselguhr) is the
most popular filter type. This, in combination with a secondary
membrane filtration does a great job. 1.0 um membranes will be expected
to prevent yeasts from be penetrating, and a 0.2 um membrane would be
expected to hold back bacteria.

Tim

- - - - -

Timothy J. Dalton tjdalton@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

Date: Wed, 17 Mar 93 16:13:26 EST
From: YC06000 <YC06%FERRIS.BITNET@PUCC.PRINCETON.EDU>
Subject: New brewer

Hi-

I am new to the art of homebrewing. I have a couple of small paperbacks on the subject, but would like to know if there is one or two good sources for us novices? I have yet to brew my first batch, but I am getting anxious to start. Any info that you longtime brewers can impart to a beginner would be greatly appreciated.

I just moved to Big Rapids, MI and don't know where I could get brewing supplies. Is mail order the answer? Help!!!

Thanks for your time!

Dan deRegnier yc06@ferris.bitnet
Ferris State University
Big Rapids, MI

Date: Wed, 17 Mar 1993 14:20:28 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: crystal malt in muslin bag

In HBD 1099 Mike Rego asks about Cara-pils haze. This prompts me to ask a more general question regarding the addition of other malts to an all-extract brew. Up until now I've been putting these in a tightly-woven hop bag, but am convinced that the bag is too small, packing all the grains in much too closely and restricting the extraction I get.

I'm thinking of using a much larger bag made out of muslin, but am wondering if the much coarser weave will allow undesirable things into the wort. My procedure is generally to steep the grains for 20 minutes or so at 170 degrees, then remove the bag prior to bringing the wort to the boil.

The grain crushing process (either a rolling pin for me, or sometimes I buy it pre-crushed from my brew shop) produces powder along with broken grains. How important is it to sift all this powder out? If it gets into the wort will it cause any problems?

My thoughts are that the muslin idea would work, because in full grain brewing all this stuff is thrown in with no strainer bag, right?

Any comments/suggestions are most welcome.

Peter

Date: Wed, 17 Mar 1993 15:43:44 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Disappointing Results

Mike Rego asks:

>
>
> My first attempt at a lager was a modified version of Papazian's
> Crabalocker German Pils, and I brewed it on 2/21/93.
>
> [deleted]

> The Cara-pils was put in a muslin bag in 1.5 gal water and removed when
> water began to boil. Then the extract and boiling hops were added. The
> flavor hops were added at 30 min, and the aroma hops were added for the
> last 2 min of a 60 min boil.
>
> At that point it was very cloudy, and disappointingly
> an amber color. It has been five days now, and the haze has mostly
> settled.
>
> My questions are: Did the Cara-pils cause the haze? (I used it to
> give it a little more body, but have since learned that it is not
> like other specialty grains.)

Here are some answers (even to questions you didn't ask): the amber color is not surprising, really. You'll find that one company's "light" is another's "amber" and that truly pale beers are tough to make from extracts. In part, this is because the evaporation process necessary to create syrup from wort often is allowed to darken the product. But the German syrups are particularly dark, or they were several years ago when I did an experiment for Zymurgy and compared a dozen brands of extract.

Carapils does not cause haze, although there seems to be an odd train of thought out there to this effect. On the other hand, regardless of what Charlie Papazian says, you shouldn't be boiling your specialty grains. Far better to get them out earlier, and even better to simply steep them at about 150F for an hour or so, then rinse them and use the resulting liquid along with your extract. Carapils will give your beer more body if it's properly used; I can't imagine what "not like other specialty grains" means in this context, but it sounds as though someone was giving it a bum rap. Carapils also has the added benefit of enhancing the "maltiness" of beer, which is why microbrewers often use it in conjunction with American pale malt.

I'm a little confused about what you mean by "haze" in a fermenting beer. Was it hazy when it went into the carboy, and did it not clear at all (with a large deposit of solids) within an hour or two. After the yeast takes off, of course, there's a whole new "haze" which is just two or three ***illion yeast cells performing their mating and working rituals. If the beer never looked bright in the kettle (taking into account all the stuff floating around in it -- take a spoonful out and look to see if the liquid itself is clear when the hop particles etc have a chance to settle), it's possible your boil is not vigorous enough.

=====
On another note, has anyone ever gotten results anything like Charlie's from one of his recipes? He seems to bat them out at a fairly high rate, and I've wondered over the years how much time goes into

developing each one, and whether he's ever brewed one of them more than once (or better yet, more than three times) before publishing them. What really struck me was his recipe in the most recent Zymurgy, which calls for (not having it in front of me, and whoops, here we go again relying on memory) something in the neighborhood of 3.5# of dry malt extract and about 3 pounds (maybe a little more) of specialty grains. This to produce five gallons of a beer over 1.065. Does anyone else think this is unlikely?

- --Jeff Frane

Date: 18 Mar 1993 08:49:35 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: pH meter questions

Nicks asks:

>1) can I just use distilled water to calibrate at pH7?

No. Distilled water is NOT pH 7, it is acidic due to dissolved CO₂. You need to buy (or make) buffer solutions to accurately calibrate your meter. Your meter should also have some instructions about calibration. Many of the meters have two-point calibrations where you adjust the pH reading at, say, pH 4 and 9. Since pH varies with temperature, you also need to make sure that you calibrate it at the temperature specified by the manufacturer (unless your model has auto-temperature correction).

Steve

Date: Thu, 18 Mar 93 8:24:05 CST
From: raudins@galt.b17d.ingr.com (Glenn Raudins)
Subject: Temp. Controls / Freezer

Re: Temperature Controls

I would like some feedback on what people think of their temperature controls for their refrigs/freezers. Has anyone used the digital one from American Brewmaster? I like the idea of the digital ones, but I've only seen ones that go down to 40 degrees. I know Williams beverage sell one that goes down to 20 degrees but it does not have a digital display.

Re: Refrig/Freezer

Any recommendations on refrigs/freezers that have worked well for people? I seem to think that a chest freezer would allow the best utilization of space and it would allow the temperatures for lagering. Also, what results have people gotten lagering with just their refrigs (down to 40 degrees I believe)?

Glenn Raudins
raudins@galt.b17d.ingr.com

Date: Thu, 18 Mar 93 09:17:06 EST
From: card@apollo.hp.com
Subject: Irish Bus trip

> From: boover_c
> Date: Wednesday, March 17, 1993 7:40:41 am (EST)
>Subject: St. Patrick's Day...
>To: junk:
>
>
> This Irish moment is brought to you by my parents:
>
> This is a true story, I visited Ireland in the mid 70's during the
summer. It
> was in the 90's, very hot. My wife and I choose to take the bus from
Limerick
> to Kilarney to "see the countryside". Well the bus trip started at 9
am and
> due to arrive sometime in the afternoon taking into account a number
of stops
> in citys/towns along the way. There was a bus driver and a fare
collector on
> board. Besides us there were about 8 other tourist Americans and some
local folk
> going wherever. At the 1st stop, the bus driver would open the door
and get out
> closely followed by his fare collector and walk down the street and
disappear.
> 15 minutes later they would re-appear and head out. I didn't think
too much of it except
> we were stopping every 20 or 30 minutes and they would go thru the
same routine.
> Being hot, it became a pain to constantly wait for these guys.
Finally, we said let's
> following these guys. Sure enough, we turn the corner and lo and
behold theres a bar!
> We go in and theres' our driver and fare collector with 2 stouts in
front of them.
> Well needless to say, at every bus stop along the way, the driver
would get out and
> the fare collector and it was like a pied piper after that. By the
time we got to
> Kilarney we were all speaking tonque and having a blast. I asked the
driver if he was going
> back that night and he said no he spends the nite there.
>
> Have a happy day.

Date: Thu, 18 Mar 93 09:35:44 -0500
From: blosskf@ttown.apci.com (Karl F. Bloss)
Subject: Keeping bottles clean

In HBD #1100, CRD@imagesys.com (Chris Dukes) writes:

>Once the bottles are boiled, bleached, NaOH'ed, etc. . .where do you
keep
>them before they are filled and capped? I am concerned about nasties
>falling into the bottles while they are waiting to be filled. Should I
>bottle a six or twelve pack at a time to make sure no bottles are
waiting
>too long?

I use a technique I saw here on the HBD once and has worked well. After
cleaning, rinsing, and drying the bottles with your favorite method, take
a
small square (~ 2"x2") of aluminum foil and seal up the bottle opening.
Then
bake the bottles (theoretically nothing lives over 60C, but I use just
over
100C) for 15 minutes and let them slowly cool. When you're ready to
bottle,
just take the foil off. I've done this up to 3 days before bottling and
have never had an infection yet.

-Karl

Date: Thu, 18 Mar 93 06:51:33 PST
From: julie@eddie.jpl.nasa.gov (Julie Kangas)
Subject: Rye Malt and the Extract Brewer

Hi folks,

I'm wanting to try my hand at making the Finnish beer Sahti. I've found the malted rye (a tricky thing) but have a question. You see, I'm still an extract brewer and am not ready to go all grain right now. So I was wondering how I handle the rye malt. Should I treat it like a speciality grain by steeping it in near boiling water and then adding it to the regular malt? Or will I need to do a partial mash? How would I go about this?

Thanks,

Julie

Date: Thu, 18 Mar 93 10:53:49 EST
From: Keith A. MacNeal HL01/T09 225-6171 18-Mar-1993 1041 <macneal@pate.enet.dec.com>
Subject: Yeast starter and bottle drying

In HBD #1100, John Williamson writes:

> I was hoping to brew a lager this past weekend when I ran into
>trouble getting a yeast starter going. I was hoping that someone out
>there in HB land could shed some light on the situation and perhaps save
>me starting over. Here are the particulars:
> Thursday evening I broke the inner package on a pack of Wyeast
>pilsen lager yeast (sorry, forgot the number). The package of yeast was
>dated 8 February. By Friday morning the pack had expanded to about 3/4
>to 1 inch in thickness. I pitched this into 3/4 quart of wort I had
>prepared the evening before. The wort starter was made by mixing 3 Tbs
>of an amber DME with 3/4 quart water in a 1 1/2 quart clean juice jar.

I think your problem was that you used only 3 tbs of DME. Are you sure you gave the yeast enough to eat?

Chris Dukes asks about suggestions on what to do with bottles after they've been sterilized:

>Once the bottles are boiled, bleached, NaOH'ed, etc. . .where do you keep
>them before they are filled and capped? I am concerned about nasties
>falling into the bottles while they are waiting to be filled. Should I
>bottle a six or twelve pack at a time to make sure no bottles are
>waiting
>too long?

I suggest that you keep the bottles with the open end down to prevent stuff falling into them. I can get about a case of 16 oz. bottles into a standard dish drainer. That's a pain since a 5 gal. batch takes about a case and a half of bottles. So, I picked up a drying rack. It's a plastic tower that holds up to 45 bottles and is expandable in increments of 9. I wipe it down with a bleach solution while my bottles are soaking, rinse the bottles with a bottle washer attached to a faucet, and then let the bottles drip dry on the rack. It works great and doesn't take up much counterspace. You might be able to make one out of wood, but I'm not sure you could keep it as clean as the plastic version. I bought it at a local homebrew supply shop for around \$25.

I've heard of other folks using the dishwasher set on rinse and dry, but that's not an option for me since I don't have a dishwasher or any room in the kitchen to put one.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: 18 Mar 1993 08:57:06 -0600 (MDT)
From: Mark Taratoot <SLNDW@CC.USU.EDU>
Subject: Chili Pepper Beer

Greetings.

I usually put half a chili in each bottle before sealing the crown.

First slice the pepper lengthwise.
Then remove the seeds (but not the inner white membrane)
Rinse
Put half (or two halves) chili in each bottle you want to "pepperize"
Seal crown

I have found that as soon as the beer is carbonated and conditioned it is at it's best "pepperness." The chili aroma and flavor seem to mellow with age. I cracked open a chili beer that had been sitting for a couple of months, and the flavor was there, but it was very subdued. So, maybe wait a couple of weeks if you want a beer that is at it's greatest pepper potential for cinco de mayo.

I have tried putting chilis in with the boil, but the finished product did not have any "pep," just a bit of peppery flavor. Also, with the pepper in the bottle trick, you can make less than a batch of pepperized brew. Perhaps if you plan on crating more than one batch of beer to be consumed by may 5, then pepperize some of each and do a side by side by side comparison of all the pepperized/non pepperized beers.

-toot

Date: Thu, 18 Mar 93 08:05:32 PST8PDT

From: myersr@geoduck.nosc.mil

Subject: Basic Homebrewing in Spanish?

Anyone know where I can find basic homebrewing instructions written in spanish? I have a friend near Mexico City who is extremely interested in learning how to brew beer. He wants to someday serve it in his restaurant. Is there a spanish edition of "The Complete Joy of Homebrewing"?

Thanks,

Dick Myers

Date: Thu, 18 Mar 93 09:50:47 MST
From: smithey@fuji.Central.Sun.COM (Brian Smithey)
Subject: hop vine spacing

I'm waiting for my hop rhizome order to arrive from Freshops. In the meantime, a friend has already received his, and tells me that 6 ft. spacing is recommended between varieties. I have a good idea where I want to put them, but I'll only have about 4.5 - 5 ft between varieties. I'd like to hear from some experienced growers out there: how far apart your varieties are, any problems, speculation on whether I'll get into trouble with closer than 6' spacing, etc.

Thanks,
Brian

- - -

Brian Smithey / Sun Microsystems / Colorado Springs, CO
smithey@rmtc.Central.Sun.COM

Date: Thu, 18 Mar 93 11:29:31 EST
From: mcharry@freedom.cwc.com (McHarry)
Subject: Maltmill and Easymash source

A number of brewers suppliers (chandlers?) carry these things. Last I knew, you could also order them directly from:

Jack Schmidling Productions
4501 Moody
Chicago, IL 60630
+1 312 685 1878

You can also E-mail Jack for more info on current prices, retailers, etc. He is a little reticent about posting commercials, but will probably reply privately.

I use both these devices and am quite pleased with them. You can build an Easymash yourself--Jack posts directions from time to time. If you want it done right the first time, Jack doesn't charge that much over the cost of parts for his kit, which has had some die work done on the air cock.

The Maltmill is another thing again. It has custom castings, from recycled aluminum cans! I have no idea how Jack grooves the rollers, or where he gets the stock. It also is well-made and worth the investment. I have the non-adjustable version and have had no problems crushing various malts and even raw rye.

I seem to recall that the Maltmill is about 120-125 dollars and the Easymash is about 25 dollars. If you order direct there is a small shipping charge, but only one charge for both ordered together.

disclaimer--I have no interest in any of Jack's businesses. I am just a satisfied customer and amused observer.

Date: Thu, 18 Mar 1993 11:04:30 CST
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>
Subject: Re: Chili Pepper Beer

I've not been incautious enough to make one, but I've judged several, and the palatable ones all had a high residual maltiness which balanced the pepper. So many of these are awful, but I tasted one which was actually good - and the trick in the recipe was to use Wyeast 1338 yeast (European Ale/Dusseldorf Altbier) which will naturally leave a high maltiness. Gravity was in the normal range around 1.050.

Date: 18 Mar 1993 09:15:47 U
From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.edu>
Subject: SNPA Yeast

Subject: SNPA Yeast Time:8:52 AMDate:3/18/93
Tim Sasseen says:

>that maybe the yeast at the bottom of the bottles wasn't
>all that pure

I have done the bottle culturing bit from SNPA for quite some time without any problems. The yeast is a washed version of what was used to ferment the beer. It is added to filtered beer to provide for the bottle conditioning. If there were faults with this yeast or the culturing method I would expect we'd hear about lots of problems from lots of homebrewers. I'd also expect there would be some evidence of such a problem in Sierra's products. I can't say I've ever had a bad bottle of anything that Sierra Nevada produced.

As for the OG recommended for starters:

I believe George Fix did some research (or at least referred to somebody's research) which indicated that the performance of yeast was best when begun in a starter which was close to the OG of the batch to be pitched. This was especially true for higher gravities. George?

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmac1.ucsf.edu - CI\$: 72300, 61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: 18 Mar 1993 12:24:14 -0500 (EST)
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>
Subject: local brewmaster on sparge time/mashing dark grains

I know Micah's no longer with us (gee, that sounds like he's dead--you know what I mean: He's no longer with the DIGEST), but before he left he made the argument that dark grains should only be added at mash out, rather than for the whole mash. The subject came up at our homebrew meeting last night, and Fred Lang, the brewmaster at our local micro, agreed with Micah. He said to put the dark grains in for just ten or twenty minutes at the end, while mashing out.

Also, not too long ago, Joe Stone and I wondered about sparge times. This subject also came up at our meeting last night. One guy said he aimed for 2 and a half to three hour sparges. Another person said, "Gee, I just do it for about twenty minutes." Again, the question was put to Fred. He said that the length of time is really irrelevant, because it depends on your grain bed, temps, and other things. He maintained that you should use the gravity to determine when to quit sparging. In particular, do not go below 2 degrees Plato, and in fact you should quit a little above that since it would be better to throw out a little extract rather than get the tannins. So what's 2 degrees Plato? Like 1.008 maybe?. Looks like those of you who stop at 1.010 have been talking to Fred...

Just thought you'd be interested,
- --frank

Date: Thu, 18 Mar 93 09:32:25 -0800

From: atl@kpc.com

Subject: Re: yeast starter (help!!!)

> I was hoping to brew a lager this past weekend when I ran into
> trouble getting a yeast starter going. I was hoping that someone out
>
> prepared the evening before. The wort starter was made by mixing 3
Tbs
> of an amber DME with 3/4 quart water in a 1 1/2 quart clean juice jar.

What was the SG of the starter? I always use ≥ 1.040 starters, and
3Tbs
to 3/4 qt seems awfully thin to me. I also pitch WYEAST packets into
300-500ml starters and then step up to 800-1000ml starters. It seems
that you
are using too large of a starter with too low a DME content. With any
luck,
your yeast should still be viable, I might try boiling up some really
thick
wort, and adding it to your existing starter.

Drew

Date: Thu, 18 Mar 93 09:35:21 -0800

From: atl@kpc.com

Subject: Re: Sterilized bottles

> I have been following the thread on sterilization/sanitization, but
have
> yet to read anything regarding what to do once the bottles have been
> sterilized, other than fill them with homebrew. ;-)
>
> Once the bottles are boiled, bleached, NaOH'ed, etc. . .where do you
keep
> them before they are filled and capped? I am concerned about nasties

Set a sterile cap on top of each bottle for the time between sanitizing
and
filling.

Drew

Date: Thu, 18 Mar 93 12:42:55 EST
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Bock recipe

Well, I was going to wait until after this beer won the Bock is Best competition :-)) to post this, but a friend asked for the recipe, so I'll kill two birds with one stone. Since this was the first batch in my new mash/lauter tun, the procedure required some fine-tuning. Thus the multiple infusions, etc. This may make it difficult to exactly reproduce the recipe!

I made this on Dec 26, so it's

Boxing Day Bock

10# Belgian Pilsener Malt
3# Belgian Munich Malt
 (above Corona crushed)
 .5# M&F Crystal malt
2 oz chocolate malt
 (above pre-crushed by roller mill at the HB shop)
4oz Hallertau plugs @ 2.9%
2oz Saaz plugs @ 3.1%
Wyeast Munich Lager yeast (2308)

Procedure:

Mix Pilsener & Munich malts in mash tun, infuse 10.5qts H2O@170F (mash temp 137F -- oops!), infuse additional 3qt @boiling (mash temp to 145F - -- sigh!), decoct 3qts (pretty thick) to boiling (mash temp to 156F -- finally!) Meanwhile, steep crystal in 1qt H2O @165F. Mash 1hour. Infuse 3gal @boiling to 165F, add crystal & chocolate malts & stir. 15min rest. Start sparge, recirculate 6 qts. Sparge to 6.5gal (ending sparge gravity 1.010@150F == 1.026??)

Boil 1.5 hours. Hop schedule
2 oz Hallertau @ 30 min
1 oz each Hallertau & Saaz @ 60 min
1 oz each @ 75 min

Chill & rack. Yield approx 4 gal @ 1.066.

Pitch yeast from 1pt starter. Move to cellar @58F. After two days, krauesen is evident, move to fridge @50F.
Primary time: 6 weeks
24 hour diacetyl rest at end.
Bottled at FG 1.022, lagered in bottle.

Comments:

It came out as a borderline "Helles Bock." Probably should have left out the chocolate malt.

This stuff is yummy. Wonderful malt nose & flavor. Nicely hopped. Friends have said it's one of the best beers they have tasted.

I have to attribute much of its goodness to the ingredients: Belgian malts and hops plugs. This is the first time I've ever really smelt the "spiciness" of Saaz hops. I wonder whether the little decoction I did to get the mash temperature up had some effect on the maltiness.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109

Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

Date: Thu, 18 Mar 93 09:57:46 -0800

From: atl@kpc.com

Subject: Re: Moderate drinking & minimal cold catching

> While we're on the topic of alcohol and health again, I saw an
> interesting but superficial tidbit on CNN Streamline News a couple
> nights ago. According to CNN, "a group of British researchers" has
> released a study showing that moderate drinkers have "a much lower
> chance" of catching a cold than folks who drink rarely or never.
>
> This is all the info that was given. I'd like some more details, but
> haven't seen anything in the _NY Times_ or the _Wall St. Journal_
> since then. Does anyone know more?

I have no hard data, but my brewing has increased manyfold over this
flu
season, to a point where I nearly never buy commercial beer anymore.
(Less
than one case in 6 months). For the first time in years, I have not
gotten a
single cold through the flu season. I attribute this to greater increase
in
vitamin B intake.

Drew

Date: Thu, 18 Mar 93 12:22 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Lauter Tuns, PU

>From: Jeff Benjamin <benji@hpfcbg.fc.hp.com>

```

  | end cap
  | tee +-----] cap
  |
  | [-----+
  |
  | +-----]
  |
  | [-----+
  | [-----+
  |
elbow /
  90 deg up ----->=====
standpipe siphon hose
  (this would be coming out of the screen)
```

Perhaps I am thick but I do not understand this. Which way is up?

>From: pyle@intellistor.com (Norm Pyle)
>Subject: PU yeast

>Where did you get PU yeast, Jack? All of the PU I've bought (and I've bought a lot) has been filtered (no sediment).

I got mine from a customer on the West coast but he got it from Paul Farnsworth in Texas.

I called Paul and learned that he got it on a recent trip to the source. He sells a rather extensive library of yeast cultures on slants for \$15 ea. He also sells culturing supplies and equipment. Thus far I have tried his PU and Essex ale. I also have a Suffolk ale and a Bavarian lager that I have not gotten around to trying.

His company is:

Scientific Service
7407 Hummingbird Hill
San Antonio TX 78255
(512) 695 2547

From: "Bob Jones" <bjones@novax.llnl.gov>

>a quote from GW malt stated that the conversion time for their pale malt (Harrington) is 5-7 minutes! Has anyone ever tried to sparge after a 10 minute mash? Sounds like a good test for Jack S. with all that time to burn!

/
3/8" I.D. Plastic Hose

1. It requires no hole in the kettle.
2. Does not interfere with stirring because it can be put in when ready to sparge.
3. Can be used in any kettle, plastic bucket, crock or toilet bowl.
4. It can be built for about \$2.
5. It looks a lot like the traditional siphon with a Chore Boy on it but has far more class.
6. Although untested, I suspect it will work better than any other system available today, with one exception.
7. Aside from the convenience of a spigot, it has all the technical advantages of the world famous EASYMASHER.

The only remaining question is, where do I sign up for welfare?

js

Date: Thu, 18 Mar 93 10:29 PST
From: Paul Andersen <ECZ5PGA@MVS.OAC.UCLA.EDU>
Subject: Beer and Cancer

Hello fellow brewers, Now I could be wrong, but, while doing research for a paper in my Biology of Cancer class here at UCLA, I found some articles which described studies being done in Europe regarding the effects of beer and alcohol in general on the risk of colorectal cancer. What they seemed to be saying was that spirits and wine did not increase the risk of colorectal cancer, but they found that beer did. Of course the risk was substantially increased only in subjects who drank large amounts of beer regularly over the course of a lifetime. There was also a link to dark beers and smoked foods, such as fish.

I did not end up writing my paper on this topic, so I cannot give any references, however, it would not take me long to look them up again if anyone is interested.

If anyone else can shed some light on the subject, feel free.

By the way, I tried the new Pub Daught Guinness in the can for the first last weekend and I loved it. Just for fun I ripped open the can to check out the doohickie on the bottom: pretty cool. If you haven't tried it yet, and you like Guinness, go out and get some. It is amazing how it looks and tastes like it came out of the tap. My only gripe is that you have to open it cold (otherwise you have beer all over the place: like homebrew). I haven't seen it in too may stores though. In southern california you can get it at the Price Club (although it may be seasonal). It sure made my St. Patricks Day.

Homebrewers do it sanitarily

P.Andersen

Date: Thu, 18 Mar 93 13:02 CST
From: korz@iepubj.att.com
Subject: Re: yeast starter (help!!!)/sludge/bottling/starter correction

JW writes:

> Thursday evening I broke the inner package on a pack of Wyeast
> pilsen lager yeast (sorry, forgot the number). The package of yeast was
> dated 8 February. By Friday morning the pack had expanded to about 3/4
> to 1 inch in thickness. I pitched this into 3/4 quart of wort I had
> prepared the evening before. The wort starter was made by mixing 3 Tbs
> of an amber DME with 3/4 quart water in a 1 1/2 quart clean juice jar.

I think that this may be your problem. 3 tbs in 3/4 quart is an *very*
low gravity wort. Even the 1020 wort that I use barely if ever shows
any krausen -- besides there being very little sugar for the yeast to
get excited about, the viscosity of the wort is so low that no "head"
forms. You probably have a fine yeast starter, albeit a bit weaker than
it could have been. If you want to continue to use the juice jar for
your starters, get a one-hole stopper to fit the top and put an airlock
in it. The airlock will show you activity a lot more accurately than
watching the surface of the starter.

> I called the supply house where i got the yeast and they mentioned
> that the low pressure storm system which just came through Phila may
have
> caused the starter to mis-start. This seems suspicious to me, however,
> because I've never heard of problems at higher elevations where
atmospheric
> pressure is also less than at sea level.

Ridiculous. Perhaps all the yeast in the US is now dead thanks to this
low pressure storm system? Find a reputable supplier.

Joe writes:

> I have a question about when the krausen begins to fall after 2-3 days
of
> very active fermentation. As the krausen falls I am left with (real
technical
> term here) "brown sludge" stuck to the sides of my primary (plastic
bucket).
> The fermentation slows rapidly after this, and if I scrape the sludge
into the
> beer it begins fermentating again.
>
> The question is, should I be scraping this sludge back into the beer? Am
I
> doing something wrong to be getting the sludge in the first place? This
has

The sludge is a combination of hop petals that made it through, hop
resins,
dead and dormant yeast and probably a couple of other things. Leave it
be. The sludge is expected, but if you still think you want it in your
beer, taste it and decide for yourself.

Chris writes:

>Once the bottles are boiled, bleached, NaOH'ed, etc. . .where do you keep
>them before they are filled and capped? I am concerned about nasties
>falling into the bottles while they are waiting to be filled. Should I
>bottle a six or twelve pack at a time to make sure no bottles are
waiting
>too long?

I bought a bottle tree and a sanitizer thingamabob. It mounts on the top of the tree. I pump bleach solution into the bottles (30 pumps) and then set the bottles onto the tree. When I've got two cases on the tree, I rinse the first bottle, fill it, cap it and then go on to the next bottle. Perhaps you may want to sanitize all your bottles (even if you leave them face up) and then rinse just before bottling. This way, if anything falls in, the residual sanitizer will kill it.

I wrote:

>>fermented at maybe 1 bubble per 30s. Is this slow
>>fermentation normal??

>

>Consider the size of the batch and the gravity (which, by the way, was
>good for a starter). Consider that a regular 5-gallon batch would have
>almost 27 times the wort. That equates to almost a bubble per second.
>Not bad. If the wort was 1040 or 1050 or 1060, you could have expected
>2 bubbles per second, but 1 bubble/30 sec for a 24 ounce, 1020 starter
^

>is just fine.

That should have been 2 bubbles per 30 seconds.

Al.

Date: Thu, 18 Mar 93 14:27:28 EST
From: Don Sharp 18-Mar-1993 1428 <sharp@rumor.enet.dec.com>
Subject: Ninkaski - brewing an ancient beer

Our colleague Stephen E. Hansen - hansen@sierra.Stanford.EDU -
volunteered to
help me get the article installed in the Homebrew Archives at Stanford -
I was
inundated with more requests than I could possibly fulfill, so that
seemed like
the right thing to do. If after a reasonably diligent effort to retrieve
the
thing from the archives you have no success ping me again and I'll see
what I
can do.

Don

End of HOMEBREW Digest #1101, 03/19/93

Date: Thu, 18 Mar 1993 11:43:58 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Yeast and Bottles

> From: johnw@NADC.NADC.NAVY.MIL (J. Williamson)
> Subject: yeast starter (help!!!)
>
> I was hoping to brew a lager this past weekend when I ran into
> trouble getting a yeast starter going. I was hoping that someone out
> there in HB land could shed some light on the situation and perhaps
save
> me starting over. Here are the particulars:
> Thursday evening I broke the inner package on a pack of Wyeast
> pilsen lager yeast (sorry, forgot the number). The package of yeast
was
> dated 8 February. By Friday morning the pack had expanded to about 3/
4
> to 1 inch in thickness.

Sounds like you were a bit hasty. The package should be more like 3"
in thickness before it's pitched into the starter.

I pitched this into 3/4 quart of wort I had
> prepared the evening before. The wort starter was made by mixing 3 Tbs
> of an amber DME with 3/4 quart water in a 1 1/2 quart clean juice jar.
> I capped the jar and shook vigorously to mix well. I then uncapped the
> jar, covered with tin foil, and put into a 16 quart kettle with about
> 4 inches of water. I brought the water in the kettle, with the jar of
> wort, to a boil and simmered for about 1/2 hour to sterilize. The
kettle
> was covered during the boil and simmer. I then let the wort cool to
room
> temperature (65F) overnight.

I think this is another case of overkill. You should be able to
sterilize your starter by simply boiling the DME and water for 15
minutes in a pan on the stove. Then force-cool it in the sink by
putting on a lid and running cold water around it. This cooling takes a
matter of minutes. Transfer into your sterilized jar, aerate and add
the yeast. The problem, though, as I said above is that you didn't get
enough growth before you pitched into this volume. Given time it may
well come up to sufficient yeast volume to use for brewing. Bear in
mind, however, that you need roughly twice as much lager yeast for
pitching as you do ale yeast.

The next morning was when I pitched the
> yeast from the pack. That was last Friday. To date nothing, nadda,
> zilch, has happened. I've kept the supposed starter capped with
aluminum
> foil and in a paper bag to avoid exposure to light. The wort has
remained
> around 65F.

Some more overkill. Put your starter somewhere warm and don't worry
about light. If you've used hopped DME (which some people recommend),
there might be a concern about light struck smells, but yeast don't have
any objection to light that I've every observed.

>
> I called the supply house where i got the yeast and they mentioned

> that the low pressure storm system which just came through Phila may have
> caused the starter to mis-start. This seems suspicious to me, however,
> because I've never heard of problems at higher elevations where atmospheric
> pressure is also less than at sea level.

Well, now that's a creative suggestion. Ridiculous, maybe, but creative.

> From: rri!jreid@vtserf.cc.vt.edu (Joe Reid)
> Subject: Falling Krausen
>
> I have a question about when the krausen begins to fall after 2-3 days of
> very active fermentation. As the krausen falls I am left with (real technical
> term here) "brown sludge" stuck to the sides of my primary (plastic bucket).
> The fermentation slows rapidly after this, and if I scrape the sludge into the
> beer it begins fermentating again.
>
> The question is, should I be scraping this sludge back into the beer?

No.

Am I
> doing something wrong to be getting the sludge in the first place?

No.

> From: CRD@imagesys.com (Chris Dukes)
> Subject: Sterilized bottles
>
> I have been following the thread on sterilization/sanitization, but have
> yet to read anything regarding what to do once the bottles have been
> sterilized, other than fill them with homebrew. ;-)
>
> Once the bottles are boiled, bleached, NaOH'ed, etc. . .where do you keep
> them before they are filled and capped? I am concerned about nasties
> falling into the bottles while they are waiting to be filled. Should I
> bottle a six or twelve pack at a time to make sure no bottles are waiting
> too long?
>
> I have been cleaning the whole bunch and then filling and capping. I
> believe I have run across an infection in one or two bottles (not the
> whole batch). Therefore I have concluded that either the bottles weren't
> sterilized well enough, or something got into the bottle after
> sterilization.
>
> Any help/advice on the subject would be greatly appreciated. All grain
> snobs and lowly extract brewers responses are more than welcome! ;-)
>
>
Aha! This is exactly the problem with any system but my own. (Sorry. I couldn't resist the "snob" approach.) (But it's true.)

If you take your clean bottles, and put little aluminum foil tops on

them and then put them in a cold oven, raise temp to 350 for 90 min., let them cool and put them back in the case, you will not have to worry about nasties. I have let bottles sit like this for days and then bottled without problem, and could probably let them sit for weeks -- as long as none of the kids stuck their fingers through the foil. Another advantage of the system is that you don't have to empty the dishwasher first.

- --Jeff Frane

Date: Thu, 18 Mar 93 12:46:39 EST
From: casey!aspen!joem@uu6.psi.com (Joe Mulligan)
Subject: Miller Ale, Yeast Slurry Reuse

I have several questions for the readers of the HDB.

1. Has anyone heard of a "Bass type" ale that Miller Brewing Co. was going to market? A friend of mine was on a tasting panel about 1 year ago. He said they were going to call it, tentatively, Miller Ale, Copperhead Ale, or God knows what.

Flame me if you want, but it is (remotely?) possible that this could be a decent beer. After all, Detroit is making good cars again. Maybe the American mega-brewers can get their act together too.

2. A while back I read a post asking if the yeast slurry in the bottom of a fermenter can be used to make bread or any other food products for human consumption. Any suggestions? (My friend's dogs are currently the benefactor of his yeast slurry. They love it!)

3. Is the infamous Jim Koch related to the brewers of Koch's Anniversary Beer (from the New York area)?

Date: Thu, 18 Mar 93 13:11:15 PST
From: Brew Free Or Die 18-Mar-1993 1541 <hall@buffa.enet.dec.com>
Subject: re: sugar request, data point on aging

In HBD #1100:
>From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
>Subject: sugar request, data point on aging

>And how do you pronounce "succanat"? Suck a gnat? Sue can not?

It's one "c", Sucanat. It's a contraction of the words sugar cane natural.

And I pronounce it sue can gnat. It might actually be shoo can gnat. I'm eating some now. Yum!

- - -

Dan Hall Digital Equipment Corporation MK01-2/H10 Merrimack, NH
03054
hall@buffa.enet.dec.com....!decwrl!buffa.dec.com!hall

"Adhere to Schweinheitsgebot
Don't put anything in your beer that a pig wouldn't eat" --David Geary

Date: Thu, 18 Mar 93 16:30:57 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: Yeast Lab, Hallertau in porters

Has anyone tried "Yeast` Lab" (tm) liquid yeast cultures? They just turned up at my local brewshop. They're distributed by G. W. Kent, so I imagine they are/soon will be readily available.

They come in litte 35 ml vials. They cost the same as Wyeast. The selection is similar. They have most of the Wyeast strains, and a couple that Wyeast don't seem to have. There are 8 ales: Autralian, American, London, British, Irish, Dusseldorf, Canadian, Trappist. 5 lagers: Pilsner, Bavarian, Munich, St. Louis, California. There's a Bavarian and Weizen and two mead yeasts: dry and sweet. I guess Autralian and Canadian ales and the two mead yeasts are the only varieties not availbale from Wyeast. I'm looking forward to trying the mead yeasts.

Thanks to all who replied on the subject of Hallertauer in porters. In particular, thanks to Jeff, Russ, Nick, Kieth, Jim and Walt. The use of Hallertauer, Mt. Hood or Tettnanger as a finishing hop or dry hop for porter seems quite popular. I had originally been planning to do the same, but then I got thinking about using them (Hal. and Mt. Hood in this case) for bittering and flavor as well. Only Kieth MacNeal seems to have tried this. He bittered with Hallertauer and Tettnanger in a porter that was also flavored with ginger and juniper. Wish I could try some!!

So I think I'm going to go for it: I plan to follow the recipe "Foster's Entire Butt" in Foster's _Porter_, except that I'll use Hallertauer and Mt. Hood (possibly a touch of NB as well) for all hop additions, and tone down the chocolate malt a little. The hope is to get something like a Bavarian dark beer in hops and color, but with the ale characteristic of a porter. Wyeast London, in case you were wondering.

Cheers,

Rob (bradley@adx.adelphi.edu)

Date: Thu, 18 Mar 93 14:31:20 PST
From: Robert Pulliam <pulliam@monty.rand.org>
Subject: Call for recipes

Have any of you successfully cloned "Pete's Wicked Ale"? If so, I would love to get your recipe. How about "Dos Equis Amber" (for Cinco de Mayo) Anyone?

Robert J. Pulliam |+|all thoughts, statements, and opinions, |+|
Los Angeles, CA. |+|demented or not, should be my own; and |+|
pulliam@monty.rand.org |+|I'm certainly not associated |+|

Date: Thu, 18 Mar 93 15:20:35 PST
From: scott@gordian.com (Scott Murphy)
Subject: yet another brewpub request

A friend of mine is driving from CA. to NJ. and is interested in visiting the brewpubs along the way. If you know of any in Wyoming, S. Dakota, Minn., Wisc, Ill., Ind., Ohia, or Penn. please email me. I can summerize to the net if anyone wants to know.

thanks

scott

Date: 18 Mar 93 18:24:21 EST
From: "James Spence/AHA/Colo." <70740.1107@compuserve.com>
Subject: AHA/Pete's Press Release

PRESS RELEASE

The American Homebrewers Association (AHA) announces Pete's Brewing Company's sponsorship of the 1993 Ninkasi Award to be presented at the 1993 National Homebrew Competition being held July 27-29 in Portland, Oregon. Named after the Sumerian Goddess of Brewing, this premier honor is awarded based upon brewing proficiency across several categories of beer. Scoring is based upon the greatest accumulation of points across all style categories.

In addition to this year's trophy, judges and Pete's Brewing Company will choose one of the Ninkasi Award winner's beers to be brewed as the first Pete's Wicked Winter Brew which will be distributed coast to coast.

Compliments of Pete's Brewing Company, the award winning brewer will also receive:

**Name recognition on every bottle of Pete's Wicked Winter Brew.

**Registration at the two week Short Course in Brewing Technology at the Siebel Institute of Technology in Chicago (tuition, travel and lodging included)

**Attendance at Pete's Wicked Winter Brew's first brewing at Pete's Brewing Company (travel and lodging included).

"As a homebrewer, I am excited to offer this opportunity to a fellow homebrewer," remarks Pete Slosberg, founder of Pete's Brewing Company. Pete's homebrewing led to Pete's Wicked Ale, now a nationally acclaimed microbeer and the 1992 Gold Medal Winner of the American Brown Ale category at the Great American Beer Festival. He continues, "This is the chance for someone's homebrewing skills to be recognized across the United States."

The American Homebrewers Association, a division of the Association of Brewers, is dedicated to promoting public awareness and appreciation of the quality and variety of beers through the collection and dissemination of information. For more information about the National Homebrewers Conference or Competition, please contact the AHA at (303) 447-0816.

Contact: Karen Barela (303) 447-0816
American Homebrewers Association

Kristin Seuell (800) 877-7383

Pete's Brewing Company

###

Date: Thu, 18 Mar 1993 17:45:41 -0800
From: Michael.Burgeson@Eng.Sun.COM (J. Michael Burgeson)
Subject: BrewCap ?

Can someone who has a BrewCap please tell me if they will fit on the threaded neck of a 6.5 gallon carboy, or do they only work on the smooth neck of the 5 gallon carboys?

tx,
- --mik

Date: Thu, 18 Mar 93 20:08:38 EST
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: More AoB Bashing

Back on 8 February, I ordered some books from the AoB. Among them was The Practical Brewer.

When the package arrived a few days later, Practical Brewer was not in it and was, according to the invoice, backordered. Of course I was charged for it anyway. When I called (the day the package arrived)

' I was told the book was out of stock and would be in around the first of March. I said, OK, but I'm not too happy that you have invoiced me for something you aren't going to ship for another three weeks. (No response.)

Mind you, I wasn't told about the backorder when I phoned my order in. :-||

So weeks and weeks roll by. No Practical Brewer.

I called again today. This time I was told "the book isn't back from the printer yet ... it's a new printing." I can now, they say, expect the book to ship around the first of April.

None of this would bother me if AoB, which purports to run a high-class mailorder operation, would do the usual high-class thing and INVOICE ONLY FOR ITEMS SHIPPED. I could wait for months (not that I would like to) if they weren't holding onto my money. As it is, though, I am getting more and more pissed about this, as well as silliness like "15% off" a \$10 book...I mean, the mailing probably cost half of that discount per member!

I plan to send a written complaint shortly, and encourage any of the rest of you who have had trouble with the mailorder service, or other aspects of the AHA/AoB/etc. to do the same with your gripes.

Help stamp out poor service in OUR organization.

=====
=====O Fortuna, velut Luna, statu variabilis=====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052
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Date: Thu, 18 Mar 93 20:40:33 EST
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: pH meters

Nick says:

-) I finally broke down and bought a ph meter.[The
-) hanna unit that American brewer sells if it matters]
-) I now have three questions:

I have one of these. It works reasonably well for something so inexpensive.

-) 1) can I just use distilled water to calibrate at
-) ph7?

No, positively not. You must use a buffer solution of some sort. I recommend getting a pH 7 buffer and another buffer around 5.5. The CRC Handbook has a table that tells you how to make up buffers of any pH your heart desires. I have 4, 5.5 and 7 in my cabinet. You can also find premixed buffers (generally expensive) and buffer capsules that you mix with some quantity of distilled water.

Distilled water has no buffering capacity. Even a tiny bit of some acidic or alkaline material in distilled water will change its pH significantly--including contaminants that might be present on the pH meter. Typically, a probe rinsed in tap water will read well above 7 when placed in distilled water--because of the alkalinity of the tap water.

-) 2) can I expect this thing to be reasonably
-) calibrated just out of the box? Or should I just
-) check to make sure?

Don't trust it. No way. It could be +/- .5 units, or more.

-) 3) Finally is there anything I should look out for?

Cool the samples to <100F before making your measurements. Ideally to <80F. This isn't for the probe's sake, but for the sake of accuracy. The pH changes with temperature.

=====
=====O Fortuna, velut Luna, statu variabilis=====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
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Date: Fri, 19 Mar 93 08:19:33 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: DME vs. liquid malt extract

Is there any reason for not using DME only in an extract brew? Is there something in the liquid malt extract that DME has not? As my only source of extract (till I turn grain...) is from abroad I figured DME would give me more extract per kilo (which counts if you have to use over-seas air-mail). So, is my beer going to miss anything?
Nir

Date: 19 Mar 1993 07:53:25 -0500 (EST)
From: Sandy Cockerham <COCKERHAM_SANDRA_L@LILLY.COM>
Subject: Used Kegs

Hi,
Does anyone know a good source for used 3 gallon Cornelius Kegs ??
thanks, Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

Date: Fri, 19 Mar 93 09:51:02 EST
From: Michael J Kahlke <kahlke@express.ctrn.com>
Subject: Disappointing Results

Jeff Frane asks:

> On another note, has anyone ever gotten results anything like Charlie's
> from one of his recipes? He seems to bat them out at a fairly high
> rate, and I've wondered over the years how much time goes into
> developing each one, and whether he's ever brewed one of them more than
> once (or better yet, more than three times) before publishing them.

I just brewed a batch of his "Bruce and Kay's Black Honey Spruce Lager" last month. Fortunately, the owner of my local brewing supplying shop warned me that he had tried to make this several times and recommended that I use only a quarter of the spruce essence that Charlie Papazian states in his recipe. The result was a spruce lager with just the right amount of "spruce-iness" to it. If the store proprietor hadn't warned me I would have ended up with two cases of Pine Sol instead.

Mike Kahlke

Date: Fri, 19 Mar 1993 10:23:18 -0500 (EST)
From: Andy Kurtz <ak35+@andrew.cmu.edu>
Subject: "candi" sugar

In "Belgian Ale" Rajotte writes:

"Candi sugar is made by the slow crystallization of a highly concentrated hot sugar solution. The sugar solution is cooled in a tank in which cotton strings are hung. The crystals form themselves around the strings. The slower the cooling, the larger the crystals become."

questions:

1. How concentrated is "highly concentrated"?
2. Rajotte says that the taste profile of candi sugar is different from sugar "out of the bag." In what way?
3. This sounds a lot old fashioned "rock candy." Will the results be the same if I try this at home on a micro scale?

andy

Date: Fri, 19 Mar 93 10:27:33 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Dark grains at mashout, Freezer

In hbd 1101 Frank Tutzaner referred to references by a local brewmaster and Micah that dark grains should be added at mashout. Forgive me for being a purist, but wasn't the original reason for dark grains, and hence dark beers, pH reduction prior to a good understanding of such matters? Adding dark grains later may add color and sugars, but apart from a slight extra asstringency, what is the problem with conventional mashing getting the benefit of pH reduction? Adding grains late in the mash is a step towards Michelob Dark.

I just purchased a 1950's Jeffrey Dahmer (;-)) chest freezer by International Harvester! They certainly don't make them like they used to. IH may have used the same sheet metal for this that they used for trucks. It has features I have never seen before like a battery powered alarm if the temperature rises and a thermometer in the door - unfortunately it says warm to cold, rather than temperature. This huge heavy beast was moved relatively smoothly and is now in my basement and I do not feel like dragging it back up the stairs! Anyway, now that I have my summer lager I will be very interested in answers to Glenn Raudin's questions in hbd 1101. But I have a few more which refer to lagering. I can probably fit 4 or 5 carboys in the freezer and so can now do long lagering, but what do I do when adding a new beer to the lager? Obviously it would be bad to adjust the temperature upwards from 40 or lower to step down a new addition. I have another small refrigerator that can take a 5 gallon carboy that I use now, and could continue to use for step downs or 32 lagering for those extra special beers. Also, how do people do summer primary fermentations? I wouldn't want to raise the temperature in the freezer even to 48, and because my 7 gallon carboys will not fit in the refrigerator, will I be forced to use a blow off tube and 5 gallon carboys? Any suggestions?

'Heineken!?! ... F#\$\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

 Pabst Blue Ribbon!' | Notre Dame IN 46556
 | ulick@bach.helios.nd.edu

Date: Fri, 19 Mar 93 10:45:15 EST
From: "John DeCarlo" <jad@pegasus.mitre.org>
Subject: Re: Yeast food

>From: Keith A. MacNeal <macneal@pate.enet.dec.com>

>In HBD #1100, John Williamson writes:

>> Thursday evening I broke the inner package on a pack of Wyeast
>>pilsen lager yeast (sorry, forgot the number). The package of yeast
was
>>dated 8 February. By Friday morning the pack had expanded to about 3/
4
>>to 1 inch in thickness. I pitched this into 3/4 quart of wort I had
>>prepared the evening before. The wort starter was made by mixing 3 Tbs
>>of an amber DME with 3/4 quart water in a 1 1/2 quart clean juice jar.

>I think your problem was that you used only 3 tbs of DME. Are you sure
you
>gave the yeast enough to eat?

I guess I have a hard time with measurements like that. For a starter,
you
want 1.020 wort, which roughly translates into 1 oz. for each pint. So
for
1.5 pints you want about 1.5 oz.

3 "heaping" tablespoons might easily be **more** than 1.5 oz. Sometimes I
get more than 1 oz. out of one heaping tablespoon (I weigh for starters)
.
OTOH, 3 "level" tablespoons might easily be **less** than 1 oz.

So, he either put in more DME than needed or less than recommended.

I don't know.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Fri, 19 Mar 1993 10:40:52 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Re: grain bags

>
> Date: Wed, 17 Mar 1993 14:20:28 -0800 (PST)
> From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
> Subject: crystal malt in muslin bag
>
> In HBD 1099 Mike Rego asks about Cara-pils haze. This prompts me to
ask a
> more general question regarding the addition of other malts to an
> all-extract brew. Up until now I've been putting these in a tightly-
woven
> hop bag, but am convinced that the bag is too small, packing all the
grains i
> much too closely and restricting the extraction I get.
>
> I'm thinking of using a much larger bag made out of muslin, but am
wondering
> if the much coarser weave will allow undesirable things into the wort.
My
> procedure is generally to steep the grains for 20 minutes or so at 170
> degrees, then remove the bag prior to bringing the wort to the boil.
>

When I was still doing extract I would make bags out
of cheese cloth. Worked great. Plus the cost for it
was so low you could just toss them afterwards.

>
> My thoughts are that the muslin idea would work, because in full grain
brewin
> all this stuff is thrown in with no strainer bag, right?

Well yes but you also have some way to sparge. My
current lautertun has a copper manifold in the
bottom. It basically does the same job has the bag
in keeping the grains out of the boil.

Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Fri, 19 Mar 93 10:52:29 EST
From: Jean Hunter <MS3Y@CORNELLA.cit.cornell.edu>
Subject: Re: oat bran in brewing

Has anyone tried using oat bran in an oatmeal stout? As a brewer in the extract/partial mash school, I question the logic of using large quantities of flaked oats as a specialty grain, especially when the starch will obviously not be converted. I would expect the gums and glucans to be concentrated in the bran of the oat -- so why not use just the bran fraction and save the rolled oats for breakfast?

I suppose that I'm assuming here that the major contribution of oats to a stout is the fullness and body provided by the gums.

Can anyone comment on this assumption?
Has anyone tried brewing with oat bran, and with what results?
Thanks and cheers -- Jean(Sigbars waste bandwidth)

Date: Fri, 19 Mar 1993 11:32 EST
From: "JOSEPH V. GERMANI" <GERMANI%NSLVAX@Venus.YCC.Yale.Edu>
Subject: Los Alamos brewers

Greetings,

Well, it's job search time for me, and one of the most important things to find out about a town that you might be moving to is if there are there any homebrewers there! So how about it, are there any brewers out there in Los Alamos? There must be some Hill Hoppers on the net. Please reply directly to me GERMANI%NSLVAX@VENUS.YCC.YALE.EDU. Thanks for the use of the bandwidth.

By the way, I hear that there is a small brewery half way between Santa Fe and Taos that makes a good green chili beer. I think that it is called Embudo Station.

Joe

Date: Fri, 19 Mar 93 10:52:37 CST
From: jlf@palm.cray.com (John Freeman)
Subject: quassia

Last night I was enjoying a Pipers Pride at Sherlock's Home in Minnetonka and commented to the owner how much I liked it. He then showed me an article from Midwest Beer Notes about Pipers Pride. Here is a sentence that caught my attention "in our Pipers Pride I use a bit of quassia -- a South American herb favored by many Scottish brewers and used as late as the 1950's for some export ales."

I had never heard of quassia before. Does anyone know anything about it? Like where to get it? How much to use?

Date: Fri, 19 Mar 1993 10:19:29 -0700
From: colesa@spot.Colorado.EDU
Subject: Charlie recipes

In digest #1101 Jeff Frane asks:

>On another note, has anyone ever gotten results anything like Charlie's
>from one of his recipes? He seems to bat them out at a fairly high
>rate, and I've wondered over the years how much time goes into
>developing each one, and whether he's ever brewed one of them more than
>once (or better yet, more than three times) before publishing them.
>What really struck me was his recipe in the most recent Zymurgy, which
>calls for (not having it in front of me, and whoops, here we go again
>relying on memory) something in the neighborhood of 3.5# of dry malt
>extract and about 3 pounds (maybe a little more) of specialty grains.
>This to produce five gallons of a beer over 1.065. Does anyone else
>think this is unlikely?

>

>- --Jeff Frane

My roommate and I just bottled his Toad Spit Stout, and although we
modified
it a little (some extra dry dark malt extract and a little less liquid
extract), it tasted at bottling time VERY similar to Guinness, as he
claims. Just my \$.02.

Cheers!

Adam Coles *
Senior, Bioengineering * Sure I'll wear a three piece suit...
College of Engineering * As long as it's jeans, t-shirt,
CU Boulder * and a leather jacket!

Date: Fri, 19 Mar 93 12:20:37 EST
From: gkushmer@Jade.Tufts.EDU
Subject: How much is too much?

I'm thinking of making a fruit beer (acutally, its a vegetable beer), and I want it to have a good deal of residual sweetness.

To accomplish this I was thinking about putting in a pound and a half of crystal malt. Does anyone think that this might be too much, or would this not make the beer as sweet tasting as I might want? I don't want it donut-sweet, but I would like some slightly sugary taste in there.

Any advice would be greatly appreciated!

- --gk

Date: Fri, 19 Mar 93 10:41:17 -0700
From: Loren Carter <lrcarter@claven.idbsu.edu>
Subject: pH meter

In HBD 1100 Nick asks:

1) can I just use distilled water to calibrate at
ph7?

No! distilled water is not always at a pH of 7, in fact water will
hardly
ever have a pH of 7. Dissolved gases will cause the pH to vary. Dissolved
carbon dioxide will cause the pH to be around 5.6.

Also I would not trust the calibration on the new instrument. It
probably
is not calibrated at all and the calibration does change with time. Use
a
buffer solution of known pH to calibrate the meter.

Hope this helps.

Loren Carter
Chemistry Department
Boise State University
Boise, Idaho

Date: 19 Mar 1993 13:04:54 -0500
From: Chris McDermott <mcdermott@draper.com>
Subject: Brewpubs and Micros in NV

Brewpubs and Micros in NV
Asking for a freind:

I'm looking for any Brewpubs or Micros in or around Las Vegas.
Please reply via email to save HbD bandwidth.

Thanks,

Christopher K. McDermott / MS 22Internet: mcdermott@draper.com
C.S. Draper Laboratory, Inc. Voice:(617) 258-2362
555 Technology Square FAX: (617) 258-1311
Cambridge, MA 02149 (USA)

Date: Fri, 19 Mar 1993 10:32:00 -0800
From: Michael.Burgeson@Eng.Sun.COM (J. Michael Burgeson)
Subject: roast material

My local homebrew supplier (Fermentation Frenzy) has a bag of "Roast Material" from Hugh Baird. "Roast Material" is what is printed on the bag above the Hugh Baird logo. It looks like roast barley to me, but it tasted different (more biscuity). Has anyone had any experience with this grain? Is "Roast Material" the British name for "Roast Barley"? Or is there more than one type of grain in it (it didn't look like that to me). Does anyone know what this stuff is?

see 'ya,
- --mik

Date: Fri, 19 Mar 1993 10:43:45 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re: Temp. Controls / Freezer

>Date: Thu, 18 Mar 93 8:24:05 CST
>From: raudins@galt.b17d.ingr.com (Glenn Raudins)
>Subject: Temp. Controls / Freezer

>Re: Temperature Controls

>I would like some feedback on what people think of their temperature controls
>for their refrigs/freezers. Has anyone used the digital one from American
>Brewmaster? I like the idea of the digital ones, but I've only seen ones that
>go down to 40 degrees. I know Williams beverage sell one that goes down to
>20 degrees but it does not have a digital display.

>
>Re: Refrig/Freezer
>

>Any recommendations on refrigs/freezers that have worked well for people? I
>seem to think that a chest freezer would allow the best utilization of space
>and it would allow the temperatures for lagering. Also, what results have
>people gotten lagering with just their refrigs (down to 40 degrees I believe)?

I use both the temperature controller that William's sells and a Hunter "Air Stat" for different refrigs. The one that William's sells (~\$50) is a very good quality industrial grade unit made by "PENN controls" if I remember right. It is true that it doesn't have a digital display, but who needs one? It would look cool and impress all of your friends, but not really necessary. The Hunter Air Stat I bought at Home Depot for \$19. It does have a digital display for the coolness effect, but has a couple of disadvantages. One is that the user interface was designed for programming room air conditioners to save energy. It is hard to use to just adjust the temp setting and keep it there. The other disadvantage is that it only goes down to 40 or 45 deg F. This is not cold enough for lagering. Its best advantage is price.

As far as refrigs go, I agree that the chest type would be best, although I have not run across one for the right price yet. Most refrigs should not have a lot of trouble getting down to 32 deg F for lagering. I know that none of my three do.

Date: Fri, 19 Mar 1993 11:03:50 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Dextrine/cara-pils

>korz@iepubj.att.com Writes

>Now, who was it that started the rumour that Cara-pils is not like other
>specialty malts? I have been treating it just like any other Crystal
>malt with no problems. The one difference is that U.S. Dextrin Malt
>(another name for Cara-pils) which is made from scrawny 6-row grains
>is hard as ball bearings! You could break a tooth on that stuff! The
>DeWolf-Cosyns Cara-pils is made from 2-row and is nice and plump and
>not at all like US Cara-pils. Bottom line is, that Cara-pils is just
>very pale Crystal Malt (7.87L or 15 EBC for the DeWolf-Cosyns).

I was under the understanding that the process for malting crystal sort
of
accomplished a pseudo mash. I have never heard how Dextrine/cara-pils is
made. What I do know is that William' Brewing (Bill Moore's company)
sells
Dextrine/cara-pils as something that needs to be mashed, and also sells
L10
light crystal as a non-masher substitute for this. I have used both, but
with otherwise identical brews, so I have no comparison between the two.

Does anybody know how Dextrine/cara-pils is malted? What are the other
opinions and experiences with not mashing it?

Date: Fri, 19 Mar 1993 11:32:51 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: bottle drying rack

With the thread going on about bottle drying racks, I thought I would my \$.02 worth in.

I did not like the idea of something sticking into the neck of my already sanitized bottles, like the commercially available racks do. It seemed that I would have to sanitize the rack also. So, I made my own rack from plastic that I got out of the scrap pile at the local plastics store. It basically looks like a box, about 18"X30"X5" with 60 holes (1.25" I think) drilled in the top. It holds 60 bottles upside down so nothing falls in them, and no part of it goes into the bottle. It sits on the counter top when in use, and is easily stored when not. It can also be moved around with the bottles in it, if one is careful. It is constructed by gluing some 1/4" plastic sheets together, then drilling holes with a hole saw. I don't ASCII graphics are necessary here, unless somebody really wants them.

Sherman

Date: Fri, 19 Mar 93 14:20 CST
From: korz@iepubj.att.com
Subject: Re: x-tal in muslin/hop spacing/mashing dark grains/Baderbrau

Peter writes:

>In HBD 1099 Mike Rego asks about Cara-pils haze. This prompts me to ask
a
>more general question regarding the addition of other malts to an
>all-extract brew. Up until now I've been putting these in a tightly-
woven
>hop bag, but am convinced that the bag is too small, packing all the
grains in
>much too closely and restricting the extraction I get.
>
>I'm thinking of using a much larger bag made out of muslin, but am
wondering
>if the much coarser weave will allow undesirable things into the wort.
My
>procedure is generally to steep the grains for 20 minutes or so at 170
>degrees, then remove the bag prior to bringing the wort to the boil.
>
>The grain crushing process (either a rolling pin for me, or sometimes I
buy
>it pre-crushed from my brew shop) produces powder along with broken
grains.
>How important is it to sift all this powder out? If it gets into the
wort
>will it cause any problems?

I suggest using a bigger (I think it's polyester) grain bag. I think
your
process is fine (for extract beers, I suspend the grain bag in cold water
and pull it out when it reaches 170F). Most of the powder when you crush
crystal malt (AND THIS IS IMPORTANT) is the crystalized sugar. Taste it.
It's sweet. The first time I used crystal malt, I shook the grain bag
till the brown powder stopped coming out. I then thought about it (I
had more than an hour to think, you see) and realized that the powder
was probably crystalized sugars. Sure enough, when I tasted it, it was
sweet. Now, if you are pulverizing your grain husks, then part of the
powder will be husk, but the solution is crushing your malt better and
not using a more fine bag. Fix the source of the problem, don't put
a bandaid(tm) on a symptom.

Brian writes:

>I'm waiting for my hop rhizome order to arrive from Freshops.
>In the meantime, a friend has already received his, and tells
>me that 6 ft. spacing is recommended between varieties. I have
>a good idea where I want to put them, but I'll only have about
>4.5 - 5 ft between varieties. I'd like to hear from some
>experienced growers out there: how far apart your varieties
>are, any problems, speculation on whether I'll get into trouble
>with closer than 6' spacing, etc.

The problem with having the spacing too close is that the hop
plants send runners underground and when they come up, you dont know
which plant they came from. I planted mine 6 feet apart and put
3-foot diameter, rabbit fencing cages around them. This was to keep
the rabbits and the pesky deer away from the young shoots. Any
shoots that come up outside any of the cages, I chop them off with

a vertical chop with a spade. This way, the shoots get cut off at the source, just outside the cage, so they wouldn't eventually creep into the next cage. The fear, in case it's not obvious, is to know what variety you are picking, so you don't dump Chinooks in when you are expecting Saaz. My standard "give each plant 6 gallons of water and as much sun as you can" should also be mentioned.

Frank writes:

>I know Micah's no longer with us (gee, that sounds like he's dead--you know
>what I mean: He's no longer with the DIGEST), but before he left he made the
>argument that dark grains should only be added at mash out, rather than for
>the whole mash. The subject came up at our homebrew meeting last night, and
>Fred Lang, the brewmaster at our local micro, agreed with Micah. He said to
>put the dark grains in for just ten or twenty minutes at the end, while
>mashing out.

This is dependent on your brewing water. In Munich, the dominant style used to be a Dunkel, made with dark grains. This was because the dark grains would acidify the Munich water and dark lagers just came out better than paler ones. If your water is soft, then you may indeed want to only add the dark grains in during mashout.

Jack writes:

> Judging from all the interest in getting that caramel flavor recently
> displayed on the Digest, I presume that lots of people would not find that a
> problem. More importantly, Ken Pachivich at Bader Brau makes an issue of his
> "fire brewed" process to achieve that caramel taste for his award winning
> Pilsner. He brags about how hot the fire must be to achieve caramelization.

Controlled caramelization is quite hard to achieve, especially for us homebrewers. Commercial brewers are better equipped to control the amount of caramelization that occurs. Baderbrau is somewhere between dark blonde and light amber in color, so the caramelization is not very severe. Obviously, Ken has good control over the amount that occurs. For us to add repeatable caramel flavors in our beers, I'd say that crystal malts are our best bet.

With all due respect to you, Jack, and at the risk of bringing an abrupt end to the pleasant demeanor (and humor) you've recently displayed in HBD, I'd like to dispute Ken Pavichevich's claims that Baderbrau is a Pilsener.

We've disagreed on this before and no matter what Ken says or the people who have deemed Baderbrau an award-winning Pilsener say, I contend that it's not a Pilsener. It is too malty in both nose and flavor, slightly fruity and a tiny bit dark to be classified as a pilsener. The caramelly flavor that you say that Ken brags about is out of place in a Pilsener. Pilseners are supposed to be sharply refreshing, their balance should be decidedly towards hops in both flavor and aroma and have a spicy hop nose

(PU uses Saaz). I'd say Baderbrau is a great Munich Helles (albeit at the dark end of the style). I feel it's a great beer, just not a Pilsener.

Al.

Date: Fri, 19 Mar 93 16:47:40 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Manifold Design and use ??

I have ten feet of 3/8" od soft copper tubing left over from constructing a wort chiller. I have considered using this to construct a slotted copper manifold. Is this diameter adequate? or should I use the Tee and plumbing stock type of pipe.

When using the manifold does one also use a mesh grain bag or does one just add grain to the mash tun with out a screen or mesh bag over the manifold?

Is there any problem using PVC pipe and connectors instead of copper, besides philosophical issues. It is used for hot and cold water plumbing in some new construction so it is able to handle mas/sparge temps.

End of HOMEBREW Digest #1102, 03/22/93

Date: Fri, 19 Mar 93 13:40:02 PST
From: troy@scubed.scubed.com (Troy Howard)
Subject: cider

Way back in HBD 1096, KLIGERMAN@herlvx.rtpnc.epa.gov wrote:

>In October I made an apple cider and thanks to the advice on the HBD,
>I added sugar water after a few months and it cleared very well with
>a gravity of about 0.992 down from 1.054. I would like to bottle it
>as a sparkling cider. Should I wait longer or bottle it with about 3/4
>cup of sugar now and let it age in the bottle? Should I continue to let
>it age in the carboy, or will I endanger killing the yeast. I used
>Whitbread dry ale yeast. Thanks.

I have had trouble posting (I am not even sure if this will make it, but
...)
but this is what I said at the time:

Well, now that you bring it up, let me ask you a couple of questions,
I just made a couple of batches of cider. They turned out **very** dry,
which is cool, cause that's the way I wanted them. However, they are
a little too dry. I think one of my mistakes was using champagne yeast
(duh!). But other than that, I have a conceptual problem. Let's say
I use ale yeast next time, how do I get a **slightly** (and I do mean
very slightly) sweet AND carbonated cider. Seems like if there is any
residual sugar in there, the yeast will eat it. So you always get a
more carbonated, dry beverage. I know I can add lactose (which
yeast cannot ferment) but that just seems so....."high tech". Any
thing more "natural"?

By the way, my second batch I used apple juice concentrate to boost the
O.G. Don't know if it will work any better, but intuitively one might
think it would contribute more 'apple' flavor. We'll see.

As for your question, you quote an O.G. of 1.054. Did this take into
account the sugar water you added? If not, what was the gravity and
volume (or weight) of sugar water that you did add? Doing a simple-
minded calculation on the figures you give, you (may) have an alcohol
concentration of a little over 8% by volume. This is nearing the
tolerance
of most ale yeast, although I was reading a chart at a homebrew store the
other day that seemed to say that some ale yeast could go up to 12%.

So I guess an answer to your question would depend on how much extra
sugar you treated your yeast to. Although it probably wouldn't hurt
to bottle now. However-- with a whole two batches of cider under my belt
(and the second still in secondary) my advice is probably worth just what
you paid for it. :-)

Troy

Date: Fri, 19 Mar 93 16:39:37 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Lauter Tuns, PU

```
>  _ end cap
>  |
>  tee +-----] cap
>  |
>  [-----+
>  |
>  +-----]
>  |
>  [-----+
>  |
> elbow /
> 90 deg up ----->=====
> standpipe siphon hose
> (this would be coming out of the screen)
>
> Perhaps I am thick but I do not understand this. Which way is up?
```

I probably wasn't too clear on this. The "stem" and arms all lie on the bottom of the pot/cooler, slots face down; then the standpipe comes up the side of the vessel. Here's a side view:

```
      siphon hose ==+
      |<-stand |
      | pipe |<- pot/cooler
      | |
      | arms |
      |/#####|
      |-----|
```

```
>The idea for this one came from McHarry and if you find me pushing a shopping
>cart full of empty cans, you can blame him. He, of course, stole an idea
>from Benjamin but I couldn't understand the latter's drawing so, he beat me
>to it.
```

I wish I could say the standpipe idea is mine, but I stole it from someone else, really. You know what they say... "good artists borrow; great artists steal."

- - -
Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

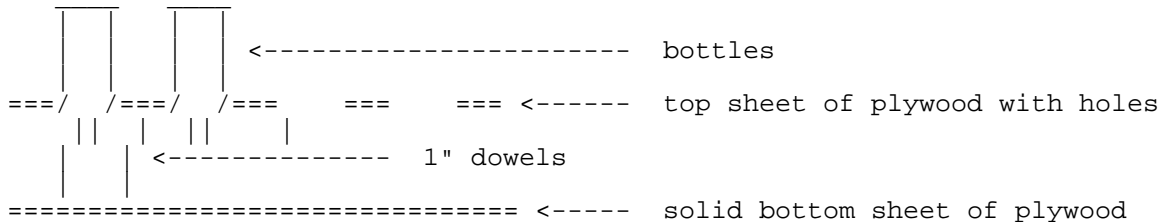
Date: Fri, 19 Mar 93 21:49 EST
From: tmr1@hotmailg.att.com
Subject: BOTTLE DRYER

I have seen the plastic bottle drying towers sold in homebrew stores, but I like the one that I built better.

It consists of 2 sheets of 1/2 inch plywood, 15" x 24" separated by six 1 inch dowels, each about 5" long. The top plywood sheet has a 4x6 grid of 2-1/2 inch holes cut into it with a hole saw. The bottom sheet is solid plywood. Below is a side view with a couple of bottles sitting in the holes. This bottle dryer holds 24 bottles, but varying the size of the plywood and holes will change the capacity. You can customize the dimensions to fit your size of bottles. All the wood pieces were painted with several coats of polyurethane prior to assembly to make the entire structure fairly impervious to water damage. As the bottles drain, I prop up one end of the dryer to let any accumulated water run off the bottom sheet of plywood.

I only use 16 oz. Grolsch bottles for my brewing and this handles them nicely even with the ceramic stoppers attached. This drying rack will let the bottles drip-dry upside down and not let any "nasties" fall inside them. It also does not touch the inside of the bottle so there is no need to sterilize the dryer.

After I wash and dry a case of bottles, I just loosely clamp the ceramic stopper in the mouth of the Grolsch bottle to keep out any dust. I store the rubber gaskets separately. When it is time to bottle, I soak a case at a time with a bleach solution, rinse thoroughly and let them drip-dry for a few minutes. The (boiled) gaskets then go on the ceramic stoppers and are lightly closed until each bottle is ready to be filled.



Tom Romalewski

Date: Sat, 20 Mar 93 16:41:55 -0800
From: ek@chem.UCSD.EDU (Ed Kesicki)
Subject: Recipe: SN Porter Clone

Here is a recipe for a clone of Sierra Nevada Porter. I didn't mean for it to come out that way; in fact, I had never tasted SNP until after I made this one (my 4th all-grain batch).

It is based on Dave Miller's traditional porter recipe:

SIERRA NEVADA PORTER CLONE (5 gal batch):

7 lb2-row pale malt
12 ozBlack patent malt
6 ozBarley flakes
.5 tsp gypsum

Hops: 2 oz Cascades loose hops, 5.5% aa, 60 min boil (= 11 AAU)
0.5 oz English Fuggles plug hops, last 5 min of boil

Yeast: Sierra Nevada Yeast, cultured from two bottles (actually it was the yeast cake from a previous batch)

PROCEDURE:

Mash in: 130 deg. F 9 qts water (San Diego tap water)
Protein rest: 125 deg F 30 min
Mash temp:154-142 deg F 1.5 hr
Mash out: 168 deg F 5 min
Sparge: approx 4-5 gal @ 170 deg F

Total boil time of 1.25 hr, hops additions as noted above, chilled.
Fermented in glass, temp in the low 60's Farenheit, blow-off used.

OG: 50 FG: 17 (but could have gone lower--overcarbonated in bottles)
Total cost: \$1.20 /six pack (not including yeast)

Ed Kesicki

P.S. In an upcoming issue I'll post a recipe for an ale which tastes suspiciously like Bigfoot Ale, but with slightly lower O.G.

Date: Sun, 21 Mar 1993 10:28 EST
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>
Subject: Pub Draught Guinness

I must say that I am surprised at all the enthusiasm for canned Guinness. When I tried it (a 4-pack, shortly after it was introduced) I was totally unimpressed. But, moreover, at a recent CAMRA Ottawa Homebrew Competition, they slipped Pub Draught Guinness into the stout category as a "ringer" in a totally blind tasting, and the judges rated it 12th out of 14 supposedly homebrewed stouts!!

The judge's comments, even before the identities of the brews were announced were (paraphrased): Beautiful head, wonderful nose, no flavour at all. Where's the beef?

Everyone was very amused when this brew was identified as Pub Draught Guinness!!!

Cheers, P.

Date: Sun, 21 Mar 93 12:51:41 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: Are Zymurgy special issues worth it?

After more than seven years as a homebrewer, i've finally broken down and joined the AHA. The jury is still out on the question of whether it was a wise investment of \$25.

To the point: all of the special issues of Zymurgy from past years can be back ordered, and I'm interested in opinions as to which (if any) are worthwhile for an old dog who's always willing to learn new tricks.

The issues in question:

1985 All-grain 1986 Malt Extract 1987 Troubleshooting
1988 Brewers and their Gadgets 1989 Yeast1990 Hops and Beer
1991 Beer Styles 1992 Gadgets and Equipment

1986 costs \$5 and 1992 costs \$9.5. The others cost \$8.5 and are available as a set for a discount. For the discount to be worth it, one would have to want all 6.

Perhaps replies should be limited to e-mail, but I can't help thinking there are a lot of other HBDers who would be interested in the opinions of those who've read these issues. In particular, sis you learn a lot? Do you still refer to them years later?

Thanks,

Rob (bradley@adx.adelphi.edu)

Date: Sun, 21 Mar 93 14:03:46 -0500
From: bradley@adx.adelphi.edu (Rob Bradley)
Subject: Drs. Balling and Plato

I have two questions about Balling/Plato:

1) Exactly what is the difference between them? Foster (Pale Ale, Porter) says Plato is "a more accurate, revised version of Balling" He also says Balling is calibrated for 17.5C whereas Plato is calibrated for 20C. I presume the 'more accurate revision' is something more than just a temperature adjustment. Was it simply a matter of Dr. Plato (great name!) taking more accurate readings?

It is interesting to note that both triple-scale hydrometers I have owned in my life have had Balling scales, the older, less accurate one. On the other hand, most books (Eckhardt, Foster, Jackson) use Plato, the more accurate one. What gives? Will some entrepreneur out there in HBD-land take up the challenge and produce a Balling/SG hydrometer for us?

2) I understand that the conversion of a degree Plato to 4 points of SG (as in OG 1050 (12.5P)) is only an approximation. A quick look at the Balling scale on my hydrometer shows that $SG \approx 4 \times \text{Balling} - (1 \text{ or } 2)$ in the range of 1030-1060. However $SG 1080 = 20 \text{ Balling}$ and $SG \approx 4 \times \text{Balling} + (1 \text{ or } 2)$ for SGs around 1100. Do I gather that the 1:4 approximation is better when using Plato:SG?

Cheers,

Rob (bradley@adx.adelphi.edu)

Date: Fri, 19 Mar 1993 14:53:41 +0000
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)
Subject: OG for starters - a question

Over the time that I have been reading HBD, there have been many articles which have talked about the best gravity of wort to use in a starter. The received wisdom from most postings is that an OG of 1.020 is best, but recent postings have expressed different views.

I recently mentioned the figure of 1.020 to a (knowledgeable) colleague and then realised that I had no hard evidence to support any claims - just HBD hearsay (which I have no doubt is well founded :-)

So what is the best OG for a starter? Is the value different for culturing up from a small amount (say from a slant), from that for growing an existing large colony (say from a packet of dried yeast)? Or, assuming that one might culture from 10ml to 100ml and then to 1lt, should one use the same OG medium for the 2 stages, or might it be better if they were different?

I look forward to your views, but would also appreciate receiving a reference or two that I could follow up - or the results of some experiments that you have carried out.

If I get a lot of info I shall gladly summarise it.

Geoff

Date: Sun, 21 Mar 1993 12:55:26 -0800
From: Richard Soennichsen <spart@well.sf.ca.us>
Subject: Secondary?

Three days ago I made a Trappist ale and used a cultured Chimay for yeast. It began fermenting that night and fermented vigorously for the next two days.

Now it has slowed way down and the S.P. is within 2 points of that specified in the receipe.

Is it time to go to the secondary even though it has only been three days? The receipe called for three weeks in the primary and one week in the secondary.(Cats Meow Ed2 pg. 9-18)

Date: 22 Mar 1993 11:28:12 +1200
From: DAVID DEAN <DEAND@kea.lincoln.ac.nz>
Subject: Looking for stainless containers in New Zealand?

I'm new to HBD but not to homebrewing. However, I just moved to New Zealand and I'm having a hard time replicating the setup I left in the States.

Stateside I was using 5 Gal stainless Coke (or Dr P) syrup canisters as kegs (and storage) after secondary fermentation. However, they use a plastic bag system here in NZ. Does anyone know of any stainless substitutes down under?

Thanks

- -----<:(David L. Dean)-: >-----
- -----<:(Lincoln University, Canterbury, New Zealand)-: >-----
- <:("sober fearless pursuit of truth, beauty, & righteousness")-: >-

Date: Mon, 22 Mar 1993 01:50:06 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: two questions

Did anyone catch the new Budweiser ad? A couple of yuppies sitting round a bar learn that because AB has a brewery in St Louis, and another in Milwaukee, and another in New Jersey, etc., well, their favorite beer is always *fresher*. Right, so like how does pasteurization fit in here? (Jeez who dreams up this sheepdip anyway?)

Question one: what does IMHO mean? I've worked on this for days and can't figure it out.

Question two: where can I get the most recent version of MacCompress for reading ftp files?

I promise to be more beerish next time, but I just don't know who else to ask other than you patient and helpful HBD comrades. Respond by private e-mail please.

Cheers, Kirk

Date: 22 Mar 1993 08:40:59 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: Papazian's recipes

In digest #1101 Jeff Frane asks:

>On another note, has anyone ever gotten results anything like Charlie's
>from one of his recipes? He seems to bat them out at a fairly high
>rate, and I've wondered over the years how much time goes into
>developing each one, and whether he's ever brewed one of them more than
>once (or better yet, more than three times) before publishing them.
>What really struck me was his recipe in the most recent Zymurgy, which
>calls for (not having it in front of me, and whoops, here we go again
>relying on memory) something in the neighborhood of 3.5# of dry malt
>extract and about 3 pounds (maybe a little more) of specialty grains.
>This to produce five gallons of a beer over 1.065. Does anyone else
>think this is unlikely?

Memory can be a dangerous thing.....:-)

I looked at the most recent Papazian recipe for a weizenbock. Actually
the
grain bill is *6* lbs of malted grain (most of it is enzymatic) and 3.5
lb of
dry malt. For a five gallon batch Charlie suggests an OG of ~1.064,
which may
be a little high, though it is reasonable if your sparging efficiency is
good
and you are able to get ~30 points/lb/gallon.

Steve

Date: Mon, 22 Mar 93 08:41 EST
From: "C. Lyons; Salem, NH" <LYONS@adc1.adc.ray.com>
Subject: Sucasat

>>From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
>>Subject: sugar request, data point on aging
>
>>And how do you pronounce "succanat"? Suck a gnat? Sue can not?
>
>It's one "c", Sucasat. It's a contraction of the words sugar cane
natural.
>And I pronounce it sue can gnat. It might actually be shoo can gnat.
>I'm eating some now. Yum!

The lady at the Bread & Honey "granola" store in Plaistow NH pronounces
Sucasat as "Suck-a-nut". Just a data point.

Date: Mon, 22 Mar 93 09:21:47 -0500
From: Philip J Difalco <sxupjd@fnma.COM>
Subject: Wyeast reuse/stretching

I have just bought a package of Liquid Wyeast. I'd like to get the most out of this purchase (ie., I'd like to stretch the use of this package for successive batches of brew.)

I have read the Zymurgy "Yeast & Beer" Special Issue on yeast stock maintenance and starter culture production. This maintenance/production is certainly an involving process when one considers the master culture preparation, working the culture, and the plethora of equipment needed.

Upon reviewing the HBD, the following was posted by R.Cavasin for the stretching of Wyeasts. As stated, it's simple, and requires no special equipment:

```
> -----
> Date: Thu, 25 Feb 1993
> From: "Rick (R.) Cavasin" <cav@bnr.ca>
> Subject: Wyeast reuse/stretching
>
> Here's the method for stretching the Wyeast that I have been using
> successfully. It's simple, and requires no special equipment.
> *****
> Briefly, my suggestion consists of converting the original Wyeast
> package into a number of 'copies' stored in beer bottles.
> ie. it is a parallel propagation rather than a serial propagation
>
> Step 1: Prepare some starter wort (S.G. = 1.020), see Miller's book
for
>recipe. Basically, you need about 1/2 gallon, but if you make
>more and can it in mason jars (using standard canning procedures),
>you will not have to prepare more at a later date.
>
> Step 2: Place 1/2 gallon or so of starter wort in a suitable container
>(1 gallon glass jug), pitch (inflated) Wyeast package at correct
>temp. and fit air lock. This is the 'master' starter.
>
> Step 3: Allow to ferment to completion. When fermentation has ceased,
>agitate the 'beer' to suspend all sediment, and very carefully
>bottle it.
>
> You will now have about 6 bottles of very thin beer with a good deal of
> viable yeast sediment in each bottle. Use each bottle as you would use
a
> package of Wyeast - ie. prepare a starter culture a couple days before
> brewing. This is facilitated by canning wort when you prepare the
master
> starter. All you need to in that case is pop open a mason jar of wort,
dump
> it into a sanitized bottle/jug of appropriate size, pop open one of
your
> bottle cultures, add it, agitate vigorously, and fit an air lock.
>
> All yeast starters are of the same 'generation', ie. 'twice removed'
from the
```

> original Wyeast package (as opposed to the usual 'once removed'). This helps
> avoid the accumulated contamination over multiple generations that may occur
> with serial propagation.
> I've had the bottled cultures remain viable for more than 6 months (so far).
>
> Observe proper sanitation and wort aeration procedures throughout.
> Equipment: 1 gallon jug (for 'master' starter)
> 1.5 litre wine bottle (for subsequent starters)
> air lock
> 6 beer bottles, caps and capper
> Optional equipment: mason jars and canning pot.
>
> -----

This method seems too simple when compared to the others I've read.
Am I missing something?
What are the advantages/disadvantages of the above method when compared to the process involving Agar Slant preparation, etc.

Thanks for your responses.

Date: Mon, 22 Mar 93 9:29:32 CST
From: tony@spss.com (Tony Babinec)
Subject: big brewers brewing ales?

Joe Mulligan recalls a friend of his being on a tasting panel for a "bass-like" product from Miller Brewing. I recently saw a news blurb announcing Miller Special Reserve Amber Ale, and its description fits Joe's. Miller appears to be using the Special Reserve name for specialty or super-premium beers, as it has already brought to market Miller Special Reserve 100% Barley Beer, a blond, all-malt beer. I have not tasted the Amber Ale, and am wondering: is it amber? is it an ale? is it hopped above the taste threshold? In launching the beer, Miller could be responding to Bass and Sam Adams. A spokesperson for Miller said that they believe there is money to be made selling ales, although it is a relatively small market for them and would account for 1% of their sales. It also appears that Heileman's, or someone contracting with them at La Crosse, is brewing Windy City Ale, and Pabst, or someone contracting with them, is brewing Old Tankard.

Date: Mon, 22 Mar 93 8:46:02 MST
From: Rick Myers <rcm@col.hp.com>
Subject: Sierra archives - Hymn to Ninkasi

I retrieved the Hymn To Ninkasi file pub/homebrew/docs/hymn_to_ninkasi from sierra.stanford.edu, and discovered it was a transcription I had given someone via private email. This is fine, however, the file has the last paragraph and a half missing. If whoever submitted it to the archives would like to have a good copy there, please email me and I will supply them with a good one.

- - -
Rick Myers rcm@col.hp.com
Information Technology Specialist
Hewlett-Packard
Network Test Division
Colorado Springs, CO

Date: Mon, 22 Mar 1993 10:19:45 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: sterilize?, sugars, bleach/Chimay

>Steam Sterilization: (p.49)
> ...

>At least 30 min steam treatment at 1 bar over pressure after the
equipment
>has heated to 100C is necessary to achieve sterilisation of a
>cleaned piece of equipment."

Yes, for *sterilization*. *Sanitization*, which is sufficient for most
of
homebrewing, is much less rigorous, and more easily achieved. Steam and
boiling water seem to be very good sanitizers.

For anyone interested, I found both Turbinado sugar and Sucanat at the
Granite State Natural Foods store in Concord, NH. The Sucanat was about
\$2.75(!)/lb., the Turbinado was \$1.35/lb. GSNF also has a decent
selection
of homebrew supplies. Most prices are good, but some things (throughout
the
store) are very high. Pay attention, or pay through the nose.

Re. my Chimay clone that had bleach water backwashed up the blow-off
tube:

Well it's fine. No indication of chlorine-induced problems. It's
phenolic,
but no more than would be expected with Chimay yeast. My guess is that
the
amount of chlorine that actually got in was less than what would have
been
there anyway if I didn't boil all the water before starting. Morale:
Relax,
Don't worry.....and don't use bleach in the blow-off bucket.

Rg
OPAL/ESP
UNH

Date: Mon, 22 Mar 93 9:43:55 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Dark grains at mashout, manifold

> >The subject came up at our homebrew meeting last night, and
> >Fred Lang, the brewmaster at our local micro, agreed with Micah. He
said to
> >put the dark grains in for just ten or twenty minutes at the end,
while
> >mashing out.
>
> This is dependent on your brewing water. In Munich, the dominant style
used
> to be a Dunkel, made with dark grains. This was because the dark
grains
> would acidify the Munich water and dark lagers just came out better
than
> paler ones. If your water is soft, then you may indeed want to only
> add the dark grains in during mashout.

As a datapoint, an award-winning porter I made (the one using Hallertau
hops) did not have any roasted grains added until mash-out, and it
definitely was not anything like Michelob Dark! 10-15 minutes at
typical mash-out temp of 170F or so imparts plenty of color and nice
roasty character. (The water here in Fort Collins tends to be fairly
soft.)

> When using the manifold does one also use a mesh grain bag or
> does one just add grain to the mash tun with out a screen or
> mesh bag over the manifold?

You don't need to use anything other than the manifold; just dump the
grain right on top of it. Just make sure you have the slots facing down
against the bottom of the vessel.

> I have ten feet of 3/8" od soft copper tubing left over from
> constructing a wort chiller. I have considered using this
> to construct a slotted copper manifold. Is this diameter
> adequate?

I don't see why not. The only difference is that you'll get a slower
rate of drainage. This may even be an advantage, since with 1/2"
tubing you have to restrict the flow anyway.

> Is there any problem using PVC pipe and connectors instead of
> copper, besides philosophical issues.

Again, I don't see any reason not to. The only thing you might want
to check is the acid resistance of the PVC, since your wort will be
somewhat more acidic than plain water.

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Mon, 22 Mar 1993 08:42:16 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Dark grains at mashout

Before the quibble and flame wars get started (sigh) I'd like to make a plug for adding dark grains at mashout. I've tried this on two batches of porter [my current favorite] since reading about it here, and I'M A BELIEVER!

Dark grains have a lot of potential for harshness and astringency, adding the chocolate and patent in the mashout gave me a rich, coffee-like yummy luscious wonderful marvelous flavor and I like it. Give it a try before the "angels dancing on the head of a pin" theoretical arguments put a dead sheep in the well.

Nullus in Verbum.

Paul.

Date: 22 Mar 1993 11:38:11 GMT
From: "Stinson-Jeff" <MSMAIL.STINSONJ@TSOD.lmig.com>
Subject: Brewpubs in New Jersey

Some associates and I are being sent (kicking and screaming) for a lovely weekend in the Seacaucus/Carlstadt N.J. area. We expect to have one free evening in which to experience the local brewpub scene. If anyone knows of worthy establishments in the area please forward via e-mail.

Your help is needed to salvage an otherwise work/boredom filled weekend!!

Thanks,
Jeff MSMTP.LSTINSONJ@TSOD.LMIG.COM

Date: Mon, 22 Mar 93 12:24:36 EST
From: Andrius Tamulis <ATAMULIS@ucs.indiana.edu>
Subject: Flaked barley question

This past friday I brewed a stout, which marked the first time I had ever used flaked barley in a beer. It was an all grain recipe, and the mash went well, but the sparge was terribly slow - by far the slowest I've ever had.

Now according to Papazian and Miller, this is caused by some kind of stuff that's in the flaked barley (beta glucans? who can remember all these names for things in beer, anyway). Miller sais that the way to deal with this is with lager malt and a protein rest (the lager malt has more enzymes of the needed kind for protein breakdown). Papazian mentions the problem, offers no solution, and does no protein rest for his all-grain stout recipe, which does include flaked barley. A quick perusal of the stout/porter section of the Cat's Meow reveals about a 50/50 split of protein rest/no protein rest of people who use flaked barley in all-grain brews.

So what do I do to make it all run smoother next time? Nothing - and live with it? Do a protien rest? With or without lager malt?

Any comments are appreciated.

andrius

Date: Mon, 22 Mar 93 11:41 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Spelling, Jackson

>From: bradley@adx.adelphi.edu (Rob Bradley)
>Subject: Yeast Lab, Hallertau in porters
^^^^^^^^^^

>Thanks to all who replied on the subject of Hallertauer in porters.
^^^^^^^^^^

Would someone please provide the correct spelling for this word?

Just when I thought I knew, I bumped into the "er" at the end in my
newly
acquired, SIGNED COPY of FIX and here we have both spelling in the same
article.

>From: korz@iepubj.att.com

>With all due respect to you, Jack, and at the risk of bringing an
abrupt
end to the pleasant demeanor (and humor) you've recently displayed in
HBD, I'd like to dispute Ken Pavichevich's claims that Baderbrau is a
Pilsener.

Tis not my wont to end pleasant things by propounding on that which I
know
nothing about.

I was simply re-stating claims made by the brewer. The claims (also by
the
brewer) that M.Jackson ageed, seemed to offer some weight but after all,
they
are all in it for one reason and the tendency to offer mutual support
seems
to over ride absolute truth.

Frankly, if what you say is true, it reflects more negatively on Jackson
than
it does on the brewer. If Jackson went around telling brewers they made
lousy beer, he would have to get a real job. He feeds his own
popularity by dropping little jewels around at strategic places so
people can
use them for PR purposes.

js

Date: Mon, 22 Mar 93 10:16:19 -0800
From: "Stephen Hansen" <hansen@gloworm.Stanford.EDU>
Subject: Re: Manifold Design and use ??

In HBD 1102 Lee Menegoni <necis!lmenegon@transfer.stratus.com> writes:
> I have ten feet of 3/8" od soft copper tubing left over from
> constructing a wort chiller. I have considered using this
> to construct a slotted copper manifold. Is this diameter
> adequate? or should I use the Tee and plumbing stock type
> of pipe.

I've got three feet of 3/8" copper in a 5 gallon cylindrical Gott cooler and it seems to work just fine. I removed the push button tap and replaced it with a drum tap. There is a stopper at the inside of the drum tap and the copper comes out of it and goes straight across the diameter of the cooler and then circles around the circumference. I've got slots every half inch or so, which is probably overkill.

I would try and get uniform coverage so if you are using a larger rectangular cooler you would need more copper. You might also want to go with a branching manifold with a rectangular cooler to get more uniform drainage.

> When using the manifold does one also use a mesh grain bag or
> does one just add grain to the mash tun with out a screen or
> mesh bag over the manifold?

A grain bag probably wouldn't hurt but I haven't found it to be necessary.

> Is there any problem using PVC pipe and connectors instead of
> copper, besides philosophical issues. It is used for hot and
> cold water plumbing in some new construction so it is able
> to handle mas/sparge temps.

I would say that if you can use it for drinking water at sparge temperatures then it should be safe for this purpose. The only caveat on using normal food preparation materials in brewing seems to be related to how they perform in an alkaline environment.

Stephen Hansen

Date: Mon, 22 Mar 93 12:42:36 CST
From: Jacob Galley <gal2@midway.uchicago.edu>
Subject: Suggestions for 2 specialty brews

Does anyone have a recipe for Moxie? I want to make a Moxish Porter, but don't really know where to begin.

Further down on the feasibility scale, I am tantalized by the idea of a SEVEN GRAIN BEER. Surely this is not a unique idea. Does anyone know of any previous attempts at this? I'm thinking this would include barley (50-60%), wheat, rye, oats, rice (?), corn (?), millet (??). I envision this as an amber, steamy lager.

If I actually go through with this next weekend, it will be my first full mash. But a little voice in my head says this will be a total disaster. Maybe I should gain some mashing experience before attempting anything this questionable.

Any suggestions or warnings would be appreciated.

Have fun,
Jake.

"JUST DO IT yourself." <----- Jacob Galley / gal2@midway.uchicago.edu

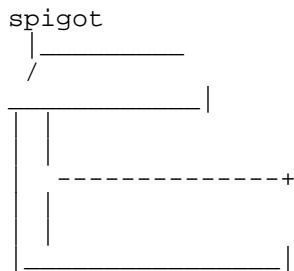
Date: 22 Mar 1993 14:46:06 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: slotted manifolds

Lee Menegoni asks:

>Is there any problem using PVC pipe and connectors instead of
>copper, besides philosophical issues. It is used for hot and
>cold water plumbing in some new construction so it is able
> to handle mas/sparge temps.

I just made a PVC slotted drain manifold for about \$10 that works beautifully. One advantage with PVC is that the lengths of pipe and the connectors fit snugly, forming an airtight seal, without gluing. Thus one can disassemble the whole thing and clean it out after use. Also, by removing the washer from inside the 3/4"threaded-1/2"smooth adapter, I was able to use it in place of the nut on my spigot. Thus it easily adapted to my already existing system, making my bucket-full-of-holes obsolete. (Now I use the former "zapap" inner bucket to carry my brewing supplies up and down the stairs). The PVC resists the heat of sparging without any problem. The only difficulty was getting the glue from the price tags off the connectors :)

My manifold is an almost complete square with a diagonal leading up to the spigot (the spigot was just too high to connect directly, but too low for an elbow and a Tee), with projections from the one side into the middle. Slots are facing down. With this setup the sparge cleared after about 2 Litres of recirc., and all but about 1 cup of liquid was drawn off.



ed

Date: Mon, 22 Mar 1993 14:19:00 EST
From: Bill Ridgely FTS 402-1521 <RIDGELY@A1.CBER.FDA.GOV>
Subject: Clinton E-Mail

Those folks who missed the Mar 22 edition of the Washington Post may want to copy down the following presidential e-mail addresses. Apparently, the prez is a big fan of e-mail and is receiving upwards of 700 messages a day (I'm sure he reads every one!).

Perhaps we should put him on the HBD mailing list. One of our local micros (Oxford Brewing Co) was put under contract to make a special "Inaugurale" for the recent festivities, so someone in the administration takes a liking to quality beer (probably Hilary).

Anyway, here's the addresses:

75300.3115@compuserve.com (via CompuServe)
clintonpz@aol.com (via America Online)
clinton-hq@campaign92.org (via MCI Mail)

Have fun, and let's keep those mailboxes full!

Bill
ridgely@cber.cber.fda.gov

Date: Mon, 22 Mar 1993 15:55 EDT
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>
Subject: Fridge Capacities

A note in the HBD indicated a brewer who had difficulty getting his fridge down to 32 degrees. This is so because the fridge's internal thermostat has a range only down to about 38-40. To remedy this, remove the internal thermostat, connect the wires, and rely on the outside (William's or Hunter) thermostat.

My fridge originally only went to 40, but with only the external thermostat, I got it to 28. The problem is that the internal one kicks out before it lets the fridge get down to 32.

Does this make sense? I have an article from our club newsletter, and would be glad to mail it to you--send a message with the subject "fridge" and I'll send it to you.

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva
Internet: oconnor@snycorva.cortland.edu

Date: 22 Mar 1993 13:21:14 U
From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.edu>
Subject: Underletting Strike

Subject: Underletting Strike Time:12:58 PM Date:3/22/93
The recently turned pro, Micah Millspaw, once spoke about his method of adding the strike water to his grains by underletting (feeding the liquid into the bottom of the grain bed.

I tried this over the past weekend. I have a slotted copper manifold in the bottom of a 48 quart cooler. I just ran the strike water in thru the manifold and let it fill the cooler where the grain was already in place. This was for a 10 gallon batch so there was 21 lbs of grain and the water used was 1qt/lb.

I cannot report that I was required to do less mixing. Micah felt that the method provided for less dry spots in the grain bed. I stirred for my normal 10 minutes before I was satisfied that the grain was completely wet. The temperature of the grain bed did seem to be more uniform and my target temperature was accurate so the transfer of temperature is the same as my regular method.

The greatest advantage to this method was the reduction in grain dust and the ease of combining the two materials. I normally pour the grain in with one arm and stir with the other as the water pours in from my hot liquor tank. By underletting I was able to have more control over pouring the dry grain into the empty cooler and then just opened the valve from the hot tank and added the strike water. All but the top inch of grain was wet prior to my stirring. I expected the grain to float more than it did.

I like it!

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmac1.ucsf.edu - CI\$: 72300, 61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Sat, 27 Feb 93 07:43:00 -0500
From: roy.rudebusch@travel.com (Roy Rudebusch)
Subject: DRY HOPPING

From: roy.rudebusch@travel.com
Subject: dry-hopping vs. hop nose

DH:>that the way to
DH:>retain good hop aroma is to dry hop in a *sealed* secondary, so the
goodies
DH:>aren't lost thru the air lock. Is that safe in plastic/glass?

Hop nose is achieved by boiling pellet hops for two min. and
loose hops for 5 min.

Dry-hopping seems to contribute mostly to palate flavor.

The best way to achieve maximum hop nose would be to utilize a
"hop cage". Run hot wort through these hops on the way to
a counterflow chiller. This would be "distillation" of the volatile hop
compounds.

Here is Pale Ale I just brewed:

11 Gal 1060
14# U.S. 2-row
4# Munich, Ireks
4# CaraVienne
2# Aromatic

30 HBUs Centennial
finished with 1 1/2 oz Centennial loose hops (boiled 5 min.)
Chilled with immersion chiller
W-1028 repitch.

OBTW, I have also discovered that filtering tends to *improve* the hop
flavor and hop nose of a beer. The beer flavors are cleaned up thus
allowing the hop goodness to shine through.

Brew on.

* OLX 2.2 * If your mind goes blank, remember to turn off the sound.

Date: Sun, 7 Mar 93 15:33:00 -0500
From: roy.rudebusch@travel.com (Roy Rudebusch)
Subject: Re: Making a Corona malt

From: roy.rudebusch@travel.com
Subject: Re: Making a Corona malt ready

breiden@dsuvax.dsu.edu (Danny Breidenbach) writes:
OK -- I weighed the alternatives and my budget and got a Corona -- I
wanted a Maltmill -- but \$50 more is \$50 more. Maybe later ...
anyway -- now that I have this Corona -- now that I've assembled it --
I seem to remember hearing about various tweaks and modifications to
make it better for malt ---

Jack Scmidling:
JS:>Tighten both nuts that hold the thing together first. No matter
JS:>what anyone tells you, these must be tight. Then adjust the large
JS:>wingnut so that something the thickness of a dime will just barely
JS:>pass between the two plates. You must have a gauge on both sides at
JS:>the same time to do this.

Well said! But I would like to elaborate:

First, disassemble and wash with dishsoap.

Remove and do not replace the inner snap ring. The only purpose for this
ring was to prevent from losing the steel ball when it is disassembled!

To remove the snap ring just turn in the adjustment screw till the
ring is pushed out.

Remove the cotter key from the shaft and adjust the plate so it is more
perpendicular to the shaft. The mobile plate needs to run a parallel
course to the fixed plate. The hub may give some options for refitting.
Also the cotter key may need to be replaced.

File the end of shaft so it smooth and flat.

Crush on!

* OLX 2.2 * Corona Mill

Date: Mon, 22 Mar 1993 16:34:53 -0600 (CST)
From: BIRMINGH@FNAL.FNAL.GOV (Hi-keebea!)
Subject: Ulick's Freezer

Ulick says:

>But I have a few more which refer to lagering. I can probably fit
>4 or 5 carboys in the freezer and so can now do long lagering, but
>what do I do when adding a new beer to the lager? Obviously It would be
>bad to adjust the temperature upwards from 40 or lower to step down
>a new addition. I have another small refrigerator that can take a 5
gallon
>carboy that I use now, and could continue to use for step downs or 32
>lagering for those extra special beers. Also, how do people do
>summer primary fermentations? I wouldn't want to raise the temperature
in
>the freezer even to 48, and because my 7 gallon carboys will not fit in
the
>refrigerator, will I be forced to use a blow off tube and 5 gallon
carboys?
>Any suggestions?

One thing I have seen (in a different context, but fairly valid
anyway) is to keep the freezer as cold as you want the coldest of
your
beers to be, and heat the carboys to the temperature you want. You
can
get flexible heating elements that could be wrapped around a carboy,
and these in conjunction with a thermostat and strategically-placed
temperature probe, could keep a carboy of beer at whatever
temperature
you desired.

The only thing I can see wrong with this is that it is apt to be
expensive.

Phillip Birmingham
birmingham@fne683.fnal.gov

End of HOMEBREW Digest #1103, 03/23/93

Date: Mon, 22 Mar 1993 13:59:47 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Specialty malts

Specialty Malts -- some info (part I)

In the interests of expanding knowledge about malts -- particularly carapils (dextrine) malt, I'm posting some information drawn from a couple of commercial sources. The first is from an article by Roger C. Briess, of the Briess Malting Co., which originally appeared in *Brewers Digest*, October 1986. The focus of the article was the brewing industry's ability to response to the market threat from imported beers by their duplication through "all-American" ingredients.

The second is from material handed out a few years ago at a presentation to microbrewers at Great Western Malting, in Vancouver, Washington. Shortly before, GW had been taken over by Canada Malting Co., which also owns Hugh Baird, one of Britain's largest malt houses. That information is based on British malts and terminology.

=====
Specialty Malts & Applications in Brewing, Roger Briess

"Basically two groups of malt exist from the maltsters' point of view: kiln dried and roaster dried.

"Kilned malts, such as Pale Brewers or Munich types provide only certain characteristics. The endosperm is generally mealy, providing only limited color and limited flavor; however, few unfermentable components. These malts are relatively inexpensive and easy to produce on conventional equipment.

"Roasted malts, with the exception of Black Malt, have almost completely glassy endosperms, providing non-fermentable components which enhance/impart flavor, body, foam retention and beer stability.

[deleted text, mostly justifying high costs of specialty malts]

"Specific Characters

"Munich type malt increases color to a limited degree in beer with a yellow-golden hue. It does not enhance body, foam retention and beer stability.

"It has reduced enzymatic activity and slightly less extract than standard Brewers Malt.

"Carapils(R) (dextrine) malt has an almost completely "glassy" endosperm, no enzymatic activity and somewhat less extract than standard brewers malt. It greatly improves body, foam retention and beer stability without increasing color or changing beer flavor profile, through non-fermentable components. It is an elegant and inexpensive "natural" alternative to alginates.

"Caramel malt also has an almost completely glassy endosperm, similar to

Carapils. It yields various color intensities in the desirable golden-red hues. Standardized products in the 20 degree, 40d, 60d, 80d and 120d Lovibond colors are readily available. Other variations are custom-made upon request, volume permitting.

"The flavor profile varies with degree of roasting intensity, from a mild caramel to a sharp, pronounced caramel. Fermentation will greatly influence the remaining sweetness in the final beer.

[text deleted]

"One series of tests which were confirmed by brewing university researchers indicates that a substitution of 15% Standard Brewers Malt on an "as-is-basis" with Carapils permits an O.G. reduction from 11.5 d Plato to 10.5 d Plato without detection by a seasoned taste panel. Cost savings and increased drinkability are some of the obvious advantages.

"Specialty malts are easy to use and generally do not require changes in commercial brewing procedures, equipment readjustment, etc."

Date: Mon, 22 Mar 1993 14:00:27 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Specialty malts (more)

from Hugh Baird

"Special brewing malts are used to impart, strengthen or balance specific properties of the wort or beer such as color, flavor, body, foam formation, protein stability, aroma and anti-oxident power. Most reference books have little to say about colored malts. Many feel the use of colored malts dates back to the 1600s when a serious fire in a malt house produced a substantial volume of charred grain. It was decided that it could be used in the cheaper beer which was favored by London porters and which was dark in color. By 1842, when the Roasted Maltsters Act was introduced to limit the hours of roasting and control temperatures, a wide variety of colored malts were already in use.

"Today's colored malts are now produced in roasting cylinders. They provide direct heating in which hot, dry air passes through the cylinder and indirect heating, where the grain is heated at a constant moisture level providing a "stewing" effect.

"Colored malts consist of two types:

"Those made from green malt, generally referred to as caramel or crystal.

"Those made from dry material, often called roasted or chocolate.

...

"Carastan: This material is manufactured from germinating grain. The green malt is transferred to a roasting cylinder and heated to 65°C for about one hour. At this temperature and moisture, "stewing" occurs. The interior of the grain is, in effect, "mashed." The starch is hydrolysed and the endosperm liquifies. The temperature is then raised to 150°C for varying periods of time, causing the breakdown products to react according to the maillard reactions. When the malt cools, the liquid interior sets to a pale-brown and caramel-like mass. The result is a malt with a pale brown color and caramel-like taste. Colors are 30-37 ASBC. In addition to their effect on beer flavor and color, they increase mouth feel and head formation.

"Light Carastan: Produced in the same manner as carastan malt only due to the lower color requirements, the roasting is prolonged at a lower temperature. Color: 13-17 ASBC. Provides color without introducing as much caramel flavor.

"Caramel (crystal): Again, the manufacturing method is basically the same as carastan, using the same starting material, only using a longer and higher roasting temperature. The flavors are more intense than carastan, but basically have the same characteristics. The higher colored caramels have a slightly "burnt" note. Colors can range from 50-212 ASBC.

"Amber (brown): Normally kilned pale malt is roasted in a cylinder at temperatures of 138-149°C, resulting in a malt that provides a somewhat bitter flavor. Colors are 55-70 ASBC.

"Chocolate and Roasted Malt: This material is manufactured from kilned malt by roasting at temperatures up to 250°C. Care must be taken not to char the grain. Chocolate malt has a color of 450-500 ASBC and roasted malt 500-550 ASBC.

"Roasted Material: Unsteeped barley is roasted at temperatures up to 250°C. It provides color like roasted malt only has a sharper, more acid flavor.

"Munich Malt: Malt is allowed to "stew" at 50°C, then kilned at temperatures less than 100°C. The high concentration of nitrogenous material and reducing sugars produce high color without introducing the carfamel/crystal flavor. Colros range 5-8 ASBC.

"Vienna Malt: A traditional pale malt produced at higher kilning temperatures. It is characterized by high color and reduced enzyme activity. Typically colors are 4-5 ASBC."

((I deduce from the numbers given above that ASBC colors are essentially the same as those given in Lovibond.))

- --Jeff Frane

Date: 22 Mar 1993 17:24:53 -0500 (CDT)
From: ATKINSON@vaxb.acs.unt.edu
Subject: Tower System: Part 2

Part 2

Some clarification of the previous diagram:

1. The HOT WATER TANK and the MASH/LAUTER TUN are 58 quart ice chests (58 quart Igloo's can be purchased at SAM'S Wholesale Club for under \$20 each).
2. The cooking KETTLE is a converted 16 gallon stainless steel keg (top cut out and pipe fitting welded in place near bottom).
3. The HIGH TEMPERATURE PUMP is a hot water circulator pump (can be ordered out of Grainger's catalog for about \$75).
4. The PROPANE BURNER is about 170,000 BTU (mine is a King Kooker, purchased at SAM'S for \$50).

The system works by placing grains in the MASH/LAUTER TUN while heating water to mash temperatures in the KETTLE. Once the appropriate temperature has been reached, it is pumped into the MASH/LAUTER TUN. This is done for as many temperatures as required for your recipe.

After all mashing water has been used, sparge water is heated in the KETTLE and then pumped to the HOT WATER TANK.

When ready to sparge, the valves are adjusted so that effluent rate out of MASH/LAUTER TUN is equal to the influent rate from the HOT WATER TANK. The upper and lower manifolds are similar: the upper one is used to distribute hot sparge water evenly over the filter bed; the lower one is used to filter the grain from the wort. This system should allow one to adjust sparging time to as fast or slow as one desires. (I think that I'd try to set my sparge to about 2 hours so that I could leave the system alone while I watched another upset in this years NCAA March Madness!)

You sparge directly into the KETTLE, and you can bring the wort to a boil when you have collected 1 to 2 gallons.

QUESTIONS, COMMENTS AND INSIGHTS (FLAMES?) WILL BE MUCH APPRECIATED!

P.S. I have no connection to Owens or his publisher.

Sam Atkinson
Brew Long and Prosper

Date: Mon, 22 Mar 93 11:43 CST
From: srw@ihlpv.att.com
Subject: Drama, Excitement, Surveillance !

This isn't directly related to brewing per se, but I thought the readers of this digest might be interested in a little drama that is unfolding at the Chicago Indoor Garden Supply store, 297 N. Barrington Rd, Streamwood, IL 60107.

I stopped in this past Saturday (3-20-93) to pick up some liquid yeast and the owner asked an unusual question, "Would you like to see a surveillance camera?" At first I thought it was a trick question, but he lead me to the door, shoved a pair of binoculars in my hand, and directed my attention to a utility pole directly across the street. Strange. Power transformers don't usually have little windows on the front and high gain antennas on the top.

The owner went on to allege that the Drug Enforcement Agency placed a camera there to see who visits the store. He claimed that they would send chase cars after the patrons to get the license tag and then in some cases show up at their door step demanding to search their home.

The store not only sells the necessary supplies for making beer, but they also sell supplies for growing spices and herbs in your home. It appears that the DEA assumes all customers of the store are growing marijuana. The disturbing part, the owner alleges, is that the DEA does not have a search warrant when they show up that your door.

It's been a couple of days now and no one has shown up at my door, but I can say for a fact that there was a suspicious looking transformer on the utility pole Saturday afternoon. I wonder if they are monitoring Handy Andy, Franks Nursery, K-mart, etc.

I'm sure if you call the store at 708-885-8282 they will be glad to tell you the latest chapter in this unfolding drama.

The local CBS affiliate, WBBM Channel 2, is going to do a news story tonight (Monday). This could be interesting.

Steve Walk -- 708-713-7409 (Voice) 708-713-7963 (FAX)
Room IHP 2F-520
Software Systems and Technologies Department
AT&T Bell Laboratories
263 Shuman Boulevard
Naperville, IL 60566-7050
att!ihlpv!srw or srw@ihlpv.att.com

Date: Mon, 22 Mar 93 21:12 EST
From: Richard_Ahrens@vos.stratus.com
Subject: Scandinavian brews??

Someone recently posted an inquiry about the brewscene in Finland. I'd like to expand on that a bit. I'll be bumming around most of Scandinavia in May and would like to hear from anyone with suggestions on beers, pubs, festivals, etc., which shouldn't be missed. (In fact, since I've borrowed bandwidth to ask that much, any thoughts on low-budget travel in the region would be appreciated.) Reply by email, natch.

Date: 22 Mar 93 22:19:45 EST
From: Jim Manda <70322.2634@compuserve.com>
Subject: Chill Haze

To: >INTERNET:homebrew@hpfcmi.fc.hp.com

Date: March 22, 1993
From: 70322.2634@COMPUSERVE.COM (Jim Manda)
Subject: Chill Haze

I'm new to homebrewing and have my sixth batch sitting in the primary as I write. Although I've been very happy with my beer, I've been consistently getting chill haze. I brew from extracts (EEK!) and the only adjunct I've used so far is crystal malt. A typical recipe for 3.5 gallons is:

- 3.3 lbs. John Bull Pale liquid malt extract
- 1 lb. 6 oz. Munton & Fison light DME
- 6 oz. English crystal malt 40lv
- 2 oz. Willamette hop pellets (boiling)
- 1/2 oz. Cascade hops (finishing)
- 1/2 tsp. Irish Moss
- 1 pack Wyeast liquid yeast #1084, Irish ale

My method is pretty straightforward. Crush the crystal malt in a ziploc with my John Bull rolling pin, put it in a grain bag, and place in 1.5 gallons of cold water. Bring to 170 degrees and steep for five minutes. Remove the grains. Add the extracts, bring to boil. Add the boiling hops and let it boil for an hour. I've been adding the Irish Moss during the last 15 minutes of the boil. I force chill the wort by placing it in a couple of sanitized 1 gallon containers and bathing it in very cold water. It gets to pitching temperature within 20-25 minutes.

My thinking is that the crystal malt is somehow responsible for the chill haze. I do a primary and secondary fermentation and the warm beer is very clear. I know the chill haze is not supposed to affect the beer's flavor but I would like to get rid of it.

I've looked around for papain, but the health food stores I've checked don't carry a pure version of it. I've checked with several home brew supply houses for polyclar and their question is usually __What's it used for?__

Thanks in advance for any and all advice. I'm a regular HBD reader and find it instructive and very readable.

-Jim

Date: Mon, 22 Mar 1993 22:46:20 CST
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>
Subject: HomeBrew Store Staked out by Feds

This story was on WBBM-TV, Channel 2, Chicago's CBS station, on this evening's 10 O'Clock News.

Starting a week ago, the Drug Enforcement Administration has been watching Chicago Indoor Garden Supply of Streamwood, IL, from a camera somewhat ineptly camouflaged as an electric transformer on a utility pole across the street. This store does 70% of its business in homebrewing supplies, and has become one of the favorite suppliers to Chicago area homebrewers. Two homebrewers were interviewed by Channel 2 who had been followed home from the store by the Federalies, and had their homes ransacked for drugs. When Ch.2's news truck parked in front of a nearby storefront the DEA has been using as a staging location, an "interesting" scene unfolded with a Ch.2 reporter not getting very many answers from the Feds, who tried in vain to keep their cover. (Note: Ch.2 did obscure their faces as per standard practice when showing undercover agents.) Then a swarm of Streamwood Police Dept. cars came, sirens and lights going, to try to chase away the Ch.2 news crew.

The whole slant of the story was that this was a case of the DEA going too far in "Operation Green Merchant", where they are going after stores in Suburban Chicago which they suspect are supplying marijuana growers with lights, fertilizer, etc. The presumption is that if they follow enough homebrewers and other purchasers of perfectly legal merchandize home from this store, eventually they'll find drugs in somebody's house, and then they can sieze and close the store. Since they have an officer assigned full-time to follow customers of this store home, they figure the odds are in their favor.

Channel 2 Chicago is to be complimented for broadcasting this story, and for emphasizing several times during it that homebrewing is legal. Watch for further developments - WBBM-TV generally does a good job of following up on stories of this sort.

Date: Tue, 23 Mar 93 11:46:23 +0100
From: dejonge@geof.ruu.nl (Marc de Jonge)
Subject: Re: spelling

In HBD1103 Jack Schmidling asks

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>>Subject: Yeast Lab, Hallertau in porters  
> ^^^^^^^^^^^  
>>Thanks to all who replied on the subject of Hallertauer in porters.  
> ^^^^^^^^^^^  
>Would someone please provide the correct spelling for this word?  
>  
>Just when I thought I knew, I bumped into the "er" at the end in my  
newly  
>acquired, SIGNED COPY of FIX and here we have both spelling in the same  
>article.
```

The place where the hops originally came from is called Hallertau.
I think in german the form 'Hallertau-er' signifies a possession
or origin, so 'Hallertauer' would mean 'from (or of) Hallertau'
(This is only from memory, my last german classes are more than
12 years ago)

Marc de Jonge (dejonge@geof.ruu.nl)

Date: Tue, 23 Mar 93 07:27:14 EST
From: TKACKOWS@ucs.indiana.edu
Subject: bunny beer

While reading the only section of the newspaper worth paying for (the comics section), I came accross Frank and Ernest by Bob Thaves. In the panel

F&E are standing at a bar with a sign that reads "ask about our 'bunny beer'"

The beer tender replies "it's made with more hops". This caused me to smile

and chuckle. Then I realized, I've never brewed any beer (I just like to read the HBD, you guys can really bitch and moan) and was wondering: What would more hops do to a brew? Would the drink be palettable?

Any info would be greatly appreciated.

tj

BTW, GO HOOSIERS !!! ALL THE WAY IN THE NCAA!!!

Date: Tue, 23 Mar 1993 15:59:45 +0300 (EET)
From: NIKKANEN@ntcclu.ntc.nokia.com (Kari Nikkanen, design engineer)
Subject: re: Rye Malt

Julie says:

>I'm wanting to try my hand at making the Finnish beer Sahti. I've
>found the malted rye (a tricky thing) but have a question. You see,
>I'm still an extract brewer and am not ready to go all grain right
>now. So I was wondering how I handle the rye malt. Should I
>treat it like a speciality grain by steeping it in near boiling
>water and then adding it to the regular malt? Or will I need to
>do a partial mash? How would I go about this?

I think you'll get closer to the real thing with a partial mash. As I don't have any kind of reference around right now, I'd only say that one hour in 165 F should be enough. But then again, sahti can be brewed with or without rye malt, so depending on how much rye taste you want, (partial)mash, steep or leave it out. Well, that wasn't really much of a help, was it? I guess I'll have to find some reference, an old recipe or something... Anyway (as you perhaps know) there are no strict rules about how sahti has to be made, so go on and just do it!

Kippis! /Kari

Date: Tue, 23 Mar 93 08:41:27 CST
From: Fritz Keinert <keinert@iastate.edu>
Subject: Hallertau or Hallertauer

In HB Digest 1103, arf@genesis.mcs.com (Jack Schmidling) asks

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>> Subject: Yeast Lab, Hallertau in porters
>> Thanks to all who replied on the subject of Hallertauer in porters.
  ^^^^^^^^^^^^^^^
> Would someone please provide the correct spelling for this word?
> Just when I thought I knew, I bumped into the "er" at the end in my
newly
> acquired, SIGNED COPY of FIX and here we have both spelling in the same
> article.
```

I think both forms are correct. Hallertau is the name of the region where the hops come from. One of the meanings of the "er" ending in German is "coming from", just like in English: New York is a town, a New Yorker is a person from New York.

In German, the "er" needs to be there in the phrase "Hallertauer Hopfen". In English, it is more customary to leave them off: "Hallertau hops". Take your pick.

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- ---
Fritz Keinert    phone: (515) 294-5223
Department of Mathematics fax: (515) 294-5454
Iowa State University e-mail: keinert@iastate.edu
Ames, IA 50011
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Date: Tue, 23 Mar 93 10:19:58 EST
From: jwilliam@uhasun.hartford.edu (John Williams)
Subject: Proper use of lager yeast

Hi

I have a question about the proper use of lager yeast. I made three batches from one pack of wyeast #1007 by repitching the dregs; first from the primary and then from the secondary. The first batch was a bock and after sitting in the bottle in the basement (<50 deg) for about 6 weeks was well carbonated and good. The second was double dunkel and after 6 weeks had no head or carbonation. I took a couple of bottles upstairs where the temperature is about 68 deg, shook them when I walked by them and they were carbonated in about three days. Two weeks later, now, the ones in the basement are also carbonated. The last batch has been in the bottle for 5 weeks and shows no sign of carbonation.

Here is the question in all this. What is the proper way to treat the bottles? Should I leave them at room temp for a week to condition the beer in the bottle and then move them down to the basement to clear or should I just move them down to the basement and wait six weeks? What I don't understand is that the beer did the primary ferment down in the basement just fine, it finished in under a week, so why doesn't the yeast carbonate the beer in the bottle in the same time? Are the conditions in the bottle that different then in the carboy?

Thanks for your help.

John Williams

Date: Tue, 23 Mar 93 09:24:02 EST
From: boomer@sylsoft.com (Richard Akerboom)
Subject: Catalog address, phone number

About a year ago in the HBD someone mentioned a restaurant supply catalog that was a good source of homebrewing equipment like pots, tap systems, etc. I think they were located in the midwest, perhaps near Chicago or in Wisconsin. I moved recently and seem to have lost the catalog, and naturally now I need some equipment from them. Any suggestions on the name and telephone number would be appreciated.

Rich

-

Richard Akerboom Domain: boomer@sylsoft.com or akerboom@dartmouth.edu
Sylvan Softwareuucp: dartvax!sylsoft!boomer
Mechanic St. Phone: 802-649-2231
P. O. Box 566 FAX: 802-649-2238
Norwich, VT 05055 USA

Date: Tue, 23 Mar 93 08:58:29 -0700
From: 4311@cpf.navy.mil (CDR Fred W. Brunson)
Subject: Re:Clinton E-Mail

In HBD 1103 Bill Ridgely provided e-mail addresses for the
Commander-in-Chief (Bill Clinton).

I'm sure that Bill (Ridgely) was using hyperbole when he asserted
that the President reads every one of the 700 e-mail messages
that the White House gets daily. A recent Wall Street Journal
side bar on the subject (my boss gets it and I get hand-me-downs)
indicated that the message traffic doesn't go directly to the
White House but is delivered on disk (the aol.com address is a
contractor's office in Vienna, Va), printed out and then handled
by staffers as normal written correspondence. Replys are only
sent via snail mail so you have to include your postal mailing
address in the e-mail if you expect an answer.

Still it's better than their predecessors as far as access goes
and, Bill, thanks for putting the word out, I should have thought
of it myself.

Fred

Date: 23 Mar 1993 10:42:04 -0500
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>
Subject: 7 grain beer

Subject: Time:10:37 AM
OFFICE MEMO7 grain beer Date:3/23/93
Jacob Galley <gal2@midway.uchicago.edu> writes:

>Further down on the feasibility scale, I am tantalized by the idea of
>a SEVEN GRAIN BEER. Surely this is not a unique idea. Does anyone >know
>of any previous attempts at this? I'm thinking this would include
>barley (50-60%), wheat, rye, oats, rice (?), corn (?), millet (??). I
>envision this as an amber, steamy lager.

Three years ago I brewed a Kashi Ale. It all started when I saw some
buckwheat
kashi in the bulk grain section of the local alternative grocery. My
wife sees
cereal-I see beer. Next thing I knew, I was brewing. The kashi
contained 5
grains including a majority of buckwheat and some millet. I mashed with
60%
2-row, 37.5% kashi and 12.5% rice to give the 7 grains. I cooked the
kashi in
water before mashing because I didn't know if that was needed or not...
so to be
safe I cooked it. It turned to mush. Interestingly the mush (and rice)
simply
seemed to *vanish* during the mash. I kept the hop rate low to allow
full
flavor evaluation.

The beer was very light in body with an unusual but interesting, almost
smokey
flavor component most certainly due to the buckwheat. Definitely falls
in the
wierd-beer category, but it is worth making again. I would add rye,
eliminate
rice and add some crystal to provide more body and color. I seem to
recall
that high levels of millet is undesirable due to the oil in the grain
(Papazian?).

I can post the recipe if anyone is interested. The basics for 5 gal were
4 lb
malt, 3 lb Kashi and 1 lb rice.

DanMcC

PS. My memory really isn't that good....I was considering making this
again, so
I looked it up just two days ago.

Date: Tue, 23 Mar 93 16:00:40 GMT
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : oat bran in brewing

Jean Hunter writes:

"Has anyone tried using oat bran in an oatmeal stout? As a brewer in the extract/partial mash school, I question the logic of using large quantities of flaked oats as a specialty grain, especially when the starch will obviously not be converted. I would expect the gums and glucans to be concentrated in the bran of the oat -- so why not use just the bran fraction and save the rolled oats for breakfast?"

I cook with oat bran, and it doesn't seem to create much viscosity to me. However, I have made extract stouts which involved a preboiled rolled oats solution, and this definitely has mouthfeel, although zero SG. The best method seems to be to flour the flakes, then add water rather than vice versa in order to stop clumping. The solution throws an incredible amount of sediment, so if you decide to boil the oats along with the malt and hops, forget about racking off the trub, otherwise you will lose too much extract. There's no oil in rolled cereals, so it shouldn't affect yeast metabolism. You can get 30 pts/lb/gall by mashing the oats with either some amylase enzyme or some diastatic malt, and that will reduce the amount of starch sediment.

- - -

Conn V Copas
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Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut
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Date: Tue, 23 Mar 1993 11:11:38 -0500
From: cstokley@mason1.gmu.edu (Catherine P Stokley)
Subject: German-style Helles Lager

Help requested from successful homebrewers of German or Austrian Helles Lager Bier. After having tried upwards of 40 different recipes and techniques to produce a German style beer rather than an English style beer, I am about to throw in the hop bag and bag it. Can anyone offer some

insight into the problem? Over the years I have purchased brewing materials primarily from Alternate Beverage in Charlotte, NC. The products offered for sale are to a large extent from the U.K. I do not know

if the beers that I have brewed remind me of English beers I had while living in England, because the English Malt extracts are basically produced at higher temperatures and are consequently more bitter than German malts might be or if the yeasts and hops I have used are similarly from the wrong source. Without going into the all the variations of recipes

I have tried and without describing tastes and aromas long forgotten (still

recorded in my log, however), I would appreciate some suggestions for recipes, techniques and sources of ingredients which could be used to produce German or Austrian style Helles Bier.

Thank you
Catherine Stokley
internet:: cstokley@mason1.gmu.edu

Date: Tue, 23 Mar 93 10:18 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Wine, Starters

>From: troy@scubed.scubed.com (Troy Howard)
> Let's say I use ale yeast next time, how do I get a *slightly* (and I do mean very slightly) sweet AND carbonated cider. Seems like if there is any residual sugar in there, the yeast will eat it.

The standard trick is to use Campden tablets to stabilize the wine after the desired sweetness is achieved.

I prefer to keep adding sugar till the yeast croaks and then just enough to get the sweetness I want. The key is to do it in small increments when you get close or you will over shoot. The type of yeast you use will determine the alcohol level when finished this way.

In the last stages, I use honey because it ferments more slowly and seems more natural.

>From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)
>Subject: OG for starters - a question

>Over the time that I have been reading HBD, there have been many articles which have talked about the best gravity of wort to use in a starter. The received wisdom from most postings is that an OG of 1.020 is best, but recent postings have expressed different views.

>I recently mentioned the figure of 1.020 to a (knowledgeable) colleague and then realised that I had no hard evidence to support any claims - just HBD hearsay (which I have no doubt is well founded :-)

A MOMILY BUSTER in the bud. I suspect you will find that there are probably sound scientific reasons behind the number but in the real world of home brewing, it really is academic. There are also sound scientific reasons for re-hydrating dry yeast in plain water but the same real world reminder applies.

I find the most practical starter is simply a small amount of the previous batch held back before pitching. I put a pint in the fridge for the next batch and if I feel real scientific, I cut the first pitch with water but I usually just use it as is and as near as I can tell, the yeast loves it.

>So what is the best OG for a starter?

The OG of your last beer :)

> Is the value different for culturing up from a small amount (say from a slant), from that for growing an existing large colony (say from a packet of dried yeast)? Or, assuming that one might culture from 10ml to 100ml and then to 1lt, should one use the same OG medium for the 2 stages, or might it be better if they were different?

I do/have done all of the above and the same reminder applies.

I suspect the best advice would be to lean towards minimum "shock". If the slant is made on 1.020 agar, it could be argued that the starter should be 1.020, but I won't.

For those following the trials and tribulations of the World's Greatest Brewer, I have just started a Wyeast batch. It was given (forced) to (on) me by Tim Norris. So, I am re-culturing it on petri dishes and used the rest to start a starter.

So far, what I dislike the most about it is that it doesn't seem to understand about telephones. After sterilizing the packet, scissors, needle, pipette, flask mouth and removing the air lock, I cut open the packet and the
BLODDY PHONE RANG!

It was a prospective customer wanting to know all about easy mashers and so with the phone on my shoulder and my mind on mashing, I continued to carry on with the yeast. Naturally, it wouldn't pour nice and I slobbered more on the table than in the flask but I got enough to learn what I wanted to learn and converted another plastic bucket brewer to the wave of the future.

Not surprisingly, there is a lot of dead yeast in the packet. Within a few minutes of pouring it in, a significant layer had settled to the bottom of the flask. This is about the amount I would normally have after three days of incubating from a slant. It is now almost 24 hours later and there is only a modest amount of fermentation and thus I assume that it is mostly dead yeast.

js

Date: Tue, 23 Mar 93 08:38:16 PST
From: Richard.Goldstein@EBay.Sun.COM (Richard Goldstein)
Subject: More Manifold Designs

All this talk about manifold designs has got me thinking about a variation, and I would like some feedback. I'm not very mechanically inclined and I don't have a pipe cutter. However, I do have about 10' of copper tubing left over from when I made a wort chiller.

Can I just make a flat coil and put it on the bottom of a cooler, and cut slots (facing down) into it? It would be made with a standpipe.

I understand that most of the other designs allow the cleaning/rinsing of the pieces, or have screens to protect them, but this manifold design doesn't come apart. How important is that? How much gunk gets into the slots of the pipes? Do you think that merely flushing the pipe with water would be sufficient? What other factors or design flaws am I missing?

Thanks.

Richard Goldstein

Date: Tue, 23 Mar 93 12:00:35 -0500
From: David Arnold <davida@syrinx.umd.edu>
Subject: Comments on Bud (Was: "two questions")

In HBD #1103, Kirk_Anderson@wheatonma.edu wrote:

>Did anyone catch the new Budweiser ad? A couple of yuppies sitting
>round a
>bar learn that because AB has a brewery in St Louis, and another in
>Milwaukee, and another in New Jersey, etc., well, their favorite beer is
>always *fresher*. Right, so like how does pasteurization fit in here?
>(Jeez who dreams up this sheepdip anyway?)

What gets me is the previous Bud commercial where the yuppies are in
the bar with the old guys, and the oldsters are debating what makes
Bud "so great". One says "the hops", another says "the rice".

THE RICE? Geez, that's part of what makes it taste like real beer
filtered
through my kidneys! Seems to me that's a good reason to drink something
else rather than Bud!?!?!

Of course, this is not a slight on (real) rice-based beer, but they're
telling us that they're making a standard pilsner or lager with rice. Does
anybody else find this laughable? I figured they'd play down the rice
content as much as possible, especially with the upswing in popularity of
"real beers" (microbrews, etc).

Then again, why pull a lobe carping about it? The last time I tried Bud
was two years ago and I was offended by it...

David Arnold

P.S. Then there's Killians Irish Red being the "official beer of St.
Patricks
Day"; I wonder what Guinness and Harp thought of this? :-)

Inet:davida@syrinx.umd.edu
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UUCP:uunet!syrinx.umd.edu!davida
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Date: Tue, 23 Mar 1993 09:07:48 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Haller-what?

"Hallertau" is a place.

"Hallertauer" is the name of a thing from that place.

To wit: "Diese Hopfen kommt von Hallertau. Diese Hopfen sind
Hallertauer."

Hope this helps...

have fun
gak
Richard Stueven, Castro Valley CA

Date: Tue, 23 Mar 93 07:29:08 PST
From: cole%nevis.hepnet@Lbl.Gov
Subject: Mashing Crystal, Dextrine Malts. Attenuation of Whitbread yeast

I have been somewhat confused by one of the ongoing threads regarding the mashing of crystal and dextrine malts. I have just recently started doing all-grain batches after three relatively successful partial mashes. In all of my partial and full mashes I have added the crystal malt at the very beginning of the mash. However, I have seen several comments on the HBD over the last few months stating that crystal malts should not be mashed as the mashing has already been done during the kilning stage. What confuses me is that I have not seen this stated (to not mash crystal malt) in either TNCJOHB or in Miller's book (though I haven't finished a thorough cover-to-cover reading of it). I also see no explicit mention of treating crystal malts separately in most all-grain recipes posted to the HBD or in the Cat's Meow from the more experienced contributor's to this forum. Please don't take this as an insult, but I am a little wary of some of the "conventional wisdom" that shows up on the HBD. So, the question is:

Is it bad to mash crystal malts ? More specifically, do the enzymes reduce the desired sugars during the mash or are the sugars derived from crystal untouchable to the starch-converting enzymes ?"

Also regarding the recent thread on cara-pils (dextrine) malt, I forgot to check, but I believe that Papazian EXPLICITLY states that cara-pils MUST be mashed. I have learned to be wary of some of his statements, so once again:

Do the experts believe that cara-pils malt should be mashed ?

One reason I ask these questions is that in my first all-grain batch, I attempted to produce a lower-gravity, lighter colored bitter (target OG 1.035). I was tired of the amber color I found in beers made from extract and the typical extract sweetness that I found inappropriate for some beers.

The grain bill was:

=====

5 1/2# pale malt
1/2 # light crystal (10L I think, it was a very light crystal)
1/2 # dextrine malt

I mashed in at 115 F, raised temp to 122 F for 30 min protein rest, conversion rest at 152 F for 1 hour, mashout at 170 for 10 min., sparged with 3.5 gallons. I obtained 180 pts*gal of extract, but also sparged too long :(. I used a batch of second-generation Wyeast Whitbread Ale for the ferment.

To make the story short, the Whitbread yeast fermented the beer down to 1.005, giving me an exceptionally dry, somewhat over-hopped, and astringent (from over-sparging I assume) beer. Drinkable, but far from what I wanted. I've read about the tendency of Whitbread to become more attenuative over time, but I didn't expect this result in the second generation. I

definitely expected the crystal and dextrine malts to provide more residual sweetness. Though I am skeptical, I cannot rule out breakdown of the sugars during the mash as one reason for the resulting dryness. Thus, the questions above.

Regarding the tendency of Whitbread to become more attenuative with successive generations, is this a result of preferentially selecting the more attenuative of the three strains ? If so, then the difference in behavior between yeast taken from the primary or secondary might be considerable.

Cheers,

Brian Cole

Date: Tue, 23 Mar 93 10:39:34 PST
From: Darryl Richman <darrylri@microsoft.com>
Subject: re: Hallertau, Hallertauer

To explain this distinction, one must understand a little bit about the German language (that's about all I understand). If you have a place name, such as Berlin, then someone or something that comes from that place is Berliner. (This explains the oft mentioned "joke" about JFK's "Ich bin ein Berliner" speech; a Berliner is someone who comes from Berlin, but a particularly style of doughnut also originates in Berlin and is often simply known as a Berliner too; hence, the "I am a jelly doughnut" translation.) So, we have Hallertau-Hallertauer, Tett nang-Tett nanger, and Saaz-Saazer. The latter doesn't get much use, perhaps because the official AHA style guide suggests Hallertauer and Tett nanger, but forbids Saazer.

--Darryl Richman

Date: Tue, 23 Mar 1993 11:21:30 -0800 (PST)
From: "U.S. Court of Appeals for the 9th Circuit" <ericwade@CLASS.ORG>
Subject: Carboy cleaning

After racking or bottling I've been adding about 1/2 to 1 cup each of trisodium phosphate TSP and chlorine bleach to my carboys, filling each with water and storing until my next batch. By this time all the nasties from the previous batch have dissolved. I rinse very well and sanitize with idophor (.5 oz./5 gallons). I've never found the need to scrub the inside of the carboys with a brush (sometimes just a quick scrub around the bottle neck). Never had an infected batch since adopting this method.

Aside from the environmental reasons against pouring this much junk down the drain, are there any beery reasons why I should abandon or adjust this cleaning method?

Eric Wade
Internet: ericwade@class.org

End of HOMEBREW Digest #1104, 03/24/93

Date: Tue, 23 Mar 93 13:47 CST

From: korz@iepubj.att.com

Subject: Re: SpecialIssues/DryYeast/Secondary?/Kiwi SS/Sanitation/Hallertauer/Baderbrau

Rob writes:

>To the point: all of the special issues of Zymurgy from past years
>can be back ordered, and I'm interested in opinions as to which
>(if any) are worthwhile for an old dog who's always willing to
>learn new tricks.

>

>The issues in question:

>

>1985 All-grain 1986 Malt Extract 1987 Troubleshooting
>1988 Brewers and their Gadgets 1989 Yeast1990 Hops and Beer
>1991 Beer Styles 1992 Gadgets and Equipment

In my humble opinion (IMHO), these back issues are all quite good or better

and fall into three categories: good, great and indispensable.

I believe the good are the 1986 and 1991, and the great are the 1985, 1988 and the 1992. The indispensable are the 1987, 1989 and the 1990. I literally refer to the 1990 on each batch I brew and refer to the 1987, 1989 and 1991 at least once per month. I should refer to the 1988 and 1992 during the summers (but I don't) when I have the time to build new hardware. Perhaps this summer.

Geoff writes:

>So what is the best OG for a starter? Is the value different for
culturing
>up from a small amount (say from a slant), from that for growing an
existing
>large colony (say from a packet of dried yeast)? Or, assuming that one
might
>culture from 10ml to 100ml and then to 1lt, should one use the same OG
medium
>for the 2 stages, or might it be better if they were different?

I have this information scattered among files and books, but don't have the time to compile it all into a meaningful, concise answer. However, your mention of dry yeast brings up an important point, the source of which I recall. According to the Lallemand Yeast Newsletter as well as several other sources, DRY YEAST SHOULD BE REHYDRATED IN PLAIN, STERILE (as much as possible) WATER -- NOT WORT. It all has to do with hydrostatic pressure and some other technical stuff, which I didn't store in my head, but the importance of this is generally agreed upon in the literature.

Richard writes:

> Three days ago I made a Trappist ale and used a cultured Chimay for
>yeast. It began fermenting that night and fermented vigorously for the
next
>two days.
> Now it has slowed way down and the S.P. is within 2 points of that
>specified in the receipe.
> Is it time to go to the secondary even though it has only been three

>days? The receipe called for three weeks in the primary and one week in the
the
>secondary.(Cats Meow Ed2 pg. 9-18)

I would omit the secondary. You must have had some very lively yeast or
fermented at a higher temperature than the author of the recipe or
perhaps
aerated better than the author. At this point, now that the beer is
almost
done, going to a secondary would only increase the risk of infection and
an additional racking would aerate the beer more than if you just racked
it into the bottling vessel when the beer is done. I feel that, in this
case, the benefits are not outweighed by the possible problems.

DAVID writes:

>Subject: Looking for stainless containers in New Zealand?

Don't they raise cows in New Zealand? Try a dairy for surplus equipment.

Russ writes:

>>Steam Sterilization: (p.49)

>> ...

>>At least 30 min steam treatment at 1 bar over pressure after the
equipment

>>has heated to 100C is necessary to achieve sterilisation of a
>>cleaned piece of equipment."

>

>Yes, for *sterilization*. *Sanitization*, which is sufficient for most
of

>homebrewing, is much less rigorous, and more easily achieved. Steam and
>boiling water seem to be very good sanitizers.

I recently read somewhere that 30 minutes of pressure cooking a rubber
stopper did not kill some *Pediococcus* bacteria. Immediately upon reading
this, I went downstairs and labeled my 20 gal HDPE pLambik fermenter
and all the stoppers and hoses I used "LAMBIK ONLY." I plan to keep them
separate from my conventional beer equipment.

Jack writes:

>>Subject: Yeast Lab, Hallertau in porters

> ^^^^^^^^^^

>>Thanks to all who replied on the subject of Hallertauer in porters.

> ^^^^^^^^^^^^^

>Would someone please provide the correct spelling for this word?

Actually, Hallertauer is more correct. The "er" suffix in German
generally
means "of" or "from" therefore, "Hallertauer" are hops with direct
lineage
to the type of hop that was grown in the Hallertau area. "Hallertau" is
kind of correct, but bad grammar. Consider "Boston Lager" versus
"Bostonian Lager."

> >From: korz@iepubj.att.com

>

> >With all due respect to you, Jack, and at the risk of bringing an
abrupt

> end to the pleasant demeanor (and humor) you've recently displayed in
> HBD, I'd like to dispute Ken Pavichevich's claims that Baderbrau is a
> Pilsener.

>
> Tis not my wont to end pleasant things by propounding on that which I
know
> nothing about.

On the contrary, it appears that you know enough about Pilsener to take
2nd place in Pilsener at the 1993 "Who Died and Made Us B.O.S.S.?"
Competition.

> I was simply re-stating claims made by the brewer. The claims (also by
the
> brewer) that M.Jackson aged, seemed to offer some weight but after
all, they
> are all in it for one reason and the tendency to offer mutual support
seems
> to over ride absolute truth.

Perhaps this is true. I've discussed this off-line with Jim Busch, and
have,
with some prodding from George Fix, conceded that Baderbrau is too bitter
and
too dark to be a true Munich Helles but my way of looking at it is as a
over-hopped Helles rather than a too-malty Pilsener. Perhaps, as Jim
suggested in private email, a new category is needed for beers such as
Baderbrau and Samuel(tm) Adams(tm) Boston(tm) Lager(tm).

I propose the name: "Robust American Lager."

Al.

Date: Tue, 23 Mar 93 15:12:16 -0500
From: Gerald Winters <gerald@citi.umich.edu>
Subject: Pub Draught Guinness

from Phil Hultin...

>I must say that I am surprised at all the enthusiasm for canned
Guinness.
>When I tried it (a 4-pack, shortly after it was introduced) I was
totally
>unimpressed.

I would like to second Phil Hultin's comments. One of the common
complaints about BudMichMiller is the rather thin palate or general
lack of flavor. Well certainly canned Guinness does a bit better but,
hey, it tastes watery to me. I'll stick with the bottled version.

Gerald Winters

Date: Tue, 23 Mar 93 13:31:09 PST
From: Richard Saunders <richsa@microsoft.com>
Subject: Re: (Tony Babinec) big brewers brewing ales?

One thing to note about Miller's Special Reserve beers:
They are "100% Barley Draft" not "100% (made from) Barley".
All they are claiming (legally) is that there is barley in the
beer and that it is 100% draft. Tricky bastards. Me still tastes
quite a bit of corn (or something) in these brews! Still, it tastes
better to me than their regular GD (Genuine Draft) stuff.....

(____(____))

Date: 24 Mar 1993 00:41:04 -0600 (CST)
From: SWEENERB@memstvx1.memst.edu
Subject: Boiling specialty grains?

I was wondering if anyone holds an intelligent opinion about boiling specialty grains like chocolate malt as opposed to just steeping them in 165-170 degree water which will be added to the boiled wort made from malt extract. Since I have not as yet tried all-grain brewing I still boil in a 4 gallon pot, so I boil half my water first, store it in the carboy then add the wort after a subsequent boil. On my last batch I decided to steep the specialty grains after finishing the initial boil, then strained them out of the water and added boiled wort. Is there a downside to this procedure? That batch, a porter tasted pretty good, a reasonable extract facsimilie of Anchor Porter- yummm, but the vast experiences of the HBD might convince me of the error of my wheys.

Also, Miller's CHofHB recommends aerating the wort at 1hour intervals after racking to the primary, then after 8-12 hours racking again off the hot&cold break. I have tried this a few times and have not been able to tell any difference. Is this worth the trouble? Any comments, observations, etc. would be greatly appreciated.

Bob Sweeney - SWEENERB@MEMSTVX1.BITNET
Memphis State University
Status: Permanent Student
(901) MSU-4210

Dogbert's First Rule of Innovation: Companies are generally slow to adopt new ways of business, especially if it means a reduction in their beloved paper.

Dilbert: I created a computerized interactive multimedia training tool for the department.
Boss: Wonderful. Make some photocopies and route it around.

Date: 24 Mar 1993 01:44:10 -0500 (EST)
From: TOMBORON[<STETLERT@VXC.UNCWIL.EDU>
Subject: Just a reminder

Hi. I know this isn't the kind of message you folks feel like seeing in this digest, but give me a few seconds of your time, could you? About a week ago, my younger brother died in an automobile accident. Alcohol was involved. I don't understand why things had to happen the way they did. Probably never will... but I can't help thinking about how the driver of the other car could have saved my family quite a bit of grief if he had bothered to call a cab or get a friend to drive him home.

I have nothing against homebrewing. To many of us, it's much more than a hobby. It's an art, a science, a tradition, and a way of life all rolled into one. But we often forget the incredible responsibility we have to our safety, and that of those around us. Please don't drink and drive.

Tom Stetler
Stetlert@vxc.uncwil.edu

Date: Wed, 24 Mar 93 07:15:52 CST
From: rak@mayo.EDU (Ron Karwoski)
Subject: Rolled Oats and Judges

All this talk about using oat bran vs rolled oats has reminded me of a problem I had with my last batch of beer. Following TCJOHB2 recipe for Uckleduckfay Oatmeal Stout I did a partial mash using rolled oats (Quaker non-instant breakfast type) and other grains. The resulting beer tastes good, although it is a little thin, probably due to poor extraction. Anyway, the beer is well carbonated but has zero head. A very "loose" head forms when the beer is poured but quickly disappears. I'm not quite sure what the problem is but I am wondering if the rolled oats had anything to do with this. Any ideas?

Also our Club is looking at organizing a homebrew competition for our county fair in August. What we need are judges. Is there a list of registered judges someplace? How does one go about hiring a judge and what are typical costs? Also, anyone know what it takes to become an AHA sanctioned competition and is it worth it?

Thanks.

Ron Karwoski Internet: rak@bru.mayo.edu
Rochester, Minnesota

Date: Wed, 24 Mar 93 09:17 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Big Brother is Watching

Another incredible tale of the evils of bigger government was played out on the 10 O'Clock news last night. It's another good example of what Big Brother does with our hard earned tax money and why we should refuse him one more cent.

Instead of arresting drug dealers that can be found on thousands of street corners any night (or day) of the week, the FBI choses to hassle homebrewers with our tax money.

They mounted a remote TV camera on a utility pole in front of Alternative Garden Supply in a suburb and monitor everyone who enters and leaves the store. The camera is on a transformer whose top insulator sports a UHF antenna instead of the usual wire running up to the HV line. Not terribly clever but seems to work.

The next thing they did was to open a sting headquarters in a shop in an adjacent shopping center and staff it with a dozen or so agents. They either sit and monitor the tv or watch in patrol cars parked in the parking lot of AGS. When they see someone who fits the "profile" of an evil drug dealer, they follow him/her home and bluff their way into whole house searches including dogs to sniff out the evil weed. Needless to say, so far they have found nothing and have spent millions.

I did my patriotic duty and drove out there and gave the old "vulgar salute" to the camera and had a chat with Dave Itel, the owner. I tried to talk Marilyn into giving the camera a moon but she declined and just waived.

It is truly pathetic and I suggest you all drop a line to the best friend Big Government ever had. He can be reached on line at:

75300.3115@compuserve.com (via CompuServe)
clintonpz@aol.com (via America Online)
clinton-hq@campaign92.org (via MCI Mail)

js

Date: Wed, 24 Mar 93 10:58:05 -0500
From: djt2@po.CWRU.Edu (Dennis J. Templeton)
Subject: Coiled tube manifold-fitting in an Igloo cooler

Richard.Goldstein@EBay.Sun.COM described a coiled copper tubing manifold with slots cut into it...

Your description is identical to the one I've been using for two years, and has appeared on HBD before all of the "T" fitting freaks appeared. Have at it.

I'm writing mainly to point out that if you use 3/8 inch tubing, a 3/8 in bulkhead union (tube to tube) will fit snugly in the outlet of an Igloo cooler mashtun.

One supplier: USA Plastics Fax # 419-228-5034 orders 800 537-9724
3/8 in polypropylene bulkhead union #61123, \$1.20 (minimum order \$10)

One difference between your description and mine is the stand tube... I don't really understand why one is desirable (except in a RIMS) All I can see that doing is sucking air into the drain tube, leading to hot side aeration (Gasp!). Why not just let it trickle ad libitum??

have fun...

dennis

Date: Wed, 24 Mar 93 9:16:58 PST
From: alm@brewery.ht.intel.com (Al Marshall)
Subject: Jeff Frane's Carapils/Dextrine info

> "Carapils(R) (dextrine) malt has an almost completely "glassy"
endosperm,
no enzymatic activity and somewhat less extract than standard brewers
malt.

It greatly improves body, foam retention and beer stability without
increasing color or changing beer flavor profile, through non-
fermentable
components. It is an elegant and inexpensive "natural" alternative to
alginates.

"Caramel malt also has an almost completely glassy endosperm, similar
to
Carapils. It yields various color intensities in the desirable golden-
red
hues. Standardized products in the 20 degree, 40d, 60d, 80d and 120d
Lovibond colors are readily available. Other variations are custom-
made
upon request, volume permitting.

Thanks a lot for this information. I've inferred from your
malt-extract+specialties recipes
that dextrine malt did not need to be mashed with other malts,
and this (and one other
piece I've seen) seems to be confirmation. I'm left to wonder
about various other authorities that confidently state that dextrine malt
needs to be mashed with enzymatic malts. Is there a property of dextrine
malt
that we haven't discussed?

-- Al Marshall

Date: 24 Mar 1993 08:16:20 U
From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.edu>
Subject: Towers

Subject: Towers Time:7:51 AMDate:3/24/93
Sam Atkinson asks for feedback on the Owens-like Tower:

I have a similar tower except I use another converted keg for a hot liquor tank with it's own burner so I don't need the pump. Gravity is certainly the way to go. My only caveat would be the use of Igloo brand coolers. I have a 52 quart Igloo which has made about 22 ten gallon batches. While it is still in use, the interior of the cooler has deformed considerably with time. In fact there were blisters evident after the very first batch. Other brewers who have Igloo coolers report the same results. I still use mine because in spite of the blisters there is no evidence of cracks in the plastic interior. Still, I think that Coleman coolers seem to stand up better to the heat of mashing. I took a survey of cooler users some time ago and the majority used Coleman. I expect I'll replace mine with a Coleman when the time comes.

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmac1.ucsf.edu - CI\$: 72300, 61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Wed, 24 Mar 1993 10:16:00 PST
From: Patrick_Waara.WBST129@xerox.com
Subject: Thermostat placement in a freezer

I just bought a new freezer to do my lagering and keg storage which I intend to control using my Hunter Airstat Monitor. I have a question, though, regarding the placement of the thermostat. (That is, the actual remote measuring piece of the thermostat on the end of the black wire.) When I put it on the wall of the freezer, it seemed to give me a false reading as the walls of the freezer are much colder than the actual air in it. I considered hanging it from the lid, but I'm afraid it might catch on the kegs when I lift the lid and tear off the wire. Where do people who use a freezer as their refrigerator place their thermostat?

~Pat

Date: Wed, 24 Mar 93 14:15 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Carapils

>From: gummitch@techbook.com (Jeff Frane)

>"Carapils(R) (dextrine) malt has an almost completely "glassy"
endosperm,
no enzymatic activity and somewhat less extract than standard brewers
malt.

It greatly improves body, foam retention and beer stability without
increasing color or changing beer flavor profile...

It is my opinion that this definition (like the one for Munich malt)
does not
apply to the D-K malt from Belgium. Furthermore, I do not understand
the (R)
or the dextrine designation.

I would describe the D-K carapils as hard but chewy endosperm and
anything
but glassy.

It furthermore has a flavor that is easily recognizable and contributes
significantly to the flavor profile and in line with what I taste in an
imported Pilsner.

BTW, another spelling question. Pilsner or Pilsener or?

js

Date: Wed, 24 Mar 93 14:18:18 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: starters

For the record, I've been using the yeast-starting advice given me by a friend who is a great homebrewer. I boil up one cup of DME in a little over a liter of water, ending up with between 750-1,000 ml's after boiling and cooling. I have no idea what S.G. this comes out to, but I do get absolutely great starts.

However, for the sake of simplicity, I think Jack has the best idea - just save a pint from your last batch!! (all together now: "DUHHH!") Anything that saves me time making beer so I can spend more time enjoying the results, I'm in favor of.

Jack, how careful are you about what kind of beer you save for starters? Have you ever used, say, an Imperial Stout for a starter for a Pilsener? Or do you always use less strongly-flavored worts for starters?

Anyone else have experience with this method?

Jonathan Knight
Grinnell, Iowa

Date: Wed, 24 Mar 93 12:36:07 PST
From: 24-Mar-1993 1526 <ide@studio.enet.dec.com>
Subject: Culturing Duvel Yeast

I'm planning to culture the yeast from a bottle of Duvel and I have a few questions:

- Should I worry about mutation from the high alcohol content?
- Does Moortgat use different yeasts for fermentation and bottle conditioning?
- What are its characteristics, i.e. attenuation, esters, flavors?

Any comments about Duvel and its yeast? This will be my first taste of this devilish brew and I'm really looking forward to it.

Thanks for any help!

Jamie Ide

ide@studio.enet.dec.com

Date: 24 Mar 1993 14:13:06 -0600 (CST)
From: Robert Schultz <SCHULTZ@admin1.usask.ca>
Subject: Re: Cider

KILLING YEAST in/for CIDER:

I think a better method to kill off the yeast is Potassium Sorbate, (as apposed to Campden tablets). Use about 1/2 tsp of Potassium Sorbate to 5 gal.

Then adjust sweetness with apple juice if making cider...this kind of falls out of one of the recipes from the Cat's Meow II. If you want carbonation, you must do it with CO2.

My last batch ended with FG 0.994. I added 12.5 oz of McCain frozen concentrate Apple juice and the 'new' FG was 1.000 -- could be a bit sweeter, but a few months of waiting may help ???

As for Jack Schmidling's comment about adding sugar until the yeast dies may not be a good idea... this is how high alcohol content ports are made....by

adding small increments of sugar you are in effect conditioning the yeast (actually I think you kill off the weak cells and continue the ferment with some

of the stronger -- mutants?). The concentration of alcohol changes the taste

(or how one perceives the taste) of the final product.

Hope this helps.

Robert Schultz

~~~~~  
~~~~~  
"I'm going off half-cocked? I'm going off half-cocked? ...
Well, Mother was right - You can't argue with a shotgun." - Gary Larson
~~~~~  
~~~~~

Date: Wed, 24 Mar 93 20:49:52 GMT
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)
Subject: Questions on priming with DME, and Warm climate brewing

Hello all, I'm back with more novice-level questions and comments, looking for guidance & advice from those with the requisite skill level.

In a mid-February posting, I asked for advice about 1.) Using a secondary fermentation vessel, and 2.) Recommendations about priming agents/ amounts, and using a bottling bucket. Thanks to all who responded either here in the HBD or via private e-mail. By sifting through the advice, comments, recommendations, cautions and anecdotes, employing the secondary went off without a hitch, but using a DME/water solution as a priming agent just didn't cut it.

Using the "most recommended" 1.25 cups boiled in water turned my "amber-clear" beer in the carboy into a cloudy mess. Once bottled, it took about 12 days to settle back out, and when I cracked the first bottle this past weekend, only a miniscule 'pffsssst'. The second, third, fourth and bottles were'nt any fizzier. Two and a half cases of nearly flat beer. >:-("Boo, Hiss", no, that should be "Boo, no Hiss". To add insult to injury, I've got the chill-haze blues too (first time ever).

Papazian recommends for that flat beer, adding some dry yeast into each bottle, recapping & re-conditioning. I contend there was enough yeast present based on the activity of the original fermentation, and the sediment in the bottles. His second recommendation (after trying adding more yeast) is un-capping and adding sugar to each bottle. Gee, this was what I was trying to get away from by using another vessel to prime in & bottle from. At any rate, believe me, you can't add very much dry corn sugar to a semi-carbonated liquid! Talk about fluid dynamics!! (;->) I ended up dissolving the sugar into an equal amount of distilled water, boiling for a few seconds, cooling then adding .25 tsp to each of 6 bottles as a test. We'll see what happens in a week or 10 days.

Was I supposed to do the "1-hour rolling-boil/hot-break/cold-break" routine to the DME/H2O priming solution too? Y'all suppose the chill haze came from the priming agent solution or simply because of bad technique while attempting my first syrup/DME batch? Should I attribute the lack of carbonation to a lower-than-expected sugar content of the DME?

Some days I guess you just can't win for losing. Right now I'm gonna go home and mix me a flat homebrew with one that has "character" (Papazian's final recommendation). I just can't bring myself to feed my beer to the wife's Magnolia trees.

A question for all you warm climate brewers out there:

At what temperature do I have to put my toys away for the summer? Here in deepest Dixie, the daily temperatures are getting ready to skyrocket, and I will not be able to use the garage for brewing or conditioning, I suspect in just a couple of weeks or so. This past winter, I fermented everything under the sink in a spare bathroom where the ambient temperatures were fairly constant between, say, 67-72°F. The garage fluctuates too much from day to night, and from day to day to realistically depend on, though I had no qualms using it to cool, age and condition bottled brews.

I customarily maintain the house between 75-82°F in the summer in order to keep the A/C bill within reason, and then crank up the ceiling fans. From what little I have read, I understand that the upper limit of acceptable fermentation temperatures is about 72°F. If I continue to ferment & condition at the higher temps, can I reasonably expect ok results, given the fact I am still a novice extract-er?

Frustrated, disappointed, but still hanging in there.
Noch einmal, bitte!! Mark

Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil
Information Technology Laboratory (601) 634-2921
Waterways Experiment Station
Vicksburg, Mississippi USA

Date: Wed, 24 Mar 1993 16:12:55 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: brass,zymurgy,dark grains,chimay clone

Lots of topics...

First, I read in a health newsletter than *brass* fittings, ie. a brass spigot, especially when new, can leach lead into water. What is brass? Copper and ???.

Re. Zymurgy special issues: I refer to the 1991 AHA Beer Styles issue quite a bit. Most articles are well written; not many errors.

Dark grains in mash or mashout? Depends what you're looking for. If you want a hard bite, which I look for in a stout for example, put them in the mash. If you want it smoother, as in a dark lager, put them in the mashout.

Rich S. is concerned about racking his Chimay clone to secondary after only 3 days. What temperature did it ferment at? What was the OG? What is the gravity now? 1 week primary and 3 weeks secondary seem like a longer time than should be necessary. My lastest batch, OG 1.045 fermented

at 65 deg F with Chimay yeast, was ready in half that time. This was also yeast that was cultured from a bottle brought back from Belgium, so it may have been extra fresh and lively. But I'd say treat it as you would any other ale - it should finish in a couple of weeks.

FWIW, a bunch of Bud drinkers had some of mine last night, and they liked it a lot. Go figure.

Russ G.
UNH

Date: Wed, 24 Mar 1993 15:57:38 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Pete's Wicked Clone

Robert Pulliam <pulliam@monty.rand.org>

called for recipes a couple days ago...

>Have any of you successfully cloned "Pete's Wicked Ale"? If so, I would
>love to get your recipe.

Well Robert, try this...

8# domestic 2-row
1# CaraMunich
1# CaraVienne
1# dark German
8 oz CaraPils
6 oz chocolate

Mash-in 4 gallons at 57 C (135F) strike heat.
Falls to 52C (126F). Protein rest 30 minutes.
Raise to 68C (154F),
Sacccrification 2 hours.
No mashout due to brain-cloud. You probably should

Sparge with 6 gallons at 75C (167F)
Got 7-1/2 ~ 7-3/4 gallons. Gravity is 1046.
Extraction = 29.7 points/#/gallon.

Boil 90 minutes.
4.4 aau Fuggles for 60 minutes,
4.4 aau Fuggles for 30 minutes,
5.2 aau Kent Goldings for 2 minutes.

Chill to 25C (75F). OG = 1060.

Pitch Wyeast 1098

If your extraction rates are routinely below mine, add grain accordingly
in your
recipe. Just add to the two-row, don't bother to adjust the specialty
malts,
its just not necessary. My water is fairly soft, and slightly alkaline.
I use
two tsp gypsum in my mash water. Your mileage, of course, may vary. If
you
want a 1055 beer, lose 1# of two-row. But I like mine at 1060. FG was
1018. I
had to add 1/2 gallon water at bottling to bring volume up to 5 gallons.
Let us
know how it comes out...

t

Date: Wed, 24 Mar 93 15:50:28 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Whitbread Warning

The following is my opinion of the situation described in Brian Cole's post in HBD#1104.

Most of the lt. crystal malt I am familiar with has a carbohydrate structure loaded with 1-6 links. These will not be broken in a normal mash, regardless of when they were added. At the ~9% charge Brian reported, he should have gotten a nontrivial dextrin pool.

It is very hard to get a good handle on things based on one batch, however I suspect the culprit may be the Whitbread yeast. The heat dried version is produced in the UK under license from the Whitbread Brewing Co. at a special yeast plant. This plant went out of production in 1991 because of a serious wild yeast infection. Production was just resumed in a new facility in January of this year. These products are only now being distributed to homebrew shops. The versions of the dry yeast available before say Mar. 1, 1993 were the old yeast. Reports that I have seen indicate that 25-35% of the old yeast had unacceptable levels of nonculture strains. The latter were super attenuators, and were reported to leave flavoring like Brian described. The old yeast also also had to be at least 1 1/2- 2 years in age.

I have personally checked the new Whitbread yeast under a contract with Crosby and Baker. There was no pressure to "whitewash" defects, and in fact there was motivation the other way. C+B has a refusal clause with producers whereby they can return any yeast without charge if samples do not meet commercial standards with respect to both infections and viability. To make a long story short, the new Whitbread dry yeast passed with flying colors. My detailed report with plate counts will soon be available from C+B. It should be noted, however, that the "pure" (3 strain) Whitbread yeast will give characteristic tangy, fruity flavor tones. Some like these tones, while others react in a much different way to them.

It looks to me like this is the start of a trend whereby a large number of the producers of dry yeast start to clean up their act. Data as reported in the Cal-Davis study (see Zymurgy's special yeast issue) may become a relic of the past. IMHO we all have the folks at Wyeast to thank for this.

They were to first to set proper standards, which the others are now apparently trying to match.

In a large number of cases when people complain that their beers are too dry and lack sweetness, some sort of infection (low, moderate, or high) seems to have played a part. Certainly the acid forming bacteria will make a beer seem thinner than normal and unpleasantly dry. Yeast like *S. diastolicus* will do this and at the same time leave medicinal/phenolic tones. The wild yeast that occasionally turned up in the old dry Whitbread yeast were apparently not as destructive. Nevertheless, if my conjectures are correct, Brian was done a disservice by the Whitbread folks in the UK.

George Fix

P.S. We were at a Pilsner tasting earlier this week. All the beers were

German, and fresh (a real rarity for Texas). The two favorites were Konig Pils and Veltins. Both were very hoppy (IBU~35-40), and well attenuated with a distinct dry finish. Yet both were very malty and extremely smooth. The net effect was that they were very clean beers with highly attractive flavors. Thus a dry finish is not always undesirable.

Date: Wed, 24 Mar 93 17:30:37 EST
From: alan@math.sunysb.edu (Alan McRae)
Subject: FOOD GRADE PLASTICS

There has been some discussion recently about constructing electric boilers using plastic buckets. Since I only have 120V outlets and do not have access to any area where I could use a propane burner I have been using two Thorne Electric Bims (2 are necessary since I start out with 7 gallons of wort to be boiled). These consist of a heating unit, a thermostat and a plastic bucket with a drum tap (these things are probably very similar to Bruheat boilers). I think the bucket is either polyethylene or polypropylene (Bruheat boilers use polypropylene). The question is this: What plastics are safe to use at boiling temperatures with beer?

As an aside, I was told that people have had problems getting these Bims to even boil water. When I first got mine only one would boil water. I took the back off the thermostat of the one that would not boil water and adjusted the adjusting screw (Do not press down on the screw too hard!). Then I used strips of a foil-backed insulation (see the latest special issue of Zymurgy where Randy Mosher(?) tells how to insulate a lauter-tun) to insulate the buckets. These buckets will bring 3 1/2 gallons of 150 degree wort to a boil in less than half an hour: Not too great but better than nothing. By the way, these units work better if the back plate of the

Date: Wed, 24 Mar 1993 15:27:59 -0800 (PST)

From: Eric Wade <ericwade@CLASS.ORG>

Subject: Dark grains at mashout

Recent postings have advocated adding dark grains only at mashout. Should the bill for the dark grains be adjusted if they are added at mashout or use the same quantity as if they were added at mash in?

Date: Wed, 24 Mar 93 17:28:47 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Lager Starers / Starter SG

In HBD 1100 J.Williamson indicated he had a long lag time when he tried to expand his culture from the Wyeast pak.

Using the recommendation from Noonan's "Brewing Lager Beer" of pitching a large population of yeast into fermentation temp wort I took the following steps and had vigorous fermentation in 45F wort in less than 12 hours. The intent of this procedure is twofold 1) produce a large volume of yeast slurry 2) acclimate the yeast to the fermentation temp to minimize shock.

Day 1: Pop Wyeast Bohemian Lager yeast pak at room temp 70F 8:00 AM
Day 2: Pitch the Wyeast pak contents with 12oz of 65F 20sg wort 7:00PM
Day 3: Add an additional 12oz of 60F 20sg wort 7:00PM
Day 4: Pour of 2/3 of liquid, add 24oz of 55F 20sg wort 7:00PM
Day 5:
Day 6: Pour off 2/3 of liquid, add 24oz of 50F 20sg wort 7:00PM
Day 7: Pour off 2/3 of liquid, add 24 oz of 45F 20sg wort 10:00AM

And on the seventh day he brewed.
And when the day was done he looked at his wort and (hoped) it was good.

I pitched all the liquid and the slurry into the 45F wort at about 10PM I checked the brew the next morning and it had a thin milky film over it with bubbles coming out of the S airlock every few seconds.

Notes: Day 1 - 3 the starter bottle was left in my 65F basement wrapped in 2 towels and put inside a cooler. Days 4 - 7 the starter was in my temp controlled refridgerator. By leaving some liquid with each step the temp changes are a bit more gradual also there is a substantial population in the liquid.

I always make starters with 20 - 25sg wort. I produce this starter liquid by half filling 2 gallon bottles with trub from a brewing session. I then fill these bottles with very cold water and let them settle. I rack off the clear liquid from the two jugs and pour it in to 12oz bottles, other people I know use canning jars, I then immerse these bottles in water and heat until the contents of them are 190 - 200F. I maintain this temp for 10 - 15 minutes and cap. This gives me a ready supply of 1/2 gravity wort for starters and I don't feel so bad about leaving stuff behind when I rack off the trub since it gets used. I target a 6 gallon batch so I end up with about 5 gallons going in the keg.

Date: Wed, 24 Mar 1993 15:49:38 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Niagra/Buffalo or even Rochester beer retailers?

Hi,

Considering the less then exciting range of imported beers currently available in the Toronto area I'm thinking of making a run south of the border.

1) Does anybody know of any retailers in hopefully the Niagara/Buffalo that carry some interesting Lambics?[Currently only Morte Subite gueze is available locally] Hopefully something unfiltered. At worse how about Rochester?

2) Does anybody know the name of the US importer(s) for the better lambics?

3) How expensive are these products in the US?

Thanks

Nick

Mail would be best.

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Wed, 24 Mar 1993 19:03:18 -0600 (CST)
From: brewmstr@genesis.mcs.com (Jim Bayer)
Subject: Hops and submersion chiller?

I've been rereading TNCJOHB because I'm shortly going to mash (this weekend) and I ran across some info that I never caught before. It says that you should always separate the hops from the wort before cooling it. If this is true, how do I use an immersion chiller? I don't recall anyone I've ever heard of straining out the hops or removing the wort from the brewpot before they used a submersion chiller.

Do I need a hopback setup or what?

Jim

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-----  
| Remember: Brewing is not a matter of life and death. |  
| It is much more important than that! |  
|=====|  
| Jim Bayer -> Chicago, my kind of town! The windy city |  
| brewmstr@ddswl.mcs.com 72416.1044@compuserve.com |  
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End of HOMEBREW Digest #1105, 03/25/93

Date: Thu, 25 Mar 93 13:45:22 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Brewing supplies in Europe

Are you brewing in Europe? If so, could you please tell me where do you
get your
brewing supplies from?

I thought the USA would be a good source for me, but apparently the
shipping
expenses are just too high.

Thanks,
Nir

=====

Nir Navot
Department of Cell Biology
The Weizmann Institute of Science FAX 972-8-344125
Rehovot, 76100, Israel Phone 972-8-343417

Date: Thu, 25 Mar 93 09:45:40 EST
From: paulb%ted@juliet.ll.mit.edu (Paul Biron)
Subject: DFW HB Sources

I recently moved to Grapevine Texas and need to find a supply source
in the Ft. Worth/Dallas area. Can anyone help me out?
Thanks in advance.

Paul Biron
MIT/Lincoln Laboratory
DFW Airport
214-574-4800

Date: Thu, 25 Mar 93 9:49:58 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: RE: Petes Wicked Clone

In the last digest, Tom posted a fine recipe for a strong brown ale:

8# domestic 2-row
1# CaraMunich
1# CaraVienne
1# dark German
8 oz CaraPils
6 oz chocolate

Mash-in 4 gallons at 57 C (135F) strike heat.
Falls to 52C (126F). Protein rest 30 minutes.
Raise to 68C (154F),
Saccrification 2 hours.
No mashout due to brain-cloud. You probably should

Sparge with 6 gallons at 75C (167F)
Got 7-1/2 ~ 7-3/4 gallons. Gravity is 1046.
Extraction = 29.7 points/#/gallon.

Boil 90 minutes.
4.4 aau Fuggles for 60 minutes,
4.4 aau Fuggles for 30 minutes,
5.2 aau Kent Goldings for 2 minutes.

Chill to 25C (75F). OG = 1060.

Pitch Wyeast 1098
FG = 1.018

A question: What is Dark German??
Comments: While I think this is a fine recipe, for a Petes Clone, try all Cascade for the hopping. I would also tone down the OG into the 1.052 - 1.055 range (as TOM indicated by suggesting less pale malt). One can also try the Worlds Greatest Yeast (tm): Wyeast 1056/Narragansett/Dominion Ale. You can also make a fine example of this beer with a single step infusion. In fact, the body may go up in the final product when a single step is used due to the rapid conversion of domestic pale malt between 130 and 150F. Tom certainly has plenty of body in his 1.060/1.018 beer, but if you try the Worlds Greatest Yeast (tm), the FG will approach 1.010-1.012. By dropping both OG and FG, you will end up with roughly the same alcohol by volume.

Good brewing,
Jim Busch

PS: Brooklyn Brown Ale is a "Petes Wicked" clone, brewed by FX MAtt, and when fresh , quite delicious.

Date: Thu, 25 Mar 93 10:02:57 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Diacetyl, etc.

My most recent lager, that was supposed to be a vienna, but is an Helles, seems to have quite noticable levels of diacetyl. While, this flavor is quite pleasent, and overall the brew has a beautiful malty palate, all that I have read seems to be very concerned about diacetyl levels because they indicate a yeast gone bad. Should I dump all yeasts from that strain and use a fresh lager strain? AHA guidelines seem to indicate that low diacetyl is OK for most lagers. My brew procedure used a 2 week primary at 50F followed by lagering for 4 weeks, the last 2 at 32F, and was bottled with Krausen. The Krausen worked beautifully. I have the most/ beautiful carbonation, and it came quickly. This is with very low sediment levels, but I guess I was fortunate to have brewed a Helles the previous day!

Other points. I just read Eric Warner's Weissbier book. A good book. Well worth the \$9.50 Classic Beer style books cost at the local store. Some points of interest.

He is very unconcerned with oxygen introduction at bottleing because the yeast will use it. This contradcits other writers wh tend to be anal on this point.

Suggests priming with Speise (literally food) and suggests the first runnings, from the lauter tun (with pasteurization). Anyone tried this?

He is, unfortunately, unable to answer the 6 million dollar question - an affordable source of the proper yeast.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

Date: Thu, 25 Mar 1993 09:03:38 -0600 (CST)

From: jack@wubios.wustl.edu (Jack Baty)

Subject: 1.020 starters

> From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)

> Subject: OG for starters - a question

> I recently mentioned the figure of 1.020 to a (knowledgeable) colleague
and

> then realised that I had no hard evidence to support any claims - just
HBD

> hearsay (which I have no doubt is well founded :-)

To take the 1.020 value somewhat past HBD hearsay:
the directions on Wyeast packs suggest a gravity of 1.020 for stepping-
up
the yeast.

- - -

Jack Baty jack@wubios.WUstl.edu

Division of Biostatistics Washington University Medical School St.
Louis

If you don't think too good then don't think too much.

Date: Thu, 25 Mar 93 9:30:07 CST
From: tony@spss.com (Tony Babinec)
Subject: canned Guinness/what's a good beer?

Phil Hultin says that Draught Guinness did not fare too well in a blind tasting. Assuming that the Draught Guinness was in good condition -- and this I don't know -- I'll speculate that what we have here is an example of tasters scoring high the beers they like.

To the best of my knowledge, canned Draught Guinness has OG 1.040 - 1.046, which makes it smaller in gravity than the bottled Guinness Extra Stout, OG 1.052 or so. Guinness, being an Irish Stout, is quite sharp and dry, with roasted barley being the signature dark grain. Guinness is therefore dry and not to everyone's taste. And, at its gravity, Draught Guinness doesn't have a lot of body.

In my opinion, when a beer is judged, the major questions ought to be:

- is it clean with no obvious faults?
- is it brewed to style?
- beyond the above, does it delight you?

In fact, in AHA/HBWTA events, judges use detailed point systems. Some score from the bottom up -- x points for malt, y points for hop, z points for appearance -- while others develop a quick overall assessment of the beer, and then use the scoring sheet to aid them in pinpointing the attributes of the beer. If the beer has no obvious faults -- for example, obvious bacterial contamination or a stale, oxidized flavor -- and is brewed to style, then it is a good beer. You may not like it, but it is a good beer. For example, some people don't like the clove-like phenol flavor found in some weizens. If, in addition, the beer delights you, then that might nudge its score higher. If it doesn't delight you, that doesn't make it a bad beer.

The unfortunate reality is that some judges give far too much weight to subjective factors and matters of taste. Probably among the worst things done is to wrongly label a beer as infected. This can happen with spiced beers or belgian beers. Also, it is not uncommon amongst homebrew aficionados to see the hoppiest beer or the biggest-gravity beer be the most preferred. Of course, this taste and preference would not occur amongst the Lite-beer-swilling crowd.

An example of big beers winning is the AHA stout style. Take a look at past issues of Zymurgy. Every year at AHA national, the winner in the stout category is an imperial stout. While the winners were undoubtedly good beers, why hasn't a conventional gravity dry stout ever won? Do better brewers make big beers? Are novice brewers more likely to submit conventional gravity beers? Whatever else is going on, I submit that many homebrewers and homebrew judges are like the musician in Spinal Tap who pointed out that while most guitar amplifiers range from 1 - 10, his went up to 11. In other words, we like our beers with all the dials set on high.

To be a better judge, one should constantly improve knowledge and skills regarding ingredients, process, flavors and faults, styles, national traditions, and commercial examples. For all brewers and

beer enthusiasts, let's recognize that beer has an astounding range of styles and flavor profiles. It is surely much more varied in flavor than the range of wines is, for example. So, instead of abolishing all styles except for BarleyWine, Imperial Stout, and Eisbocks, let's leave some room for the session beers too!

Date: Thu, 25 Mar 1993 10:35:11 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: brass

According to the Chambers Science and Technology Dictionary, brass is "primarily copper and zinc, but may also contain other elements such as aluminum, iron, manganese, nickel, tin, and *lead*. There are numerous varieties."

So, what gives? Are brass fixtures, ie. brass spigot, a bad choice for beer equipment?

Russ

Date: Thu, 25 Mar 93 9:38:09 CST
From: tony@spss.com (Tony Babinec)
Subject: us versus belgian carapils

Just a reminder: U.S. CaraPils and Belgian Carapils are not the same thing.

U.S. Cara-pils is dextrine malt. As described in Jeff Frane's excerpts, it is hard and glassy, has minimal color, and is used to add body. It contributes dextrines to the beer, which won't be fermented by beer yeast, and therefore will remain in the beer.

Belgian Cara-pils is a light caramel malt/crystal malt, with a color rating of 8L. It can be used in recipes calling for "light crystal malt." It will contribute some color and some caramel sweetness.

Date: Thu, 25 Mar 93 10:46:33 EST
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>
Subject: Verification of address and receipt of first correspondence.

This is to verify that I received my first correspondence from the Homebrew Digest. Thanks. I am going to enjoy being a part of the interest group.

lstrohl@s850.mwc.edu

Date: 25 Mar 1993 10:02:25 -0500 (CDT)
From: ATKINSON@vaxb.acs.unt.edu
Subject: Re: Brass Fittings - Composition

Russ Gelinas asks about the composition of brass, and any concerns about lead.

According to "The Condensed Chemical Dictionary, 9th ed."

Brass is a copper-zinc alloy of varying composition, typically with zinc content ranging from 15% (highly corrosion resistant brass) to 40% (called Muntz metal; used for hot working alloy when cold-forming operations are unnecessary). "Some brasses also contain low percentages of other elements, e.g. manganese, aluminum, silicon, lead and tin)." The Dictionary indicates that the only hazard of brass is that it is "flammable in powder or finely divided form".

The Dictionary does indicate that additional information can be obtained from the Copper and Brass Fabricators Council, 225 Park Avenue, New York (how's that for an address!).

It turns out that children are much more susceptible to lead poisoning than adults. Children may begin to experience symptoms when the level of lead in their blood reaches 40 micrograms per 100 grams of whole blood; the threshold for adults is about 60% to 70% higher. EPA's drinking water standard is 0.05 milligrams per liter. This level was derived assuming that one drinking 4 liters of water per day over an average lifetime with levels of lead lower than the standard will prevent blood level concentrations from reaching levels where symptoms will occur.

We are also exposed to lead in trace amounts in the food that we eat; it is naturally occurring in soil; it is in many pesticides, and it is attached to airborne particles (this is why EPA has banned leaded gasoline). One estimate is that we ingest approximately 130 milligrams of lead each day in our food and drink (ReVelle and ReVelle, 1984 - "The Environment: Issues and Choices for Society").

IMHO, the amount of lead that may be leached out of the few brass fittings that we may use in our brewing gadgets, even under the lower pH levels that brewing creates, would add only a very small increase in the lead we are exposed to. In addition, for every hour we spend brewing, we are reducing the risks of walking across the street and getting hit by a car!

So, I think you can add as many brass fittings as you want to your system (stainless steel would be better, but it's about 10 times more expensive),
,
not worry, relax, and you know....

Sam Atkinson
Brew Long and Prosper

Date: Thu, 25 Mar 93 8:07:17 PST
From: Leland Pond <lpond@hpcugsya.cup.hp.com>
Subject: Addition to distribution list

Please add me to the distribution list for homebrew.

Thanks.

- - -

Regards,

Lee Pond MS 44L3 email: lpond@cup.hp.com
GSY TI Operation HP DESK: Leland Pond / HPG200/16
19111 Pruneridge Ave. Phone: (408 or 1) 447-0991
Cupertino, CA. 95014-9807

Date: Thu, 25 Mar 93 10:15 CST
From: XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU
Subject: Brewing/Beer clubs in Atlanta

Dear Brewers,

My brother in Atlanta is interested in homebrewing/beer clubs in the Atlanta area. He's just started brewing and is looking for a network to get involved in for help, advise and meeting fellow brewers. However, I think because of the laws against brewing beer at home, these societies might be hard to find?

Could anyone who knows about a club or network in the Atlanta area please E-mail me directly (or over this forum) and I'll pass the info onto my brother.

Cheers,
John

Date: Thu, 25 Mar 1993 08:50:27 -0700 (MST)
From: limd@plasma.arraytech.com (Davin Lim)
Subject: Re: Pub Draught Guinness

Gerald Winters writes:

>from Phil Hultin...

>>I must say that I am surprised at all the enthusiasm for canned Guinness.

>>When I tried it ... I was totally unimpressed.

>I would like to second Phil Hultin's comments. One of the common >complaints about BudMichMiller is the rather thin palate or general >lack of flavor. Well certainly canned Guinness does a bit better but, >hey, it tastes watery to me. I'll stick with the bottled version.

The bottled Guinness Extra Stout commonly available here in the US is considered by many to be a world class beer (including myself,) but this is a completely different product from Draught Guinness (canned or otherwise.) It's sort of an apples to oranges kind of thing. The Guinness Extra Stout is a higher OG product, with a correspondingly higher hopping rate. The draught versions(s) are intended to be much lighter (to use a bad term) and I think more "quaffable". Whereas I don't have any problem drinking multiple pints of Draught Guinness, usually from a real tap at one of several Boulder pubs, I know I would have great difficulty consuming more than a couple of bottles of the Extra Stout in a single sitting.

Now, if I could only finagle a trip to Dublin to try the Real Thing...

Just another point of view...

- - -

.....
.
* Davin Lim* limd@arraytech.com
* Array Technology Corporation * -- OR you can try ..
* Boulder, Colorado. *raid5!limd@devnull.mpd.tandem.com
.....
.

Date: Thu, 25 Mar 93 08:44:46 PST
From: Richard.Goldstein@EBay.Sun.COM (Richard Goldstein)
Subject: BEATRIZ Mill

A friend just gave me a mill. The brand name appears to be BEATRIZ, and he said it was from the UK. I've never looked at a Corona mill up close, but it appears to be closer to a Corona than a Maltmill.

Does anybody have experience with this particular brand, and do you have any advice or tips on its use?

Thanks.

Rich Goldstein

Date: Thu, 25 Mar 93 12:22:03 EST
From: Jean Hunter <MS3Y@CORNELLA.cit.cornell.edu>
Subject: Rolled oats

In response to the post about the headless beer made with rolled oats, my Quaker Oats box claims 2 g fat per 1-oz serving (dry) of oats. Yes, this is without adding the milk.

If you added a pound of rolled oats to your mash, you would be adding the equivalent of 32 g, just over an ounce, of lipids. Given that there must be some lipids in barley, and that some folks add baking chocolate (50 to 70% fat) to their specialty brews without complaining of head retention problems, could roughly an ounce of oat lipids be responsible for the beheading of a stout?

Sometimes an oil film on the serving glass can mess up a beer head. Check (with) your dishwasher too.

Cheers -- Jean(Sigbars waste bandwidth)

Date: Thu, 25 Mar 1993 09:58:32 -0800
From: Richard Stueven <gak@wrs.com>
Subject: Re: Hallertau(er)

Al writes:

>Actually, Hallertauer is more correct. The "er" suffix in German
generally
>means "of" or "from" therefore, "Hallertauer" are hops with direct
lineage
>to the type of hop that was grown in the Hallertau area. "Hallertau" is
>kind of correct, but bad grammar. Consider "Boston Lager" versus
>"Bostonian Lager."

Can the people of Hallertau file suit in American courts?

I'd like to clear this up before I brew my "Hallertau Altbier".

thx
gak

Richard Stueven, Castro Valley CA

Date: Thu, 25 Mar 93 10:03:44 -0800
From: atl@kpc.com
Subject: Re: Boiling specialty grains?

> I was wondering if anyone holds an intelligent opinion about boiling specialty grains like chocolate malt as opposed to just steeping them in 165-170 degree water which will be added to the boiled wort made from malt extract. Since I have not as yet tried all-grain brewing I still boil in a 4 gallon pot, so I boil half my water first, store it in the carboy then add the wort after a subsequent boil. On my last batch I decided to steep the specialty grains after finishing the initial boil, then strained them out of the water and added boiled wort. Is there a downside to this procedure? That batch, a porter tasted pretty good, a reasonable extract facsimilie of Anchor Porter- yummm, but the vast experiences of the HBD might convince me of the error of my wheys.

After about 5 years of boiling specialty grains, and ending up with beer that tasted much better after a year in the bottle, I stopped boiling my grains and voila! beer that tasted good out of the secondary. As I understand it, higher temperatures will leach tannins out of the husks of the grain. These tannins will add an astringent taste to you finished product. The yeast in each bottle will *eventually* reabsorb the tannins, but it is better to avoid them from the start.

The only doubt I have with your described method is that you don't boil the resulting liquid from the steeping of the grains. Once you have removed the husk material, it is safe to boil the resulting liquid, and may even be beneficial. A boil could kill off residual nasties, although I don't know if anything could live in 170F water for an extended period of time. Boiling might also alter the sugars in the solution.

On the bottom line, if it tastes good, you *must* have done the right thing.

Andrew Lynch, Kubota Pacific Computer, Santa Clara, Ca. atl@kpc.com

Date: Thu, 25 Mar 93 10:20:19 -0800
From: atl@kpc.com
Subject: Re: Culturing Duvel Yeast

> I'm planning to culture the yeast from a bottle of Duvel and I have a
few
> questions:

Where are you located? Fermentation Frenzy in Los Altos, Ca. has slants
of Duvel
yeast that I have used to attempt Duvel clones. I'm pretty sure that
these cultures
would be better to use than the yeast in some poor abused bottle that's
been on the
shelf forever. I don't know the technical profile, but it smells and has
aftertaste
like Duvel. I have done one extract and one all grain attempt at Duvel.
The all
grain came much closer, as I could control the percentage fermentable vs.
percentage
unfermentable sugars in the wort. Normal (tm) extract will have a ratio
balanced
towards normal beer, and Duvel is not normal. It is quite difficult to
get the high
alcohol content without excessive body and residual sweetness. My all
grain batch
included 18lbs of grain and 3 lbs of honey for a 5 gallon batch. I
mashed for several
hours at 148F to try to get maximum fermentable sugars. The Duvel yeast
fermented it
from about ~1.090 to ~1.025 in just over one day! Another week brought
it down to
about 1.015. Truly impressive. It ended up with the nice blond color
and rocky head
of Duvel, but was still a little too sweet. Duvel in Belgium hasd 9.5%
alcohol (not
sure if by weight or volume) and the US version has 5.2%.

If there is interest, I will post the recipe, but I don't want people
to think I
really got it just right.

Andrew Lynch, Kubota Pacific Computer, Santa Clara, Ca. atl@kpc.com

Date: Thu, 25 Mar 93 13:05 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Starters, Wine, Brass

>Jack, how careful are you about what kind of beer you save for starters?

Totally reckless. I literally start the next with the last. I really think that a pint out of 7 gallons is in the noise.

>From: Robert Schultz <SCHULTZ@admin1.usask.ca>

> As for Jack Schmidling's comment about adding sugar until the yeast dies may not be a good idea... this is how high alcohol content ports are made....by adding small increments of sugar you are in effect conditioning the yeast (actually I think you kill off the weak cells and continue the ferment with some of the stronger -- mutants?). The concentration of alcohol changes the taste (or how one perceives the taste) of the final product.

Can't argue with the facts but if one uses a low tolerance yeast, you can minimize the problem.

>From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)

> First, I read in a health newsletter than *brass* fittings, ie. a brass spigot, especially when new, can leach lead into water. What is brass? Copper and ???.

Sounds like a case of the media over-reacting to something they know nothing about.

Brass is an alloy of copper and zinc. The amount of either that can leach into beer is probably not measureable and both, in small doses are necessary to human health.

js

Date: Thu, 25 Mar 93 14:47:46 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: bad supplier alert

Hi All,

Just curious, anyone else having problems getting orders filled correctly by Northeast Brewers Supply in RI?

I have been (or was) a customer of theirs for about one year. Over the first few months that I did business with them, several orders were shipped either incomplete or with the wrong items. On most of those occasions, the problem was that they did not have the item in stock and had it on backorder. The irritating thing was that they would not tell me this when I placed the order, even though the information was on their computer. I would not discover that the order was incomplete until I received it, one or two days before brewday. Each time this occurred, it put me in the position of scrambling around at the last minute trying to second source the items from other vendors.

After several such incidents, I called and spoke to the owner, a Mr. Kerry Brown. He told me they had just put in a new computer system and hired a lot of new help, and to please bear with them. Being the understanding, easy-going fellow that I am, I was satisfied with that explanation.

Things got a little better for a while, as only the occasional order was screwed up. Two weeks ago, I ordered one pound of Saaz pellets, and 1/4 pound of several other types of hop. After waiting eight days, I called to find out what had happened to my order. After being left on hold for 15 minutes, the person at the store said he was alone, the phones were ringing and the place was full of customers, so he did not have time to look for the shipping log. He could'nt say whether or not the order had been shipped. He did locate my order, but it was totally wrong, they had it as 1 *pound* of each hop.

The next day, as a result of my complaining, I received a phone call from Mr. Brown, ostensibly because he "was interested in my feedback as a customer". I explained the problem with the hop order, and amazingly, he went into the same spiel, new computers, new help, blah blah blah. I reminded him that we had held exactly the same conversation 8 months ago. He then tried a new tack, that "it's hard for any computer to track \$10K a day in inventory". Gee, it's funny how in this age of online transaction processing,

banks can transfer millions of dollars a day across vast distances with no problem, but NE Brewer's computers can't track a few ounces of hops in the backroom. Then it was "banks spend a lot more money for their computers". This is surely earth shattering news to those who use PC driven databases in thier businesses. It became evident that he was interested in neither my feedback or in retaining me as a customer, so the conversation terminated.

In all fairness, NE Brewers does offer very low prices. However, in my opinion, this is made possible because they hire the cheapest, least qualified help they can find, and then understaff, as evidenced by the lone hapless clerk trying to wait on customers and answer the phone concurrently.

The bottom line is, you *can* get good prices from NE Brewer, but you had better have a second source lined up, you may very well need it.

Jim

Date: Thu, 25 Mar 93 14:30:07 EST
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>
Subject: Ph measurement and meter calibration

I have a couple questions about the use and calibration of a Ph meter.
If a meter's intended use range is 32-122F what is the effect of taking
a reading at 150-160F? how much percentage or Ph points will the reading
be off? Does the Ph of the calibration fluids change with temp?
I measuring the mash and wort Ph should I take a sample and cool it to
100F measure it and apply a temp adjustment? When mash and wort Ph is
mentioned in various texts is this the Ph at mash / wort temp or is it
at some other temp??

- - -

Date: Thu, 25 Mar 93 12:08:58 -0800
From: ek@chem.UCS.D.EDU (Ed Kesicki)
Subject: wheat beer yeast plating

This is addressed to anyone who has plated out Wyeast Wheat Beer Yeast:

We have done this and were wondering how the two different colonies looked.

We seem to have two types, one thicker and whiter, the other more translucent and thinner. But only one of our plates displays this, the other only has colonies of the first type.

Could someone who has done this please do me the favor of letting me know how your colonies looked and what characteristics each had when they were used to ferment beer.

Thanks,

Ed Kesicki
ek@chem.ucsd.edu

Date: Thu, 25 Mar 93 15:05:40 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: off-flavor puzzle

Here's one for all you beer - sleuths.

I have been re-using yeast by saving the slurry from the primary and washing it using the sterile-water method. Recently, I decided to pitch a new batch directly onto the yeast cake in the SECONDARY of a previous batch. Both of these batches have developed a similar off-flavor.

I would described this flavor possibly as either "wet cardboard" or "cooked corn" - but since I can't decide which, perhaps it is neither and I'm just groping for terms to describe it from stuff I've read. And incidentally, I don't remember where I read them or what is supposed to cause these particular flavors. Quite a few batches ago I had one that turned out "cidery," and there was absolutely no doubt about how to describe that. The cideriness subsided after a few weeks in the bottle and the beer was not great, but drinkable.

But I digress. The interesting thing is that a third batch of beer made from the same yeast, washed from primary slurry, shows no sign of that flavor defect. The three recipes are completely different except for the yeast. Personally, I suspect that my problem came from reusing yeast from the secondary that had been DRY-HOPPED.

Here's the scenario: Batch one, California Common using Wyeast "California," from package built up in DME starter. Batch two, a porter (?) or at anyrate a dark steam beer, made with California yeast saved from primary of batch one. Bathc three, a cream ale (or cream steam in this case I suppose) made with California yeast from secondary of batch one (which had been dry-hopped). Batch one and batch three have identical flavor defects. Batch two is fine.

And here are my questions: (1) Could the flavor defect in batch one be due to leaving the hops (pellets) in the secondary too long? I thought moving the beer off the slurry in the primary would take avoid the risk of developing off-flavors in case of extended stay in the fermenter, but perhaps the dry-hopping has its own risk in this regard. (2) Should I suspect infection? The hops I used for dry-hopping smell fine in their package, although I doubt I could pick up anything by nose that way. Perhaps the infection was introduced when transferring batch one to secondary, and from there to batch three. (3) What are the chances of bottle conditioning taking care of this?

I should add that the flavor problem is not overwhelming - it sticks out like a sore thumb to me, but my wife guzzles happily and doesn't know what

I'm talking about.

Any thoughts would be greatly appreciated!

Jonathan Knight
Grinnell, Iowa

Date: Thu, 25 Mar 93 15:55:34 MST
From: jbmamay@beergod.dazixco.ingr.com (Jim Mamay)
Subject: Mail Alias

Hello,

Please add me to your journal mailings.

Thanks

Jim Mamay : Senior Systems Engineer
Dept.: Systems & Tools
Phone: 303-581-2384
Fax : 303-581 9972
Mail Path : jbmamay@dazixco.ingr.com

Date: Thu, 25 Mar 93 17:35:45 CST
From: jay marshall <marshall@sweetpea.jsc.nasa.gov>
Subject: CA Common recipe wanted

Does anyone out there have a recipe for a good beer in the California Common (aka Steam(tm)) style? Please feel free to email or to post. I would also appreciate comments regarding the recipe's comparison to Anchor Steam.

thanks,

Jay
marshall@sweetpea.jsc.nasa.gov

Date: Thu, 25 Mar 93 19:22:53 -0800
From: jwsb@netcom.com (Justin Broughton)
Subject: Extract Rates, Flavor and Color

Date: Thu, 25 Mar 93 19:25:17 PST
From: jwsb@netcom.com (Justin Broughton)
Subject: Extract Rates, Flavor and Color

I am curious about a subject I have not seen mentioned in any of the books I have read. This is, what is the relationship between extract rate, flavor and color. What happens if I am using a recipe which has an assumed stellar extract rate, and I know my equipment can only get a percentage of it. If I up the grain amount, will I get a more flavorful/colorful brew.

Also vice-versa if I am using a recipe which assumes very low extract rates will my brew turn out tasteless and colorless if I tone it down to meet my extract rates?

Justin
- - -

Date: Thu, 25 Mar 93 21:45 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: new hombrew club forming

There's a new homebrewing club forming in the western suburbs of Chicago in Dupage County. The first meeting is scheduled for Friday, April 30th. For more info contact:

Todd Williams todd@gold.rtsg.mot.com (708) 971-8692

-or-

Chris Campanelli akcs.chrisc@vpnet.chi.il.us (708) 833-9059

Date: Thu, 25 Mar 93 22:59 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: That was gonna be my second guess

The other day I was subjected to a blind tasting at a friends.

"Try this", he said, "It has some flavors that I can't quite place".

"What style is it?", I asked.

"It has some problems but the style should be pretty evident." he said.

So I put on a judge's air and proceeded to dissect the beverage according to the latest AHA guidelines.

Appearance: Very pale, Miller Lite-ish in color. Way over-carbonated. No head retention.

Nose: Perfumy. Fruity, apple-like. No malt nose. No hop nose.

Flavor: Starts out fruity. Finishes dry with some tartness. No body, very thin. Gassy.

After surreptitious evaluation, I decided that it must have been a very bad mead/cyser or an OK sparkling cider. But which? Depending on what I said I could have bruised an ego or given tribute unto Caesar. I loathe those situations. It required tact. Ann Landers, where are you when I need you.

Summoning all of my self-taught guile, I responded: "Well, it certainly is interesting."

"You don't like it?" he asked.

"Um, no, it's not that I don't like it, it's just that it could fall into a number of different categories and I'm having a little trouble deciding which. On one hand it tastes like a very good cider but on the other hand it tastes like a mead or cyser that needs a little more aging." I said as I mentally patted myself on the back.

"Well, truth be told", he said, "it's a French champagne. Perrier-Jouet to be exact, vintage 1983."

(silence)

While trying not to blush too brightly I confidently responded, "I knew that".

chris campanelli

Date: Fri, 26 Mar 93 09:29:57 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Brewing supplies in Europe 2

Do you have by chance the exact address, Tel. and FAX numbers (or just one of these) for Munton & Fison (England) and DeWolf-Cosyns Maltings (Belgium)

.
Thanks, Nir.

Nir Navot <lcnavot@weizmann.weizmann.ac.il>

End of HOMEBREW Digest #1106, 03/26/93

Date: Fri, 26 Mar 93 08:51:00 EST
From: DJH0@NIOSR1.EM.CDC.GOV
Subject: Chocolate in the wort

Has anyone out there tried putting milk, white or dark bitter/sweet chocolate into the brewpot? I need to know how much is needed, and what tastes were contributed to a 5 gallon batch of conventional stout or ale. Any reasons why this should not be attempted?

YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYDan HewettyyyDJH0@NIOSR1.EM.CDC.GOVYYYYYYYYYYYYYYYY

I like the word 'indolence'.
It makes my laziness seem classy.

-Bern Williams
YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY

Date: Fri, 26 Mar 1993 08:08:41 CST
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>
Subject: Net Noise (Please!)

1) If you are subscribing, unsubscribing, etc., please direct it to homebrew-request@hpfcmi.fc.hp.com. If you direct it to the main address for postings, you waste the (LIMITED!) bandwidth of this digest for better stuff like beer, and worse for you, your request whatever it is might not get acted upon.

2) Please limit your foamy musings to 80 columns in width. Yeah I know that sounds like a limitation from the age of punched card computing and horse-drawn carriages, but most computers (PC/DOS, Mainframe, Unix) and most mail systems either wrap or truncate lines longer than 80. Posts to HBD wider than 80 come out looking *REALLY* ugly.

THAT said, apologies for wasting this bandwidth on something other than our beloved malty beverage, and back to relaxing, having a h.....

Date: Fri, 26 Mar 93 14:16 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: Northeast Brewers' Supply

James Dipalma reports some rather unpleasant experiences with NBS, which I have no reason to doubt. On the other hand, I can report that they have always gotten my orders right, shipped promptly, and charge less for their goods than any full-service dealer I'm aware of. (Hey Al, when's your catalog coming out?)

In fact, NBS is the ONLY supplier I've used that HASN'T screwed up. I don't think this suggests that they're perfect, but rather that much of this is a matter of fate. The fact that they're trying to shave markups to the bone also suggests to me that they're walking a finer line than some suppliers in terms of the resources needed to supply a certain level of service.

I, too, have a minor quibble with their computers. As some may have noticed, they charge less for 15 lbs of grain on a per lb basis than for 5 lbs. Ok, that's fair. As it turns out, a 15 lb order arrives in 5 lb bags. Quirky, but ok if that's how they want it. However, if you want to buy 20 lbs you have to pay a 15 lb price and a 5 lb price. I assume that their computer system is not set up to handle the prices on the basis of total quantity rather than units, but this was a bit irritating.

Finally, my mom says that when she called them before Christmas to order a Corona for me, she also asked if they could supply me with a basement (my chief brewing need). They said no, so I guess they're not FULL service!

Standard disclaimers apply.

Phil Seitz
PSEITZ@MCIMAIL.COM
Arlington, Virginia, USA, Earth

Date: Fri, 26 Mar 1993 08:58:48 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Dark German

Jim Busch (busch@daacdev1.stx.com) asks:

>What is Dark German?

Well, its like this. I **believe** "Dark German" is a toastier version of CaraVienne. I'm actually not sure what distinguishes it from CaraMunich.

I should have said this the other day: my local homebrew supplier (Roy Rudebusch @ IMO in St. Louis) suggested the combination of the three "German" malts instead of the combination of dark and light English crystal malts that I wanted to use in this batch. Roy knew what I was after, and it worked out quite well. My original recipe was formulated with two pounds light English crystal and one pound dark English crystal. Since that isn't what I actually brewed, I didn't post that as "The Recipe". I couldn't tell you what difference this actually makes in the final product. I've noticed that Roy likes to use smaller amounts several "specialty" malts in combination, rather than larger amounts of fewer varieties. Maybe Roy or other experienced all-grain brewers will be inclined to comment on this style of recipe formulation. Can you win a competition this way? Would you really want to? 8-)

What I know about recipe formulation, I learned from Dave Miller (by way of books), and Roy. Roy taught me the practical application. A good homebrew supplier, who actually brews good beer himself, is a fine thing to have in your neighborhood 8-).

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Date: Fri, 26 Mar 93 10:58:27 EST
From: chuck@synchro.com (Chuck Cox)
Subject: Re: Judges

Ron Karwoski asks:

>
> Also our Club is looking at organizing a homebrew competition for
> our county fair in August. What we need are judges. Is there a list
> of registered judges someplace? How does one go about hiring a judge
> and what are typical costs? Also, anyone know what it takes to become
> an AHA sanctioned competition and is it worth it?

All organizers are encouraged to post competition announcements and requests for beer judges to JudgeNet <judge@synchro.com>.

Most judges charge \$50 per beer judged. I, however, am a bargain. I'll judge for free if you'll cover my expenses and introduce me to a beautiful single adult female biped who owns a brewery or racing team and has bad taste in men.

Seriously, BJCP judges cannot be paid to judge AHA or HWBTA sanctioned competitions. However, a free lunch is considered appropriate, and many competitions offer 'Beds for Brewers' where visiting judges stay at local brewer's homes.

Contact the AHA (phone & address in Zymurgy) for a list of judges and details about becoming a sanctioned competition.

Having a sanctioned competition gets you some advantages:

- BJCP Judges get experience points.
- Competitors may consider it more legitimate (this is debatable).
- Announcement in Zymurgy (if they feel like it).

- --

Chuck Cox <chuck@synchro.com>
Eliminate domestic terrorism - disband the BATF.

Date: Fri, 26 Mar 1993 09:19:14 -0800 (PST)
From: gummitch@techbook.com (Jeff Frane)
Subject: Brewing Mystery -- Sherlock Homeboy Solves All

>
> Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
>
> I have been re-using yeast by saving the slurry from the primary and
> washing
> it using the sterile-water method. Recently, I decided to pitch a new
> batch
> directly onto the yeast cake in the SECONDARY of a previous batch. Both
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> these batches have developed a similar off-flavor.
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> I would described this flavor possibly as either "wet cardboard" or
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> corn" - but since I can't decide which, perhaps it is neither and I'm
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> groping for terms to describe it from stuff I've read. And
> incidentally, I
> don't remember where I read them or what is supposed to cause these
> particular flavors. Quite a few batches ago I had one that turned out
> "cidery," and there was absolutely no doubt about how to describe that.
> The
> cideriness subsided after a few weeks in the bottle and the beer was
> not
> great, but drinkable.
>
> (wet cardboard -- oxidation; cooked corn -- DMS)

> But I digress. The interesting thing is that a third batch of beer
> made
> from the same yeast, washed from primary slurry, shows no sign of that
> flavor defect. The three recipes are completely different except for
> the
> yeast. Personally, I suspect that my problem came from reusing yeast
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> the secondary that had been DRY-HOPPED.
>
> Here's the scenario: Batch one, California Common using Wyeast
> "California," from package built up in DME starter. Batch two, a
> porter
> (?) or at anyrate a dark steam beer, made with California yeast saved
> from
> primary of batch one. Bathc three, a cream ale (or cream steam in this
> case I suppose) made with California yeast from secondary of batch one
> (which had been dry-hopped). Batch one and batch three have identical
> flavor defects. Batch two is fine.

>
> Without being able to taste the beer, it's difficult to speak with too
> much authority, but... The odds are that there was a contamination
> problem _after_ you transferred the beer in Batch 1 to the secondary --
> or rather, during the transfer. Batch Two was brewed with the clean
> yeast from the primary, but Batch Three was fermented with contaminated
> yeast. Sanitize the bejezzus out of all the plastic that the beer would
> be coming in contact with. Also, check your carboys for scratches; it's
> possible that there are bacteria lurking in there. I had a recurring
> unpleasant aroma (maybe the same one) that I could trace through several
> batches...the common problem seemed to be equipment used in transfer. I

tossed out everything made of plastic and retired a suspicious carboy.

- --Jeff

Date: Fri, 26 Mar 1993 09:46:02 -0800
From: wolo@cory.Berkeley.EDU (Greg Wolodkin)
Subject: the Speise of life

In yesterday's digest, Ulick writes:

> Other points. I just read Eric Warner's Weissbier book. A good book.

> He is very unconcerned with oxygen introduction at bottling because
the
> yeast will use it. This contradicts other writers wh tend to be anal
on
> this point.

> Suggests priming with Speise (literally food) and suggests the first
runnings,
> from the lauter tun (with pasteurization). Anyone tried this?

Those two suggestions go hand in hand -- *if* you prime with malt sugars,
then you shouldn't worry about a little oxygen in the bottle, since the
yeast will use it. If you prime with corn sugar, however, Miller points
out that the Crabtree effect kicks in, and the oxygen is untouched by the
yeast.

Sometimes I refrigerate the trub after racking into primary -- by
bottling
time this separates, leaving enough wort to prime with. I guess the
first
runnings would work as well, since you'd only have to save a small
amount.
For the homebrewer, though, once you've boiled that small amount and then
separated the hot and cold break, will there be anything left? It might
take a few attempts to get the volume right.

Thanks for the info, Ulick. I've heard a few bad comments about some of
the other books in this series, but so far only good things about this
one. Guess I better go buy it..

Cheers,
Greg

Date: Fri, 26 Mar 93 12:46:37 CST
From: Brewmeister Gene <ezimmerm@hp.uwsuper.edu>
Subject: Ginger Steamer

Salutations all!

I'm an extract brewer that uses spec. grains and starter cultures that just brewed a Steam beer. Anyway, here's the recipe:
Ginger Steamer

6# unhopped Amber liquid extract
1# 120L Carmel Malt
1/2# Victory Malt (25L) (Oven Toasted at 350F for 15 min)
1/2# Double Malt (45L)

1 oz Chinnok 13.6 % (Boil)
1/2 oz Cascade (15 min left)
1/2 oz Cascade (7 min left)
1/2 oz Cascade (2 min steep)
~1 oz fresh Ginger indiscriminatly put in the last few minuets of the boil (15-5 min left)

I will dry hop with 1/2 oz Cascade when I rack to the secondary.

Oh, I am using Wyeast's California yeast, smells GREAT!

Gene in Duluth

Date: Fri, 26 Mar 1993 11:28:39 -0800 (PST)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Dark Grains - Mashout

I've only just started adding the dark grains at mashout, but my initial impressions are:

- 1) It takes a little more, since the extraction time/temp is less.
- 2) It greatly reduces the astringent harshness that comes with high amounts of dark grains.
- 3) It makes chocolate malt more coffee-like and less burned.
- 4) Small amounts of black patent (3 oz.) can add color with no perceptible burned taste.

I haven't tried it with a stout (roast barley) yet, so that's still a mystery to me. I'd like to hear more about other brewers experiences.

Paul.

Date: Fri, 26 Mar 93 13:30
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)
Subject: Seattle Brew Fest '93

I apologize to everyone for taking up bandwidth with announcements that are only of interest to a small percentage of the readers. Unfortunately, I don't know of any mailing lists for Northwest readers, so here I am. (If there is such a list, put me on it and send me a copy of the list.)

And since I'm talking about Northwest issues: Yes, I did have the Redhook Smoked Scottish Ale. Very drinkable once you got past the first sip, but not exactly my idea of a Scottish Ale. (Never had anything like that on Rose Street!) The current Redhook specialty beer is a Honey Stout. Quite good!

The Washington Association of Small Brewers Presents

SEATTLE BREW FEST '93
at Seattle's Union Station

Opening Gala Evening to Benefit Cancer Lifeline
Thursday, April 8, 6-9pm
Tickets: \$25 in advance, \$30 at the door
(\$50 sponsor and \$100 patron tickets also available)
Admission includes handcrafted beers, souvenir glass and fine local food.
Call 654-4141 to reserve your ticket.

Friday April 9, 3-11pm
Saturday April 10, 12-10pm
Tickets \$5 in advance, \$6 at the door
Admission includes 3 script and souvenir glass
Friday and Saturday tickets available at:
The Trolleyman in Fremont (Redhook)
Big Time Brewery and Alehouse in the University District
or call 365-5812

I recommend the Cancer Lifeline benefit. All the food you want plus all the beer (and cider) you can drink at one low cost, with the proceeds going to benefit a worthwhile charity.

Previous Cancer Lifeline beer have included ALL of the Northwest microbreweries plus some from California (Sierra Nevada and Anchor were there last year) as well as Canada (Big Rock has made the trip from Calgary both of the past benefits). This is a great place to meet and talk with the brewers, and help contribute to a good cause, too.

Hope to see everyone there.

Charles Castellow (ccastell@eldec.com)

Date: Fri, 26 Mar 93 16:02 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Almost Free Kegging

>From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
>Subject: Brewing supplies in Europe

>I thought the USA would be a good source for me, but apparently the shipping expences are just too high.

Just for the record, the price I quoted you was for 2nd air shipment of a 20 mill. I refuse to deal with the US Postal Service on this item but I am sure most retailers have no such compuction regarding routine brewing supplies and the cost would be far less than UPS air.
.....

Someone quoted the Wyeast packet as a vindication of the 1.020 starter wort gravity and I only ask, where did THEY get the number? These things have a tendancy to gain a life of their own and rattle around forever.

.....

Here's another GREAT IDEA from the World's Greatest Brewer....

This one is untested but considering the source, it's gotta work.

For the poverty stricken brewer who just knows that kegging is the way to go but has to feed the kids before buying tank and regulator, it has occurred to me that a very simple alternative exists.

Take an empty keg and and drop in a chunk of dry ice. Seal it up and connect it to the keg of beer and the job is done. A few inexpensive refinements would be an air pressure gage to monitor what is going on, a valve or two and even a regualtor if funds allow.

I have no idea how much ice is required to develop what pressures and for how long but, as it's not my problem, I leave the details to those venturesome experimenters who have contributed so much to this hobby in the past.

js

p.s. To protect myself from greedy lawyers, I would not suggest doing this without a pressure gage and close monitoring till we know what to expect. I believe the Cornelius kegs are rated at 150 lbs but I have never and would

never go above 50 lbs with them. I would have been delighted to run these tests but the idea came to me last night will filling the last of my 4 kegs and it will be awhile till I have an empty one.

jjs

Date: Fri, 26 Mar 93 18:11:23 MST
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: Question on sterile wort preparation

Several people have mentioned using a pressure cooker to can sterile wort for the purpose of yeast culturing. This idea appeals to me, since the pressure cooker would sterilize the wort and containers, thereby allowing somewhat relaxed sanitization procedures during wort preparation. However, when it comes time to use the wort, it must be poured out of the canning jars and into the vessel which will be used to culture the yeast, with the associated contamination risks.

It would be nice if the same jar that was used in the pressure cooker could accept an air lock. This way, when it came time to make the starter, one could simply take the jar of sterile wort off the shelf, open it, put in the yeast, and attach a sanitized airlock.

Does anyone know of small-mouthed jars with accompanying small lids and rings, (sort of like a miniature Ball jar), which would accomodate a drilled stopper?

Some may consider this a ridiculous idea, but I feel that anything that simplifies my yeast culturing is worthwhile.

Joel Birkeland
Motorola SPS
birkelan@adtaz.sps.mot.com

Date: Sat, 27 Mar 93 12:58:06 -0500
From: polstra!larryba@uunet.UU.NET
Subject: Re: starters

In HBD #1105, Jonathan Knight writes:

>...

>However, for the sake of simplicity, I think Jack has the best idea -
just

>save a pint from your last batch!! (all together now: "DUHHH!")

Anything

>that saves me time making beer so I can spend more time enjoying the
>results, I'm in favor of.

>

>Jack, how careful are you about what kind of beer you save for starters?

>Have you ever used, say, an Imperial Stout for a starter for a Pilsener?

>Or do you always use less strongly-flavored worts for starters?

Indeed, one should use common sense with regard to the color of the wort
and hopping rate used in the starter and the target beer. Because
starter

wort is usually diluted (see below), you don't have to be too anal about
this.

>

>Anyone else have experience with this method?

I do it all the time. Usually I recover 2-4 pints of wort from the
kettle

trub (filter it through a fine mesh nylon hop bag) and then boil can it
in mason jars. Sometimes I just pitch the cooled wort into the fermenter
(keeps that total extract rate high), sometimes I use it for Krausening
(all natural..) and if I am low on starters I'll dilute the wort to 1.
020

before canning and store those in my beer box. I also use recovered
wort for plating and slants: Just add 2% flaked agar (from the chinese
section of the grocery store) boil to dissolve, strain and boil can in
small mason jars for storage.

A plug for more complicated brewing:

Yeast management is amazingly simple and easy once you get over the
hurdle

of doing it. Just like all grain, it does

involve a little extra effort, but the \$\$ savings over \$5 yeast packets
is considerable. Since recovering wort and canning it is part of my
usual kitchen clean up, after brewing, it doesn't seem to take any extra
time. Building up yeast doesn't take much time either: I just have to
start two days earlier than when using a Wyeast packet.

Cheers!

- - -

Larry Barello uunet!polstra!larryba

Date: Sat, 27 Mar 1993 14:06:17 -0500
From: unixbox MMDF Mail System <mmdf@canrem.com>
Subject: Failed mail (msg.aa05650)

Nick Zentena asked about imported beer in Niagara - Buffalo region.
Will be happy to talk off-line, Nick. Please send e-mail address
to TKSJOHN at UBVM.BITNET

-----Original message-----

--

Your message could not be delivered to
'zen@hophead.canrem.COM (host: hophead.canrem.com) (queue: uucp)' for the
following
reason: 'uux pipe broke (system unknown?)'

Your message follows:

Received: from ubvm.cc.buffalo.edu by unixbox.canrem.COM
id aa05650; Sat, 27 Mar 93 14:06:08 EST
Received: from UBVM.CC.BUFFALO.EDU by UBVM.cc.buffalo.edu (IBM VM SMTP
V2R2)
with BSMTMP id 7303; Sat, 27 Mar 93 14:07:53 EST
Received: from UBVM (NJE origin TKSJOHN@UBVM) by UBVM.CC.BUFFALO.EDU
(LMail
V1.1d/1.7f) with BSMTMP id 8754; Sat, 27 Mar 1993 14:07:53 -0500

Date: Sat, 27 Mar 93 14:06:23 EST
From: John Pedlow <TKSJJOHN@UBVM.cc.buffalo.edu>
Subject: beer on Niagara Frontier
To: Nick Zentena <zen%hophead@canrem.com>
X-Acknowledge-To: <TKSJJOHN@UBVM>
Message-ID: <9303271406.aa05650@unixbox.canrem.COM>

Hi Nick,

This is a test to see if I can get throuhjg to you.

John (halfway between Buffalo and Niagara Falls)

Date: Fri, 26 Mar 93 14:54:21 PST
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>
Subject: HOME BREW U

Michael Jackson will be the guest speaker at this year's Home Brew U seminar here in Seattle WA. put on by Charles Finkel of the Pike Place Brewery and Liberty Malt Supply Co. . Should be a good one this year with seminars all day and a lunch banquet that features a variety of oysters and other food that is prepared with beer. Fred Eckhardt will also be there as a guest speaker.
It happens on 3-27 at "The Improvisation" Comedy Club on 1st ave downtown Seattle.

Normal disclaimers apply

Scott Lord
v-ccsl@Microsoft

Date: Sun, 28 Mar 93 18:15:45 BST
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : oatmeal

Jean's comments on the lipid content of oats prompted me to go looking in the supermarket this weekend. I found that flaked oats, oat bran and wheat bran all contained from 5-10% fat by weight. In the case of the 'brans', that presumably means they are adding back the germ, no? The levels in the flakes varied considerably, presumably depending upon whether whole grain cereals were employed or not. Interestingly, the oat bran contained considerably more carbohydrate than the wheat bran. I made a test mash of oat bran alone today and obtained an extract of around 30/lb/Imp gall, ie, comparable to the flakes. Viscosity, however, seemed less on an informal basis. One thing that has me slightly bemused is that I would expect a 7% lipid content to result in an immiscible layer whenever the substance was boiled in water; yet this does not occur. Adding an additional 7% vegetable oil to the oat bran solution certainly resulted in a visible layer.

I have had more head retention problems using exorbitant quantities of crystal than I have had from using oats. By 'problems' I mean that it may require 3 month's maturation before the brew holds a decent head. A lot of factors are presumably at work here, such as how much lipid is retained in the grain bed (if mashing), how much gets bound up with the trub, how much attaches to any finings which are employed, how much participates in esterification reactions, etc (although George Fix seems to suggest that only saturated fats are significant re ester formation). Following this line of reasoning, I guess that fining can be deleterious to hop aroma?

- - -
Conn V Copas
Loughborough University of Technologytel : +44 509 263171 ext 4164
Computer-Human Interaction Research Centrefax : +44 509 610815
Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut
G Britain (Internet):C.V.Copas@lut.ac.uk

Date: Sun, 28 Mar 93 11:08:31 PST
From: dbell@cup.portal.com
Subject: Re: Lead from brass, and EPA

Sam Atkinson posted (in part):

>We are also exposed to lead in trace amounts in the food that we eat; it
>is naturally occurring in soil; it is in many pesticides, and is
attached to
>airborne particles (this is why EPA has banned leaded gasoline).

This was certainly part of the reason tetraethyl-lead was banned. The most important reason, however, was that lead poisons the platinum catalyst in the catalytic converter that breaks down nitrogen oxides. Even a minute amount of lead in the exhaust quickly makes the converter useless...

Dave
dbell@cup.portal.com

Date: Sun, 28 Mar 93 20:04:27 CST
From: Dr. Marc Kelly <mkelly@ccu.UManitoba.CA>
Subject: Rye Crystal Malt

I read here last week that someone had found a source of rye malt.
I tried getting this myself, but the only source that I could find in
Zymurgy

had gone out of business.

The reason for my interest is that I was thinking of trying to make
crystal

rye malt from it.

Does anyone have a current source, and does anyone know whether soaking
this

stuff to make crystal malt would carry any risk of ergotism?

Maybe I should ask the Pied Piper :-)

I was also looking for a source of quinoa and amaranth to no avail.

I even tried to search the 'Net on the keyword "grain".

Anyone else have any luck, or know the protein/fat contents?

Jack said that he had used mulberries a while back. This was my favorite
berry, but since leaving sunny Australia, I've never seen them again.
Was this a local supply, or would it be possible for me to obtain some
somehow?

Sorry for the wish-list,

Marc Kelly.

mkelly@ccu.umanitoba.ca

—

End of HOMEBREW Digest #1107, 03/29/93

Date: Mon, 29 Mar 1993 07:05:15 -0500
From: Michael D. Galloway <mgx@ornl.gov>
Subject: beer sphere

While shopping at my local homebrew supply shop I noticed these smokey spherical objects lurking about. The proprietor called them beer balls or beer spheres or somesuch name. They come in 2.5 and 5 gallon sizes. The 2.5 gal would fit great in my fridge. Has anyone had any experience with these devices? Are they worth looking into?

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: 29 Mar 93 07:55:53 EST
From: CHUCKM@PBN73.Prime.COM
Subject: aromatic belgium malts

Hello All,

Recently there has been a lot written about the Belgium Malts and in particular I have seen some mention of Belgium aromatic malt. Does anyone know how the 'aromatic' malts differ from other non-aromatic malts?

regards,
chuckm@pbn73.prime.com

Date: Mon, 29 Mar 93 07:00 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Pilsner Pour

Aside from the SANFU's in my video, probably the most memorable part is the conversation with Ken Pavichavich in the Baderbrau conference room. He would pour a glass of beer with a whipped cream head and it would stay that way till we got tired of looking at it. We were there several hours and one was still 2 inches above the rim of the glass when we left.

The key to this amazing head is a special tap that he got from Europe that has two pour positions. The forward position provides a normal pour with just a trace of head. The back position creates nothing but foam. By combing the two actions, one can get any sort of head desired.

I saw an ad somewhere for one of these and sent for the info (800)-FOAMLESS and was stunned to learn the price was around \$200. It seems the point of these is to save beer (and money) and the rationalization is that it pays for itself quickly in a bar environment.

While thumbing through the Braukunst catalog, I spotted a similar tap for \$46.95 and immediately ordered one. It is directly replaceable with any H-S tap and required only unscrewing the old and screwing on the new.

I was delighted with the results. It does exactly what it is supposed to do and costs only about \$10 more than the standard tap.

For more info on this and other nifty beer gear, you can contact Cliff Tanner, Braukunst at:

73507.2256@compuserve.com

js

Date: Mon, 29 Mar 93 8:04:11 EST

From: Jpetty@PICA.ARMY.MIL

Subject: Chocolate

I recently made 5 gal of chocolate porter. I used 24 tablespoons of dark cocoa mixed in with the priming sugar. There was a lot of cocoa left in the bottling bucket and in the bottom of the bottles so I would use about 16 tablespoons next time. You may be able to get more in solution by adding

it to the wort. The taste was just dandy; be careful not to overhop as the

cocoa adds its own bitterness. The 24 came from a recent HBD post, I don't

recall the author.

Date: 29 Mar 1993 08:24:47 -0400 (EDT)

From: JUKNALIS@arserrc.gov

Subject: hop vine source?

I believe I saw a reference to a supplier of hop vines for planting a few digests ago. Due to local problems I didn't get all my e-mail for a while so does anyone know the address of the company-ies? I think the name was FRESH HOPS..... thanks.

Date: Mon, 29 Mar 93 9:03:16 EST
From: srussell@msc.cornell.edu (Stephen Russell)
Subject: Contacts to US and Canadian brew clubs

Hello fellow brewers,

Traffic recently has slowed a bit, so I thought I'd post this.

I maintain a list of email contacts to some 90-100 homebrew clubs around the US and Canada. The point is to help potential members find clubs in their area and to help promote interclub communication.

If you would like the contact information for a club or clubs (or all clubs) below, please send me email. Similarly, if you are a member of a club, either one listed below already or one not listed, and would be willing to be the email contact person for your club, please send me email.

Oh, and if you have any questions, please send me email.....

internet: srussell@msc.cornell.edu or srussell@snoopy.msc.cornell.edu
bitnet: srussell@crnlmsc2.bitnet

PS: I don't have a club contact for a Phoenix area club yet and am very interested because it looks like I'll be moving there in two months.

PPS: it would be nice if someone were willing to take this database off my hands around that time (hint, hint!) -- really not much work any more.

Cheers and here's to great beers,

STEVE

(list of areas with club contacts follows)

Last updated 3/2/93 (* denotes snail mail only)

AL: Birmingham, Madison
AZ: Tucson
CA: Oakland, Orange Co., Modesto, East Bay, San Fernando Valley, Sacramento, San Francisco, Cupertino, Claremont, Pasadena, San Diego, Santa Clara Valley, Lancaster, South Bay/San Jose
CO: Colorado Springs, Boulder, Fort Collins, Denver
CT: Fairfield/New Haven counties, Middletown/Hartford
DC: Washington metro area
FL: Tallahassee
GA: Athens
ID: Boise
IL: Bloomington, Chicago, west suburbs (Sugar Grove), northwest suburbs
IN: Lafayette
MA: Springfield, Greenfield, Boston, Milford/central MA
MD: Chesapeake bay area
MI: Ann Arbor, Kalamazoo, Houghton
MN: Minneapolis/St. Paul, Rochester, Duluth*
MO: St. Louis
NC: Raleigh/Durham/Chapel Hill, NC
ND: Fargo/Moorhead
NF: regional

NH: Merrimack/Manchester, Seabrook, Lebanon/Hanover/White River Junction
NJ: Piscataway, Somerville
NM: Los Alamos, Albuquerque
NY: Syracuse, NYC, Ithaca, Utica, Long Island*, Staten Island, Rochester,
Buffalo, Albany, Westchester County, Columbia Univ., Binghamton
OH: Cincinnati, Dayton, Cleveland
ON: Ottawa, Toronto (this one is actually national)
OR: Corvallis, Portland
PA: Philadelphia, Western Main Line suburbs, State College
QU: Montreal
SC: Columbia
SK: Saskatoon
TX: Austin, Bryan, Fort Worth, Denton, College Station, Houston, Clear
Lake, Dallas
VA: Charlottesville, Richmond, George Mason Univ.
WA: Seattle
WI: Madison, Oshkosh

- - -

Stephen W. Russell
Materials Science and Engineering "In the long run, we are all dead."
Cornell University-- John Maynard Keynes
srussell@msc.cornell.edu

Date: 29 Mar 93 03:42:39 EST
From: "Anderson_Andy" <Anderson_Andy%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
Subject: Questions

Message Creation Date was at 29-MAR-1993 08:15:00

Greetings,

I'm an extract brewer who is quite new to this "homebrew network". I have some questions that I hope won't bore you all. Being new to this network, I don't know whether my concerns have been previously dealt with in excruciating detail.

1. To achieve maximum practical cold-break how quickly and to what temperature must I reduce my wort?

2. I'm intersted in re-using my yeast in order to keep costs down and diminish the time to begin fermentation. How can I efficiently separate the yeast from protein globs and stray vegetable matter in my troob?

3. I was interested in doing some mail order extract purchases. I saw one company offering a Wisconsin barley malt from Briess that was cheaper than what I normally pay for Munton & Fison unhopped extract. Has anyone out there brewed with both of these extracts? I'm interested in how they compare with each other.

4. When sparging in my extract brews, I filter out the hops as well as hot & cold break proteins and plop the gunk onto some cheese-cloth. When I'm finished filtering, I squeeze the cheese-cloth to wring out the last liquid back into my wort. Am I screwing up because my "naked" hand is squeezing out the juices? Am I introducing bacteria as well as skin oils? How should I be doing this?

5. This may be "Politically Incorrect" to ask this, but does anyone out there have serious reservations about any of the mail-order companies from the following list:

Red Bank Brewing Supply, William's Brewing, The Malt Shop, Brew Masters, The Brewers Club, The Brewery, MCC Brewing Supplies, Great Lakes Brew Supply, and Wine Hobby USA

Are there any I should be using instead of these?

Thanks for the help,

Bitch's Brewery
Andy Anderson

Date: Mon, 29 Mar 93 09:06:19 CST
From: "J. B. Whitfield" <JWHITFIE@UAFSYSB.UARK.EDU>
Subject: brewing scene in Baton Rouge

[For Publication Only]

Dear Homebrewers:

A homebrewing friend of mine, Steve Thompson, is moving to Baton Rouge (LS U) this weekend and will be in the market for brewing supplies and will also be interested in local brewpubs, etc. Any suggestions? Thanks, Jim.

Date: Mon, 29 Mar 93 9:10:55 CST
From: Gerald Vauk <jerryv@grateful.sps.mot.com>
Subject: Cancel Subscription Please

Hey Now,

I simply do not have time to keep up reading the digestifier.
Could you please remove me from the distribution list.

jerryv@victor.sps.mot.com

Thanx!

Happy Cheese-
Jerry Vauk:-)

Date: Mon, 29 Mar 93 09:47 EST
From: LYONS@adcl.adc.ray.com
Subject: Stouts from Extract + speciality grains

Just a quick question about making stouts from extract and speciality grains. In regards to the procedure of adding a sparge bag containing speciality grains to the cold water and removing prior to the boil ... is there any benifit to using flaked barley in this manner?

Date: Mon, 29 Mar 93 09:37:07 CST
From: hinz@memphis.med.ge.com (David Hinz)
Subject: Hydrometer left in fermenter?

Greetings...I'm a beginning homebrewer, and have a question:

To know when the beer is done fermenting, I gather there are at least two ways to tell: 1, by going by bubbling rate (90 seconds between bubbles being the time to bottle), and 2, by waiting for the gravity to stop changing for 2 or 3 days. On the two batches that I've bottled, these times have coincided, so apparently each is fairly valid.

Is there any reason not to just sanitize the hydrometer and drop it into the secondary? It seems to me that it gives less chance for infection than opening it up every day or two to draw off a sample to test. What I've been doing is just dunking it in there, and reading it once a day or whatever, to keep an eye on it.

Other than needing a hydrometer for each batch you're monitoring (not that expensive, compared to ingredients, and once you buy it you have it forever), can anyone suggest a reason not to do this?

I can see why I wouldn't want it in the primary fermenting carboy, as the krauesen would change the weight of the thing. Getting it out isn't a problem, because it floats out when I rinse the carboy. Anything I haven't thought of? And what is the preferred method for knowing when to bottle, the bubble rate, or the hydrometer reading?

Thanks,
Dave Hinz

Date: Mon, 29 Mar 93 10:05:24 CST
From: tony@spss.com (Tony Babinec)
Subject: pressure cook/#13 stopper fits pint jar

I recommend using the pressure cooker method to create sterile starter worts. Following Dave Miller's book, add 3 pounds of light dry malt extract to about 2.5 gallons of water to create 3 gallons of wort. Hop lightly if you wish, and boil for 30 minutes. Chill enough to facilitate transfer, and then transfer the wort to 12 Quart Ball jars or 24 Half-Quart Ball jars. I found a 5 or 6 gallon pressure cooker (I don't remember the capacity, but it was the largest one) at a Service Merchandise. It takes two cooking "cycles," as all jars won't fit in the cooker. By cooking at 15 pounds pressure for 20 minutes, you sterilize the wort. Then, whenever you need some wort, you just pop open a jar.

The Half-Quart Ball jar can be fitted with a #13 stopper and airlock, so you can pitch the yeast straight into it if you want.

The pressure cooker also comes in handy should you decide to do yeast culturing.

Date: Mon, 29 Mar 93 11:15:45 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Hunters. How not to and how to connect them.

This weekend I wired up my freezer. Not wanting the damage the antique beauty in any way, I mounted the Hunter (heat-cool, round, mechanical model 40005) to a scrap of plywood, and connected it to an extension cable coming in. Anyway, when I turned on the power, she blew. A bright spark and there was no metal left on the thin wires of the mercury trip switch. I then realised that when they said for 15-30V DC low power DC control systems, they meant it. I wondered why I had never heard of any problems wiring these puppies up. Common sense should have told me that the thin wires of the Hunter could not carry a total freezer load. I suspected that I may have been able to connect if across the freezer's regular thermostat circuit. Anti-surge devices and such were mentioned, but guessing that the voltage would still be 115 AC, and the fact that the wires were quite thick, and also the prime directive - not to fuch with the integrity of the freezer, my mind turned to relay.

So off I went back to Builder's Square for a new Hunter and then to Radio Shack for a relay. I got a 12 VDC relay with contacts rated for 15 A at 125 VAC. Overkill maybe but I was taking no chances. I could have got a similar device with a coil that used 120 VAC. It may well have had low enough power to be OK through the hunter, but I was taking no chances. I wired it all up at home. I soldered the relay contacts across the power cord live wire (where the previous Hunter used to be). I connected the + terminal of a 9V battery to the R connector on the Hunter, the Y (cooling) connector to the relay coil, and closed the circuit by connecting the other coil connector to the - terminal on the battery.

But the best point, which I haven't seen made yet is that it is trivial to lower the range of one of these devices. The scale is from 40-90 F, but to be accurate the Hunter must be vertical, because it is based on a mercury trip switch that sits atop a metal coil type thermometer. So I turned my Hunter 1/16 of a turn anti clockwise, and now I get the temperature approximately 10 F below the setting.

It also occurs to me that it should be easy to adapt a heat only thermostat based on the same principle to cooling only by loosening the mercury switch and turning it around. They are usually glued, but the glue connection is easy to break (I discovered this while trying to save my previous one). The heat only ones are ~\$13 as against \$20 or so for the heating/cooling one. The relay cost \$5-\$6 - a standard Potter and Blumfield repacked as Archer, a Radio Shack brand.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

Date: Mon, 29 Mar 93 11:20 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Starters

>From: birkelan@adtaz.sps.mot.com (Joel Birkeland)

>It would be nice if the same jar that was used in the pressure cooker could accept an air lock.

This is getting like the "where can I get a brew kettle cheap?"

Erlenmeyer flasks, which are available at any scientific apparatus supplier, are designed to accommodate rubber stoppers. All you need is a glass air lock (Korz carries them) and you are in business. Bring the wort to a low boil, and attach the empty airlock. The steam will condense into sterile lock water while sterilizing the lock and flask.

>Some may consider this a ridiculous idea, but I feel that anything that simplifies my yeast culturing is worthwhile.

This is certainly a step in that direction.

>From: polstra!larryba@uunet.UU.NET

>Yeast management is amazingly simple and easy once you get over the hurdle of doing it. Just like all grain, it does involve a little extra effort, but the \$\$ savings over \$5 yeast packets is considerable. Since recovering wort and canning it is part of my usual kitchen clean up, after brewing, it doesn't seem to take any extra time. Building up yeast doesn't take much time either: I just have to start two days earlier than when using a Wyeast packet.

Well put and worth elaborating on at the risk of creating a Yeast Snob thread.

Once yeast culturing becomes routine, doing anything else poses the same questions as brewing with extract.

It may very well be a time/money tradeoff for some but in the majority of cases, it is simply fear of the unknown and intimidation by big words and complicated sounding procedures.

I will say no more here but everytime I announce that I have an article on beginning yeast culture, I get inundated with requests which boggle my mail so I will post the article in serial form starting tomorrow.

js

Date: Mon, 29 Mar 93 09:22:50 -0800
From: atl@kpc.com
Subject: Re: Question on sterile wort preparation

> However, when it comes time to use the wort, it must be
> poured out of the canning jars and into the vessel which
> will be used to culture the yeast, with the associated
> contamination risks.

After removing the sealing ring, I dip the still sealed jar into a bleach solution. Then I remove the lid and pour.

> It would be nice if the same jar that was used in the pressure
> cooker could accept an air lock. This way, when it came time
> to make the starter, one could simply take the jar of sterile
> wort off the shelf, open it, put in the yeast, and attach
> a sanitized airlock.

I have found that small juice jars will reseal once or twice before discarding. We get Mission something or another juices here at work, and I had a few friends save the jars and lids for me. These will accept a #6 stopper. Be sure to use the jars with the pop up top so you can tell if they are contaminated.

Drew

Date: 29 Mar 93 09:41:00 +0900
From: BELLAGIO_DAVID@Tandem.COM
Subject: Brewpubs in Irvine, Ca?

Hi,

I will be on travel in Irvine, Ca next week. From my list I see there is a brewpub in Hunington Beach. Is this the only one near Irvine? Is it worth going to? Is there any other spot that serves good beer? Thanks in advance.

Super Dave
bellagio_david@tandem.com

Date: Mon, 29 Mar 93 12:39:24 EST
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: re Question on sterile wort preparation

Joel asks:

Does anyone know of small-mouthed jars with accompanying
small lids and rings, (sort of like a miniature Ball jar),
which would accomodate a drilled stopper?

I've had good luck with those hand-sized Veryfine juice bottles. Fill
'em maybe half full of wort, put the lids on so that the threads just
engage, and pressure-cook 'em. When you take 'em out, tighten 'em down
(wear hot-mitts). If the lids pop down when they cool, you got a good
seal, they'll last a long time. They take a regular carboy stopper.

Have a look around the supermarket and/or convenience store,
you'll find something that'll work for you.

Carl

WISL,BM.

Date: Mon, 29 Mar 1993 10:12:09 -0800 (PST)
From: Mike Deliman <miked@wrs.com>
Subject: Grain Mills: the Test Drive

Preface:

This is an attempt by an amateur scientist to publish an objective review of two common mills.

----- Test Drive, the final chapter -----

The results of the great Corona Mill VS. MaltMill grain crush are in.

First, an overview of the hardware in the test:

==== Corona ==== Price, as tested: \$39.

The Corona mill is a fairly straightforward design. There is a hopper on top, big enough for about 2 # of pale malt. It is a hand cranked design; the hand crank is about 18 inches long. Once it's going, it's not too hard to keep it going.

The mill itself uses a screw "impeller" to feed grain to the crushing/grinding plates. The plates have a gap, which is adjustable via a wingnut and locknut.

The Corona does require a mount for stability, and could use a mechanism to direct the output of the milled grain.

Nearly all of the Corona's parts are made from cast metal. It'd be fairly hard to break (i.e., it could fall off the brewing table, bounce down the stairs, hit AND kill the cat, and still be functional).

==== MaltMill ==== Price, as tested: \$130

(As tested, this unit had the adjustable gap feature. It did not have the stainless steel rollers.)

This mill has a decent-sized hopper, which uses gravity to feed grain through the rollers. The entire mill is designed to sit atop a bucket.

The MaltMill is a roller-mill design. The rollers and "bearing plates" (for lack of a better term) are made of metal. The rollers themselves are grooved; these were probably used in an industrial application and required a significant cleaning effort before the author felt comfortable about using this device on a food product.

The basic design is manufactured mostly from pressboard, save the name placards and the roller assembly. Structural integrity is provided by a total of 8 bolts; two hold the hopper on, two hold the bottom board on, and there are bolts at each end of the placards.

The rollers have an adjustable gap (on this model). The adjustment is performed by rotating an eccentric cam on which the end of one of the rollers is mounted. The adjustment can be tightened to the point of no gap, or opened to where grain could fall through unmilled. Once adjusted, one must lock down the cam with a wing nut.

On the adjustable model, one of the placard bolts is replaced by the adjustment lock down bolt - which sacrifices whatever structural reinforcement the original bolt had to offer.

If this mill were to fall from 5 feet to a cement floor, there would undoubtedly be irreparable damage.

- - - - -

Pre-test adjustments

The Corona was adjusted to where it left no unbroken kernels, and a minimal amount of husk damage. The adjustment is not hard to perform while milling.

The MaltMill was adjusted to just where it would not allow malt to go through uncrushed. Aside from husk material and flour, the crush was nearly indistinguishable from that of the Corona.

Adjustments had to be made by running a handful of grain through, then loosening the wing nut, adjusting roller separation via twisting the cam, and then tightening the cam. ("lather-rinse-repeat")

The goal with both mills was to adjust for a crush:

- * with minimal flour content
- * minimal uncrushed kernels
- * minimal damage to the husks

- - - - -

The Crush: yields!

The Corona had a very consistent crush. With proper adjustment, one can minimize the damage to the husks and at the same time leave no kernels uncrushed.

The MaltMill has the possibility of passing a few uncrushed kernels through while still producing significant flour.

Quantitative Analysis: procedure

Both mills were adjusted for proper crush. The MaltMill crushed into a grain bag in a bucket. The Corona's output was directed via a sleeve into a grain bag in a bucket.

After milling, the grain was sifted, and the resulting flour was weighed on a counterbalance (accurate to within .02 grams).

Results:

For 2 # Pale Malt, the Corona produced 42.0 grams flour.
the MaltMill produced 49.5 grams flour.

That's a whopping 20% MORE flour with the MaltMill.

This is significant as I've heard theories that flour content can contribute to a stuck sparge; I've also had more sparge problems with high flour content milled malts.

Husks: The husks on the Corona's crush were slightly more damaged than on the MaltMill.

Unmilled kernels: the MaltMill had a higher ratio of unmilled kernels; we did not see any unmilled kernels with the Corona.

If time had allowed, I would have liked to run some deeper analysis on the grain - an actual count of unmilled kernels per 100 ground, etc,

would have been nice to tally.

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I leave the reader to interpret the results. Apologies to those whom regard this posting as wasted HBD bandwidth.

Have a homebrew >pffft<,

mike

Mike Deliman, 800-USA-4WRS, FAX 510-814-2010, WRS 2400bd BBS: 510-814-2165

email: miked@wrs.com (inet) or [sun,uunet]!wrs!miked (uunet)

Snail Mail: Wind River Systems, 1010 Atlantic Ave, Alameda CA 94501
USA

Date: Mon, 29 Mar 93 12:56:11 -0600
From: "Jim Ellingson" <jimme@pi28.arc.umn.edu>
Subject: WARNING Re: Almost Free Kegging

Jack suggests using a keg as a pressure vessel and getting pressurized CO2 gas from dry ice. Highly pressurized gas can be very dangerous.

The short answer is: DON'T DO IT!!!!

Let's do a quick BOTEK (Back of the Envelope Calculation) analysis on this. The vapor pressure of liquid CO2 is hundreds of psi (say 500 psi) and is a function of temperature. It's several times the rated operating pressure of a Cornelius keg (120 psi). Clearly there is a potential here for disaster.

Most substances expand about 1000 times upon boiling or sublimating, at a pressure of one atmosphere. So, if we use a pint of dry ice, it will sublimate into 1000 pints of CO2 gas. If we stuff 1000 pints of CO2 into our 40 pint (5 gallon for you non BOTEK alums) keg, what is our pressure? The Ideal Gas Law states that each halving of the volume induces a doubling of the pressure. 25 is roughly 2 to the 5th power, so a pint of dry ice should generate 5 doublings of atmospheric pressure or . . . something on the order of 25 atmospheres or 400 psi.

Using half as much dry ice would half the pressure. So, using a half cup would give us about 100 psi, which is twice Jack's recommended operating pressure. Also, I wouldn't use BOTEK analysis if I wanted a pressure anywhere near the manufacturers rated operating pressure. Using a quarter cup would give a pressure of around 50 psi but I still don't think it's a very good idea.

Pressure vessels are thick, heavy and expensive for a reason. The pressurized gas which they hold contains an enormous amount of potential energy. (That's why they are hydro [water] tested. Compared to gases, fluids are approximately incompressible.)

BTW, thanks to all for keeping the S/N ratio up on the HBD.

Cheers,

--

* Jim Ellingson jimme@arc.umn.edu *
* AHPCRC/University of Minnesotatel 612/626-8088 *
* 1100 Washington Ave. S., Minneapolis, MN 55415 fax 612/626-1596 *

Date: 29 Mar 93 09:20:23 EST
From: "Anderson_Andy" <Anderson_Andy%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
Subject: Hop Utilization Factors

Message Creation Date was at 29-MAR-1993 14:14:00

Greetings,

Would someone out there please inform me on calculating the difference in the hop utilization factor for whole leaf vs. hop pellets. I read these formulas on calculating the IBUs for a given beer, but I have not seen anything that deals with the form of the hop itself, aside from its Alpha value. It would seem that this would be especially important for hops added near the end of the boil (i.e. for flavor or aroma).

Thanks,

Bitch's Brewery
Andy Anderson

Date: Mon, 29 Mar 93 14:43:23 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Question on sterile wort preparation

> It would be nice if the same jar that was used in the pressure
> cooker could accept an air lock.

I would think any glass juice jar with a lined metal lid fits the bill nicely. Just drink the juice and re-use the cap. I use 1-qt jars that take a #7-1/2 or #8 stopper.

I don't use a pressure cooker, but I make starters with normal water-bath canning procedures. After the jar cools, the center of the lid collapses and seals just like a mason jar. I suppose the lid will wear out after a while, but I've used them 3 or 4 times and they still work fine. Their working life may be less when pressure cooked.

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Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Mon, 29 Mar 93 18:21:03 EST
From: bickham@lynx.msc.cornell.edu (Scott Bickham)
Subject: Ithaca Competition

Ithaca Brewers' Union May-Day Ale Competition
AHA Sanctioned Homebrew Competition
Saturday, May 1, 1993

Entry Information:

A. Bottles: three 10-14 oz. bottles are required for each entry. Grolsch-type bottles and bottles with raised lettering or paper labels will not be accepted.

B. Drop-off Sites: entries may be shipped via UPS or delivered in person to Summer Meadow Herb Shop, 319 Eddy Street, Ithaca, NY 14850. In addition, entries from the Syracuse area may be dropped off at E.J. Wren Homebrew, Inc., 209 Oswego Street, Ponderosa Plaza, Liverpool, (315) 457-2282 and those from the Binghamton area dropped off at S & R Homebrewing and Winemaking Supplies, 223 Ridgefield Rd., Endicott, (607) 748-1877. Entries will be accepted from April 10 through April 24, 1993.

C. Entry Fee: \$5 per entry (\$4 per entry if more than 4 are submitted). Please include a check made out to "Ithaca Brewers' Union" and enclose a completed entry form for each homebrew submitted.

D. Styles: all entries will be judged by AHA style definitions, which were listed in the February IBU Newsletter. Fruits, herbs or spices used in speciality beers should be listed and the base style included so that it can be judged appropriately. Note: if a particular category does not receive at least six entries, it will be combined with a similar category for judging and award purposes.

1. Belgian-Style Specialty
 - a. Flanders Brown
 - b. Dubbel
 - c. Trippel
 - d. Belgian Ale
 - e. Belgian Strong Ale
 - f. Lambic
 - g. White
6. Porter
 - a. Robust Porter
 - b. Brown Porter
7. Stout
 - a. Dry Stout
8. Strong Ales
 - a. Foreign style
 - c. Sweet Stout
2. Brown Ale
 - a. English Brown
 - b. English Mild
 - c. American Brown
 - d. English Old Ale
3. English Style Ale
 - a. Classic Pale Ale
 - b. India Pale Ale
 - c. Ordinary Bitter
 - d. Special Bitter
 - e. Extra Special Bitter
9. German Style Ale
 - a. Altbier
 - b. Koelsch
 10. Wheat Beer
 - a. Berliner Weiss
 - b. Weizen
4. American Style Ale
 - a. American Pale Ale
 - b. India Pale Ale
 - c. California Common Beer
 - d. Dunkelweizen
 11. Specialty Ale
 - a. Fruit Beer
5. Scottish Ale
 - a. Scottish Light
 - b. Scottish Heavy
 - c. Scottish Export
 - b. Herb or Spice Beer

E. Judging Information: Judging will be done in a closed session at the Tower Club Restaurant on the Ithaca College campus, with the first round beginning at 10 a.m. sharp and the second round commencing after lunch. Contact Scott Bickham at (607) 266-0092 or e-mail to bickham@msc.cornell.edu if you are interested in judging or stewarding.

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Scott Bickham |
LASSP and Materials Science Center | bickham@msc.cornell.edu

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Date: Mon, 29 Mar 93 15:36:47 -0800
From: SCHREMPPE_MIKE/HP4200_42@pollux.svale.hp.com
Subject: BAA competitor

I just got information on a competitor to Beers Across America. I'm not affiliated... blah, blah,blah.

The company is:

MICROBREW TO YOU
428 E. Campbell Ave
Campbell, CA 95008

Phone: (408) 379-0500
Fax: (408) 379-8837

Their flyer says they will ship two six-packs a month of microbrewery beer and a newsletter about the beer and brewery that produced it. They are a new company, about three weeks old. They say they are starting with californian beers, but will move expand soon.

The monthly cost is:

\$13.95 plus tax, S&H, and Calif deposit.

For those in the Bay area, these guys have a very small store in downtown Campbell that stocks lots of kinds of beer (58 breweries were represented when I stopped in). They are also a source for kegs from many of these breweries.

Mike Schremppe

Date: Mon, 29 Mar 1993 18:50:55 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: pasteurization, why how and who?

Can someone satisfy my not-overly-technical curiosity about pasteurization of beer? Is there a simple way to tell if a beer is pasteurized (I've been told it's obvious in the head)? Why and how is it detrimental to the flavor? Are all draft beers unpasteurized? Why? Are all imports unpasteurized? Does the cold-filtered process represent a real improvement over pasteurization? What do they filter out anyway that would shorten the shelf-life? What would happen if megabrews were not pasteurized? Who's buried in Grant's tomb?

If this ground has all been covered, excuse me I'm a recent reader. But please tell me where, via e-mail. Otherwise, it's a topic that should interest beer cognoscenti (even though God only knows why anyone would want to do this at home) and might merit some HBD bandwidth.

yours with foam on top,
Kirk

Date: Mon, 29 Mar 93 20:06:15 EST
From: U033000 <U033%SETONMUS.BITNET@PUCC.PRINCETON.EDU>
Subject: recipe

To whom it may concern:
How can I get a home brewing recipe?
The Circuit Breaker

Date: Mon, 29 Mar 1993 18:46:02 -0800 (PST)
From: Douglas Fay <94dfay@ultrix.uor.edu>
Subject:

sub doug fay

Date: Mon, 29 Mar 93 23:18:35 EST
From: Mark Gryska <mark@vicorp.com>
Subject: Re: Question on sterile wort preparation

I've used ball jars in a pressure canner for preparing my sterile wort without worrying too much about dumping the contents into a sanitized container for the starter. The advantages are: you can pour off the wort and leave trub behind; oxygenate the wort while pouring; clean the ball jar thoroughly if it is the wide mouth variety. I haven't had any problems with contamination. (knock knock knock) If you are concerned then maybe you can get your hands on a glass milk bottle. They usually come in 1/4, 1/2 and 1 quart sizes and you'll find that a #6 stopper will fit and you can put these into a pressure canner as well.

- mg

End of HOMEBREW Digest #1108, 03/30/93

Date: 30 Mar 93 08:30:47 EDT
From: RKING@VUNET.VINU.EDU
Subject: Addr: blue

I recently had a homebrew a friend sent me via another friend. The beer was called Blue Porter. It gave me double vision and put me to sleep. Hmmmnn. Does anyone know what Blue Porter is and does it usually contain any, uh...unauthorized substances added to it?
Sincerely to all.

RKING@VUNET.VINU.EDU

Date: Tue, 30 Mar 93 8:57:13 EST
From: casey!aspen!joem@uu6.psi.com (Joe Mulligan)
Subject: New Supplier in Connecticut

A new homebrew supply store has opened in Monroe, CT:

Maltose Express
391 Main Street (Rte 25)
Monroe, CT 06468
(203)452-7332

They are experienced brewers, and have operated a mail order business for several years.

I tried a Pale Ale that Mark, one of the co-owners made, and it was great !! And it was an extract brew (recipe will be shared if desired).

This is the first supply store to open within a 20 mile radius of Fairfield, CT, where I (and many other homebrewers) live. This is good news !!

CALL BEFORE STOPPING BY; THEY ARE NOT OPENED EVERY DAY !!

Of course, I have no affiliation with this business. I just wanted to share this blessed event with others in the Monroe area.

joem@nrd.ups.com

Date: Tue, 30 Mar 93 9:22:28 EST
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>
Subject: Champagne - Urbanna, IL Brewpub inquiry

I will be attending a conference at the University of Illinois next week, 4 April -7 April. Does anyone know of brewpubs in the area? Should there be several, any preferences. Thanks in advance.
lstrohl@s850.mwc.edu

Date: Tue, 30 Mar 93 08:23:41 -0600
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)
Subject: Whitbread warning, part I

There have been a number of digest posts in the past few weeks which suggest the quality of dry beer yeasts is improving. The latest post on this was in last Thursday's digest by George Fix. I'd be delighted if these

reports did indeed portend a new beginning for dry yeast, but I remain very skeptical. If I may be allowed to play the devil's advocate, let me first explain why I think the recent reports offer limited encouragement at

best and why I doubt the existing processors of dry yeast are likely to change their ways in the foreseeable future.

Dr. Fix states that the new Whitbread yeast passed his culture tests with flying colors. I presume this means that the bacteria count was low and the viability was high. This indeed is good but it should be noted that Dr.

Fix also suggests that neither of these was the problem with the old Whitbread which he estimates made swill about 1/3 of the time. Dr. Fix further points out that the dryness of these beers might be due to a nonculture (wild) yeast, particularly a *S. diastaticus* which can ferment dextrin. This rather unique property of *S. diastaticus* allows this wild yeast to be detected by a culture method. Basically, *S. diastaticus* will grow on a dextrin or starch agar while the culture yeast will not.

However, I'd like to point out that the majority of nonculture yeasts common to brewing are strains of *S. cerevisiae* for which there are no reliable culture methods of detection. In short, the new Whitbread could be even more contaminated than the old, but with a different wild yeast,

and Dr. Fix's culture methods would not detect it. There are methods which will detect most wild yeasts but these methods are quite sophisticated and would require equipment and expertise found in some microbiology or biochemical laboratories with fluorescence microscopy capabilities.

Although the culture tests conducted by Dr. Fix are indeed useful, particularly for Crosby and Baker, in screening out batches with gross contamination of bacteria, the only reliable and practical test of yeast purity for the homebrewer is simply to test the quality of the beer made with the Whitbread yeast. The only practical way of knowing if wild yeasts are present is to sample the beer and look for off flavors and aromas, poor clarity, low final gravity, etc.

The other reports of improved dry yeast center around the new Lallemand yeasts, Windsor Ale, Nottingham, and Koenig. These yeasts have drawn some attention in part because of the large ads in *Zymurgy*. Some people on the digest have suggested these are also improved dry yeasts. I expressed my doubts about these yeasts some time ago for reasons I'll outline below. GW Kent, the distributor of these, recently indicated that

one of these great new yeasts (sarcasm intended), Konig, has been dropped because of contamination.

Date: Tue, 30 Mar 93 08:38:02 -0600
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)
Subject: whitbread warning, part 2

Their are several factors which suggest that dry yeast processors will not produce improved dry beer yeast. Firstly, dry yeast processors are primarily interested in bread yeast. Bacterial contamination in bread yeast is not nearly as critical as it is in beer yeast. Thus the processors are understandably content with the contamination level of their principle product and not inclined to spend money and time to improve a secondary product.

Secondly, although homebrewing is a recent trend in the US, it has a much longer history in the UK, Australia, and New Zealand. It seems a little unrealistic to think that yeast processors which have been entrenched in making poor yeast for so long are suddenly going to get their act together because of the American market.

Thirdly, culture tests such as those conducted by Dr. Fix for Crosby and Baker have been done before and it's difficult to find any evidence that the results influenced the processors in the slightest. For example, the culture tests conducted by Dr. Michael Lewis et. al. and published in Zymurgy in the '89 special issue indicated some serious problems with amongst others, Whitbread. From Dr. Fix's remarks, we now know that Whitbread only got worse after this, not better.

In spite of the long history of contaminated dry beer yeast, I don't think it is an inherent flaw of the process. I suspect it is simply a lack of adequate quality control. So what is required for adequate quality control? Clearly the entire process must be carried out in a sterile environment. This requires a room with sterile air (special ventilation equipment), sterile packaging materials, sterile glassware and equipment which requires an autoclave. This is indeed what Dave Logsdon at Wyeast has and I suspect at least some of the dry yeast processors have these capabilities. Quality control is really the process of maintaining this sterile environment over time and that is where the dry yeast processors fall short. Quality control requires routinely checking the yeast for contamination by culture methods such as those Dr. Fix runs for Crosby and Baker, routinely checking surfaces of equipment and glassware and even the walls for evidence of contamination. If you take a swab off the wall or an empty flask and it grows on a agar media, you've got a problem. Many breweries routinely make small batches of beer and check for wild yeast contamination by the off-flavors and aromas or appearance (flocculation) of the beer. If processors of dry yeast are truly serious about cleaning up the dry yeast, they would carry out similar procedures.

A history of contaminated yeast suggests an inability to implement

adequate quality control. That is why I am particularly dubious of products from existing processors such as Lallemand in Canada, Distillers in England, Coopers in Australia (also supposedly better according to Dr. Fix as reported by Jeff Frane on rcb), and Red Star (back in production and also improved according to Jeff Frane as reported on rcb) in the US. The reason I was immediately skeptical about the new Lallemand yeasts was that I saw nothing in the ads or information to indicate that Lallemand had improved its quality control. I see nothing in the new information about Coopers and Red Star to suggest that they'll break their pattern of reliably making swill all too often. The most hopeful note in Dr. Fix's post was that a new processor was drying Whitbread yeast. It may well be that the new Whitbread is a good clean dry yeast--for now. After all, if it's a new facility, it's likely to be quite sterile at the outset. But the real test will be in a year or two. Unless this new processor breaks the mold and institutes adequate quality control procedures, I think we can expect the new Whitbread to look very much like the old within a couple of years. Unfortunately, homebrewers won't be seeing any of the new and improved Whitbread for a while; it's only available to brewpubs for the time being. Apparently there is another Australian dry yeast called Mauri Brew (not produced by Coopers) which has appeared in Canada and is thought to be of better quality.

Don

Date: Tue, 30 Mar 93 9:35:35 CST
From: tony@spss.com (Tony Babinec)
Subject: Belgian Aromatic

CHUCKM writes about Dewolf-Cosyns Aromatic malt. Well, yes, most malts are aromatic, but the Aromatic is especially, uh, aromatic. It has a color rating of about 25 Lovibond, which makes it a bit darker than dark Munich. You know how you'll read a recipe in Charlie's book, and he'll tell you to toast a pound of malt in the oven for 10 minutes. Well, in a way, the manufacturing process for the Aromatic malt has done this for you. Aromatic malt works especially well when used as a substantial fraction of your grain bill for bocks and doppelbocks, and could be used when you want to make any malty amber to dark beer.

Date: Tue, 30 Mar 1993 07:48:03 -0800

From: eurquhar@sfu.ca

Subject: better ginger flavour

I too was very interested in obtaining a strong ginger flavour as I developed a taste for a Jamaican ginger beer (non-alcoholic) last summer which was quite pricey and not too available. So I looked in a text on food

flavouring production and found out that the ginger bite and aroma were extracted very differently. The volatile flavour as Dave Whitman suggested

is volatile and is obtained by distillation but has none of the ginger bite

just the spicy lemon flavour. The ginger bite is obtained by using repeated extraction with a mixture of ethanol and hot water.

We found that the ginger "bite" being much less soluble in pure water can be extracted by grinding fresh ginger to a fine pulp in a little

boiling water. Then letting the mixture simmer for 10 minutes on the stove

in about a litre of water. You can obtain a good extract this way. You then strain it out and repeat this with the pulp twice more.

Most of the spicy lemon flavour came out in the first extraction with a good ginger bite present after the 4th extraction. The flavour of the ginger beer was very strong at first but diminished slightly over time.

This seemed due to some sedimentation as upon tasting it had quite a bite.

Young fresh ginger (the one with the red stalk remnants) is much more fragrant and lemony than mature ginger, I prefer it, use it at 2/3 young and 1/3 mature ginger if you can get it. At the level of 1 lb. ginger per

gallon you'll get lot's of ginger bite unless you're one of those people who eat whole raw jalapeno's. If using only mature ginger try about 8 oz.

to the gallon as it's much stronger. Hope you find this info useful.

homebrew@hpfcmi.fc.hp.com

Eric Urquhart (eurquhar@sfu.ca)

Centre for Pest Management, Dept. of Biological Sciences
Simon Fraser University, Burnaby , B.C. Canada

Date: Tue, 30 Mar 93 10:44:44 EST
From: orgasm!davevi@uunet.UU.NET (David Van Iderstine)
Subject: Freshops

Freshops
36180 Kings Valley Hwy.
Pholmath, OR 97370
(503)929-2736

They sell hops rhizomes (roots), as well as bagged leaf hops. The more rhizomes you order, the more you'll get. Huh? For instance, last year I ordered 4 and got 4. This year I ordered 8, and got 11!

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==  
== Dave Van Iderstine  Senior Software Engineer ==  
==   Xerox Imaging Systems, Inc.==  
== UUCP: uunet!pharlap!orgasm!davevi  davevi@pharlap.com :INTERNET ==  
-----  
-==  
=="I haven't got time for instant gratification!"  ==  
=====  
==
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Date: Tue, 30 Mar 93 11:43:48 -0500
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
Subject: Ale yeast sold by Northeast Brewers Supply

Greetings all HBD readers! I have a question for anyone that may have tried the North American Ale yeast sold by Northeastern Brewers Supply. I brewed up a pale ale with this yeast, and as the beer has aged it has been getting an increasing clove-phenolic flavor that really dominates the taste of this beer. It is not an objectionable, flavor. In fact my SO really loves this batch claiming that its spiciness reminds her of Orval (you have to love a woman that says such things about your beer). Nevertheless, the taste is inappropriate for the style. Last night I popped the first bottle of a stout that was also brewed with this yeast and much to my horror it also has this clove taste that is strong enough to dominate even the pound of roasted barley that I used in this five gallon batch. So, now I'm pretty sure that the yeast is the culprit (I've never encountered this flavor in my beers before). Has anyone out there tried this yeast and have you had similar experiences with it? It is entirely possible that this particular culture that I have is not representative of the yeast sold by NBS. Their catalog describes the yeast as producing a 'clean' profile. When they shipped my order (this is an order I made back in November) they did so during Christmas-New Years time with the result that it was in the hands of UPS for more than a week kept under who knows what temperature. I had to make a number of attempts to culture from their slants before I got one going. So it is possible it could be a freak. Who knows, it might be a great yeast for a wheat beer! But I'll be keeping it out of my stouts.

Bob Santore,
Syracuse NY
rsantore@mailbox.syr.edu

Date: Tue, 30 Mar 1993 12:28 EDT
From: HOWED@bcvax1.bc.edu
Subject: Chocolate

Not too long ago, my partner and I created a chocolate wheat beer. We added 3 oz. of chocolate with the boiling hops and another 3 oz. with the finishing hops. This way, we figured we could get an aroma and a good flavor from the chocolate. It seemed to work, because we've got a good beer in the bottle now.

The one piece of advice we got before using the chocolate was that there could be an unusual odor in the carbuoys. We did get soething that was unusual, but there was no infection, and the finished product is rather tasty. From what I understand, you can use less chocolate, anywhere down to around 2 oz. for a more subtle flavor. We wanted a more pronounced one, so we went for [close to] the maximum.

This addition is supposedly valid for just about any beer recipe. Admittedly, I would not find certain combinations palatable to the point that I would want five gallons of it in my kitchen [Chocolate Chili IPA?], but the leeway is there. Enjoy!

HOWED@BCVMS.BC.EDU

Date: Tue, 30 Mar 93 11:19 CST
From: korz@iepubj.att.com
Subject: Cannot reach Don and Wally

Don at Tellabs and Wally at akcs:
I can't reach you via email. Call me at 708-430-HOPS.
Al.

Date: Tue, 30 Mar 1993 12:54:29 -0600 (CST)
From: melby@stolaf.edu (P Eric Melby)
Subject: cancel

Please cancel my subscription to this subgroup.

Date: Tue, 30 Mar 1993 10:45:32 -0800 (PST)
From: Thomas Feller <thomasf@ursula.ee.pdx.edu>
Subject: Late Reply to the Brass Question

I figured someone else would have made this piont by now but ...

Not to long ago NPR did a story about possible problems with brass water facuets. It seem some manufacturers of brass faucets still use lead solder in constructing their faucets. The Calf. EPA has been able to measure lead leaching into the water when using these faucet when using very hot water. No numbers were given.

The fellow for the Calf. EPA recomended not using hot water from any faucet for cooking and if you have small children to only use bottled water (how do we know the bottle water is lead free?)

I think the case for how much lead, where it comes from, and who is at greatest risk has been clearly stated here in the HBD so make up your mind on the dangers.

I hope is helps.

- Tom Feller

Date: 30 Mar 1993 13:05:29 -0600 (CST)
From: SWEENERB@msuvx2.memst.edu
Subject: Help!

Help!

I found out today (Tuesday 3/30) that there will be a local homebrew judging on the 16th of April and bottles have to be submitted on the 14th. My dilemma is that I have a carboy full of what I hope is pretty damn good porter, but it is still actively fermenting (about 15 seconds between bubbles) after 6 days. I would really like to enter the contest with this brew, so I figured if I give this batch a couple of more days in the carboy and bottle on the 1st it may be ok by the 16th. Is there anything I can do, however, to speed up the carbonation process and/or help the yeast to drop out of suspension in the meantime to remove the green beer taste? Is there a fining agent which might help? Any suggestions are welcome--tried and true or completely experimental--at this point I'll try anything. Thanks in advance.
Bob

Bob Sweeney - SWEENERB@MEMSTVX1.BITNET
Memphis State University
Status: Permanent Student
(901) MSU-4210

Date: Tue, 30 Mar 93 14:00:27 EST
From: "Mark Rich-mpr8a@acadvm1.uottawa.ca" <MPR8A@acadvm1.uottawa.ca>
Subject: Dead fermentation

Hello all,

Brewed a kit beer with a buddy last Sunday; Monday it was fermenting at a reasonable rate, Tuesday Morning- Nothing. I am a bit disturbed by this.
(not worried, disturbed) We used a full boil, rehydrated the yeast in some of the wort set aside at 70f, for a few hours while the 5 gal of wort cooled. The kit called for 1kg of corn-sugar, we subbed 1 kg light dry m-extract. The original gravity was 1.041, glass primary with blowoff in a 70f room. I guess I should also mention it was a Brew-Pro, Mexican Lager kit. We plan to take a S. G. reading tonight... Is it possible the beer is fermented-out??? As I am convinced that it is not, any suggestions would be appreciated. Please forgive my violation of the "Thou shalt not covet kit-beer" commandment. (it was a gift).

Date: Tue, 30 Mar 93 11:42:38 PST
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>
Subject: How are your HOP'S?

Went out to weed my hop garden and found that my hops are growing like gangbusters both of my cascade hops are 15 inches long with 8 vines each and my

Chinook is 10 inches with 6 vines. It looks like a norther good hop year.

I got 3LBs of dry hops off them last year. It looks like it is time to build the hop trellis.

v-ccsl@microsoft

Date: Tue, 30 Mar 93 13:18 CST
From: korz@iepubj.att.com
Subject: Belgian aromatic malt/misc questions/

CHUCKM writes:

>and in particular I have seen some mention of Belgium aromatic
>malt. Does anyone know how the 'aromatic' malts differ from
>other non-aromatic malts?

I believe you're refering to the malt that DeWolf-Cosyns makes that they call "Aromatic." Basically, it is like Munich malt in that it is darker than Pilsner or Pale malts but will still mash itself. It is roughly 23-28 degrees Lovibond.

Andy writes:

>1. To achieve maximum practical cold-break how quickly and
>to what temperature must I reduce my wort?

Cold break begins to form at temperatures below 140F. It has been reported and I've verified empirically that the quicker you chill it (the more suddenly the temperature drops) the better the break.

>2. I'm intersted in re-using my yeast in order to keep
>costs down and diminish the time to begin fermentation. How
>can I efficiently separate the yeast from protein globs and
>stray vegetable matter in my troob?

I feel it's better to harvest yeast from the secondary than the primary since the trub, as you mentioned, settles in the primary. I have a big problem with harvesting yeast from the carboys because I dryhop. Instead, I make starters and split them in parallel into several batches. The snag here is that you need to brew several batches from the same yeast in a relatively short period. I have also successfully made starters from the sediment in my own homebrew, but I've had problems with older bottles and only do it for one generation to avoid the pitfalls of mutations.

>3. I was interested in doing some mail order extract
>purchases. I saw one company offering a Wisconsin barley
>malt from Briess that was cheaper than what I normally pay
>for Munton & Fison unhopped extract. Has anyone out there
>brewed with both of these extracts? I'm interested in how
>they compare with each other.

I've used both and I've found that the Northwestern extract tends to give a slightly higher OG contribution per pound and that it tends to leave a bit higher FG than the M&F unhopped.

>4. When sparging in my extract brews, I filter out the
>hops as well as hot & cold break proteins and plop the gunk
>onto some cheese-cloth. When I'm finished filtering, I
>squeeze the cheese-cloth to wring out the last liquid back
>into my wort. Am I screwing up because my "naked" hand is
>squeezing out the juices? Am I introducing bacteria as
>well as skin oils? How should I be doing this?

"Yes," "yes" and "if you must, boil it again to sanitize.

Dave writes:

>Is there any reason not to just sanitize the hydrometer and drop it into
the

>secondary? It seems to me that it gives less chance for infection than

I dryhop so it would not work for me, but I've done this before and
there's

no reason that I can see to not do it.

Al.

Date: Tue, 30 Mar 93 13:30 CST

From: korz@iepubj.att.com

Subject: Hunter/Corona vs MaltMill/hop utilization/pasteurization vs filtering

Ulick writes:

>This weekend I wired up my freezer. Not wanting the damage the
>antique beauty in any way, I mounted the Hunter (heat-cool,
>round, mechanical model 40005) to a scrap of plywood, and connected
>it to an extension cable coming in. Anyway, when I turned on the
>power, she blew. A bright spark and there was no metal left on the
>thin wires of the mercury trip switch.

There's a different Hunter, called the Airstat, which is made to control window air conditioners. That's the one you want. No muss, no fuss and 40F is low enough for me anyway. Any lower and I think there may be a risk of freezing bottles near the walls. The Airstat is digital, has a remote sensing device and you simply plug your freezer/fridge into it.

Mike writes:

>(for lack of a better term) are made of metal. The rollers themselves
>are grooved; these were probably used in an industrial application and
>required a significant cleaning effort before the author felt
>comfortable about using this device on a food product.

These rollers are custom made for this application and the oil on them is to keep them from rusting. Good thinking, you should clean everything before you put food in it, shouldn't you.

>

>The basic design is manufactured mostly from pressboard, save the name
>placards and the roller assembly. Structural integrity is provided by a
>total of 8 bolts; two hold the hopper on, two hold the bottom board on,
>and there are bolts at each end of the placards.

Your tone is not coincident with your impartiality. The "pressboard" is actually synthetic wood made from recycled milk jugs and is IMHO much less likely to break than pressboard, plywood or cast metals.

>

>On the adjustable model, one of the placard bolts is replaced by the
>adjustment lock down bolt - which sacrifices whatever structural
>reinforcement the original bolt had to offer.

Sounds impartial to me... NOT.

>

>If this mill were to fall from 5 feet to a cement floor, there would
>undoubtedly be irreparable damage.

Mine has fallen 4 feet onto a cement floor and still works fine.

>

>Results:

>

>For 2 # Pale Malt, the Corona produced 42.0 grams flour.
>the MaltMill produced 49.5 grams flour.

>

>That's a whopping 20% MORE flour with the MaltMill.

>

>This is significant as I've heard theories that flour content can
>contribute to a stuck sparge; I've also had more sparge problems with
>high flour content milled malts.

You heard wrong. Pulverized husk material is much more likely to cause a stuck sparge than any amount of flour. With proper doughing-in, flour is not a problem -- it will be converted to sugars which are soluble. Flour production should not be an issue when evaluating a mill.

>
>Husks: The husks on the Corona's crush were slightly more damaged than
>on the MaltMill.

I personally feel that this is an understatement, but to me husk damage should have been second only to thorough crushing of the grain as a criterion for evaluation of the products.

>
>I leave the reader to interpret the results. Apologies to those whom
>regard this posting as wasted HBD bandwidth.

>
I don't believe it has been a waste of bandwidth, but also it has not been impartial -- your tone was quite evidently biased against the MaltMill. You should also have researched stuck sparges a bit more before formulating your judgement criteria. On my scorecard, the MaltMill won.

If I sound biased towards the MaltMill, so be it, I feel it deserves to be defended, and if you haven't noticed, I did not preface my comments with a statement of impartiality. I'd like to point out that there have been several reviews of the MaltMill versus the Corona that have come up on the side of the MaltMill. Check the archives... only you and Roy Rudebusch have written negative reviews -- perhaps Roy's bias is due to a hundred Coronas gathering dust in his basement -- I don't know for sure. I can sell either the Corona or the MaltMill. My profit margin is bigger on the Corona, although I've yet to sell a single one. It's designed for making tortilla's for Pete's sake!

Andy writes:

>Would someone out there please inform me on calculating
>the difference in the hop utilization factor for whole leaf
>vs. hop pellets. I read these formulas on calculating the
>IBUs for a given beer, but I have not seen anything that
>deals with the form of the hop itself, aside from its Alpha
>value. It would seem that this would be especially
>important for hops added near the end of the boil (i.e. for
>flavor or aroma).

A recent post (I'm not sure which digest) mentioned 20% less utilization when using whole hops over pellets. The reason for the difference is mostly due to the fact that during pelletization, the lupulin glands are physically ruptured making the Alpha Acids more available.

Kirk writes:

>pasteurization of beer? Is there a simple way to tell if a
>beer is pasteurized (I've been told it's obvious in the head)?

No. There is no way other than to ask or look on the label.

>Why and how is it detrimental to the flavor?

Raising the temperature into the pasteurization range will drive off aromatics which you would like to keep. I've heard some say that it will give the beer a "cooked" flavor, but the only beers that I've tasted before and after pasteurization was Chicago Brewing Company's Legacy Lager and Red Ale. I noticed no categorizable flavor difference. Note that these beers are flash pasteurized while in a piece of stainless

steel tubing, so perhaps there is no loss of aromatics there either.

>Are all draft beers unpasteurized?

I don't think so -- maybe they are and maybe not.

>Why?

Probably because of the rate at which they are consumed.

>Are all imports unpasteurized?

Most are but some are not. Chimay is not.

>Does the cold-filtered process represent a real improvement
>over pasteurization?

I don't think cold filtering is anything but a shortcut to proper
lagering -- it filters out the chill haze.

>What do they filter out anyway that would shorten the shelf-life?

Flavor? Body? No, seriously, sterile filtration filters out bacteria,
but also much of the small proteins that give beer body and head
retention.

>What would happen if megabrews were not pasteurized?

It would not change my buying habits.

>Who's buried in Grant's tomb?

Grant and his wife.

Al.

Date: Tue, 30 Mar 93 15:11:54 -0500
 From: bradley@adx.adelphi.edu (Rob Bradley)
 Subject: Results! Zymurgy special issues.

More than a week ago, I posted asking for peoples' opinions on Zymurgy special issues. I got 11 responses, as well as mail from others asking me to post a summary. Well, here it is:

	Recommended or HighlySomewhat Recommended	Negative Recommended	or No Recommendation	Do Not Own
	-----	-----	-----	-----
85 All-grain	3 4	1	2	
86 Malt Extract	0 1	5	4	
87 Troubleshooting	2 1	5	2	
88 Brewers & Gadgets		0 0	7	3
89 Yeast	8 3	0	0	
90 Hops & Beer	8 1	1	0	
91 Beer Styles	1 2	6	1	
92 Gadgets & Equip't		4 1	5	0

To be fair, "no recommendation" is not as bad as a negative comment. However, if someone has all the issues and just lists the ones he finds useful, that's an implicit criticism of the others. There some guesswork going on here. If he didn't mention whether he owned it or not, I tried to figure it out from context. So take the last two columns as approximate; I stand by their the total of the 2 in each case, but may be off in the particulars. NB the 1989 line adds to 11, the others all to 10. That's because one respondent simply said he thought the Yeast issue was good and offered no other opinion.

There are some clear trends here: Yeast and Hops are pretty much universally liked, Malt Extract and Gadgets '88 are out of the running. Opinion is divided on the others. Once again, the 15% discount deal is on 85 and 87-91 as a set. Maybe this is a ruse by AHA to get rid of their inventory of 88 as a freebie to those who want 85, 87 and 89-91 anyway?

Selected comments

- 85 All-grain: "...a good issue if you're an all-grainer, although a bit of the information seems old now" "...old, more information is available in other books."
- 86 Malt Extract: "Obsolete, for the most part."
- 87 Troubleshooting: "Moderately useful, especially if you're judging." "IMHO the only valuable issues are this, hops and yeast."
- 88 Brewers & Gadgets: "...a real dog...When they sent me the '88 I decided to let my membership lapse."
- 89 Yeast: "A must-have. Top-flight scientific data and advice." "There's good info in there."
- 90 Hops & Beer: "SUPERB! Well worth having!" "indispensable"
- 91 Beer Styles: "Infuriating." "Absolutely the most valuable. A very good reference."

92 Gadgets & Equip't: "Good, especially if you're a gadgeteer."
"<Yawn!> Not much there."

Date: Tue, 30 Mar 1993 15:36:31 -0500 (EST)
From: David C Mackensen <cygnus@unh.edu>
Subject: what to do with used grain bill

Well, I was wondering, what to do with the spent grain bill... so I was thinking...

What if I were to put the spent grain bill into the primary? any additional sugars that might have been left over can be used for fermentation/taste (depending upon complexity)...

I know that it will probably introduce extra gunk into my beer that might induce chill hazing or whatever, but, in a dark beer? I don't think it'll matter much...

I just hate to see all that grain to down the drain :)

any other ideas? I've heard about making bread out of it, but I don't think that might be feasible for me.. :(but who knows :)

One problem that I can foresee is the soaking up of my beer into the grain????

comments please...

thanks,
-chris

.--
David (Chris) Mackensen cygnus@unh.edu puck@unh.edu
dcm2@kepler.unh.edu, dcm2@bifur.unh.edu I am the Time Daemon
+=====
+=====
"Hi... My name is Hobbes. I'm the product of a malicious 6-year old's twisted and destructive imagination. Would YOU like to be my friend?"

Date: Tue, 30 Mar 1993 15:48:06 -0500 (EST)
From: David C Mackensen <cygnus@unh.edu>
Subject: oh yeah (Re: what to do...)

What does the HBD think about just pouring a can of DARK malt (liquid) into the primary before pitching (and of course, mixing it up REALLY well)...

comments please:

-chris

.--

David (Chris) Mackensen
dcm2@kepler.unh.edu, dcm2@bifur.unh.edu I am the Time Daemon

Date: Tue, 30 Mar 93 13:02:26 PST
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>
Subject: RE:Questions

>From: "Anderson_Andy"
><Anderson_Andy%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
>Subject: Questions

>To achieve maximum practical cold-break how quickly and to what
temperature
>must I reduce my wort?

Try to get it down to 60~70 F

>I'm interested in re-using my yeast in order to keep costs down and
diminish
>the time to begin fermentation. How can I efficiently separate the
yeast from
>protein globs and stray vegetable matter in my troob?

Save only the yeast slurry from your secondary fermenter..

>When sparging in my extract brews, I filter out the hops as well as hot
& cold
>break proteins and plop the gunk onto some cheese-cloth. When I'm
finished
>filtering, I squeeze the cheese-cloth to wring out the last liquid
back into my
>wort. Am I screwing up because my "naked" hand is squeezing out the
juices?
>Am I introducing bacteria as well as skin oils? How should I be doing
this?

First put your hop in a cheese-cloth bag when you boil your wort then
pull the
hop bags out before you cool and put them in a stainless steel bowl and
use
another stainless steel bowl on top to press out the wort and put it
back in
the kettle then cool it and siphon off the trub. you will lose about a
1/2 to
1 quart from hot and cold brake.

Date: Tue, 30 Mar 93 15:40 EST
From: LYONS@adcl.adc.ray.com
Subject: Flaked barley as a specialty grain.

Thank you for the replys about the question of using flaked barley as a specialty grain. It appears that using flaked barley adds a creamy mouth feel and improves the head. Some people use flaked barley with all beer styles. Recommendations on the amount ranged from 5 ozs to 1/2lb for a 5 gallon batch. It was also stated that flaked barley can be found at food co-ops under "rolled" barley at a significantly lower price than from your local homebrew supplier.

Thank you!
Chris

Date: Tuesday, 30 March 93 19:59:57 CST
From: LLROW@utxdp.dp.utexas.edu
Subject: TEXAS-SHELL COMPETITION

I don't know if this has been posted yet but:

"A homebrewer's dream come true! Almost everyone who has brewed a batch of beer in their kitchen or garage has thought, 'Gee, this beer is so wonderful, wouldn't it be great if I could sell this stuff!' Well homebrewers, here's your big chance!"

So says the intro to this competition sponsored by the August-Schell Brewing Co. in New Ulm, Minnesota. Here's a rundown of the particulars:

What: 1993 Texas-Schell Open Homebrew Competition
Two bottles per entry (Max. 4 per person)
Categories: None (except no 'novelty'/fruit beers)
Entry Fee: None (Schell and C.R. Goodman Co. covers it.)

Ingredients:

"Schell uses domestic grains, so we prefer that you do too. Extract recipes will be converted to all-grain equivalents. Either domestic or import hops ok. If you are brewing an ale, they prefer that you use a dry ale yeast (really!), as they will most likely be using either Windsor or Nottingham ale yeast. If you are making a lager, we suggest Wyeast #2035 which is, co-incidentally, Schell's own strain! Alcoholic content should be a minimum of 4% by weight (5% by vol.) as they wish to bottle the beer in 22 oz. 'big-boys' and in Texas that means that it must be an "ale" or "malt liquor" (ie. over 4%/5%).

Who: Any homebrewer residing in Texas
When: Entry deadline is 4pm Saturday June 5. The contest will be held the following weekend, 1pm Sunday June 13.

Where: Send entries to: Texas-Schell Competition
c/o DeFalco's Home wine & Beer supplies
5611 Morningside Drive
Houston, TX 77005

To be held at: C.R. Goodman Companies
3430 Yale
Houston, TX 77018

They plan to use the winning recipe for an actual commercially produced August Schell beer to be sold nation-wide. Also in the works are plans to fly the winner up to New Ulm for the brewing of the inaugural batch. Sounds a bit like the Pete's Wicked Ale competition eh?

have at it.
steve

Date: 30 Mar 1993 22:40:03 -0500 (EST)
From: RADAMSON@delphi.com
Subject: Beer Balls

In 1108, M.Galloway asks about beer balls. I started to get into them several years ago, but abruptly stopped using due to leakage problems. I had the portable type from Fritz in Pottsdam, NY using an EDME tap for CO2 cartridges. The tap leaked like a sieve. The balls were great for a single event, the tap would hold and a cartridge or two would suffice. But any longer just wouldn't cut it.

Randy at Brew Ha-Ha in Pottstown, PA had success with the "regulator" tap system for the balls. He and I both are, however, head-over-heels giddy about 5 liter keggings. You know, those 5 l Dink and other German draft cans. These things are perfect for Non Don Cornelious Keggers. Holds 10 pints of your favorite draft in the kitchen fridge. The key is the CO2 cartridge adjustable pressure bottom-feed tap for these guys. Fits both small and large size CO2 carts.

I do have a question tho... Is there a difference between the ISO CO2 carts and a pack of Crossman CO2 chargers from the Kmart counter? Is this what's termed "Industrial CO2"?

Thanks, and Brew On.

Richard Adamson, Brewer, Patriot, Steelers Fan!

End of HOMEBREW Digest #1109, 03/31/93

Date: Wed, 31 Mar 93 13:16:10 MET DST
From: THOMASR@EZRZ1.vmsmail.ethz.ch
Subject: "Samiclaus" aka strongest beer in world

Hello all,

I just thought I'd let you know what I found out about Samiclaus beer. For those of you who don't know it, It is a high alcohol (14%) lager with a rich malty taste and good hop balance. (I highly recommend anyone to try it once). It is brewed once a year and lagered for a year before sale. Anyway, the interesting thing is that the yeast strain used to manage this feat is under constant development. After fermentation is complete, the surviving yeasts are plated out and reused the following year. What amazed me was that the beer could be so standardized from year to year. It appears that this technique works well for bottom fermenting yeasts, but not ale yeasts. The latter are prone to yeast weakness whereby they revert to an ancestral genetic makeup, thereby spoiling the beer.

The head brewer did say however that sometimes problems present themselves: this year's fermentation started perfectly normally, but then stopped - for THREE months. Just as strangely it then restarted of its own accord, but with serious overattenuation (>30 Plato down to 3, roughly equal to 17% alcohol!).

The moral of this tale is that even the biggest Swiss brewer has trouble with his yeast.

Another thing the brewer mentioned was that they expose their malt to water for 7 seconds before milling to soften the shell (sorry I've forgotten the proper name). This has the effect of crushing the inside while only splitting the husk (knew I'd remember it). This makes for better lautering. We didn't get onto how you expose malt to water for 7 seconds only, but he said they did that because of the delay between milling and mashing (ca.5-10 hours). To wet and the malt would mash itself.

I'll be using some of his malt in my next batch, and will try spraying the malt with one of those plant sprays. Any opinions? Has anyone done this?

Rob.

Date: Wed, 31 Mar 93 13:18:09 MET DST
From: THOMASR@EZRZ1.vmsmail.ethz.ch
Subject: immersion cooler length

hello all again.

Does anyone know about the minimum length of copper tubing that
can be used as an immersion wort cooler? Successfully.
Rob

Date: Wed, 31 Mar 93 07:33:36 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: a great Pale Ale

From: casey!aspen!joem@uu6.psi.com (Joe Mulligan)
>I tried a Pale Ale that Mark, one of the co-owners made, and it was
>great !! And it was an extract brew (recipe will be shared if desired).

Sorry to waste the bandwidth, but my mail to Joe
is bouncing. Joe, could you post the recipe to the
digest, or to me personally? Thanks!

- - -
////////////////////////////////////
//////
name: Jimmy I will have a cabinet that
email: fingerle@NADC.NADC.NAVY.MIL"looks like America."-Bill Clinton
-or- fingerle@NADC.NAVY.MILHe does-13 of 18 are lawyers! -Jimmy
////////////////////////////////////
//////

Date: Wed, 31 Mar 93 08:28:02 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Re: What to Do with Grain Bill/Extract to Primary ???

David C Mackensen <cygnus@unh.edu> writes:

> Well, I was wondering, what to do with the spent grain bill
I toss all the spent grains on to the compost pile in the
back yard. That seems to me to be the best use of the grains.
And adding 10 lbs or so every couple of weeks really adds up to
a lot of compost.

> What if I were to put the spent grain bill into the primary?
> any additional sugars that might have been left over can be used for
> fermentation/taste (depending upon complexity)...

How are you going to sterilize the grains before tossing them in ?
Boil them ? Seems like you'd be asking to extract a pile of
tannins from the husks. Then have the husks in contact with the wort/
green
beer for a week or two ?

Doesn't seem like a good idea to me.

> I know that it will probably introduce extra gunk into my beer that
> might induce chill hazing or whatever, but, in a dark beer? I don't
> think it'll matter much...

Depends on just what you like to drink.

> What does the HBD think about just pouring a can of DARK malt (liquid)
> into the primary before pitching (and of course, mixing it up REALLY
> well)...

Why not add the extract to your boil kettle when you're making the batch
?

I see no reason to do this. What about sterilizing the extract ?
If you want to boost the gravity, add it to the boil.

Tim

Date: Wed, 31 Mar 1993 01:39:33 -0500
From: Nick Zentena <zen%hophead@canrem.com>
Subject: Re: priming kegs with sugar instead of dry ice

From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Almost Free Kegging

>Here's another GREAT IDEA from the World's Greatest Brewer....

> This one is untested but considering the source, it's gotta work.

> For the poverty stricken brewer who just knows that kegging is the way
to go
> but has to feed the kids before buying tank and regulator, it has
occurred to
> me that a very simple alternative exists.

> Take an empty keg and and drop in a chunk of dry ice. Seal it up and
connect
> it to the keg of beer and the job is done. A few inexpensive
refinements
> would be an air pressure gage to monitor what is going on, a valve or
two and
> even a regualtor if funds allow.

Something even easier is of course available. It's
called sugar-) You can always prime the keg just
like real ale brewers. None of this fancy dry ice
stuff. Best of all ale brewers have been doing it
for centuries so the results are in.

Nick

I drink Beer I don't collect cute bottles!
zen%hophead@canrem.com

Date: Wed, 31 Mar 93 08:40:10 -0600
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)
Subject: aromatic malt

there are two belgian munich malts, one is called 'munich' and is about 6 lovibond and has a diastatic power of about 50. the other darker munich is called 'aromatic' and is about 21 lovibond and 29 diastatic power.

both malts will convert themselves although 29 dp is really pushing it i suspect.

munich malt is made in the same way as pale ale or pilsener during the initial stages of drying but the last stage is carried out at a higher temperature. the basic process for all kilned malts (pale ale, pilsner, lager, mild ale, vienna, munich) involves drying the green malt which has about 45% moisture at a low temperature until the moisture content reaches about 12-18%. regardless of the type of malt, a higher temperature is needed at this point because this last bit of moisture is more difficult to remove. it is this stage that the each of the kilned malts develops its unique features. the munich is dried at the highest temperature and thus has darker color and less catalyts (enzymes).

by the way, contrary to what has been reported here, this process is basically the same the world over. i.e., european and american munich malts are made in the same way.

don

Date: Wed, 31 Mar 93 09:53:54 EST
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Results! Zymurgy special issues.

Rob Bradley writes:

> 91 Beer Styles: "Infuriating." "Absolutely the most valuable.
>A very good reference."

You know, I wonder if this reflects the dichotomy between those who try to brew true to style (for competition or otherwise), and those who just brew what they like. One member of our club hates competitions because of the focus on style -- he says "... this is a good beer, I don't care if it's too/not enough (hoppy, malty, fruity, whatever) for style X/Y/Z. I like it."

=S

Date: Wed, 31 Mar 93 9:09:30 CST
From: tony@spss.com (Tony Babinec)
Subject: spent grain in primary?/how about malt syrup?

I wouldn't put spent grain in the primary! The grain is contaminated. Some brewers exploit this by doing sour mashing, but the mashing is done in a vessel, and is followed by a boil. So, throw the spent grains on the compost heap, or make a bread out of them.

I also wouldn't add malt syrup directly to the primary. Again, you want to boil the malt syrup for sanitation, and the boil does other things such as help the clarity of the resulting beer.

Date: Wed, 31 Mar 93 09:21 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: YEAST CULTURE, one

JACK SCHMIDLING ON YEAST CULTURE

Part one

Objective

The objective of culturing yeast is to isolate a single cell from a beer or culture that has the characteristics desired and encourage this cell to reproduce enough offspring to start a new batch of beer.

This is easier said than done but with reasonable care, luck and modest investment, can be accomplished by the serious home brewer.

General Program

The general program is to dilute the original culture and spread it over the surface of a growth medium in a petri dish so that individual cells are far enough apart to allow them to grow into visible colonies without touching each other.

A sample from one of these typical colonies is transferred to a test tube containing a growth medium. When this colony is actively growing, it is considered a pure culture and can be refrigerated for later use or started by covering with beer wort. When this starter is actively fermenting, it is poured into a larger amount of wort which, when active, is pitched into the beer.

Basic Assumptions

The procedure makes a number of assumptions which are correct, often enough to allow it to work well enough, to satisfy most requirements.

The first assumption is that one can select the desired strain by looking at colonies on a petri dish. This is more or less true because the overwhelming majority will be the same, i.e. the dominant strain. Bacteria, molds and many wild yeasts are obvious and recognizable to the naked eye.

The second assumption is that, while still very small, all round colonies are the progeny of single cells.

The third assumption is that all such colonies, at least in the center are mono clonal or at least mono-cultures and otherwise sterile.

To do the job right, one would have to study the original diluted culture under high magnification and do a presort at that level. This is revealing and fun. It also gives an indication of any bacterial contamination in the culture but the rub is marking individual cells and finding them later when they grow into colonies. This is done using a calibrated X-Y stage on the microscope and making careful notes. Fortunately, however, I do not believe that it is really necessary for the home brewer, although a must for the lab selling selected strains.

Details

There are many growth media available for the purpose and no doubt someone can recommend a source or recipe for the ideal but for my experiments, I mixed two packets (16 gr) of Knox gelatin with one cup of 1.020 wort. After heating and dissolving, this is poured into petri dishes and test tubes and sterilized in a pressure cooker for 15 min at 15 lb.

It should be noted that a pressure cooker is the preferred method of sterilization but for our purposes, one could probably get by with steaming in any pot with a lid and a half inch of water. Set the dishes or slants in or on a cup or some other support to keep them out of the water.

The petri dishes are turned upside down after solidifying and cultured this way to prevent water of condensation from falling on the medium. The test tubes are cooled on a slant to allow the water to settle on the bottom when vertical. They are also stuffed with cotton before going into the pc. You can also use tubes with plastic screwcaps and avoid the cotton.

It should be noted that gelatin melts around 75 F so its use in summer is precarious. The better alternative to gelatin is agar agar. This is available at oriental food stores in stick form. Half a stick (about 4 inches) in a cup of wort will get you through the hottest weather.

cont...

Date: Wed, 31 Mar 93 07:25:15 -0800
From: atl@kpc.com
Subject: Re: Beer Balls / 5L minikegs

> about 5 liter keggings. You know, those 5 l Dink and other German
draft cans

Date: Wed, 31 Mar 93 10:25:31 -0500
From: bret.lanius@ehbbs.com (Bret Lanius)
Subject: Brew Clubs in Atlanta

VA. From: XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU
I was unable to get email to you at this adress

VA.

VA. My brother in Atlanta is interested in homebrewing/beer clubs in the
VA. Atlanta area. He's just started brewing and is looking for a
network

VA. to get involved in for help, advise and meeting fellow brewers. How-
VA. ever, I think because of the laws against brewing beer at home,
these

VA. societies might be hard to find?

VA.

VA. Could anyone who knows about a club or network in the Atlanta area

VA. please E-mail me directly (or over this forum) and I'll pass the

VA. info onto my brother.

VA.

VA. Cheers,

VA. John

The Covert Hops Society
Ken Ward
P.O. Box 15256
Atlanta, GA 30333

- - - -

. JABBER v1.2 . Bret Lanius INTERNET: bret.lanius@ehbbs.com

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| Ed Hopper's BBS - ehbbs.com - Berkeley Lake (Atlanta), Georgia |
|USR/HST:404-446-9462 V.32bis:404-446-9465-Home of uuPCB Usenet for PC
Board|

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Date: 31 Mar 93 11:36:29 EST
From: "Dean Roy" <DEAN@alpha.uwindsor.ca>
Subject: Yeast Labs yeast cultures

I recently purchased some liquid yeast cultures from my local homebrew supplier. Unfortunately he no longer has Wyeast cultures but he said the Yeast Labs cultures he had in stock (distributed by G.W. Kent) were just as good.

I have the following questions about these cultures:

(1) Are these the same yeasts as Wyeast? I purchased a California Lager and an American Ale (is this 1056)?

(2) The fermentation temperature suggested for both of the above is in the 70 degree range. Is this correct for the lager yeast?

(3) The cultures come in clear plastic tubes. No inner pouch or anything similiar to burst. Do I simply dump the contents of the tube into a starter?

Dean Roy		Email: DEAN@UWINDSOR.CA	
Systems Programmer		Voice: (519)253-4232 Ext 2763	
University of Windsor		Fax : (519)973-7083	

Date: Wed, 31 Mar 93 09:44:54 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Dry Yeast

I have personally reviewed the Whitbread production procedures for dry yeast. Not only are they using a new facility, but their procedures are new with a strong accent on downstream quality control, the point of the process that caused problems in the past. For the record, our analysis of this yeast did include Rodney Morris' incremental actidione method for detecting wild yeast. This showed less than 1 nonculture cell per 10 million viable yeast cells. Crosby and Baker is currently distributing this yeast to both commercial customers and home brew shops.

Crosby and Baker is also distributing the Mauri yeast from Australia. I have tested this yeast as well, and it too meet specs. C+B has my report, which contains the detailed plate counts.

The Red Star products from Universal Foods have not as yet been tested. I have had several discussions with Dr. Foy, the QC biologist at Universal.

They have not made beer yeast for over a year, and will be introducing entirely new production procedures for their new yeast. Whether this leads to improved product quality remains to be seen. But it very definitely is not business as usual.

I hope this and my previous post are not seen as an endorsement of dry yeast.

Each of these strains have their own personality, which may or may not be to a particular brewer's taste. For example, the Mauri strain is a "pure" version of a well known Australian yeast. The test brews we did with this yeast indicated a clean but relatively bland finish, whereas the "impure" version was awash in flavors of all sort. This yeast IMHO is a good strain

for beginners who are just starting to develop their techniques. What is discernibly true is that the dry yeast of 1993 and in the future are and will be produced with much more rigorous QC standards than at any point in the past.

As I noted in my first post, Wyeast gets credit for this as they were the one who set the proper standards.

George Fix

Date: Wed, 31 Mar 1993 09:19:10 -0800
From: "John C. Post" <jpost@llnl.gov>
Subject: Re: Help!

>Date: 30 Mar 1993 13:05:29 -0600 (CST)
>From: SWEENERB@msuvx2.memst.edu
>Subject: Help!

>Help!

>Is there anything I can do, however, to speed up the
>carbonation process and/or help the yeast to drop out of suspension in
>the
>meantime to remove the green beer taste? Is there a fining agent which
>might
>help? Any suggestions are welcome--tried and true or completely
>experimental-
>-at this point I'll try anything. Thanks in advance.
>Bob

Nope...and anybody who tells you otherwise is full of it. Some things
just
can't be rushed...You could jack it around and bottle early, but it
wouldn't
be the great beer you started out making...

john

jpost@llnl.gov

Date: Wed, 31 Mar 93 11:41 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: YEAST CULTURE, two

JACK SCHMIDLING ON YEAST CULTURE

Part two

Isolating Cells

The first step is to inoculate the petri dish with as diluted a mixture as possible. The books are full of procedures for doing this but I find the simplest is just as good. Take a copper wire or thin glass rod and heat several inches in a flame to sterilize. Dip this, when cool, into a working beer or yeast culture. If starting with dry yeast, dissolve one granule of yeast in a test tube with about one inch of sterile water. Gently drag the inoculated wire across the gelatin in the petri dish, trying not to break the surface. Next, draw the wire across this line at several points, to further dilute the sample. Turn the dish over onto the cover and "incubate" at room temp for several days. Do this on several dishes just for insurance and as controls.

Pure Culture

The next step is to visually inspect the surface of the petri dish under low magnification (hand lens or naked eye will do) to pick out a "typical" colony that appears to have come from a single cell. All colonies should be rejected that are any shape other than perfectly round and differ in any way from the majority.

Flame your wire again and after cooling, remove a small sample from the center of the selected colony and poke this into the surface of the medium in a "slant" test tube. You can do this to several slants, with the same sample, to assure all slants are the same or flame the wire and take a new sample from a different colony. You can make as many slants as you will need for several months and throw away the petri culture.

You now "incubate" the slants until 25% or more of the surface is covered with the pure colony and then refrigerate them till needed.

Starting

When needed for use, cover the slant with sterile wort and pitch when ready, i.e fermenting. For best results, this starter should be used to pitch about a pint of wort, a day or so before brew day.

This process can be used on anything from a packet of Red Star to a bottle of your favorite beer and will produce a pure culture. There is no guarantee however, that the strain will remain the same for ever because of natural mutation. As it is my experience that the most common and objectionable contaminants of dry yeast are bacteria and mold, this process will guarantee at least, to eliminate these most serious problems.

SIMPLIFIED PROCEDURE

An even simpler process can be used if one is not interested in isolating single cells and has confidence that the starting culture is pure.

This procedure skips the petri dish part and assumes one is starting with a packet of liquid yeast or a culture slant obtained from a reliable source.

After preparing the agar/wort medium and a convenient number of slant culture tubes, they are simply inoculated directly from the culture.

Using the sterile procedure outlined above, just dip into the packet of liquid yeast with the transfer wire and poke this into the agar in the sterile slants. One dip is enough to inoculate several tubes. You can use the rest of the yeast in the packet to start the next batch but the slants can be saved for a year or more.

If you use a purchased culture slant, the same procedure applies. Poke the wire into the yeast culture and then poke this into the slants. Save the original for future iterations. If you started with a liquid yeast packet, save the last slant to start a new group.

Using this simple approach, one can go several years without spending a penny on yeast and possibly forever once you get into the "yeast swapping" mode. I have yet to buy any yeast since I stopped using dry.

While this is not necessarily music to the ears of yeast suppliers, it is good news to the homebrewer. That \$'s for yeast in the bill of materials becomes zero to the yeast culturer. Yeast suppliers (like extract suppliers) will no doubt always be with us and in the case of yeast, we need them to

maintain pure strains when ours go south. But to keep buying the stuff
for
routine use is strictly for the affluent and laz.... naw, I won't do
that
again.

js

Date: Wed, 31 Mar 93 12:18 CST

From: korz@iepubj.att.com

Subject: Re: dry yeast/flash ferment?/spent grains/no boil/flaked barley

Don writes:

>There have been a number of digest posts in the past few weeks which
>suggest the quality of dry beer yeasts is improving. The latest post
on
>this was in last Thursday's digest by George Fix. I'd be delighted if
these
>reports did indeed portend a new beginning for dry yeast, but I remain
>very skeptical. If I may be allowed to play the devil's advocate, let
me
>first explain why I think the recent reports offer limited encouragement
at
>best and why I doubt the existing processors of dry yeast are likely to
>change their ways in the foreseeable future.

Don, goes on to explain why he is still skeptical of dry yeasts. With
all due respect, Don, how much of your data is concrete and how much is
conjecture? I'm willing to accept your arguments, but have you visited
the plants that make these yeasts? Have you talked to the manufacturers?
I don't mean to flame you -- I think you make some good points, but I
just
want to know if this is based on concrete evidence.

>and Dr. Fix's culture methods would not detect it. There are methods
>which will detect most wild yeasts but these methods are quite
>sophisticated and would require equipment and expertise found in some
>microbiology or biochemical laboratories with fluorescence microscopy
>capabilities.

Are you familiar with all the equipment George has at his disposal? I am
aware of the fact that he has some pretty heavy-duty equipment available,
and would not doubt that there's quite a bit more that I don't know
about.

Mark wrote about a kit beer made with dry yeast rehydrated in 70F wort
with
an original gravity of 1041, which stopped fermenting after about two
days.
I would have quoted his text, but MARK FAILED TO USE CARRIAGE RETURNS,
WHICH
MADE A MESS ON MY TERMINAL WHEN I TRIED TO INSERT A ">" AT THE BEGINNING
OF
EACH LINE.

I recommend that you not use wort to rehydrate dry yeast -- you are not
only
stressing the yeast, but tempting the remaining live ones to produce off
flavors. Secondly, if you fermented at around 70 to 72F, a 1041 wort
could
easily have fermented out in two days. It would have helped to know the
temperature of the surroundings and if there were any sudden temperature
changes that could have knocked the yeast out. If there were no sudden
temperature changes and you fermented above 68F, I'd suspect that it's
done.
If your SG turns out to be below 1010, I'd say it fermented out. Give it
a

few more days and then bottle. If the SG is well above 1010, then I'd say something happened to the yeast. You could try making up a starter of fresh yeast and pitching it after it finishes fermenting out (to ensure that you are not adding additional oxygen to your main wort).

Chris writes:

>Well, I was wondering, what to do with the spent grain bill... so I >was thinking...

>

>What if I were to put the spent grain bill into the primary? >any additional sugars that might have been left over can be used for >fermentation/taste (depending upon complexity)...

I have no hard data on this, but my gut feeling is that I would recommend against it. Actually, it would make something like Ninkasi --if memory serves correctly, the "beer" of ancient Babylonia did not have the grains removed -- talk about liquid bread!

I'm raising squirrels the size of pit bulls with my spent grains. I just dump them in the yard -- I think the deer like the hops and the squirrels like the grains.

>What does the HBD think about just pouring a can of DARK malt (liquid) >into the primary before pitching (and of course, mixing it up REALLY >well)...

It's sanitary, and I assume you are adding it to water, so it will, er..

work..., I guess, but you still want to sanitize the water and would *like* to boil the wort to get the proteins to coagulate, but technically it would make beer.

Chris (another one) writes:

>Thank you for the replys about the question of using flaked >barley as a specialty grain. It appears that using flaked >barley adds a creamy mouth feel and improves the head. Some >people use flaked barley with all beer styles. Recommendations >on the amount ranged from 5 ozs to 1/2lb for a 5 gallon batch.

You can get away with not mashing it (using it as a specialty grain) in dark beers, but it will make light-colored beers cloudy if you don't mash it.

Al.

Date: Wed, 31 Mar 93 13:29:59 EST
From: Joe Rolfe <jdr@wang.com>
Subject: MaltMill review

hi all,

after reading in the last two issues, i remember i owe a review on the
maltmill
i bought - yes off jack - last fall. i have the adjustable one and after
hearing a war story from a fellow brewer (commercial - both of us) i am
glad
i do. mine has worked very well in crushes of malted wheat, crystal and
2 row
pale (both MF and canada malting). thruput is so far fair (but them i
ask a
lot). i can easily got thru 10lbs in a few minutes (with var speed drill)
.
i have yet to grind a full 100lbs+/- in it tho i do not forsee a problem,
provided the spinning of the rollers is not to slow nor to fast.

(anyone got any hints at the correct rpm for the rollers - max thruput
and
least hassels)

on the other hand - this fellow brewer - had a hell of a time. again
this
was with the non-adjustable roller model. the bill called for pale malt
(MF)
crystal malt (MF) and choc malt (MF). i was not there when the problems
came
up - but the crystal ended up to fine, the pale did not feed properly
and the guy had to rush out to get a corona. now mind you this is a
motorized
(probably too fast) with hoppers above and below. the total grain bill
was on
order of around 100lbs (+/- 20 - i don't ask what he puts in his beers)
. the
first 20lbs or so of the pale did run ok. he is going ot order the
adjustment
kit and upgrade.

anyway from my experience and his, if you get one get the adjustable one.

standard discalimer from a commercial user.

- --
joe rolfe
jdr@wang.com
508-967-5760

Date: Wed, 31 Mar 1993 11:09:22 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: WYEAST contamination?

There has been a thread recently about contamination of dry yeasts, but what about liquid? From what I can make out, one form of contamination, apparently somewhat prevalent in the old Whitbread, is by a wild yeast which can ferment dextrine, giving excessively dry and bland beer. This is just what happened to me with a batch of 1056!

My first brew went from 1.036 down to 1.006, as measured with a hydrometer. I've never had such a low reading, and the beer sure is bland. I can hardly taste anything in it.

The second batch used the slurry from the secondary of the above, and went from 1.044 down to 1.008. I would normally expect 1.012 minimum for this type of beer. This, too, is somewhat bland.

Both the above had some crystal malt, although I forget how much without my notes.

My latest use of another pack of 1056 went from 1.044 to 1.013, much more expected.

Has anyone else had WYEAST problems like this?

Peter

Date: Wed, 31 Mar 93 11:18:43 PST
From: troy@scubed.scubed.com (Troy Howard)
Subject: what to do with used grain bill

David C Mackensen <cygnus@unh.edu> asked:

>Well, I was wondering, what to do with the spent grain bill... so I
>was thinking...

>

>What if I were to put the spent grain bill into the primary?
>any additional sugars that might have been left over can be used for
>fermentation/taste (depending upon complexity)...

>

>I know that it will probably introduce extra gunk into my beer that
>might induce chill hazing or whatever, but, in a dark beer? I don't
>think it'll matter much...

>

I would strongly advise against this course of action. From what I have read grain is highly contaminated with bacteria (lactobacillus, I think). If you put your spent grain directly in your primary, you are risking a serious infection. If you boil the grain to sanitize it, you will end up extracting tanins from the husks. This would probably (sheer guess, here) be detectable even in a dark beer.

>I just hate to see all that grain to down the drain :)

>

>any other ideas? I've heard about making bread out of it, but I don't
>think that might be feasible for me.. :(but who knows :)

Here's a few: I have heard of some people using it to supplement their pet's food. Also, do you have a compost heap? Maybe you could dry it and make your own granola? I've never done it, but it sounds easier than bread.

Hey, maybe you could make bread with it, then add the bread to your next batch in the mash. For that good ol' summerian taste!

Just a thought.

>

>One problem that I can foresee is the soaking up of my beer into the
>grain????

>

>comments please...

Soaking up your beer is probably the least of your worries.

>

>thanks,
> -chris

Just my \$0.02, but your welcome.

Troy

Date: Wed, 31 Mar 1993 14:44:08 -0500
From: Michael D. Galloway <mgx@ornl.gov>
Subject: Belgian Malts

Is there a reliable mail-order source of Belgian malts in the southeast or east? Please email direct.

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: Wed, 31 Mar 93 13:13:50 MST
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: Plastic tubing questions

I have a difficult time cleaning the plastic tubing I use for siphoning and blow-off. For this reason, I end up going through a lot of tubing, and probably wasting a lot of money. This causes me to ask the following questions:

Grainger stocks vinyl and polyethylene tubing which "conforms to FDA standards", although they state that the vinyl product exhibits a "slight" taste and odor. They sell this stuff pretty cheaply. Can I use this for siphoning?

(For some reason, Home Depot does not carry the I.D. tube that fits my bottle filler.)

In grad school, we used plastic tube called Tygon, which I believe was autoclavable. Can this be used for beer?

Finally, does anyone know where I can get 1" ID blow-off tube?

Thanks for all of your help.

Joel Birkeland
Motorola SPS
birkelan@cs1.sps.mot.com

Date: Wed, 31 Mar 93 15:19:43 EST
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: MM review

Hi All,

I recently purchased a Maltmill with the roller adjustment, and would like to share my experiences with it. I would like to preface my remarks by stating that I used a corona for about two years before getting a Maltmill.

It arrived in good shape, and required just a few minutes to assemble.

There are two bolts that fasten the roller assembly to the baseboard, and one other to fasten the crank. I set it up, ground a pound of malt, and used an old toothbrush to clean up the rollers.

Upon reading the enclosed instructions, it only took a few minutes to adjust it properly for two row. I dropped a few grains onto the rollers,

none of it fell through. I ground a handful of malt on this setting, the

grain chunks were a little large, so I tweaked the adjustment just a bit tighter. I ran a pound through at that setting, each kernel was broken into several small pieces and the husks were virtually intact. There

were

a few grains that *looked* whole, but when I picked them up it turned out

that they were crushed so gently that they just didn't separate from the husks. I've never gotten that good a crush out of a corona, despite doing

all the modifications to it that have been posted in HBD.

The throughput of the MM is very impressive, in fact, if I had a complaint with the mill, it would be that it grinds a pound so fast that I had to keep stopping to refill the hopper. I solved this by notching the bottom of a 4 gallon food grade bucket so that it fit snugly inside the hopper. The bucket holds 8 pounds of grain easily, I only needed to stop to refill once, so I was able to grind 10 pounds of grain for a batch in under 10 minutes. This used to take 30-40 minutes with the corona.

The mill itself is designed to sit on a bucket, so that the output from the mill is easily collected. I had seen a demonstration of an early version of the MM that required a shallow pan to catch the crushed grain, which had to be emptied every couple of pounds. The newer version

is a distinct improvement, the 5 gallon food grade bucket I placed under the mill easily contained all the grist.

My extraction did not go up, but I really didn't expect it to. I get 30 pts/lb/gal with infusion and 33 with decoction mashing. The biggest difference in brewing with grain crushed with the MM was how incredibly fast the runoff from my lauter tun cleared. With the corona, by the time I adjusted it to produce small enough chunks of grain to get decent extraction, the husks were pretty well trashed and there was a lot of flour. This meant I used to have to recirculate 1-2 gallons of runoff before it cleared, with all of the associated problems of heat loss and HSA. With the MM, there was very little flour and the husks were virtually intact, providing good filtration, so the runoff cleared after 1 quart! I was quite literally *stunned* how fast it cleared. Scarcely believing my eyes, I recirculated a second quart, which ran crystal clear. I don't think this was really necessary, I could easily have gotten away with recirculating just the one quart.

In all fairness, the corona was *intended* to produce flour for

making tortillas. If one goes to the trouble of removing the snap ring, filing the end of the impeller shaft flat, replacing the cotter pin that retains the movable plate to minimize wobble, and gaps the plates correctly, the corona will do an adequate job at something it was never designed to do, i.e., crush malt. I took each of these steps, and they all helped produce a better crush, but IMHO, for quality of crush, throughput, and ease of collection of the grist, the Maltmill is far superior.

I, for one, am a very satisfied customer. Congratulations on a fine product, Jack.

Cheers,
Jim

Date: Wed, 31 Mar 93 12:39:12 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Free Beer Across America

It occurred to me the other day that homebrew clubs across America could exchange beers for free (minus the shipping charges)! The beers wouldn't have to be homebrew, they could be local brewed at popular micros. What do you think? All we need are the rules, details and start shipping. Email certainly makes this concept more realistic. It would be especially fun to exchange beers that won at local or national competitions.

Bob Jones

Date: Wed, 31 Mar 1993 16:09:25 -0500 (EST)

From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)

Subject: hop utilization

The discussion of a 20% loss in hops utilization in going from pellets to whole hops made me realize why one of my recent beers was surprisingly over-bitter. First let me say that I always use whole hops. Usually I pull some of them open to expose more of the lupulin glands, but a lot of the cones are still intact even after the boil. What was unique about this "Bitter Steam" was that, rather than manually pull the hops apart, I put them into a coffee grinder and gave it a few spins. They chopped up very nicely. I now believe that this chopping exposed virtually *all* of the lupulin glands, resulting in a greatly increased utilization.

In fact, what are pellets if not chopped up whole hops?

Russ G.

Date: Wed, 31 Mar 1993 15:29:38 CST
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>
Subject: filtering yeast

I was at my friendly neighborhood environmental ecologist recently getting tested for reaction to pollution (nothin like that megacity air) and they happened to test me for yeasts and I redlined the test. The explanation was that things you are exposed to in high doses:-) over long periods of time (been brewin about 14 years now) you're likely to start reacting to it. Sooo...

I'm looking for a inexpensive, reusable filter that will filter yeasts out. I'd like to find something that will filter yeasts size particles only and leave those tastey proteins etc., alone. I mostly keg (5/15 gal) and have CO2 and probably whatever it takes besides the filter to get set up.

Thanks!
john

-
John Isenhour
renaissance scientist and AHA/HWBTA certified Beer Judge
home: john@hopduvel.UUCP (hopduvel!john@linac.fnal.gov)
work: isenhour@lambic.fnal.gov

Date: Tue, 30 Mar 93 16:55:38 EST
From: Lee=A.=Menegoni@nectech.com
Subject: Belgian Grains, kegs

If any one out there has information on Belgian Malts, descriptions or grain analysis would they please post it or send me the info at lmenegon@necis.ma.nec.com

For those of you in the Lowell Mass. area Harringtons Liquors, Chelmsford, sells 5 gallon soda kegs with the gas in and liquid out connections for \$25.95. They are used but not reconditioned, O rings are cheap. They also have the best selection of imported and domestic micro brewed beers outside of 128. I don't work there I'm just a customer.

Date: Wed, 31 Mar 93 14:31:21 PST
From: lawson@acuson.com (Drew Lawson)
Subject: SN Porter

I just got around to catching up on my Digest reading and noticed a posting of a Sierra Nevada Porter clone. This reminded me of a style question I had about porter.

My question is, how true to style is SN Porter?

I had a sis pack a few weeks ago and found it to be more bitter/hoppy than I thought a porter was supposed to be, but I haven't had many porters.

Don't get me wrong, it's a good brew, just different than I expected.

Drew

Date: Wed, 31 Mar 93 16:18:35 MDT
From: Ivan Runions <626013@UCDASVM1.ADMIN.UCALGARY.CA>
Subject: ICE BEER is here

FROM: Ivan Runions

Labatt's (mega) brewery in Canada took out a full page ad in a national newspaper on March 26 announcing it's new "ice brewed" beer. The following is quoted from the ad

"Ice Brewing (TM) first chills the beer until ice crystals appear.

At this point an exclusive process gnetly removes the ice crystals, which leads to a brilliant amber liquid uniquely rich in flavor, ..." blah blah blah

" The result, at 5.6% alcohol by volume, is Ice Beer (TM)."

Thoughts? Comments? This appears to me a marketing gimmick, except for the list of patents on the process (Canada, US, Germany and Europe).

Ivan Runions
Admin. Systems, Univ of Calgaryphone: 403-220-4435
Calgary, Alberta fax: 403-282-9361
Canada email: irunions@ucdasvm1.admin.ucalgary.ca

Date: Wed, 31 Mar 1993 15:31:19 -0800 (PST)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: Legality of Mailing Homebrew

While trying to mail me some homebrew (and a bottle of Hook Norton Ale from jolly ol' England) from Seattle, my brother was told by the Post Office that it is flat out illegal to mail alcohol. "What about all these folks mailing to competitions?" he asked, to which the postal employeeed replied, "If you don't tell me what's in the package . . ."

Well, what with the AHA yearly competition entry deadline approaching, I thought this might be an appropriate post. And, while I am a law librarian (and brewer) I do not give legal advice (standard disclaimer, etc.).

Section 124.42 of the U.S. Postal Service Domestic Mail Manual prohibits the mailing of taxable alcoholic beverages. However, homebrew, up to certain quantities is not taxable. Authority 27 CFR sections 25.195 - 25.207, 26 USC 5053.

Enjoy.

Eric Wade <ericwade@class.org> (Internet)

End of HOMEBREW Digest #1110, 04/01/93

Date: Wed, 31 Mar 93 19:27:58 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: Hunter update, spent grain

I would like to update my Hunter post in 1107. I have been informed that a Hunter Airstat is what is normally used. Its main use is controlling window air conditioners and so can easily handle Freezer loads. It is simply plugged in and the freezer plugged into it. I don't know how available they are. I didn't see one in any hardware stores but now that the seasons are changing they may become available.

BUT to update my description of how to use the regular heat/cool home thermostat. I found the 9V battery to be useless for running the relay. It seemed to go flat in a day (and I thought relay loads were low!). I replaced it with an old 9V power supply that I had lying around. 6V will also do it, and maybe there would be no problem with a 120VAC relay.

Otherwise I am now very pleased with the performance. I like the simple way of adjusting the range. I have been informed that a method for modifying the thermistor based airstat with a resistor was posted a while back, and this would seem to be a less complicated approach than mine. But hey, if you can't get an airstat, this is an alternative.

David Mackensen asked about spent grain. The best thing is to feed it to livestock, if you know a farmer nearby. You can use a little in bread, but it usually ends up a little solid. Or do what I do, compost it. It makes a fine mulchy compost, especially if you forget about it and leave it rotting in your cooler for a week before dumping it :-)

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

 Pabst Blue Ribbon!' | Notre Dame IN 46556
 | ulick@bach.helios.nd.edu

Date: 31 Mar 1993 20:40:18 -0400 (EDT)
From: "Wayde Nie, Eng.Phys. II" <9106857@SSCvax.CIS.McMaster.CA>
Subject: Jockey Box and *FOAM*

Date: Wed, 31 Mar 93 21:53:39 -0500
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
Subject: RE: Questions

In HBD number 1108 Andy Anderson asks:

- > 4. When sparging in my extract brews, I filter out the
- > hops as well as hot & cold break proteins and plop the gunk
- > onto some cheese-cloth. When I'm finished filtering, I
- > squeeze the cheese-cloth to wring out the last liquid back
- > into my wort. Am I screwing up because my "naked" hand is
- > squeezing out the juices? Am I introducing bacteria as
- > well as skin oils? How should I be doing this?

Andy, if there is anything true about homebrewers it is that we all have our own ways of doing things and the ultimate test of our practices is the quality of the beer we make. However, having never tasted your beers, I would object to this practice of yours on two grounds. The first

is certainly the increased chance of contamination that you bring up. I hope you at least sterilize the cheese cloth by boiling. The second objection I would make is that once you've gone through all the trouble to filter trub out of your wort, you want it to stay out! The couple of ounces of extra wort that you can obtain by pressing the trub is probably not worth introducing trub into your fermenter. My advice is to not do it at all!

Bob Santore (rsantore@mailbox.syr.edu)
Syracuse, NY

Date: Wed, 31 Mar 1993 21:50 EST
From: Mike Rego <MREG01@vax.clarku.edu>
Subject: Whitbread yeast

The recent discussion concerning Whitbread yeast has caught my interest. At the end of February I brewed a porter using dry Whitbread Ale yeast. It was a 12 gram packet with a serial number of 020412 stamped on the back. I bought it along with my other ingredients the day before brewing.

I did not have any trouble with this yeast during the ferment, and the resulting brew is lovely.

Still being new to this, I have not yet tried a liquid yeast. Almost everything I've read talks of Wyeast. How is that name pronounced, and is it the best?

By the way, I just finished a bottle of Sam Adams Cream Stout. It has a distinct flavor that is hard to describe. A slight suggestion of burned popcorn? After a few bottles it becomes a familiar signature - kind of like the Guinness sour tang.

Mike Rego
Amherst, New Hampshire

Date: 01 Apr 1993 01:39:34 -0500 (EST)
From: RADAMSON@delphi.com
Subject: 5 liter Kegs

I received several inquiries regarding the 5 liter metal keg setups.
Here's
what I know:

The problem with getting the Dink, et.al. cans from the stores is that
the tap
they sell you for \$2.00 is a gravity tap that you insert in bung, flop
the keg
upside down and 'can-open' a hole in what was the bottom (and now on top)
. .
Certainly makes the vessel non-recyclable.

The solution is these bottom-feed CO2 cartridge taps made by Beer*King in
Germany. I originally got my tap(s) from Hoster Brewery (brewpub) in
Columbus, OH - but they no longer 'keg' into 5 liter cans (and,
therefore,
don't sell the taps anymore). Dock Street Brewery in Philly kegs into 5
liter
cans, but I'm not sure about the type of tap they sell. Stoudt's in
Adamstown, PA likewise.

A source that I do know of (and have no affiliation with) for both taps
and
empty kegs is:

Randy Martin, Proprieter
Brew Ha Ha, Ltd.
209 High St
Pottstown, PA 19464
800-243-2620 (orders)
215-326-2620 (Dr. Brew)

Randy picked up a bunch of kegs from the now defunct State College
Brewery
(Penn State) and could probably set you up.

The tap has a central stem the height of the can which feeds brew from
the
bottom. There may be a small yeast burst in the first couple ounces of
brew/foam when first tapping, but none whatsoever afterwards. The tap
also
has an adjustable CO2 valve that I "tweak-up" a little at a time to
intro-
duce more gas - you can hear it enter and build up a bit, then back it
off
to zero. I put more gas on for overnight storage, haven't had any
leaking.

As far as keging these guys go, I have usually filled a couple 3 kegs
along with a couple dozen bottles. And to keep it simple, I still bulk
prime with either DME (.50 cup) or Corn Sugar (.75 cup) and just fill
them
as I go along. Use your own standard priming rate, mine are low-to-fair
carbonation level (British Ales, mostly). Since the volume is larger
than

that of each bottle, the maturation time is increased (takes longer to reach carbonation), but is well worth it. Handling and storage is the same as if they were bottles. The 5 liter is equivalent to about 14 12oz bottles

- but it goes in the fridge better.

For Sanitizing, I just drop a few tbls of Bbrite in, fill and soak for a couple hours prior to keggling. So far the hardest part about these is forcing the bung in after I fill the keg. I think I've been filling to high - I'm going to be leaving about a 1" head space next time.

Date: Thu, 1 Apr 93 9:16:11 EST
From: Jim Busch <busch@daacdev1.stx.com>
Subject: re:quick ferments & conditioning

"John C. Post" <jpost@llnl.gov> writes:
<Nope...and anybody who tells you otherwise is full of it. Some things
just
<can't be rushed...You could jack it around and bottle early, but it
wouldn't
<be the great beer you started out making...

I have discussed this offline with in more detail with John, but let
me say this attitude is utter nonsense. I have brewed several beers
that were online 2 weeks from brew day. The key is tons of clean yeast
that flocculates well, and sometimes cold conditioning followed by
forced carbonation. Filtering is an obvious solution.

Many many brewpubs making ales require 11 days from brewday to the
first tapping. I have tasted many 11 day beers that were fine.

Good brewing,
Jim Busch

Date: Thu, 1 Apr 93 10:18:12 EST
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Style snobs (NOT!)

"Spencer W. Thomas" writes:
> Those who try to brew true to style (for competition or otherwise),
> and those who just brew what they like.

Reading this today, the word "just" jumps out at me. I certainly don't mean to imply that brewing what you like is in any way inferior to trying to brew to style. (Are we getting paranoid about flames here, or what?-)

=S

Date: Wed, 31 Mar 1993 16:32:32 -0600 (CST)
From: John Edens <johne@sa-htn.valmet.com>
Subject: maple beer

Has anyone out there made a beer using maple syrurp as an adjunct like
Papazian describes? If so, how did it come out and how much did you use?

John

Date: Thu, 1 Apr 93 10:40:50 -0500
From: andrew@ftp.com (Andrew Lickly)
Subject: "Samiclaus" aka strongest beer in world, for now?

Recently I toured the brewery of the Boston Beer Company, the makers of Sam Adams. It was not terribly interesting, but it was cheap, a \$1 donation, and the beer was fresh and free. Basically, I would highly recommend it.

During the tour, they bragged about being in the process of developing a "Triple Bock", apparently it is Jim Koch's goal to get the world record for the highest alcohol content in a commercialized "malt beverage".

Andrew
- - -

"Mediocre minds usually dismiss anything which reaches beyond their own understanding."

Date: Thu, 1 Apr 93 09:44 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Test Drive

>From: Mike Deliman <miked@wrs.com>

Just a few comments on this review...

> The rollers themselves are grooved; these were probably used in an industrial application and required a significant cleaning effort before the author felt comfortable about using this device on a food product.

The rollers were designed by me and custom fabricated for use in MALTMILLS.

They are brand new and any oil or other foreign matter is a result of the manufacturing process. They are vigorously wiped before assembly but a film of oil remains as a rust preservative and some lint from the rag might also remain..

>On the adjustable model, one of the placard bolts is replaced by the adjustment lock down bolt - which sacrifices whatever structural reinforcement the original bolt had to offer.

Nothing is sacrificed as the screw's only purpose is to hold the panel in place.

>If this mill were to fall from 5 feet to a cement floor, there would undoubtedly be irreparable damage.

Damage, possibly, but not likely irreparable. The most probable damage would be to the easily replaceable particle board base.

>The MaltMill was adjusted to just where it would not allow malt to go through uncrushed. Aside from husk material and flour, the crush was nearly indistinguishable from that of the Corona.

That is not hard to understand because it is not the correct way to set up a roller mill. The MM is designed to be operated with a nominal roller spacing of .055" and the adjustable models are shipped set, at that spacing.

What you did to it was to make sure it could not possible produce a proper crush. The adjustable feature is there only for very minor changes required to optimize feeding when motorized.

>The MaltMill has the possibility of passing a few uncrushed kernels through while still producing significant flour.

With the current model (yours) it is impossible to pass grain uncrushed through the rollers if properly set up or with the standard spacing. Unless,

of course, you have malt less than .055" in thickness. On earlier models, it was possible for some to get around the rollers but this has been corrected.

Furthermore, your statements contradict each other. If you "adjusted to just where it would not allow malt to go through uncrushed" then by definition, you would not be "passing a few uncrushed kernels through". You have the procedure right, you just didn't follow it.

Secondly, as has been pointed out by several users, the benign nature of a roller mill frequently crushes the grain but leaves the husk so entirely intact that it appears to be uncrushed. However, upon teasing apart, is found to be thoroughly crushed.

>After milling, the grain was sifted, and the resulting flour was weighed on a counterbalance (accurate to within .02 grams).

The key here is, the nature of the "sifted". That may sound like a nice general term but in brewing science it is meaningless unless we know the mesh size.

According to Noonan, "flour" is defined as that which passes through a 100 mesh screen. I received no response when I asked you what mesh you used.

Furthermore, for up to about 10% of the total grist, flour so defined is considered beneficial. Beyond 10%, it COULD be a problem but that depends on the lauter system used and most importantly on the amount of husk material in the grist.

I hate to sound like a broken record, but the flour phobia derives from the problems created by grinding malt in mills like the Corona. It is a simple fact of physics and chemistry that the finer the crush, the more efficient will be the starch conversion and sugar extraction.

The problem with grinders, i.e. devices with a moving surface working against a fixed surface, is that they damage the husk to the extent that the effectiveness of the filter bed can be seriously weakened. This can be compensated for by a coarse grind but it is a compromise, the price of which is overall efficiency.

As a roller mill only squeezes the malt, the impact on the husk material is trivial, resulting in the ability to mash and sparge with far larger proportions of fine grist, including flour.

It just so happens that expensive commercial mills, with multiple rollers and sieving devices can create more fine grist than the MM. But the MM is also a compromise, to keep the cost within the range of homebrewers' budgets.

>That's a whopping 20% MORE flour with the MaltMill.

Thank you but let's not confuse that with percentage of total grist.

>Husks: The husks on the Corona's crush were slightly more damaged than on the MaltMill.

That is probably enough to make the previous statement good news. However, the problem here is that you can only compare the husks that are left large enough to see. The ones that are pulverized and turned into dust by the Corona are not obvious to a casual inspection. You have to microscopically examine the fine grist to see it. This is not an easy thing to quantify and even I gave up trying. I just sort of rest on the intuitive notion that squeezing has got to be better than grinding.

>Unmilled kernels: the MaltMill had a higher ratio of unmilled kernels; we did not see any unmilled kernels with the Corona.

Again, the MM was improperly set up and I would be most interested in hearing from you after you try it again. The adjustment is only on one side, so if you set it so the rollers look parallel, you will be close enough. You can also use a dime as a gauge that is pretty close to the nominal. You can also set it so that it almost touches on the adjustable side and more closely simulate the .020" spacing of multi-roller commercial mills. However, you may have some trouble turning the crank.

Or you can return the mill and your money will be cheerfully refunded.

js

Date: Thu, 1 Apr 1993 08:42:04 -0800
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re:immersion cooler length

>Does anyone know about the minimum length of copper tubing that
>can be used as an immersion wort cooler? Successfully.

The longer the better. Many of them are 20', some are 25', mine is a 50'
double helix (homemade). It all depends how fast you want to cool and
how
cool your tap water is, and how much water you want to use. Maybe one of
the thermo-scientists out there can come up with a cool cooling equation
relating $d(\text{temp})/d(\text{time})$ to length, tubing size, flow rate and tap water
temp. Of course some heat is disipated out the side of the pot, so
cooling
will be faster than this equtation says.

Date: Thu, 1 Apr 93 09:45:35 -0700
From: John Adams <j_adams@hpfcjca.sde.hp.com>
Subject: Subject: ICE BEER is here

Sounds basically the same as Eisenboch which translates into an "Ice Bock."

The beer is frozen as so that the water can be removed thus leaving a more potent liquid behind. Typically Eisenbochs are much higher in alcohol content than what Labatt is producing.

I have, in need of a quick chilling process, placed beers in the freezer and, inadvertantly, created a ice brew. HMMMMM, maybe I should trademark my process!!

John Adams

Date: Thu, 1 Apr 93 11:05:52 CST
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: YEAST CULTURES

I read Jack Schmidling's posts re subject and had some questions.

I've been culturing my own yeasty beasties for a few months now. Generally following procedures similar to those outlined by Jack. So far things have worked well but I live in fear of mutations and/or wild yeast contaminations. Questions are:

I don't get isolated colonies on my plates, rather one big long smear of yeast where I've dragged the inoculating loop. How can I inoculate

so I get isolated colonies? I suppose I could dilute by yeast source (usu bottle dregs or secondary dregs) but that add just another contamination risk.

I understand some yeast cultures are actually combinations of several strains (eg whitbread). Will I see all three of the whitbread strains as different looking colonies? Do I have to culture each of the strains

seperately? What about yeast from Trappist ale which I understand actually contain some bacteria important to the flavor produced?

I've heard that even if I get a good pure culture on a slant it will mutate and I can only use yeast from a given slant for a few months? Is this true? Is there a way to identify mutataants besides brewing a batch an looking for strange behavior such as low final s.g?

Finally, I'd to take a look at these marvelous little creatures who work so hard to ferment my wort for me. (Kinda like to say hi.) I've got a pretty decent optical microscope if I can figure out what box it's

in. Any suggestions on preparing a sample for viewing? Reflected light,

transmitted light? What power do I need to see these folks? Can I recognize mutations this way?

WAK

| - William A Kitch (512) 471-4929 -|
| - Geotechnical Engineering -|
| - ECJ 9.227 -|
| - Univ of Texas at Austin, TX 78712-1076 -|

Date: 01 Apr 1993 09:54:09 GMT
From: "Tom Stolfi(wauts@cec" <ceco!CWEMAIL!WAUTS@uunet.UU.NET>
Subject: AHA Sanctioned Competition - second posting

** This is the second posting for the competition, anyone interested
should **
** contact me ASAP for entry forms and information. Any judges available
**
** to judge on April 23 or 24 in Kenosha, WI please contact me for info.
**

The BIDAL SOCIETY OF KENOSHA is holding their 7th Annual Regional
Homebrew
Competition April 23 & 24, 1993. This competition is open to all
homebrewers and awards will be presented in all categories (categories
will
be combined only if the number of entries for a style are insufficient
to judge the category as independent). Last year's competition received
over
200 entries . All homebrews will be evaluated by BJCP and
experienced judges(please contact if you are interested in judging). This
competition is part of the 1993 MIDWEST BREWER OF THE YEAR series. All
entries must be received by April 16, 1993. For further information email
your request to WAUTS@CECO.CECO.COM

Tom

ps. Our company is switching from uunet to an active internet link, if
the
above address bounces try the old on, wauts@cwemail.ceco.com.

Date: Thu, 01 Apr 93 09:39:37 -0800
From: atl@kpc.com
Subject: Beer Balls/ 5L minikegs

Sorry about the aborted message on yesterdays digest. I was wondering if anyone knew a source for the 5L minikegs without having to drink expensive commercial beer.

Drew

Date: Thu, 1 Apr 93 10:03:00 -0640
From: roy.rudebusch@travel.com (Roy Rudebusch)
Subject: king Kooker

From: roy.rudebusch@travel.com
Subject: king Kooker

If you own a propane fired King Kooker or a Cajun Heater that produces too much soot the orifice may be drilled to large.

Contrary to the manufacture's opinion 3/32" is too big. A more efficient size is 1/16".

To fix, remove the end cap, plug the orifice with a sheet metal screw, move over to the next facet, drill a new hole of the proper size, cut off the end of the pipe if the new orifice closes.

Fire away,

r

* OLX 2.2 * Without question aids is a homosexual disease

Date: Thu, 1 Apr 1993 11:10:31 -0700 (MST)
From: walter@lamar.ColoState.EDU (Brian J Walter (Brewing Chemist))
Subject: schwarzbier

Howdy brewers,

I am looking for an all-grain recipe for a schwarzbier. Charlie P has a recipe in a past World of Worts column, but it is extract. I am new to the all-grain world and haven't the experience in going about converting or creating recipes. So, I am looking for someone who has made a schwarzbier before. Thanks.

Good Day,
-Brian

Brian J Walter |Science, like nature, must also be tamed| Relax,
Chemistry Graduate Student|with a view towards its preservation. |Don't
Worry
Colorado State University |Given the same state of integrity, it | Have
A
walter@lamar.colostate.edu|will surely serve us well. -N. Peart |
Homebrew!

Date: 1 Apr 93 14:16:35 AST
From: "Thomas Gilks" <TGILKS@brhs.cogs.ns.ca>
Subject: Sediment

I do not have the patience or knowledge to make beer as most of you guys do, so I buy malt extracts from the can and make it that way. I enjoy the beer I make except for one thing- the sediment at the bottom of the bottle. I used to use a primary and secondary fermenter, but now I use just one ordinary pail with a lid and airlock, and I get better results. The beer mix I use is John Bull Pilsner Light. I don't know if you can get this type in the U.S.A., but it makes a beer that tastes better than Labatts Blue. Do any of you more experienced beer makers know any tips on getting less sediment on the bottom of the bottle?

Date: Thu, 1 Apr 93 12:43:09 PST
From: troy@scubed.scubed.com (Troy Howard)
Subject: Legality of Mailing Homebrew

Eric Wade <ericwade@CLASS.ORG> says:

>Section 124.42 of the U.S. Postal Service Domestic Mail Manual prohibits
>the mailing of taxable alcoholic beverages. However, homebrew, up to
>certain quantities is not taxable. Authority 27 CFR sections 25.195 -
>25.207, 26 USC 5053.

I don't doubt this is true, but there must be more to it than that. One
of
the gifts I got for my wedding was a membership in a wine club. Every
month
two bottles of wine arrived in the mail. Wine is certainly taxable
(oh, BTW, this was commercial wine I was receiveing). Now, I do not
remember whether I got it by US Postal or by UPS or what. Would this
make
a difference?

In addition, I understand there is an analogous club for beer. How do we
reconcile these seeming disparities?

Troy (supplying another data point)

Date: Thu, 1 Apr 93 15:28:35 MST
From: haney@soul.ampex.com (Kenneth Haney)
Subject: Grain Mills

Hi all,

I've noticed that there are alot of people that have bought the Malt Mill lately (previosly using Corona). So I was wondering if any of you would like to sell your old Corona Mill?? I would prefer to buy a Malt Mill but I can't justify it on my limited budget. (Wife, 4kids, 2dogs, 1cat and some fish) ha

So if anyone is willing to get rid of one, please drop me a line.

Thanks
Ken
haney@ampex.com

Date: Thu, 1 Apr 93 17:39:15 EST
From: Lee=A.=Menegoni@nectech.com
Subject: Iodophor

Is the sanitizer Iodophor (sp?) harmful to septic systems?

Date: Thu, 1 Apr 1993 17:48 EST
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>
Subject: Manitoba Brewers

To any HBDers in Manitoba: Are there brewpubs or micros in Manitoba?
What is the legal situation about brewing etc there? Any good
places to go in Winnipeg? Email please. P.

Date: Thu, 1 Apr 1993 17:50 EST
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>
Subject: ICE BEER IS ALREADY HERE

Ontario drinkers have been able to get Niagara Falls Brewing's Eisbock for several seasons now. It is noticeably strong, and can be very tasty. However, I have noted that the quality does tend to vary a bit, and this Christmas, a gathering at the pub C'est What in Toronto (where it was on tap) was decidedly unimpressed with it.

I would say that this Johnny-come-lately is probably indeed a marketing gimmick. The Big Two are unlikely to come up with much of interest these days. Cheers, P.

Date: Thu, 1 Apr 93 16:44:02 PST
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>
Subject: That "Styles" Issue

In HOMEBREW Digest #1110, Spencer W. Thomas, without warning or provocation, suggested:

> Rob Bradley writes:
> > 91 Beer Styles: "Infuriating." "Absolutely the most valuable.
> >A very good reference."
>
> You know, I wonder if this reflects the dichotomy between those who
> try to brew true to style (for competition or otherwise), and those
> who just brew what they like. One member of our club hates
> competitions because of the focus on style -- he says "... this is a
> good beer, I don't care if it's too/not enough (hoppy, malty, fruity,
> whatever) for style X/Y/Z. I like it."

Normally, Spencer, I'd be inclined to agree. We have the same disagreements in my club, and they occur here and in other electronic fora with some regularity, but in this instance I think the cause is a bit different. I may have been the one to offer the "infuriating" comment, and I'm about as committed to styles as anyone you're likely to meet. My criticism of that issue is not of its premise, but of its content. Some of the sections are quite good. Some are not. And no apparent attempt was made to reconcile the style descriptions in that issue with those of the AHA Nationals, an appalling oversight which has been a freaking pain to deal with, I'll tell you! Contestants and judges like get in wrangles over which set of criteria to use, since both are published by the AHA. The Official Answer, of course, is that if it's the Nationals, then ignore Zymurgy and go with the style descriptors published along with the contest rules, also in Zymurgy (confusingly enough). I'm still surprised that this was allowed to happen. In my view, the value of the material presented wasn't commensurate with the trouble it's caused. Just my opinion ...

= Martin A. Lodahl Pacific*Bell Systems Analyst =
= malodah@Pacbell.COMSacramento, CA 916.972.4821 =
= If it's good for ancient Druids, runnin' nekkid through the wuids, =
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

Date: Thu, 1 Apr 1993 19:25:30 -0700 (MST)
From: walter@lamar.ColoState.EDU (Brian J Walter (Brewing Chemist))
Subject: Yeast Culturing Equipment

Howdy!

I am looking for some places to get the basic equipment needed to start a yeast bank, i.e. test tubes, flasks, etc. I have looked through most of the catalogs around the chem department here, but the pricing is obviously geared for schools and corporations who will pay the higher prices. Any good cheap mail order places out there?

Good Day,
-Brian

Brian J Walter |Science, like nature, must also be tamed| Relax,
Chemistry Graduate Student|with a view towards its preservation. |Don't
Worry
Colorado State University |Given the same state of integrity, it | Have
A
walter@lamar.colostate.edu|will surely serve us well. -N. Peart |
Homebrew!

Date: Thu, 01 Apr 93 18:20:10 PST
From: mikel@netlink.cts.com (Mike Lemons)
Subject: Using Sulphites

I have used a solution of potassium metabisulfite to sanitize all of my brewing equipment for many years. I recently read that it is ineffective, that it does not release enough SO₂ to do the job. Considering the pain inflicted on my nasal passages by this stuff, I find it hard to believe that any microbe could withstand such an onslaught.

Is there any scientific proof for the claim that sulfites don't work? The enormous advantage of using sulfites is that no rinsing is required. It seems to me that re-contaminating something with rinse water, after you sanitize it, totally defeats the purpose of sanitation!

Chlorine and iodine must be rinsed out because they will impart bad flavors to the beer, but sulfites are essentially tasteless. (Otherwise people would have stopped drinking wine long ago -- the stuff is full of it.) Sulfites protect beer from oxidation to some degree. Commercial yeasts are usually bred to have some sulfite tolerance. (Which I encourage by exposing them to it from day one.)

I don't like the idea of baking bottles because of the thermal stress to the glass. (They're not even Pyrex, and they get repeatedly pressurized and depressurized.)

I have a plastic bottle tree with a squirter attachment that is fast and convenient for sanitizing bottles. Because of the way that the bottles drain, it leaves a white residue under the bottle caps, though. Maybe if I lowered the sulfite concentration to 1% . . .

- - -

INTERNET: mikel@netlink.cts.com (Mike Lemons)
UUCP: ...!ryptyde!netlink!mikel
NetLink Online Communications * Public Access in San Diego, CA (619) 453-1115

Date: Thu, 1 Apr 1993 23:11:21 EST
From: bob@rsi.com (Bob Gorman)
Subject: 1993 AHA NATIONAL HOMEBREW COMPETITION

1993 AHA NATIONAL HOMEBREW COMPETITION

-----> FIRST ROUND - EASTERN REGION <-----

JUDGE AND STEWARD REGISTRATION

June 5th & 6th - Kingston, New York

Dear Fellow Beer Enthusiast,

The 1993 AHA National Homebrew Competition is right around the corner. Preparations are already under way to make this a successful event, but we need your help. This year we anticipate over 800 entries from the New England/Mid-Atlantic region. This means that we need a lot of help unpacking and registering entries, and more importantly judging them.

This year the judging will be held at the Woodstock Brewing Company in Kingston, New York thanks to the graciousness of Nat Collins, Owner and Brewmaster. Dates for unpacking are May 15, 16 and 22. Judging will be on June 5 and 6, with two sessions on the 5th and one on the 6th.

In planning this event we realize that many judges need to drive a distance in order to participate. Therefore, we have made arrangements for local hotel accommodations and a festive party featuring regional microbrewed and homebrewed beer, snacks, raffles and door prizes on Saturday night, June 5th.

To receive a registration form and further information please send mail to Bob Gorman <bob@rsi.com> which a subject of 'Kingston'. The registration deadline is Saturday, May 1st (National Homebrew Day).

Anyone already enrolled in the BJCP will receive a us-mailing later next week, you need not reply to this message. If you are new to the BJCP or not in the program then this is your official notice. I look forward to your replies.

Cheers!

-- Bob Gorman bob@rsi.com Waltham MA, US --
-- Judge Registrar uunet!semantic!bob (617) 893 5655 --

End of HOMEBREW Digest #1111, 04/02/93

Date: Fri, 02 Apr 93 13:10:30 +0300
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Thread For Mac

Has any computer-wiz out there written a Thread-like program that can run on the Macintosh computer? Or do you know of an already existing software that can be used to search digests and create subsets of them following a specific keyword? Thanks in advance. Nir.

Date: 02 Apr 1993 04:26:10 -0600 (CST)

From: SWEENERB@memstvx1.memst.edu

Subject: What is this stuff?

Browsing around my local self-service homebrew store I noticed a little plastic bag of powder labeled HEADING AGENT from Crosby & Baker of Westport, MA. Does anyone know exactly what this substance is? Miller in his CHofHB writes of a heading compound called polypropylene aginate but he recommends using 1 tablespoon per 5 gallons, whereas the Crosby and Baker product called for 1/2 teaspoon per 5 gallons--different by about a factor of 6. Sign me, Just curious.

Bob Sweeney - SWEENERB@MSUVX1.MEMST.EDU| The first rule of statistics:
Memphis State University| If you torture your data long enough,
Status: Permanent Student | they'll confess.
(901) MSU-4210|

Date: Fri, 2 Apr 93 12:59:48 MET DST
From: THOMASR@EZRZ1.vmsmail.ethz.ch
Subject: cooler thanks

hello all.
thanks for all the info on immesion cooler construction.
rob thomas.

Date: Fri, 2 Apr 93 07:28:47 EST
From: rossini@hsph.harvard.edu (Anthony Rossini)
Subject: maple beer

>>>> John Edens <johne@sa-htn.valmet.com> writes:

John> Has anyone out there made a beer using maple syrup as an
John> adjunct like Papazian describes? If so, how did it come out
John> and how much did you use?

Well, I've got a batch in the secondary (6.25lbs M&F amber malt,
** 3 LBS ** grade B maple syrup (gotten at a local food co-op, approx \$3/
lb
so comparable to malt), probably too much hops). I was going to report
on
it after bottling, tasting, but thought I'd comment now. The one problem
with my batch is hops. Chinook, for that matter. I've tended just to
try
new things arbitrarily (if I want to drink what I expect, I'll head to
the
local pub or beer store, THANK YOU.) and this might be my first major
mistake. Maple doesn't seem to bitter well (i.e. take to strong hopping)
very well at a young age. Of course, cutting back on the hops, or using
a
normal amount of hops would probably result in a taste of maple, malt and
hops.

Last I checked (during transfer to the secondary) it smelled like 1/2
beer,
1/2 pancake breakfast, tasted like beer with a taste (not just a hint) of
maple, especially once you knew what to taste for (I missed it on the
first
sip, and wondered how that happened on the later sips). The aftertaste
was
something to be missed, though, and that had to do with the hops.

Well, maybe next time...

-tony

- --

Anthony Rossini - grad student/statistician/hacker
rossini@biostat.harvard.edu
Department of Biostatistics, Harvard School of Public Health
677 Huntington Ave, Boston MA 02115 617-432-1056

Date: Fri, 2 Apr 93 09:31 EST

From: tmr1@hotmailg.att.com

Subject: Re: 5 liter kegs

R. Adamson (delphi.com) mentions using 5 liter kegs for home brewing.

I have 2 questions for him:

1) What do you do with the original bung that gets pushed inside the keg when it is tapped? Do you leave it there? Can you get it out? Will it affect the taste of the beer?

2) Where do you get new bungs to seal the kegs for home brewing? Can a rubber stopper be used? What holds it in place after the CO2 pressure starts to build up? If you use exact replacements, won't the keg start to fill up with used bungs each time it is tapped?

I have a foreign-made 5 liter tapper that uses a hand pump on top for pressure. It works very well for this type of keg. If I were to use it for home brew, I might cut the central stem 1/2" to 1" short so it wouldn't go all the way to the bottom and suck up yeast sediment.

Tom Romalewski

Date: 02 Apr 1993 11:30:38 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: Quick beer

>Many many brewpubs making ales require 11 days from brewday to the
>first tapping. I have tasted many 11 day beers that were fine.
>
>Jim Busch

The brewer at the Cambridge Brewing Co. (Cambridge, MA) has told me that
some
of their ales go from the grain to the glass in 7 days. This is
partially due
to lack of storage capacity as well as robust sales. It is amazing what
a
healthy fermentation, filtration, and forced carbonation can do!

Although one could argue that more aging may be beneficial to the final
product, the CBC's beers are quite drinkable.

Steve

Date: Fri, 2 Apr 93 08:55 PST
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Decoction mashing

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/02/93 10:58:24
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis<dblewis@jscprofs.nasa.gov>
SUBJECT: Decoction mashing

I've noticed that I'm not the only person confused by decoction mashing. It seems like a lot of screwing around just to increase yield. Personally, I'd rather just add another pound or so of grist and not worry about it. Are there other benefits to decoction mashing? Clearer wort/green beer/finish product?

Noonan says to remove "the heaviest third" of the mash. I suppose that does not include any grains since you will eventually boil it. This is really hard to do for those of us who mash in a pot on the stove instead of in a Gott cooler. Anyway, his directions are "marginal" (I'm being nice) in the decoction specifics.

At any rate, I'm very happy with multi-rest infusion mashes and the decoction stuff is simply a curiosity. Maybe I'll try it if I have an entire Saturday to blow on it.

Dennis B. Lewis x39145
Payload Operations/DH65

Date: Fri, 2 Apr 1993 12:34:22 -0500 (EST)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: grain of salt

Hey Roy R., cut the sh*t about homosexuality and AIDS. It's got nothing to do with brewing. All that tag line does (besides invoke flames) is to call into question your judgement. As such, I would suggest that any King Cooker owners think twice before following Roy's reworking of the burner.

Russ G.

Date: Fri, 2 Apr 93 11:14 EST
From: LYONS@adc1.adc.ray.com
Subject: When to add brown sugar?

In Dave Line's book, *Brewing Beers Like Those You Buy*, he gives directions for making an extract version of Fuller's ESB. In his directions he states that the brown sugar should be added to warm water and then added to the cooling wort (after boiling). I have always thought that any sugars should be added along with the malt. Is anyone aware of any advantages to adding brown sugar after the boil?

Chris,
LYONS@ADC1.ADC.RAY.COM

Date: Fri, 2 Apr 1993 09:18:13 -0800 (PST)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: Legality of Mailing Homebrew, etc.

Troy Howard <troy@scubed.com> questions how his wine club and BOTM clubs can mail "taxable" products given the postal regs I quoted. (Sorry all, I am a bit novice at this and know not how to include just the portion of the HBD I wish to respond to w/o including the whole HBD in my reply, advice by e-mail would be appreciated).

My suspicion is that these clubs probably pay their taxes before mailing, once paid, the product is no longer subject to taxation and should therefore pass the postal service's scrutiny. BTW, the entry instructions for the AHA Nationals state that mailing homebrew IS illegal and that other shippers (e.g. UPS) may refuse to ship if they know that you are shipping alcohol. I had an experience with UPS with my very first order of supplies from Great Fermentations of Santa Rosa, The Beverage People. UPS had no problem carrying the shipment but wouldn't leave it since I was not home. They explained that they can't leave alcoholic beverages on the doorstep. I convinced them it was only supplies and not alcohol (yet), and I've since had all my supplies shipped to my work address.

So, the upshot of all this? If you wan't to battle the postal service in light of AHA's warning and others' experiences, I've given you the results of my research. Me? I'll probably use UPS or find out if I can deliver personally to Anchor since I work in SF.

Found in "The Monthly", an East Bay advertising freebie, in an article on local beery spots: Why is American beer (lets assume Schludwillers) like making love in a canoe? Because they're both f*ck*ng close to water:-)>

.
- --Eric <ericwade@class.org>

Date: 2 Apr 93 14:15:44 EST
From: "Rafael Busto" <SUPERVISOR@bnk2.bnkst.edu>
Subject: Duration of a botled beer

As a beginner I'd like to ask a probably FAQ. Once the beer is bottled, How many weeks can I keep the beer (no preservatives, no pasteurization) before it gets undrinkable?

Thanks in advance

--Rafael Busto--
Computer Center at Bank Street College of Education, New York, NY
rafael@bnk2.bnkst.edu

Date: Fri, 2 Apr 93 12:55 CST
From: korz@iepubj.att.com
Subject: Re: Yeast Cultures/minimizing sediment

William writes:

> I don't get isolated colonies on my plates, rather one big long smear
> of yeast where I've dragged the inoculating loop. How can I
inoculate
> so I get isolated colonies? I suppose I could dilute by yeast source
> (usu bottle dregs or secondary dregs) but that add just another
> contamination risk.

Streak a third of the plate, flame the loop, streak the second third of
the plate after dragging through the path on the first third, flame again
and repeat on the final third, dragging through the second third.

>
> I understand some yeast cultures are actually combinations of several
> strains (eg whitbread). Will I see all three of the whitbread strains
> as different looking colonies? Do I have to culture each of the
strains
> seperately? What about yeast from Trappist ale which I understand
> actually contain some bacteria important to the flavor produced?

I don't know about the Whitbread, but only one Trappist ale I that I know
of has a bacterial component and that's Orval -- you may be thinking of
Lambiks which indeed contain a long list of microbes.

Thomas writes:

>the bottom of the bottle. I used to use a primary and secondary
>fermenter, but now I use just one ordinary pail with a lid and
>airlock, and I get better results. The beer mix I use is John Bull
>Pilsner Light. I don't know if you can get this type in the U.S.A.,
>but it makes a beer that tastes better than Labatts Blue. Do any of
>you more experienced beer makers know any tips on getting less
>sediment on the bottom of the bottle?

If you let the beer sit in the fermenters longer, more of the yeast will
sink to the bottom. (You should go back to using a secondary if you
plan to let it sit in the fermenter for over 2 or 3 weeks.) This will
minimize the sediment in the bottle, but not eliminate it.

Al.

Date: Fri, 2 Apr 93 13:51:19 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: off-flavor puzzle/yeast wierdness/blowoff tube/succanat

Thanks to the folks who responded to my queries about off-flavors in two out of three batches made with the same yeast. I'm going to assume that I picked up an infection while racking batch one to secondary, which was then perpetuated when reusing the yeast from the secondary for batch three. I don't suspect my plastic tubing at this point because batch two, made with yeast from batch one primary, is fine - and the same tubing would have been used to rack, bottle, etc. Bottle conditioning seems to be improving things, however. Regarding plastic tubing, how often do people replace it? I'm assuming once a year is fine, but does anyone replace more often?

Now on to my next adventure. I'm making a pale ale (actually it's making itself right now) with some Wyeast 1056 "American" right out of the packet via a DME starter solution. On the sixth day it was still bubbling at about three per minute, but as the krausen had subsided I racked to secondary anyway, and tossed in the dry-hopping pellets. Within a day or two, what did to my wondering eyes appear but a KRAUSEN in the secondary! Coming up on two weeks now, it's still bubbling between one and two per minute. I have made ales this year with American, British, Irish, and London, and I have never had yeast behave in this manner (including a previous "American" two batches)!! My basement has been around 60-62 F. all winter, but this is the first time I have had such a slow fermentation. What should I do (besides of course RDWHAH)?

Joel Birkland asked about 1" I.D. plastic tubing. I got mine at True Value. They'll cut it to size and it doesn't cost much. While we're on the subject of blowoff tubes, I've seen several posts regarding the difficulty of cleaning them. My question is, what's the big deal? The only beer that comes in contact with it is what's being "blown off" - so as long as the tube is dry, that is, nothing dripping into your beer when you first attach the tube, why should it matter that you didn't get it squeaky clean after the last batch?

Finally, for any Eastern Iowa brewers who were as interested as was I in the recent thread on brown sugar alternatives, I can report that I found "Succanat" at the New Pioneer Co-op in Iowa City. It's a little pricey at five & change for a two-pound can (they also have Turbinado for <\$1/lb.) but

I plan to try it out. If I like it a lot, would anyone in New England be willing to mail me a bunch "in bulk" from Bread and Circus?

Jonathan Knight
Grinnell, Iowa

Thought for the day: In any organization there will always be one person who knows what is going on. This person must be fired.

Date: 02 Apr 1993 12:31:12 GMT
From: "BRIAN A. AURAND" <ceco!CWEMAIL!E#AURAN@uunet.UU.NET>
Subject: Hello?

Who is this?

Date: Fri, 2 Apr 93 16:51:29 EST
From: rowan@ocean.rutgers.edu (Andy Rowan)
Subject: One of those handy little tips

OK, this one isn't a major "aha!", but...

When you're pouring all that sanitizing solution out of the carboy, if you shove the racking tube in there, air can enter through it and the stuff just pours right out instead of glug-glug-glugging and splashing all over the place.

Just one of those things that dawned on me after an evening of bottling and RDWHAHB'ing...

```
=====
| Andy Rowan |
| Cook College Remote Sensing Center |
| Rutgers University, New Brunswick NJ |
| rowan@ocean.rutgers.edu |
=====
```

Date: Fri, 2 Apr 93 17:49:24 EST
From: Lee=A.=Menegoni@nectech.com
Subject: Brewing to style, Malt Mill, Chillers

Brewing to Style:

Having been a brewer for 3 years I recently have paid more attention to "brewing to style" and have migrated away from "nikebrau", Just Brew It. This switch in brewing philosophy coincides with a change in method, partial mash to all grain [insert flames and name calling here]. My feeling is in order for me to produce beers with flavor profiles that I would like I must be able to control my process. A good way to validate my process is to attempt to brew to a certain benchmark/style and have my results reviewed by certified tasters which generally means some sort of competition. One of the finest homebrews I have had was an attempt at one style, a Bier de Garde, which turned out to be an excellent Extra Special Bitter. The color was too dark, the hopping was incorrect and it lacked the body and sweetness of a Bier de Garde. It still was a great beer.

Malt Mill: I would concur with Jim Dipalma on his review. Having participated in its use my observations: Cleaning- grind a couple pounds of grain, then brush off the rollers 3 minutes max. Adjust for proper crush about 5 minutes. We ground, excuse me , crushed 10 lbs of grain in about 5 minutes. I too had the fastest clearing, clearest run off of any batch I brewed. The unit is not fragile. It is well designed, place it over a 5 gallon bucket and crush. I want to sell my Corona, Email if interested lmenegon@necis.ma.nec.com

Immersion wort chillers: I would be more concerned about how long I could make it. Mine is made from 3/8" OD soft copper tubing which I wrapped around a soda keg to make a coil. I Used about 35 feet of tubing. I filled my brew pot with 6 gallons of water, measured the height and coiled until I exceeded that height. I allowed for the in an out tubing to rise out and over the pot to a point 6" below the top to prevent water getting in the wort in the event of a leak. 50 feet of 3/8' soft copper was \$22 the 3/8 to hose male connection was about \$3. I clamped old plastic tubing on the output end total, cost \$25. With the extra tubing I am making a manifold for my lauter tun.

Date: Fri, 2 Apr 1993 17:15:28 -0800 (PST)
From: Michael Stuyt <klootzak@u.washington.edu>
Subject: Copies of M. Jackson's show

While on vacation in Rotterdam this spring break, I saw something about a show called "Beer Hunt" (or something like that) hosted by Michael Jackson. It was on the British Discovery Channel. Normally, I do not watch television, so I was wondering if any one knows if its broadcast here in the States or maybe somebody has copies on tape.

I am also interested if perhaps any one in the Seattle area would be interested in forming a brew-club here at the U of W.

thank you,

M. Abraham Vijfvinkel-Stuijt

Date: Fri, 2 Apr 93 09:14:25 EST
From: boomer@sylsoft.com (Richard Akerboom)
Subject: Re: Samiclaus and Sam Triple Bock

In Regards to your letter <9304020800.AA13213@hpfcmi.fc.hp.com>:
> Subject: "Samiclaus" aka strongest beer in world, for now?
>
[deleted]
> During the tour, they bragged about being in the process of
> developing a "Triple Bock", apparently it is Jim Koch's goal
> to get the world record for the highest alcohol content in a
> commercialized "malt beverage".

I had some of this at the Sunset Grill in Boston. It is very strong and I thought nicely done. The bartender (normally very well informed at the sunset) claimed 14% alcohol. I found it hard to believe that Sam had brewed something stronger than Samiclaus and figured that 14% was by volume. I don't have my Jackson's Pocket Guide here, but Samiclaus is 13.x% alcohol by weight, so it would be more than 14% by volume.

I would be interested in hearing from anyone who had some concrete knowledge about the Sam Triple Bock, such as original and final gravity and the alcohol content (and whether is by wt. or vol.).

Rich

ps-Thanks to those who pointed me back to Superior Products

-
Richard Akerboom Domain: boomer@sylsoft.com or akerboom@dartmouth.edu
Sylvan Softwareuucp: dartvax!sylsoft!boomer
Mechanic St. Phone: 802-649-2231
P. O. Box 566 FAX: 802-649-2238
Norwich, VT 05055 USA

Date: Sat, 3 Apr 93 07:46 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Free Kegging, Yeast

>From: tony@spss.com (Tony Babinec)

>I recommend using the pressure cooker method to create sterile starter worts. Following Dave Miller's book, add 3 pounds of light dry malt extract to about 2.5 gallons of water to create 3 gallons of wort..... It takes two cooking "cycles," as all jars won't fit in the cooker.

Wouldn't it be simpler just to cut the recipe in half?

>From: "Jim Ellingson" <jimme@pi28.arc.umn.edu>
>Subject: WARNING Re: Almost Free Kegging

>Using a quarter cup would give a pressure of around 50 psi but I still don't think it's a very good idea.

>Pressure vessels are thick, heavy and expensive for a reason. The pressurized gas which they hold contains an enormous amount of potential energy.

Thanks for the envelop engineering. In spite of your cautions, it still seems that it is a workable system if one is careful and does not work in the blind, i.e. monitor the pressure with a gauge. If a quarter cup produces 50 psi in an empty keg, it would seem to be enough to carbonate a 5 gallon batch and dispense it with pressure to spare. Once the beer is carbonated, the pressure could be relieved down to working pressure and I assume there would be enough to dispense an equal volume of beer.

It would seem prudent, however to add a pressure relief valve in case things don't work out as planned.

>From: "Dean Roy" <DEAN@alpha.uwindsor.ca>
>Subject: Yeast Labs yeast cultures

> (3) The cultures come in clear plastic tubes. No inner pouch or anything similar to burst. Do I simply dump the contents of the tube into a starter?

Have no idea about the rest of your questions but there are two ways to use the tube cultures. Come to think of it, you did not say whether they are on agar or just in a liquid medium.

If the latter, they are probably intended to be poured into a starter wort for one time use.

If on agar, you can use them to start new cultures on slants and keep the original as your pure culture. If you just want to start a batch with it, the best way is to pour enough sterile wort in the tube to cover the yeast and incubate it for 24 hours than use this liquid to start your starter.

The article I just posted on yeast culture details how you can turn one of those tubes in a lifetime supply of yeast.

>From: korz@iepubj.att.com
>I recommend that you not use wort to rehydrate dry yeast -- you are not only stressing the yeast, but tempting the remaining live ones to produce off flavors.

I have accepted the above on faith but have just read Fix's "Principles of Brewing Science", (a most humbling experience) and I now wonder if we are on the wrong tack. If George could review the following paragraph and comment on whether or not it has any relevance to rehydrating dry yeast....

From P 170.....

"As a general rule, yeast stored for any length of time should be "fed" with fresh sterile wort to ensure that the storage medium has adequate yeast-assimilable sugars and amino acids. Storage under a water cover should be avoided not only because water lacks nutrients, but because of the adverse osmotic pressures it would create."

I presume that dried yeast includes whatever is left of the "yeast-assimilable sugars and amino acids" at the time of drying. I also presume that they would be in a depleted state and adding only water would create the adverse osmotic pressure above referred to. Whereas, re-hydrating it with a wort of comparable SG would not.

What say, George?

js

Date: Sat, 3 Apr 93 07:47 CST
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Milling, Yeast

>From: Joe Rolfe <jdr@wang.com>
>Subject: MaltMill review

>(anyone got any hints at the correct rpm for the rollers - max thruput
and
least hassels)

>on the other hand - this fellow brewer - had a hell of a time.

Not knowing who your friend is, I can not comment intellegently but to
answer
the first question in an indirect way and wondering if it might be the
same
person.....

I received a call from someone several weeks ago who was having problems
with
a motorized mill. It was throwing grain all over and chewing up orings.
When I asked him what speed he was running at, he said he really didn't
know
but there was a 2 in pulley on the motor and a 2 in pulley on the mill.
If
its a typical 1750 rpm motor, the problem is obvious. On my personal
mill, I
use a 10 in pulley on the mill and a 2 in on an 800 rpm motor. That
gets it
around 160 rpm and crushes about 5 lbs/min with little dust, noise or
other
problems.

> i was not there when the problems came up - but the crystal ended up
to
fine, the pale did not feed properly and the guy had to rush out to get
a
corona. now mind you this is a motorized (probably too fast) with
hoppers
above and below.

Sounds suspicious. Why don't you have him get in touch with me? There
has
got to be a better solution than what he did :)

Having said that, I started receiving malt from Minnesota Malting a few
months ago that would not feed properly on the fixed mill which was
designed
using the same malt and I was totally frustrated till I had a few
conversations with the maltster.

Turns out that the lot was one that did not meet commercial specs for
size
and they put it aside for homebrewers assuming we would not care. He
said
that there was less than a 5% chance of this kind of stuff getting out
normally, whatever that was supposed to mean.

When I asked why mega brewers care, with fancy adjustable mills and he said because they do not want to adjust them. They just want to run forever.

It is interesting to note that the Belgian malt is even larger than the MM malt but feeds without difficulty. It appears to me that the real problem is not just the size but the finish or texture of the husk. The MM stuff was very smooth and shiny while the Belgian is coarse and rough. As the mill relies on the grooves in the roller to grab the grain, the smoother the husk the more likely the grain will roll around for a while.

On a motorized mill, if enough of them roll around, they will fill up the space and nothing gets done. With a hand crank, this is rarely a problem because of the randomness of starting and stopping plus the ability to back up a bit to clear jams.

The only other problem I know of is someone who came up with some Engl. ... sorry British malt that was so small, it passed right through. After running this one down, it also turned out to be reject malt.

> anyway from my experience and his, if you get one get the adjustable one.

IF you have thoughts of motorizing it.

>From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>
>Subject: YEAST CULTURES

> I don't get isolated colonies on my plates, rather one big long smear of yeast where I've dragged the inoculating loop. How can I inoculate so I get isolated colonies?

The key is more dilution. After you think it is dilute enough, give it another 10:1. Here is a standard streaking sequence....

```
  1.....2.....3.....4.....5.....>
| | | |
  6.....>
| | | |
  7.....>
| | | |
  8.....>
| | | |
//////// //
```

After inoculating your wire, you start at 1 and by the time you get to the end of 8 you should have some single colonies if you start with a dilute enough sample.

To give you an idea of how little you need, I recently did a Wyeast and I

dipped my wire into the packet and followed the above on two petri dishes in sequence and only got three isolated colonies on the second one.

When I have done dry yeast, I would drop one granule into a test tube of sterile water and got about the right dilution.

> I understand some yeast cultures are actually combinations of several strains (eg whitbread). Will I see all three of the whitbread strains as different looking colonies?

I tried Whitbread dry about 6 months ago and found no clue as to what was what. It all looked the same and concluded that either it was all the same or telling the difference was beyond my patience. I didn't particularly like the beer it made but that could be because I don't like it or because one or more of the necessary strains were missing.

> I've heard that even if I get a good pure culture on a slant it will mutate and I can only use yeast from a given slant for a few months? Is this true?

If you only use the original slant to inoculate others, it should be good for years or until you contaminate it in the process.

> Is there a way to identify mutants besides brewing a batch and looking for strange behavior such as low final s.g?

That's about it.

> got a pretty decent optical microscope if I can figure out what box it's in. Any suggestions on preparing a sample for viewing?

Put a dilute drop of yeast on a slide, add a cover slip and work your way up to the highest magnification you have. You need 1000X, oil emersion to see any detail.

>Can I recognize mutations this way?

No chance. You will be able to identify certain wild yeasts and bacteria and have a lot of fun but won't solve any real problems in the process. Unfortunately, Peterson hasn't come out with a "Field Guide to Yeast" for pretty obvious reasons.

js

Date: Sat, 3 Apr 1993 22:19:05 -0700 (MST)
From: JLIDDIL@AZCC.Arizona.EDU (Jim Liddil)
Subject: Failure of first All grain

Made a beer today with the following ingredients

3lbs belgain pilsner malt

4 pounds belgian pale ale malt

8 ounces caravienne

Mashed in 2 gallons of distilled water at ~154 for 1.25 hours at which time the iodine test was negative. The pH of mash was around 5.2. Used a Zapap type lauter tun with grain bag. Recirculated about 0.5 gallons. Used distilled water for sparging. Placed a pie plate on top of grain bed and added water at about 165. Also mashed out at 170. Sparged till gravity was 1.008 .Ph of run off was still around 5.5. Collected about 7 gallons of wort. Gravity after boiling down to about 6 gallons was only 1.028. Where did I go wrong? If the answer is perfectly obviuos please e-mail me rather than waste bandwidth here.

Jim Liddil

Date: Sun, 4 Apr 1993 15:36:01 -0400 (EDT)
From: Matthew P Jukins <mpj@kepler.unh.edu>
Subject: CIDER

Hello all! My name is Matt and this is my very first post to this list,
so I just thought I'd say hello. :)

Well, my first question is this: My friends and I are interested in
making
cider, but don't know the first thing about where to start. If possible,
we would like some tips, recipes, etc... anything would help. Please
mail me at: mpj@kepler.unh.edu

thanks for your bandwidth :)

-matt

End of HOMEBREW Digest #1112, 04/05/93

Date: Mon, 5 Apr 93 10:16:35 MET DST
From: THOMASR@EZRZ1.vmsmail.ethz.ch
Subject: Mac Thread, Decoction

Hello all,

Nir Navot asked if there was a thread for Macs out there somewhere. There is a Hypercard stack at Sierra.stanford.edu (pub/homebrew...) which will read in mail lists and then allow you to manipulate them in Macintosh point and click fashion. If my hard disk space weren't limited I'd add all the mail lists to it for the complete brewing reference text. As it is they stay on the vax. Also, Dennis Lewis asked about decoction mashing and why people do it. Well, I now do it for a combination of reasons:

1. I can only get lager malt (here in Switzerland) which is really high in protein --> requires a protein rest at 50 deg.C;
2. I mash in a picnic cooler, and haven't got a pan big enough to do a full stepped infusion;

I think (he says, sticking his neck out) that there is little difference in the end result whether you do a stepped infusion or a decoction over the same temperatures.

By the way, the "thickest third" does include the grains. If you take out only the liquid and boil, possibly repeating a number of times, you will quickly run out of enzymes, since they are mostly in solution. The object of the decoction is to raise the temperature of the mash in a stepwise manner without having to heat the mash tun. I've not had problems with tannin extraction etc because I only just bring the thick third to the boil before replacing it. A longer boil (involving the grains) would have the effect of gelatinising the starch, and hence (apparently) of making it more available.... I don't know, I get about 28-29 pts/lb/gall(US) most of the time.

- - - - -

finally, Chris Lyons asked about when to add sugar. Although I'm only going on my experience here, I find that for normal gravity beers I see no difference, but for high og (>1080) I see alot of caramelisation (although is this bad, since you're adding brown sugar for the caramel anyway?). I brewed Dave Line's ESB using exactly his recipe, and although it didn't taste exactly like draught ESB, it was certainly very pleasant.

Anyway that's quite enough of my opinions.
Rob Thomas.

Date: Mon, 5 Apr 93 10:36:17 MET DST
From: THOMASR@EZRZ1.vmsmail.ethz.ch
Subject: historical recipes

Hello all,
Some of you may remember that I posted a couple of recipes from the
1820's
a while back. Well, since they take time to two finger type in, I'll ask
for requests (email to me please). Here are the rest of the recipes:
london brown stout porter;
london ale;
table beer;
amber
(aka two penny) ale;
white porter (aka old hock);
Rob Thomas

Date: Mon, 5 Apr 93 8:12 edt
From: Gerald_Wirtz@vos.stratus.com
Subject: **Brewing Methods**

I have been brewing for just over six months now and where I purchase my supplies the owner is against using the 'blow-off' method of brewing.

My question is why use the 'blow-off' method? It seems to me that this would result in the loss of flavor.

Thanks - Gerald Wirtz - Stratus Computer

Date: Mon, 5 Apr 93 08:55:32 edt
From: mtavis@gemini.hyperdesk.com (Mike Tavis)
Subject: Re: Samiclaus and Sam Triple Bock

Richard Akerboom writes:

> I had some of this at the Sunset Grill in Boston. It is very strong
> and I thought nicely done. The bartender (normally very well informed
> at the sunset) claimed 14% alcohol. I found it hard to believe that
> Sam had brewed something stronger than Samiclaus and figured that
> 14% was by volume. I don't have my Jackson's Pocket Guide here, but
> Samiclaus is 13.x% alcohol by weight, so it would be more than 14%
> by volume.
>
> I would be interested in hearing from anyone who had some concrete
> knowledge about the Sam Triple Bock, such as original and final gravity
and
> the alcohol content (and whether is by wt. or vol.).

I have in front of me one of those sheets of marketing material that is typically placed in the plastic thingies at restaurant tables. This one is from the Boston Beer Company and was lifted from Doyle's in Jamaica Plains (South Boston). Unfortunately, I wasn't the one who lifted it, so I can't give first hand impressions of Triple Bock. I can however type in what Jim Koch says about his new beer.

"We offer this strong, malty bock beer in the best tradition of warming winter brews. Our Triple Bock begins with a recipe calling for over three times as much malt as our Boston Lager. A long, slow fermentation produces the rich, complex flavor notes and an extraordinarily high alcohol level of 12%. This strength is comparable to a fine wine and is almost three times the level of ordinary beer. In addition, this brew is carefully aged for four months at extremely cold temperatures. This traditional German technique develops the remarkable smoothness of our beer. At this strength, our Triple Bock is ideally sipped slowly from a 5 ounce serving, enabling the true beer lover to savor and appreciate its enormous character. We present our unique ice-conditioned beer this winter as a great way to take the chill off the cold weather."

- -- Mike

o o | Michael Tavis, HyperDesk Corporation
o o | Suite 300, 2000 West Park Dr., Westboro, MA 01581
----+ E-mail: mike_t@hyperdesk.com (508) 366-5050

Date: Mon, 5 Apr 93 9:36:21 EDT
From: Jim Busch <busch@daacdev1.stx.com>
Subject: re:yeast storage & mutations

JS writes about yeast culturing in the last digest:
<If you only use the original slant to inoculate others, it should be good
<for years or until you contaminate it in the process.

This is why you should make a working stock slant from your original slant. Only culture yeast from the working slant. Go back to the original slant to make new working slants. Plating from the working slant is a better way to ensure what you are brewing with. There is an increased risk associated with "dipping" a loop into a slant repeatedly. I would advise restreaking to a single cell at least once a year. In theory it can last for years, but why risk it? If you are already culturing yeasts, then what is the extra plate and slant once a year to ensure clean yeast? A very important issue is for the brewer to constantly question the performance of one's yeast, is it flocculating like it used to? Any slight change in flavors or lag time or aromas of the fermenter?

Good brewing,
Jim Busch

Date: Mon, 5 Apr 93 9:41:06 EDT
From: Kevin V Martin <kmartin@magnus.acs.ohio-state.edu>
Subject: AHA Competition Question

Does anyone know if the AHA will accept hand delivered entries at the
Goose
Island Brewery in Chicago for the annual competition? I will be visiting
my
brother this weekend in Chicago, and he said that he would deliver my
entries
for me. This would save me the hassled of having to deal with UPS.
Thanks for
any information.
Kevin Martin kmartin@magnus.acs.ohio-state.edu

Date: Mon, 5 Apr 93 09:59:46 EDT
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Duration of a botled beer

Rafael Busto asks:

> As a beginner I'd like to ask a probably FAQ. Once the beer is
> bottled, How many weeks can I keep the beer (no preservatives, no
> pasteurization) before it gets undrinkable?

A long time, if you did a good job making it. I've had beers that have been in bottle for 10 years. At that point, they're kind of "old" tasting, but still drinkable. Only strong, highly hopped beers will last that long, but you should be able to keep your beer for a year, easily.

Things that can reduce its keeping power:

1. Insufficient sanitation. An low-level infection can take a long time to take hold. If you drink your beer up in a month or so, you'd never notice it. If you keep it for a year, you might.
2. Oxidation. Again, this is something that takes a while to show up. The damage may be done at any point in the brewing process, from mashing through to bottling. The key is to minimize splashing at all times, EXCEPT just before pitching the yeast, when you need lots of oxygen in the wort so the yeast can grow and reproduce.
3. Light. Can cause skunking and other staling reactions. Keep your beer in the dark.
4. Heat. Keep the beer in a cool place, preferably below 60F (i.e., in a cellar), but not where the temperature goes above 80F, for sure. Temperature swings are bad, too.

=S

Date: Mon, 5 Apr 93 10:25:15 EDT
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Yeast Lab yeast

You should have gotten an instruction sheet. It suggests two ways to use the yeast:

1. Make a starter.
2. Just dump it into your wort.

The first way works better -- quicker start, less chance of infection, but the second way does work.

Date: 05 Apr 1993 12:08:40 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: rehydrating yeast

Jack asks:

> I presume that dried yeast includes whatever is left of the
> "yeast-assimilable sugars and amino acids" at the time of drying. I
also
> presume that they would be in a depleted state and adding only water
would
> create the adverse osmotic pressure above referred to. Whereas,
> re-hydrating it with a wort of comparable SG would not.

If I may be so bold as to jump in here, dried yeast have much of
the water removed from the cytoplasm, and need that water replaced before
they can behave normally. A hypotonic solution (ie water) will cause the
yeast to swell up and soak up the necessary water nice and quickly. A
hypertonic solution (ie wort) will be soaked up much more slowly. In
order
to re-hydrate the yeast, water is best, but don't keep them there too
long,
or they may start to suffer osmotic lysing, or at least malnutrition. Boy
is that a run-on sentence

As for brewing to style versus brewing to taste, I would have to
say a good brewer should be capable of both. Having a style guideline to
shoot for gives the brewer knowledge, experience and skill. If you can
brew a Sam Smith's clone, a Pilsner Urquell clone, and a Duvel clone, you
know what ingredients and protocols produce what results, and by all
means

brew a beer you like, because you can know ahead of time what the result
will be. If you just brew for fun, it's a great ride and the end product
is invariably good, but frequently a bit of a surprise. Having style
categories in competition does two things: it shows a brewer's skill at
producing the intended product, and it provides guidelines for the
judges,
so they don't have to decide if the dry stout is better than the malty
helles. Someone long ago on this forum (or maybe it was r.c.b) was
lamenting that they had lost a competition because their Pilsner was too
dark (or some such breach of category), but that if that same beer was
produced commercially it would be a "dark pilsner" and a category in
itself. Sure. And Pete's Wicked Ale won at the GABF, but could it fit
into any AHA category? The point is these are not the only possible ways
to make beer, but target styles for homebrewers to emulate in order to
demonstrate their skill.

ed

Ed Hitchcock *-----*
Dept of Anatomy and Neurobiology | |
Dalhousie University |JUST BREW IT |
Halifax, Nova Scotia | |
ech@ac.dal.ca *-----*

Date: Mon, 5 Apr 1993 15:18:22 GMT
From: "UARS::COOK"@CDHF1.GSFC.NASA.GOV (Chris Cook)
Subject: Sanitation Using Spent Grains

David C Mackensen (HBD 1109) asked

> What if I were to put the spent grain bill into the primary? any additional sugars that might have been left over can be used for fermentation/taste (depending upon complexity)...

In the HBDs following, Mr. Mackensen got somewhat jumped on. Timothy Dalton asked

> How are you going to sterilize the grains before tossing them in ? Boil them ? Seems like you'd be asking to extract a pile of tannins from the husks. Then have the husks in contact with the wort/green beer for a week or two?

and Tony Babinec said

> I wouldn't put spent grain in the primary! The grain is contaminated. home brewers exploit this by doing sour mashing, but the mashing is done in a vessel, and is followed by a boil. So, throw the spent grains on the compost heap, or make a bread out of them.

and so on. While I agree with the concerns about tannins, I have to question the contamination potential. Think of the process so far. Mash at 150 to 160 for an hour or more, then optionally mash out at about 170 degrees. Maybe I'm wrong, but it's hard to believe that the grains aren't pasturized after that. Yes, some people use malt to start sour mashes, but they use raw grains, not spent grains.

I admit that I remain dubious about how worthwhile the attempt would be, but hey, we're only talking beer here. I know that most of the sugars and starches are gone, but maybe the grains can add interesting proteins. I don't know, but I'd be interested in learning.

Chris Cook
cook@cdhf1.gsfc.nasa.gov

Date: Mon, 5 Apr 93 10:30:10 CDT
From: stevie@spss.com
Subject: AHA First Round Regional, Chicago

1993 AHA NATIONAL HOMEBREW COMPETITION
FIRST ROUND - MIDWEST REGIONAL
JUNE 11-13, CHICAGO, ILLINOIS

CALL FOR JUDGES, STEWARDS, AND PARTICIPANTS

As you already know from other posts to this forum, the first-round regionals of the AHA National Homebrew Competition will take place in early June. The Midwest Regional will be over the weekend of June 11-13, at the Goose Island brewpub in Chicago. Last year's regional was a great success, due in part to an excellent turnout of judges and stewards. While we fully expect the same this year, we're leaving nothing to chance. We've added some special activities to the schedule that you won't want to miss.

After the second judging session on Saturday afternoon, there will be a seminar conducted by Chicago's own Siebel Institute. From there, we'll move on to dinner and the First Midwest Invitational Brewoff, an event that might attract you to Chicago even if you couldn't pick up those judging points.

Last month, we invited 10 of the region's best homebrewers to brew five gallons using the same set of ingredients. A number of the area's homebrew supply stores donated the raw materials, which were recently packed and delivered to the participants. The brewers can use some or all of the ingredients, plus they can select their own yeast. The beers will be judged in a blind but informal judging at Saturday's dinner, and the champion brewer will receive an attractive trophy.

Think you can brew as well as the invitees? Well, everyone else is welcome to participate in the Open Brewoff. To enter, you can purchase an ingredients kit (by the way, we're making everyone make an extract beer with specialty grains) from one of our sponsoring suppliers and bring the result to the event. We'll have balloting in the Open category as well, and that winner will be automatically eligible for next year's Invitational. Sponsoring suppliers are: Evanston First, Sheaf and Vine, Chicago Indoor Garden Supply, and Tim's Homebrew Thing. You only pay for the ingredients. There's no competition

entry fee.

The Midwest Invitational/Dinner will be open to all interested comers, but space will definitely be limited. To help defray the costs of the event (and pay for the food, of course), there will be a \$25 fee to attend. Early interest is high, so we expect there will be a lot of great beer to consume.

Of course, we need plenty of qualified judges and stewards. A mailing with registration form will be sent soon to all area BJCP judges, but those not in the program or not in the area should feel free to contact me directly (e-mail or phone).

Look forward to seeing you in Chicago.

- - - - -

Steve Hamburg Internet: stevie@spss.com
Chicago, IL Work Phone: 312/329-3445
Home Phone: 312/878-0177

Date: Mon, 5 Apr 1993 09:31:28 -0700
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Dry Hopping

In HBD #1112 "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU> writes:
>On the sixth day it was still bubbling at about
>three per minute, but as the krausen had subsided I racked to secondary
>anyway, and tossed in the dry-hopping pellets. Within a day or two,
what did
>to my wondering eyes appear but a KRAUSEN in the secondary! Coming up
on two
>weeks now, it's still bubbling between one and two per minute. I have
made
>ales this year with American, British, Irish, and London, and I have
never
>had yeast behave in this manner (including a previous "American" two
>batches)!! My basement has been around 60-62 F. all winter, but this is
the
>first time I have had such a slow fermentation. What should I do
(besides of
>course RDWHAH)?

I have dry hopped about 4 batches, and always have observed this same
thing. It is a real pain when using whole hops, because they try to to
push themselves out of the air lock. It seems that there was a thread
about this on HBD about 6 mo. ago. Then I went out of town and never
caught a conclusion about what was really going on. Was there a
conclusion? Does anybody have an explanation for this?

Date: Mon, 05 Apr 93 11:43:43 CST

From: C05705DA@WUVMD.Wustl.Edu

Subject: silly question on kegging

Could anybody give me any insight on why NOT to carbonate a keg naturally, like in bottling, instead of using carbonated water and all the works needed to do kegging. My reasoning is simple; kegging didn't used to be done the way it is today. So, what are the pros and cons to throwing in priming sugars in a keg and cork it? I would appreciate any HELPFUL suggestions.

Date: Mon, 05 Apr 1993 12:13:18 CDT
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>
Subject: Dry Ice carbonating in keg

Jack Schmidling writes:

>>From: "Jim Ellingson" <jimme@pi28.arc.umn.edu>
>>Subject: WARNING Re: Almost Free Kegging

>>Using a quarter cup would give a pressure of around 50 psi but I still
>>don't think it's a very good idea.

>>Pressure vessels are thick, heavy and expensive for a reason. The
>>pressurized gas which they hold contains an enormous amount of
>>potential energy.

> Thanks for the envelop engineering. In spite of your cautions, it
still
> seems that it is a workable system if one is careful and does not work
in the
> blind, i.e. monitor the pressure with a gauge. If a quarter cup
produces 50
> psi in an empty keg, it would seem to be enough to carbonate a 5 gallon
batch
> and dispense it with pressure to spare. Once the beer is carbonated,
the
> pressue could be relieved down to working pressure and I assume there
would
> be enough to despense an equal volume of beer.

I have to agree with Jim on this. You really should try this yourself
and
gather some empirical data before suggesting it to people who might not
know
better. I have a lot of experience with forced carbonation of water,
wine,
beer and soft drinks, and if you've ever tried gassing beer up to 50psi,
you'll
find that its difficult to even vent the pressure down to dispensing
level
without it blowing out your venting tube. If you do get it bled down to
tapping pressure, the resulting brew would dispense as incredible gusher
of
foam as the brew tried to outgas. The idea of it retaining enough
pressure to
dispense itself means that as it goes from wildy overcarbonated to flat
it will
be able to push itself out of the keg, but you'll only get a small amout
out of
the tapper, then the brew will have to outgas enough to built up pressure
to
tap more, this might work for a few brews in between the gushers and it
being
so flat it cannot dispense, but it seems like a lot of sacrifice.

At a nice cellar temperature, adding a constant 16lbs or so of CO2 and
agitating the brew for about 5-10 min. will result in nice carbonation.
If you
dissolve too much CO2 in it, you'll have to 'burp' the keg down to a
reasonable

carbonation level before it will be usable. I've found that 35 LBS of CO2 is way too much (check Byron Burches CO2 chart and read his article in one of the Beer and Brewing Journals - its the one from Oakland). I've gassed champagne up to the level you are talking about (in an appropriate container) and its a horrible mess to dispense through a tap (even with an adjustable flow tap like a guinness with the turbulence baffles removed from the tip).

The only way I can see to dispense beer thats been gassed up to 50psi would be to slowly bleed it down to ambient atmospheric pressure (wipe the beer from the ceiling:), remove the lid from the cornelius and pour it into pitchers. I had to do this about 10 years ago when I was just beginning to do forced carbonation.

What might work would be to put a regulator on the keg such that anything over 16psi gets bled off, add your CO2, and agitate while it dissolves, wait a few days, then put CO2 on it at about 10-12 lbs and dispense.

-john

John Isenhour
mad scientist and national beer judge
john@hopduvel.UUCP
isenhour@lambic.fnal.gov

Date: Mon, 5 Apr 93 14:13:05 EST
From: "John DeCarlo" <jad@pegasus.mitre.org>
Subject: Re:immersion cooler length

>From: sherman@qualcomm.com (Sherman Gregory)

>>Does anyone know about the minimum length of copper tubing that
>>can be used as an immersion wort cooler? Successfully.

>The longer the better. Many of them are 20', some are 25', mine is a
50'
>double helix (homemade). It all depends how fast you want to cool and
how
>cool your tap water is, and how much water you want to use.

Aha! A personal pet peeve, that I know nothing about. Spout-off
warning!

My own personal theory is that the shorter the better, until you get to a
reasonable minimum length.

Why?

Let me interject personal observation from my 15 ft. copper coil.
Probably
more than a foot is outside the wort, say one foot on each end, making 13
ft. in the wort. I think that is too long. Why? Because the water
comes
out boiling hot at the other end. [I placed my quick-reading thermometer
in a cup which got the outflow from the wort-chiller, and it quickly
jumped
to 210 or so.]

OK, what good does boiling-hot water do in your wort chiller? I submit
it
does no good at all. So if I had another ten feet of copper in there, it
would be another ten feet carrying boiling hot water, doing no good.

So, the question is:

How long does water traveling through 3/8" copper tubing (it can only
flow
so fast) take to reach equilibrium with the wort?

I suspect we are talking about 6-8 feet here, just from WAG speculation.

Anyone who really knows what they are talking about willing to resolve
this
issue? Are there completely overlooked issues, such as increased
efficiency with longer tubing as wort and source water temperatures get
closer? [So I just made this up and don't think it likely. Sue me.]

Of course the temperature of the water used, the rate of water flow
(dependent at least in part on the tubing ID), and maybe other items are
involved. Is there maybe a chart already made up for us to use by
experts
in the field?

OK, I ranted enough. Now I feel better. Thanks and apologies to all.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Mon, 5 Apr 93 13:13 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Wine and Oxidation, Grain Bags

We all know what evils to expect of beer that gets oxidized after fermenting and the need for quiet racking and transfer. However, wine drinkers also know that good red wine needs to "breathe", which of course is, a snob word for oxidize.

I have also seen several references to the fact that one of the reasons for racking wine at regular intervals is to promote oxidation. Clearly, we have a conflict here and my Fall Wine is now in the aging stage and it would be nice to know if I should intentionally splash it around while racking or use the usual beer cautions.

Anyone out there know?

>From:(Jim Liddil)
>Subject: Failure of first All grain

>3lbs belgain pilsner malt
>4 pounds belgian pale ale malt
>8 ounces caravienne

>Mashed in 2 gallons of distilled water at ~154 for 1.25 hours at which time the iodine test was negative. The pH of mash was around 5.2. Used a Zapap type lauter tun with grain bag. Recirculated about 0.5 gallons. Used distilled water for sparging. Placed a pie plate on top of grain bed and added water at about 165. Also mashed out at 170. Sparged till gravity was 1.008 .Ph of run off was still around 5.5. Collected about 7 gallons of wort. Gravity after boiling down to about 6 gallons was only 1.028. Where did I go wrong?

First of all there is nothing "wrong", you just made a lighter beer than you expected.

The procedure reads like a textbook and aside from possible measurement error, and the need for more water in the mash, the only thing that sticks out is the Zapap with a grain bag.

I do not wish to start another snob thread but it is my opinion that of all the lauter systems out there, the grain bag represents the one with the highest probability of failure. Having said that, I realize that many people

use them and swear by them but until a beginner at all grain learns their tricks of the trade, I would think low yield would not be unusual.

First of all, if your Zapap has a false bottom, it is not clear why you use the bag. The purpose of the false bottom is to prevent the grain from clogging the outflow while establishing a filterbed. Once the bed is established, the grain itself acts as the filter and a grain bag is only overkill and a source of trouble. I know of no commercial brewers that use grain bags so maybe there is a message in there for homebrewers.

One sure test would have been to just dump the contents of the grain bag into the Zapap and stir it around with some more hot water. My guess is the gravity of the next runoff would have shot way up.

My suggestion is to try it without the grain bag next time and if that fails, build an easymasher or manifold lauter tun. The advantage of the easymasher is that you can stir the mash at intervals during the sparge without upsetting the filter bed and scavenge every last bit of sugar out of the mash.

js

Date: Mon, 5 Apr 93 14:18:29 EST
From: "John DeCarlo" <jad@pegasus.mitre.org>
Subject: Using Sanitizers of Various Sorts

>From: mikel@netlink.cts.com (Mike Lemons)

>Is there any scientific proof for the claim that sulfites don't
>work? The enormous advantage of using sulfites is that no rinsing
>is required. It seems to me that re-contaminating something with
>rinse water, after you sanitize it, totally defeats the purpose of
>sanitation!

>Chlorine and iodine must be rinsed out because they will impart bad
>flavors to the beer, but sulfites are essentially tasteless.

I personally don't use sulfites because of relatives who are allergic, so
I
don't want to risk anything. This may or may not be relevant to you.

But mainly, I can't imagine why someone would rinse after using chlorine
or
iodine. After all, if you use the recommended amounts of each in your 5
gallons of water (or however much it takes to fill your sink or
fermenter),
simple air drying after draining out all the water leaves so little of
either chlorine or iodine as to be practically immeasurable.

The main problem seems to be that many people think that if the
recommendation is to use X ounces, then 10*X ounces must be 10 times
better, and 100*X ounces 100 times better.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Mon, 5 Apr 93 12:36:13 CST
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Dry hopping

I tried dry hopping on my last batch for the first time. Encountered a few difficulties. I used hop pellets. When added to secondary, the pellets hydrated nicely then floated to the top and stayed there for the duration of secondary fermentation (~ 1 week). When I started racking the beer into my bottling bucket this hop head got broken up and started sedimenting--a fair amount got siphoned into the bottling bucket. I let it settle in the bucket for ~1/2 hr before bottling but still got a fair amount of hop particles in the bottles, particularly the last few bottles.

Questions:

What are pros & cons of pelletized vs whole hops when dry hopping?
Any advice on removing hops when preparing to bottle?
Alternatives to dry hopping that will give good hop nose?

WAK

| - William A Kitch (512) 471-4929 -|
| - Geotechnical Engineering -|
| - ECJ 9.227 -|
| - Univ of Texas at Austin, TX 78712-1076 -|

Date: Mon, 5 Apr 93 09:38:55 -0400
From: adiron!scott@uunet.UU.NET (Scott Barrett)
Subject: More stupid carboy tricks

In HBD #1112, Andy Rowan (rowan@ocean.rutgers.edu) provided a tip for emptying a carboy more quickly by using a racking tube to break the suction. "Strike while the mash water's hot" I always say, so here's another way to do it.

Begin to swirl the contents of your (still upright) carboy until you get a good whirlpool going. Invert the carboy quickly and swirl it strongly 2 or 3 more times. The whirlpool effect should continue as the liquid drains out and air will enter the carboy through the open center of the vortex. When the carboy gets near empty, the remaining liquid will be swirling pretty fast and will hang on the inside of the carboy's shoulders (like the ball on a roulette wheel) rather than draining out. Simply tilt the inverted carboy a bit off vertical and the remaining liquid will quit its tail-chasing and drain through the neck.

With this technique you can keep both hands on the wet carboy and don't have to stick anything inside it. It's also kind of fun having a white tornado inside your draining carboy.

Yours in brewing,
Scott Barrett

Date: Mon, 5 Apr 1993 12:55:29 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Ale Grist Part I

Ale Grist, Part I

After I posted some information a while back from HL Hind's textbook on British brewing, from the 1930s, several people requested that I post his data on ale grists. My copy of volume II finally surfaced, so here's the information. In order to follow it, though, there are a few things you need to know.

A quarter of malt = 336 lb.
A British barrel = 43.2 American gallons

The numbers given under Malt. No. refer to a list of malts available at the time Hind was writing. The numbers 1, 4, 6, and 13 refer to British 2-row ale malt; colors are, respectively, 4.5, 6.0, 6.0 and 4.0. Number 14 is Moravian 2-row, color 6.5. Nos. 19 & 20 are "Californian" 6-row, colors 6.0 and 4.0. No. 26 is Syrian six-row, color 5.5.

Grist for Pale Ales (100 British barrels)

Malt. No. Quarters % of Total OG
Extract

=====

All-malt pale ale
1 16 85.1 1.055
20 3 14.9

Pale Ale with sugar and maize
6 7 37.7 1.050
14 6 32.3
26 3 14.8
Maize 1 5.5
Malt extract .5 1.9
Sugar 2 7.8

Light pale ale for bottling
4 4 27.7 1.040
13 4 27.4
19 3 19.4
Enzymic .5 3.3
Maize 1 7.0
Sugar 3 15.2

"The use of flaked maize, rice or grits and sugar depends on the character of the beer. Sugars add sweetness and, like flakes, reduce the tendency to early haze formation in filtered beers, particularly if the malt is at all under-modified. The sugars must be pale in colour and carefully selected in accordance with the flavor required in the beer. No. 1 and No. 2 inverts and other sugars of somewhat similar character are suitable. The percentage of adjuncts used varies with the type of beer, and may provide 10-25% of the total extract."

(more to come)

Date: Mon, 5 Apr 1993 12:56:01 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Ale Grist Part II

Ale Grist, Part II

There is a different list of malts for the dark ales. Number 3 is English, color 5.5; No. 5 is Scotch, color 6.5. Nos. 7-9 are English, colors are 7.0, 8.0, and 7.5, respectively. 19 is Californian, color 6.0.
24 is Chilean (or similar 6-row), color 6.0.

"The malts are usually of rather lower grade than those selected for pale ales. They are cured to a colour of 6 to 9, to give full flavour, and it is not usually necessary to require such full modification. ... Crystal and amber malt, particularly oak-dried amber, are frequently used on account of their colour and flavour. A larger percentage of sugar is generally added in the copper than for pale ales, and darker sugars, with more luscious flavours, are selected. No. 3 invert, good quality raw cane sugar and proprietary mixed sugars of various descriptions, with a little caramel, are suitable."

Grist for Mild and Dark Ales

Malt. No. Quarters % of Total OG
Extract

=====

Strong Ale

3	10	34.3	1.080
8	10	33.9	
19	4	12.8	
Crystal	1	3.2	
Amber	1	3.2	
Sugar	5	12.6	

Mild Ale

5	4	24.6	1.045
9	6	35.5	
19	3	16.8	
Crystal	.5	2.8	
Brown	.5	2.8	
Sugar	4	17.5	

Mild Ale

7	3	20.5	1.040
9	4	26.7	
24	3	19.3	
Diamber	1	6.5	
Wheat malt	1	7.1	
Sugar	4	19.9	

(more to come)

Date: Mon, 5 Apr 1993 12:56:25 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Ale Grist Part III

Ale Grist, Part III

There is a different list of malts for the dark ales. Number 3 is English, color 5.5; No. 5 is Scotch, color 6.5. Nos. 7-9 are English, colors are 7.0, 8.0, and 7.5, respectively. 19 is Californian, color 6.0.
24 is Chilean (or similar 6-row), color 6.0.

"There are a number of distinct types of stout and porter, for which different blends of materials are used. On the one hand, are the stouts brewed from malt only or from malt and roasted barley. On the other, are the sweeter stouts, for which a fairly high percentage of sugar is employed. The basis of the grists is a mixture of pale malt, not too fully modified, but with a moderate diastatic activity, and either roasted malt or roasted barley to give the requisite colour and flavour. Roasted barley gives a drier flavour than roasted malt and is preferred by many. Crystal and amber malts are commonly blended with these in the sweeter stouts. A proportion of six-rowed malt and of maize is also frequently used, as in mild ales. A limited percentage of oat malt or oat flakes is included in the grists for oat malt and oatmeal stouts. Milk stouts generally derive their name from the lactose or milk sugar added, with cane or other fermentable sugar, in the form of primings. The copper sugars are generally full flavoured and dark coloured. Good raw cane sugar, No. 3 invert and various mixed sugars are suitable, a sweet caramel being added if it is desired to increase the colour without the special flavour and aroma of roasted malt or barley.

Grist for Sweet Stout

Malt. No. Quarters % of Total OG
Extract

=====
3 6 27.6 1.060 (or 130 bbl at 1.046)
7 5 23.2
Roasted malt 3 12.1
or barley
Crystal 2 8.4
Amber 2 8.5
Sugar 6 20.2

(fini)

- --Jeff Frane

Date: Mon, 5 Apr 93 09:59:18 -0500
From: gjfix@utammat.uta.edu (George J Fix)
Subject: Ale Grist Part III
Subject: Malt Mill

I wholeheartedly concur with James Dipalma's analysis of Jack's malt mill. I was also impressed with Jack's own measured and thoughtful response to the negative review of his mill. Here I simply wish to throw in some data that was obtained from the comparison of Jack's mill and a commercial mill.

I received Jack's mill in Jan., 1992. Shortly thereafter it was taken to the Dallas Brewing Co. (DBC) for the test. The latter was done with a standard and well established screen sieving procedure. This is described for example in DeClerck, Vol. 2, pages 321-323. It in effect consists weighing out the grain fractions that are retained on screen meshes of diminishing width. The following is what we measured:

ASBCscreengrains retained, % by wt.			
screen no.	width, mm.	MM	DBC Mill
10	2.000	1413	
14	1.410	1820	
18	1.000	3332	
30	.590	2525	
60	.250	5 5	
100	.149	3 2	
Not Retained		2 3	
-----	-----		
100	100		

For those interested in details, the malt crushed was a Canadian 2-row from Prairie Malting. The mill at DBC was made by Mangel, Scheuermann, Oeters, Inc. of Huntingdon Valley, Pa. It costs around \$6500. It is a "BMW" as far as mills go for micros. A more common mill is the one made by California Grain Milling, which costs around \$2500. Those who have visited Dave Miller's brewpub in St. Louis will have seen one. It is the monster setting on the second floor in his grain room. Screen tests with these mills have given similar results. It has also been my experience that if roller mill spacing is appropriately adjusted, then this type of crush can be obtained for any type of grain.

The commercial mills have been constructed so they can process 100 to 1000 lbs. of grain in minutes. Jack's mill can not touch that sort of throughput. Nevertheless, the data shows that the same type of crush is achieved.

I concluded my original review of Jack's mill by congratulating him for producing such a good mill. I also observed it was very much worth the price he was asking. Nothing I have seen or heard since then has altered this opinion.

George Fix

Date: Mon, 5 Apr 1993 12:59:00 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: That Damned Maltmill

Through a series of strange coincidences, I came into possession of a MaltMill(TM). As those who have been around awhile will attest, I have had my differences(TM) with the MaltMill's builder so I determined to submit it to the sort of rigorous and fair testing only a true HBDer could provide.

My first problem arose with the box the MaltMill was shipped in. There was so much tape on it that it required an Xacto knife to get into the box. Once in, I discovered the MM was crammed in with tightly-crumpled balls of newspaper -- the Chicago Tribune -- which were rendered unreadable by this process. This reduced my co-worker, who hails from Chicago, to tears. Another strike.

Once I had dragged the MM home (not easy, given its weight) and assembled it (requiring the use of a crescent wrench!) it was clear that if I had been able to carry the thing to the roof of my house and throw it off, the MM would have been rendered unusable -- unlike my Corona, which for the last several months has been propping up the rear end of a Dodge power van in the back yard.

Having assembled the MM according to instructions and placed it on a five-gallon bucket, I discovered that the device required me to use my left hand to operate, even though I am right handed! However, after some examination, it seemed possible to Turn The Bucket Around, so that the crank was on the right. Why this was not explained in the instructions, I do not know, but even more diabolical was the fact that when I started cranking some malt through the MM, the malt refused to grind and in fact mostly sprayed around the kitchen. Once again, I discovered -- only through superior intelligence -- that by cranking the other direction I was able to achieve a crush.

Further deceptions: although I had been told that I could expect to crush enough malt for 5 gallons in 10 minutes, in real terms it took seven! Ha!

Conclusions: the crush was excellent, the crush took 7 minutes rather than the usual 30-40, and anyone who feels a need to motorize this thing in order to do small batches of beer needs to spend a little more time away from the computer lifting things heavier than their fingers.

One real problem: the bolt holding the wooden handle on the crank seems to be threaded in such a way that it inevitably comes unscrewed while cranking. The first time it happened took me by surprise and the handle came off; after that, I kept an eye on the bolt and tightened it as needed.

It also looks as though I'll need to put rubber feet on my bucket, so it doesn't slide and hop around while I'm cranking the mill.

- --Jeff Frane

End of HOMEBREW Digest #1113, 04/06/93

Date: Mon, 5 Apr 93 15:07 CDT

From: korz@iepubj.att.com

Subject: Re: Decoction/brown sugar/storagability/Wyeast1056/Allgrain problems

Dennis writes:

>I've noticed that I'm not the only person confused by decoction mashing.
It
>seems like a lot of screwing around just to increase yield. Personally,
I'd
>rather just add another pound or so of grist and not worry about it. Are
there
>other benefits to decoction mashing? Clearer wort/green beer/finish
product?

The dococtions do caramelize a bit and I'll bet that there would be a slightly different flavor with a decoction mashed batch as opposed to an infusion mashed batch with the same ingredients. Probably not too big a difference. I've read somewhere that decoction mashing was primarily a way to get consistent temperatures before the advent of the thermometer (think about it), but the "modern" breweries that still use the decoction method, like the brewers of Pilsner Urquell, use (I believe) a less modified malt which would require triple decoction for reasonable yields.

>Noonan says to remove "the heaviest third" of the mash. I suppose that
does
>not include any grains since you will eventually boil it. This is really
hard
>to do for those of us who mash in a pot on the stove instead of in a
Gott
>cooler. Anyway, his directions are "marginal" (I'm being nice) in the
>decoction specifics.

No, the heaviest third DOES include grain. A few months ago, Darryl Richman finally cleared up the reason that the decoctions did not extract gobs of tannins: its the pH! Indeed, the decoction mashing method would work much better in a cooler than a kettle.

>

>At any rate, I'm very happy with multi-rest infusion mashes and the
decoction
>stuff is simply a curiosity. Maybe I'll try it if I have an entire
Saturday
>to blow on it.

Try a tried-and-true recipe and let us know how the beers compare,
infusion
vs. decoction.

Chris writes:

>In Dave Line's book, Brewing Beers Like Those You Buy, he gives
>directions for making an extract version of Fuller's ESB. In his
>directions he states that the brown sugar should be added to warm
>water and then added to the cooling wort (after boiling). I have
>always thought that any sugars should be added along with the
>malt. Is anyone aware of any advantages to adding brown sugar
>after the boil?

I'd recommend against it. Many suggestions in those older homebrewing books from England are full of errors. Naturally, boiling anything will tend to diminish aromatics (consider hops), and perhaps it would be best to add the brown sugar in the last 5 minutes of the boil --

just long enough to sanitize, but minimizing any loss of aromatics.

Rafael writes:

> As a beginner I'd like to ask a probably FAQ. Once the beer is
> bottled, How many weeks can I keep the beer (no preservatives, no
> pasteurization) before it gets undrinkable?

No, it's not that frequently asked... actually. The answer is, depends.

On average, I'd say a homebrewed, unfiltered beer, stored at 65F would be perfect for two months and then slowly begin to decline in quality. Unless infected, most homebrew would be drinkable for more than a year. The following factors *increase* storagablity:

high alcohol,
high hop rate,
cold,
oxygen-scavenging bottlcaps (PureSeal(tm), aka Smartcaps(tm)),
small headspace in the bottle, and
stable yeast strain.

The following factors *decrease* storagablity:

bacterial infection,
wild yeast infection,
aeration during bottling,
large headspace in the bottle,
heat,
light, and
unstable yeast strain.

Jonathan writes:

>Now on to my next adventure. I'm making a pale ale (actually it's
making
>itself right now) with some Wyeast 1056 "American" right out of the
packet
>via a DME starter solution. On the sixth day it was still bubbling at
about
>three per minute, but as the krausen had subsided I racked to secondary
>anyway, and tossed in the dry-hopping pellets. Within a day or two,
what did
>to my wondering eyes appear but a KRAUSEN in the secondary! Coming up
on two
>weeks now, it's still bubbling between one and two per minute. I have
made
>ales this year with American, British, Irish, and London, and I have
never
>had yeast behave in this manner (including a previous "American" two
>batches)!! My basement has been around 60-62 F. all winter, but this is
the
>first time I have had such a slow fermentation. What should I do
(besides of
>course RDWHAH)?

Wyeast #1056 tends to be slow in general and, although it has been reported to ferment down to 55F, I've heard that it should be fermented well above 60F. I proved this with a recent batch. As the fermentation temperature approaches 60F, the yeast slows down to a crawl. I suggest you find a way to warm it up to about 65F. 1056 also tends to lose all its "ale" character in the low 60s.

Jim writes:

>Made a beer today with the following ingredients

>

>3lbs belgain pilsner malt

>

>4 pounds belgian pale ale malt

>

>8 ounces caravienne

>

>Mashed in 2 gallons of distilled water at ~154 for 1.25 hours at which time

>the iodine test was negative. The pH of mash was around 5.2. Used a Zapap

>type lauter tun with grain bag. Recirculated about 0.5 gallons. Used distilled water for sparging. Placed a pie plate on top of grain bed and

>added water at about 165. Also mashed out at 170. Sparged till gravity was 1.008 .Ph of run off was still around 5.5. Collected about 7 gallons

>of wort. Gravity after boiling down to about 6 gallons was only 1.028.

>Where did I go wrong?

I would suspect two areas of problems: 1) a very bad crush, or 2) channelling

in your lauter tun. Was the "grain bag" the kind with cloth sides and a mesh bottom (the right kind) or the kind that's mesh-all-over. The mesh-all-over type have a tendency to allow all the sparge water to head immediately to the sides of the bucket and the channelling at the sides pulls all the sparge water along the wall of the bucket and not through the grain.

Al.

Date: Mon, 05 Apr 93 13:17:43 PDT
From: mikel@netlink.cts.com (Mike Lemons)
Subject: re: Using Sulphites

In my previous message I stated that iodine sanitizers must be rinsed off. This is not true. Iodophor does not require rinsing.

I just read an article in The Beverage People News that states that sulfites do not kill bacteria, they only "stun" them. I immediately got this mental image of a bacterium laying on its back with its feet twitching in the air. I don't know how you could tell if a bacterium has been "stunned."

- - -
INTERNET: mikel@netlink.cts.com (Mike Lemons)
UUCP: ...!ryptyde!netlink!mikel
NetLink Online Communications * Public Access in San Diego, CA (619) 453-1115

Date: Mon, 05 Apr 93 13:20:27 PDT
From: mikel@netlink.cts.com (Mike Lemons)
Subject: re: ICE BEER is here

John Adams <j_adams@hpfcjca.sde.hp.com> writes:

>The beer is frozen as so that the water can be removed thus leaving a
more
>potent liquid behind.

I believe that the government frowns on this practice as they do on home
still production. I'd keep quiet about it or you might have "revenueurs"
knocking on your door.

- - -

INTERNET: mikel@netlink.cts.com (Mike Lemons)
UUCP: ...!ryptyde!netlink!mikel
NetLink Online Communications * Public Access in San Diego, CA (619) 453-
1115

Date: Mon, 5 Apr 93 15:29:20 -0500
From: devenzia@euler.jsc.nasa.gov (John Devenezia)
Subject: Unusual recipies

I posted this request to rec.crafts.brewing on the network and due to lack of response decided to widen the call.

When I got started in the wonderful world of homebrewing 18 months and 18 batches ago I quickly found myself making some, for the lack of a better word, unusual beers. Not at all the beers I envisioned myself creating when I started.

I figured I could buy just about any style of beer I wanted and the main reason for me to homebrew was to create something not commercially available.

I started with the wheat beers, whose light palette lends themselves to an easy bastardization. Cherry and raspberry batches were not very adventurous so the great watermelon experiment was performed. From there spruce and chocolate, whit and kriek. Molasses, honey and maple syrup. Yes it was enough to make a beer purist shudder. Rhienhosptgiet, why I don't even know how to spell it.

To make a somewhat long story somewhat shorter, my last batch has some of my friends questioning my hold on reality. Captain Crunch Crunchberries and strawberry poptart ale.

Here is call for all you would be gross-out artists to brag.

I would like to receive a description of all of your most adventurous, innovative or just plain wacky experiments. They don't have to be tasty; for by our failures we learn as much, if not more, as by our successes. Extra points for leaving the vegetarian nature of brewing.

I will compile and post.

John D.
devenzia@euler.jsc.nasa.gov

Date: Mon, 5 Apr 1993 17:57:05 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: eternal ferment

Hello Brew Sages:

A few weeks ago, I asked you what you thought about my 'nonstop fermentation' and the concensus was that I should not throw the stuff out but check the airlock and the S.G. I won't print the recipe again. Suffice to say it's an extract brew with half a pound of maple syrup and 2 oz of apricot flavoring intended for wines, and Edme dry yeast.

Update: now after eight weeks, it ain't over. The airlock is still giving a feeble 'glug' once every 70 seconds. The color got noticeably darker. No off flavors to suggest contamination. Specific gravity down to about 1.009 (I think).

Question: can I bottle this now? I'd really like to get on to my next batch and only have one carboy. But I'd hate to ruin this one just because I got impatient. If I do bottle, should I decrease priming sugar from the standard 3/4 cup?

As long as I've got your collective ear: I just enjoyed some Catamount porter. Is this a good example of the style?

Hell, someone's got to ask all the questions around here.

Kirk

Kirk Anderson, Dept. of French
Wheaton College, Norton MA 02766

<Kirk_Anderson@Wheatonma.edu>

Date: Mon, 05 Apr 1993 15:09:45 MDT
From: John Landreman X1786 <jlandreman@atmel.com>
Subject: Macintosh search program

>From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>

>Has any computer-wiz out there written a Thread-like program that can
run on
>the Macintosh computer? Or do you know of an already existing software
that
>can be used to search digests and create subsets of them following a
specific
>keyword? Thanks in advance. Nir.

I use Super Boomerang. This program is included in the Now Utilities
package
from Now Software. It has a Find command which will scan every file on a
disk
(hard or floppy) for a keyword. The name of every file with the keyword
is
displayed. You can then choose one of the files and the program will
display a
three line section containing the keyword to see how it is used in
context.
This is helpful if you use the keyword "hops" to look for posts on
growing
hops as opposed to using hops in brewing beer. If the keyword is used
more
than once in a file you can view each occurrence in context. After you
are
done looking through a file you can select another file from the list
displayed.

John

Date: Mon, 5 Apr 93 17:46:47 -0400
From: cestes@argos5.DNET.NASA.GOV (Chris Estes)
Subject: Fridge defrosting

Hi All..

I recently came into an old Beermeister; a little 'fridge with a standard and tap mounted on the top. It needed a little modification to take the 5 gallon soda kegs - a bit too tall. It works great, and I'm really happy, except that the cooling element (?) gets a bunch of frost buildup on it. The cooling mechanism in this device looks very primitive. I was wondering if I hooked a Hunter AirStat up to it, could I program it in some way that might let it have a "defrost" phase? Does anyone else have any experience with this? Should I just learn to live with it and throw it out on the back porch for a few days every six months?

On another note, how long should I expect my 20lb CO2 tank to last? I got it last summer and have made at least 10 batches of beer since then. I also use it to push the sterilizer out of the keg when cleaning it. The pressure gauge for the high side hasn't really moved.

Any ideas???

-Chris Estes-
cestes@argos5.dnet.nasa.gov

Date: Mon, 05 Apr 93 19:02 EDT
From: Phil Bardsley <UPHILB@UNCMVS.OIT.UNC.EDU>
Subject: Re: Heading Agent

My local homebrew shop also sells small packets of off-white "heading agent." I didn't ask the manufacturer's name, but I did ask about the contents: "ground bark of the gum acacia tree" I was told. It's pupose is to reduce surface tension. I use it all the time by adding it to my priming sugar before adding water and boiling. It's probably not necessary if you have very clean utensils and beer glasses, but it helps fight off detergents, oils, and other head killers that tend to creep into the brews we less careful brewers produce. Anyway, at 1/2 tsp per 5 gals, it goes a long way. Back when I brewed only extract I noticed a definite improvement using it. I suspect I don't need it now that I brew all grain, but I'm in the habit.

Date: Mon, 5 Apr 93 12:59:11 PDT
From: Darryl Richman <darrylri@microsoft.com>
Subject: RE: Decoction Mashing

Dennis B. Lewis<dblewis@jscprofs.nasa.gov> writes:

> I've noticed that I'm not the only person confused by decoction
mashing. It
> seems like a lot of screwing around just to increase yield.
Personally, I'd
> rather just add another pound or so of grist and not worry about it.
Are there
> other benefits to decoction mashing? Clearer wort/green beer/finish
product?

Decoction is technique that provides other benefits besides additional
extract. It coagulates more proteins and therefore produces a clearer,
more stable product. It also aids in melanoidin formation, which can
increase the perception of the malty character of your beer, as well as
adding some color. It gains the extra extract by completely
solubilizing all of the starch from the malt, which can also lead to
clearer, more stable beer. It tends to remove more of the DMS
character that will come from lightly kilned malts, and makes the wort
more compatible with sulfury hops and/or yeast that accentuate sulfur
character.

> Noonan says to remove "the heaviest third" of the mash. I suppose that
does
> not include any grains since you will eventually boil it. This is
really hard
> to do for those of us who mash in a pot on the stove instead of in a
Gott
> cooler. Anyway, his directions are "marginal" (I'm being nice) in the
> decoction specifics.

No, the heaviest third does include malt solids. You do actually boil
the malt, husks and all. (The next question is always "Why doesn't
this extract tannins from the husks?"; I believe that the pH controls
this extraction, and since the pH of the decoct is in the low 5's, none
is extracted. Hot water above pH 6 will extract tannins.) For a first
try at decoction, I would recommend pulling more than 1/3 -- perhaps
40% -- since many variables are at work in determining whether your
rest temperature is achieved (amount of cooling in transport of decoct
back into the mash tun, how much the decoct cools as you add it back,
etc.) By returning the decoct slowly, you can observe the temperature
rise; if you have too much, you can cool the remaining decoct after
the rest temperature is achieved with cold water.

> At any rate, I'm very happy with multi-rest infusion mashes and the
decoction
> stuff is simply a curiosity. Maybe I'll try it if I have an entire
Saturday
> to blow on it.

I did spend all day with my first decoction. Part of that was due to
it going from a planned two decoction mash to a four decoction, because
I was far short of my temperature marks. But having got beyond that,
decoction requires less equipment than a step infusion, and I believe,
produces a different spectrum of flavors and aromas.

--Darryl Richman

Date: Mon, 5 Apr 93 10:09:08 PDT
From: alm@brewery.ht.intel.com (Al Marshall)
Subject: Carbonation in bottle-primed beer

Can someone recommend a technique for making bottle carbonation a little more predictable without investing in counterpressure filling? By predictable, I mean time to condition, and carbonation level. Does anyone have experience with pitching fresh yeast when priming, and how exactly do you do it?

By way of example, I have 5 gallons of porter in bottles which are absolutely flat (and no yeast sediment) after 1 week from priming with 1 pt water and 1/2 cup corn sugar and conditioning at 65F. Although this period is a little brief, my experience would indicate that I am in for a long wait for carbonation if there is no carbonation at all at this point. I've noticed this problem in moderately (1055) to very (109X) big beers which spent a long time in secondary.

If I get any attractive ideas, I'll implement them on the other half of the batch. Unfortunately, the experiment will not be very scientific, as the in-bottle half is Wyeast 1028 whereas the in-secondary half is bottle-cultured Sierra Nevada.

By the way, I think there is some kind of natural law that makes these problems occur on beer that is absolutely delicious :-).

Thanks in advance...

-- Al Marshall

Date: Monday, 5 April 93 19:33:49 CST
From: LLROW@utxdp.dp.utexas.edu
Subject: Miles of dense surface troooob

I brewed a scotch ale last night, and noticed today a curious thing. On the bottom of the carboy lies a thick (4-5 inches) layer of trub. The fermentation is going full speed (no noticeable blowoff though in it's 19th hour of fermentation) but the yeast seems to be collecting on top of this layer of dense fermentables rather than eating into it. I used Irish moss with this batch, and haven't done so in months. Is this normal for beers brewed with the stuff? I'm gonna give it a few days yet to see what happens, but the separation in both color and consistency between the top and bottom is remarkable. For those out there interested in this mystery: I used pellets not whole hops and partial mash with 3#syrup/3#dry extract and 1#munich/1#crystal/ 1/2# roasted. Any comments/ helpful words of wisdom?

steve rowell
llrow@utxdp.dp.utexas.edu

Date: Mon, 5 Apr 1993 23:45 PST
From: SMEED_J@PLU.BITNET@CORNELL.CIT.CORNELL.EDU
Subject: requesting a good hard cider recipe

Hi all, I was just talking to a friend of mine, who incidentally is a hard cider freak, about helping me make a batch of beer next month and she asked me if I knew how to make hard cider. Well, to tell the truth until now I hadn't really given it much thought. But, I told her I would try as soon as I got a recipe. If any of you out there have a good recipe for hard cider and wouldn't mind sharing it with me please either post it here or email it too me at: SMEED_J@PLU.BITNET

Thanks for the help, Jeff Smeed

Date: Tue, 6 Apr 93 07:20 EST
From: tmr1@hotmailg.att.com
Subject: Re: More stupid carboy tricks

In HBD #113, Scott Barrett mentions:

> Begin to swirl the contents of your (still upright) carboy until you
get a
> good whirlpool going. Invert the carboy quickly and swirl it strongly
2 or
> 3 more times. The whirlpool effect should continue as the liquid
drains
> out and air will enter the carboy through the open center of the
vortex.

I also use this technique with my bottles to drain them of washing,
rinsing
or sterilizing water before using my faucet bottle rinser. With the
bottle
inverted, 2 or 3 swirls drains them in about 1/3 the time it would
normally
take them to gurgle empty. When doing this with 40 bottles, it saves a
lot
of time.

Tom Romalewski

Date: Tue, 6 Apr 93 08:46:04 EDT
From: hpfcla!vjb%mtgzfs3.gaz.att.com (Victor J Bartash +1 908 957 5633)
Subject: beer from Brussels/Antwerp - BBrite effectiveness

A buddy of mine will be spending the next 5 months working in Brussels and Antwerp and has offered to bring me back some beer. Any suggestions on local brews to bring back? I like all types of beer (except those that taste watered down).

On sanitation, I have brewing 4 years now and use partial mashes. I did have one gusher my first year but haven't had any real problems since. I use BBrite soaks and cleaning for 5 - 10 minutes followed by a little rinsing by tapwater on my brewing equipment and soak my bottles in bleach solution overnight. I now plan on storing some beer in bottles longer than the 4 or so months they last now to maybe 8 months. I usually don't brew from May to August and would like to store a variety of beers styles (I usually have 5 or 6 at any time during my "brew season") over the summer in my basement (~68 degrees). However, I have been wondering if BBrite soaks and cleaning for 5-10 minutes is sufficient. Since any batch doesn't last past 4 months, I don't know for sure that there haven't been slight infections that are not apparent after 4 months but that could be a problem at 8 months.

To summarize: how effective is BBrite used in short (5-10 min) durations as a sanitizer?

Vic Bartash

Date: Tue, 6 Apr 93 09:25:54 -0400
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Re: Failure of first All grain

JLIDDIL@AZCC.Arizona.EDU (Jim Liddil) writes:

- > Used distilled water for sparging.
- > Gravity after boiling down to about 6 gallons was only 1.028.
- > Where did I go wrong?

What was the pH of the sparge water ?
I've found that acidifying it (pH 5.5 or so) helps my extraction rates.

How good was the filter action ? Did the sparge water run completely through the grain bed, or was some/most of it channeled though, without contacting the grain ?

Tim

Date: Tue, 6 Apr 93 09:26:58 EDT
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: decoction, first all grain

Hi All,

In HBD#1112, Dennis B. Lewis writes:

>I've noticed that I'm not the only person confused by decoction mashing.
It
>seems like a lot of screwing around just to increase yield. Personally,
I'd
>rather just add another pound or so of grist and not worry about it. Are
there
>other benefits to decoction mashing? Clearer wort/green beer/finish
product?

Higher yield is just one benefit of decoction mashing. The
gelatinization
of insoluble starch and reduction of high molecular weight proteins that
occurs during decoction mashing produce a wonderfully clear, clean-
tasting
finished product.

There are also certain styles that benefit greatly from decoction
mashing.

I use this type of mashing for wheat beers, because of the proteins, and
for Bohemian pilsners and any German lagers that require a malty
character.

IMHO, decoction mashing produces an incredible malt character, in both
the
nose and the flavor of a beer. I have never been able to produce the
same
effect with infusion mashing, regardless of ingredients used or how high
the saccharification rest temperature was held.

>Noonan says to remove "the heaviest third" of the mash. I suppose that
does
>not include any grains since you will eventually boil it.

Removing the "heaviest third" of the mash is also called a thick
decoction, and involves removing mostly grain and very little liquid.
I assume your concern is that boiling the grain will extract tannins
from the husks, and cause astringency in the final product. Due to the
low pH of the mash being boiled, this does not occur.

>This is really hard
>to do for those of us who mash in a pot on the stove instead of in a
Gott

When I use decoction mashing, I do the first saccharification rest
using exactly this method, by heating the thick decoction to 152F-155F
and holding that temperature for 30 minutes, essentially doing stove
top mashing.

>Maybe I'll try it if I have an entire Saturday
>to blow on it.

The decoction procedure I use requires 2 - 2.5 hours for mashing, or
about
one hour longer than it takes me to do a single infusion mash. I've done

about 20 batches using decoction mashing, it has never taken all day.

**

Also in HBD#1112, Jim Liddil writes of his first all grain batch:

First, let me congratulate you on becoming one of the snobbish elite :-)

>3lbs belgain pilsner malt
>4 pounds belgian pale ale malt
>8 ounces caravienne
>
>Mashed in 2 gallons of distilled water at ~154 for 1.25 hours at which
time the
>iodine test was negative. The pH of mash was around 5.2. Used a Zapap
type
>lauter tun with grain bag. Recirculated about 0.5 gallons. Used
distilled
>water for sparging. Placed a pie plate on top of grain bed and added
water at
>about 165. Also mashed out at 170. Sparged till gravity was 1.008 .Ph
of run
>off was still around 5.5. Collected about 7 gallons of wort. Gravity
after
>boiling down to about 6 gallons was only 1.028. Where did I go wrong?

I'd like to commend you on where you went right. You seem to have the basics of sparging down, recirculating the initial runoff, sparging with water at a reasonable temperature, sparging for a reasonable duration, monitoring the pH of the mash and of the wort going to the boiler. Actually, you did many things "right".

I'm assuming your concern is with your extraction rate, let's see:

28 * 6 / 7.25lbs means your sparge extraction was around 24pts/lb/gal, bearing in mind that the gravity was measured after the boil, which will lower the gravity somewhat. This is not terrible extraction, especially for a first effort. It's a little difficult to offer suggestions to improve your extraction without more details of your process, but I can mention some things to look out for that do impact extraction.

What was your crush like? Ideally, each kernel should be broken into several small pieces, and the husks left intact. If you had large chunks of kernel or uncrushed grains in your crush, this will reduce your extraction. Try grinding as fine as possible without pulverizing the husks.

How fast did you sparge? While there has been no consensus in this forum on what the "correct" runoff rate is, my experience was that my extraction dropped when I tried to run the wort off faster than 1 gallon per 8 minutes, or about 45 minutes to collect 6 gallons. I use the Zapap system as well. If you completed sparging in less than 45 minutes, try running off the wort a little more slowly.

Not directly related to extraction, this is more of a recipe design issue, but a little over 7 pounds of grain sounds a little light for a 6 gallon brew length. This is, of course, dependant on what your target OG was, and the efficiency of your specific system. This latter point is key to recipe design, you must know what level of extraction your system will consistently produce in order to figure out the grain bill. If you want a

higher gravity brew, try boiling down to 5 gallons, or if you're brewing a 6 gallon batch, use another 1-2 pounds of base malt.

I'm not sure about the use of distilled water either, everything I've read suggests that this is not a good idea. I can't quite recall why, something to do with lack of necessary ions in the water. Maybe someone with a chemistry background can jump in here.

Cheers,
Jim

Date: Tue, 6 Apr 93 13:48 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: All-grain troubles

Jim Liddil recently described his problems with an all-grain batch using 7 lbs of pale malts and 1/2 lb of crystal. He got something on the order of 6 gallons of wort at 1.028, and asked what he could have done better.

First, there was nothing wrong with your technique or equipment. I used equipment almost identical to yours, including a piece of window screen in the base of my Zapap (almost equivalent to your grain bag). In fact, my last batch had a grain bill almost identical to yours--7 lbs pale malt, 1 lb crystal. Here are some observations.

1) What were you trying to make? This is an excellent grain bill for a British bitter (I ended at OG 1.037), but if you were shooting higher you'd need more malt. Assume for the time being that you'll be able to raise the OG of one gallon by 25 points for every pound of malt you use. As your technique gets better you will get more.

2) If things don't work out well, there are some things you can do. In no special order:

a. Add some extract. This has the advantage of allowing you to finish at any volume you want, regardless of the amount of sugar you have (or have not) obtained from your grain. The amount you add is likely to be trivial in comparison to the grain, so don't get hyper about purity.

b. Boil more. You ended up with 6 gallons from a 7 gallon sparge. For instance, I started with 6.15 gallons that I boiled down to 4.5 or so, then topped up to 5.3 with tap water to get the desired gravity. You could have continued boiling to about 4.5 gallons and have been on target for a bitter. You'd have to boil a long time to get to 1.055, though.

c. Boil less. This is appropriate if you get MORE sugar from you grain than expected. In effect, you're increasing the dilution.

Several issues back there was a good article on hitting target gravities in Zymurgy (the mead issue), which included a chart for converting gravities depending on the temperature of the sample. You'll need it. The rule in all-grain brewing is not to base your brewing expectations on the amount of finished beer you want, as this will constantly vary somewhat depending on your extraction. I'm on my fourth all-grainer; the first three left me with 4.3-4.5 gallons at the end of fermentation, but this last one will probably leave me with well over 5 gallons, as I was able to pull more sugar out.

My procedure, in line with the above-mentioned article, is to do my sparge to 1.008, then mix the wort well and take a gravity reading and figure out how much wort I have. For instance (from memory) I had 6.15 gallons at 1.033 before boiling on the bitter. Since boiling vents off liquid but very little sugar, I could estimate a final yield of 5.5 gallons at 1.037. (My apologies if these numbers don't add up exactly--I leave

my brain at home when I come to work). Basically, you just fiddle with the

volume and gravity until you get the match you want.

For those who use those 32 qt. seafood cookers like mine, I've found that 3 cm of liquid depth (measured at the center of the pot) equals one gallon of liquid. I just stick a spoon into the center, then measure the liquid level by marking the spoon. This gets trickier when the liquid is boiling, but that's life. Anyway, I knew I had 6.15 gallons because the liquid was 18.5 cm deep.

Hope this helps.

Phil Seitz
PSEITZ@MCIMAIL.COM
Arlington, VA

Date: Tue, 06 Apr 1993 10:20:55 EDT
From: Jay Hersh <hersh@expo.lcs.mit.edu>
Subject: my diatribe on styles

Howdy folks, once again questions of validity on judging to style have once again popped up here. The following is an article I posted to rec.crafts.brewing in the past on this issue. It was also reprinted in the Wort Processors Newsletter, and Pat Baker (of Crosby and Baker and the HWBTA representative to the Beer Judge Certification Program) expressed an interest in possibly using it for future BJCP materials. Since it has been well received I figured I'd post it here in the hopes of better explaining why styles are useful and where they fall short.

JaH

Q: I have a hard time with style definitions and judges' comments since I often look at certain flavor profiles as "defects." Can you help me?

A: Defect is a harsh word. There are a lot of flavors present in beer. These arise from a variety of sources and vary widely with the style and the process. Often characteristic flavors are strongly related to traditional processes used to produce a certain style of beer. As George Fix has indicated one can not divorce the flavor of a particular style from its history.

So characteristics that are a desirable flavor in one beer are indeed considered a defect in another, but this is not a random designation. This arises from an understanding of the history, ingredients, and process in which that beer is made. For most of the styles used in competitions there is a reasonable consensus as to what the characteristics of that style are. The styles are not defined in a vacuum, rather they arise from a cross section of commercial beers that designate themselves to be of those styles as well as what I mentioned above (history, etc.).

Homebrewing is a hobby/art/science whereby a brewer tries to create a product that expresses themselves, pleases their taste (and their friends tastes), and possibly also to create an existing recipe/style. If a particular brewer considers the presence of a certain flavor as desirable that others may find offensive, that is OK. The brewer is suiting their taste. It has been said that there are as many styles as there are beers being brewed and in a sense that is true. But that also makes it impossible to try to impose any objectivity on the judging process, a process that by its very nature is subjective. In order to

have any means for comparison that tries to impose some level of objectivity, the concept of styles has arisen. This concept is not unique to beer. Wine has this concept as well and this concept also serves marketing purposes in that it can promote (as well as confuse, i.e. Cranberry Lambic sic....) competition by presenting a brewer's offerings to be in a range of flavor characteristics that includes that brewer's competitors.

Styles exist as a mark by which those seeking competition can judge themselves. An old friend used to offer up beers to me for my advice on his recipe concoction. He would ask me what to do to his recipe. I would ask him what style he was trying for, or at least in his mind what he wanted the beer to taste like. He would get a little irritated since he previously was adamant about styles not mattering. I then posed the parable to him that he was like a lost person asking directions without knowing where he was trying to go.

To finally beat this point to death I'd use a cooking comparison. If you wanted to make chocolate chip cookies you'd want a recipe. While there is variation among this style of cookie from household to household, and manufacturer to manufacturer, people can still tell chocolate chip cookies from sugar cookies, etc. If you were to set out to make them you'd want some guidelines as to what the recipe might include and what the final product should taste like.

With regard to beer I think most judges would agree that there are only a few flavors that would universally be classified as defects. Most others are characteristic flavors which may or may not be suitable for style.

I hope this explains a little more about style and judging.

- ----- End of Message

Date: Tue, 6 Apr 1993 09:19:40 -0500
From: Michael D. Galloway <mgx@ornl.gov>
Subject: phils/sparging

Phils Phalse Bottom Users:

Am I the only PPBU who has trouble getting his runoff to clear?
I suspect that I am getting an improper grind of my grain at my
local supply shop and that this is causing my problem. I am just
curious about how much recirculating other PPBUs do to get their
worts to clear. All the other aspects of the brewing process are
going great! If I could just get the runoff to clear!

Email me direct to save bandwidth.

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: Tue, 6 Apr 93 9:30:27 CDT
From: tony@spss.com (Tony Babinec)
Subject: Goose Island hosts First Round nationals

Steve Hamburg posted the announcement to recent judgenets and hbd.
Note that the event is the weekend of June 11 - 13.

Someone asked about delivery of the beer. You can mail or hand-deliver your beer to the Goose Island Brewery. So as to minimize the hassle to them, please try to do it during the designated time period. I don't have the dates with me, but the timing is something like May 13 through May 21.

Date: Tue, 6 Apr 93 11:18 EST
From: KURZ@GANESA.PFC.MIT.EDU
Subject: `Breathing' of wine

> We all know what evils to expect of beer that gets oxidized after fermenting
> and the need for quiet racking and transfer. However, wine drinkers also
> know that good red wine needs to "breathe", which of course is, a snob word
> for oxidize.

I beg to differ. From my experience in wine making and my limited qualities as a wine connoisseur I believe that what is commonly referred to as "breathing" has nothing to do with oxidation. Usually when you pour a red wine from the bottle (i.e. decant it) you don't drink it immediately. Instead, you let it `breath' in a caraffe for some time (half an hour to one hour or so). The rationale is to let it develop its bouquet. Some volatile substances in the wine evaporate and saturate the air immediately above the wine (that's also, by the way, one of the reasons why you should serve red wine in big, wide glasses; so as to retain the `aromatic air', i.e, the bouquet). There is no oxidation involved (to my knowledge). That would take much longer.

There is a commonly recognized off-taste in wine which is caused by oxidation. Usually everyone strives hard to avoid it.

On the other hand, there is also a specific category of wines which get their distinctive flavor from this particular oxidation off-taste: Sherry. One goes through great pains to ensure that Sherry wines get enough air to develop this flavor. I don't know that this is known as `brething'.

Date: Tue, 6 Apr 93 11:30:03 -0400
From: cm199@cleveland.Freenet.Edu (Thomas G. Moore)
Subject: enzyme potential

Does anybody know of the enzyme potential of Belgian 2-row pale
ale malt from Dewolf-Cosyns? Would I need to mash with some
Klages to get quicker conversion? Thanks in advance.

- --
Thomas G. Moore
cm199@cleveland.freenet.edu

Date: 06 Apr 1993 12:38:12 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: culturing belgian yeast from bottles (?)

I would like to culture the yeast from Duvel and Steendonk (a Wit) in order to produce a strong belgian ale and a wit, respectively. My questions are:
is the bottle conditioning yeast the same as the fermentation yeast? Does the high alcohol content of Duvel (or Maredsous for that matter) harm the yeast? Has anyone had any luck brewing beer from yeast cultured from Duvel or Steendonk? Can you plate the yeast directly, or should you (I) make a starter by adding fresh wort to the bottle dregs?
thanks
ed

Ed Hitchcock *-----*
Dept of Anatomy and Neurobiology | |
Dalhousie University |JUST BREW IT |
Halifax, Nova Scotia | |
ech@ac.dal.ca *-----*

Date: Tue, 6 Apr 93 10:27:32 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Re: Immersion cooler length

John DeCarlo writes:

>Let me interject personal observation from my 15 ft. copper coil.
Probably
>more than a foot is outside the wort, say one foot on each end, making
13
>ft. in the wort. I think that is too long. Why? Because the water
comes
>out boiling hot at the other end.

You could say this tubing is too long; on the other hand, it is equally accurate to say your flow rate is too low. Increasing the flow rate would result in cooler water coming out, and more (quicker) cooling of the wort. Also, this tubing may be too long during the initial stages of cooling, when cooling is very efficient due to the high temperature differential, but it may still be inadequate during the latter stages of cooling, when the temperature differential is much lower. How long does it take you to cool your wort?

>Anyone who really knows what they are talking about willing to resolve
this
>issue? Are there completely overlooked issues, such as increased
>efficiency with longer tubing as wort and source water temperatures get
>closer? [So I just made this up and don't think it likely. Sue me.]

Trained as a chemical engineer, I can affirm that the calculations involved here are indeed complex, involving not only aspects of the flow inside the tubing (water temp, flow rate, tube diameter, thickness and age of the tube, etc.) but also effects outside the tube, in your pot (geometry of the coil, pot, amount of stirring, etc.). It would be very difficult to come up with a formula that takes all of these factors into account for the wide variety of setups that HB'ers use. (Of course, having said this, some upstart will soon do just that, if only to make me look foolish :)).

As an aside, try this: when your cooling water outflow begins to drop in temperature, try gently stirring the hot wort. The temperature of the outflow water should immediately shoot back up to almost boiling! This indicates the effect of pot convection/stirring on the heat transfer rate.

My own cooler is about 30 feet of 3/8" copper tubing, wrapped in a 12" (?) diameter coil. I connect this to my house cold water line, and can force enough cold water through it to keep the outflow warm (as opposed to John's boiling hot). Thus, with my combination of tubing and water, 30 feet is not too long, and I can cool my wort to 65F in about 15 minutes.

So, the length of tubing you will need depends on, among other things, your cooling water temperature and flow rate, and just how fast you need to cool your wort.

Kelly Jones <k-jones@ee.utah.edu>

End of HOMEBREW Digest #1114, 04/07/93

Date: Tue, 06 Apr 93 11:28 CDT
From: XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU
Subject: Warp-speed Fermentation (?)

Dear Brewers,

Last Friday night, I brewed up a 5-gal. batch of ale with the following ingrediants:

- 6.6 # M&F Light Malt extract syrup (unhopped)
- 1# crystal malt
- 1 oz. cascade for boil
- 1/2 oz Northern Brewer for finish
- 1/2 oz Northern Brewer for aroma

Wyeast liquid British Ale yeast, made with a starter last Wed.

I followed a typical Papezian-type method of steeping the specialty grains before boiling the hops and extract for an hour and cooling. No sparging, as I used pellets. Unfortunately, I neglected to get an original gravity reading (it was quite late). However, I racked last night to the 5-gal. carboy (I didn't use the blow-off method that Papezian advocates), took a hydrometer reading and tasted the brew. So here's my question: the reading was at 1.010, and the flavor and aroma then was quite good, but it needed clarification. Is it possible that all of the fermentables could have been fermented out within that short of time? I'm estimating, given the ingrediants and amount of water, that the original gravity was somewhere around 1.040 or slightly higher (?). If indeed the fermentation's finished - rather than stuck (drag!) - is it better to let it clarify in the carboy or the bottles?

Thanx in advance for any responses and directions. And thanks in response to all who answered my query about brew clubs in the Atlanta area; my brother's brewin' just fine!

Cheers!

John

Date: Tue, 6 Apr 93 11:42 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Yeast, Kegging

>From: Jim Busch <busch@daacdev1.stx.com>

>There is an increased risk associated with "dipping" a loop into a slant repeatedly. I would advise restreaking to a single cell at least once a year. In theory it can last for years, but why risk it? If you are already culturing yeasts, then what is the extra plate and slant once a year to ensure clean yeast?....

I guess I am more concerned about the risk of making it sound so complicated that people are intimidated. For the person who has never done any of this before, the simpler the better and if he has to buy a new slant every year is still way ahead of buying new yeast for every batch.

Turning that liquid yeast packet into ten or so slants directly would be my choice as the way to get one's feet wet. I think I tried to get too much into that "beginner's" article on yeast culture. The petri dish streaking can be ignored till the easy part becomes routine.

>From: C05705DA@WUVMD.Wustl.Edu
>Subject: silly question on kegging

>Could anybody give me any insight on why NOT to carbonate a keg naturally, like in bottling, instead of using carbonated water and all the works needed to do kegging.

Not sure what you mean by carbonated water but the two basic reasons most of us force carbonate are:

1. Although it improves with time, you can drink the beer within an hour of kegging.
2. It creates no additional sediment as natural carbonation does.

>From: "John L. Isenhour" <isenhour@lambic.fnal.gov>
>Subject: Dry Ice carbonating in keg

>I have to agree with Jim on this. You really should try this yourself and gather some empirical data before suggesting it to people who might not know better.

All my kegs were full at the time and I just had to lay out the idea. I got the answer I was looking for and presume anyone who tried it would have sense

enough to use a pressure gage and keep an eye on things. However, that is not what makes lawyer's rich and your point is well taken.

.....DISCLAIMER.....

IF YOU PUT DRY ICE IN A CLOSED KEG, SUE GOD IF IT BLOWS UP.

> I have a lot of experience with forced carbonation of water, wine, beer and soft drinks, and if you've ever tried gassing beer up to 50psi, you'll find that its difficult to even vent the pressure down to dispensing level without it blowing out your venting tube.

Here we are going to disagree. You may be interested to know that I carbonate all my beer at 50 psi.

Why?

1. My beer is always at basement temp.

2. I have found that some kegs don't seal properly at low pressure and must be raised high enough to seal. This is actually why I quit naturally carbonating them. It seemed to take forever till I found out what was going on.

3. It's a lot faster.

Having said all that, the important issue is the volume of CO2 absorbed not the pressure it is done at. One could use 500 psi if the keg would take it and get it done real quickly. The key is knowing when to quit.

Here is the way I do it: I purge the keg several times to get all the air out then crank the pressure up to 50 psi and start shaking. The pressure drops in 10 lb leaps for several minutes. When it starts slowing down significantly, I turn off the CO2 and shake it down to about 30 psi and turn the gas back on. If it continues to flow while shaking, I continue to shake.

If not, I turn off the gas and let it sit for awhile. If it has not dropped or I can not shake it down to dispensing pressure after an hour or so, I bleed of the pressure to 20 psi and call it done.

For the record, I dispense through a cold plate with ice on it so my pressure is a little higher than normal but the bottom line is, I have no problem dispensing my beer (in fact I recently bought a Pilsner tap to create foam) and the one thing no one has yet complained about is the carbonation level of my beer.

>From: gummitch@techbook.com (Jeff Frane)
>Subject: That Damned Maltmill

>One real problem: the bolt holding the wooden handle on the crank seems to be threaded in such a way that it inevitably comes unscrewed while cranking.

All MMs are shipped with one defect just to generate hateful commentary on the Digest to keep me humble.

Seriously, this could be done my email but as there are 700 of them out there, you may not be the only one with this problem.

The thread on the inside of the crank is bunged up with a special tool so that when the knob/handle is screwed in, it can only go so far before tightening in the thread. I may have been sipping when I did yours but you can mush up the end of the treaded hole a bit with a screwdriver and a hammer. Just be sure to do the right/correct end (inside).

>It also looks as though I'll need to put rubber feet on my bucket, so it doesn't slide and hop around while I'm cranking the mill.

Doing it on the bucket looks a lot easier than it is and depending on the floor surface, it can be like wrestling with an aligator. I think most people eventually conclude that it works best clamped to a table with the business end hanging over the edge so the grain can fall into a bucket.

Thanks for your humor.

js

Date: Tue, 6 Apr 1993 10:56:03 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Is anyone else interested in meeting this guy

>Date: Fri, 2 Apr 1993 17:07 EST
>From: "JOSEPH V. GERMANI" <GERMANI%NSLVAX@Venus.YCC.Yale.Edu>
>Subject: Re: Homebrewing in Los Alamos
>To: reeves@lanl.GOV
>
>Geoff,
> Well, as I warned you before, I am coming to Los Alamos for a job
>interview. You mentioned that you might like to get together for a few
>beers.
>
>I will be in Los Alamos on Tuesday (the 6th). My potential employers
>will be
>taking me to dinner at around 6:30, and I'm not sure when I would be
>free. I
>am
>guessing that sometime around 8 or 9 pm they will get sick of talking to
>me.
>If
>you, or any other Atom Mashers, would be interested in meeting up with
>me, let
>me know. I figure that the best thing might be to give me your home
>number if
>you're interested and I could give you a call when I am free. Otherwise,
>I
>will
>be in town for half of Wednesday, so if Tuesday night falls through we
>might
>be
>able to meet for lunch. Just let me know what is most convenient.
>
>
> Joe
>
>

Hi Folks,
I got e-mail from a homebrewer coming here for an interview. I said
that if things worked out I'd get together with him tonight. Is anyone
else
interested in joining us? If so give me a call (5-3877) or e-mail and
I'll
let you know when I know more. All I know now is what is above.

Geoff

```
+-----+
--+
| Geoff Reeves: Space Science Division, Los Alamos National Laboratory |
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax (505) 665-4414 |
+-----+
--+
| A brewery is like a toothbrush. Everyone should have their own. |
+-----+
--+
```

Date: Tuesday, 6 April 93 12:02:53 CST
From: ADCMR@utxdp.dp.utexas.edu
Subject: contamination

hello,

I am a relatively novice homebrewer (about a year) and I have just recently noticed some trouble with an extract/specialty grain beer. I used crystal malt (1/2 lb) biscuit malt (1/2 lb) and Alexander's pale ale (6? lbs.). The problem: the beer sat fermented in the primary until the fermentation was nearly done (i.e. more than 90 seconds between bubbles). I racked(?) to the secondary and everything looked fine for about a day. Yesterday I noticed that the secondary was bubbling about once every 45 seconds. There is also a light foam forming on top of the beer -- basically a thin airy head. The gas escaping from the lock doesn't smell like the usual gas so I am suspicious. Does it sound like I have a contaminant yeast. If so is there anything I can do? I thank everyone in advance. My address is ADCMR@UTXDP.DP. UTEXAS.EDU
Caleb

Date: Tue, 6 Apr 1993 11:08:50 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: OOPS

Sorry for the last message which was supposed to go to our homebrew club,
not to the homebrew digest.

Geoff

Date: Tue, 6 Apr 1993 12:10:53 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Yeast Starters

Since I was out of DME, and I wanted to can a few pints of yeast-starter wort,
I decided to try the following...

After I had collected enough wort for my boil, I started collecting some into a separate pan for making starter. I got around 6 quarts, at 1010. To this I added two cups of my "main" wort, which brought it up to 1013 or so. Then I boiled it down (with a bit `o hop and 1 tsp of Fermax) to 1020. Then I canned it as normal. No DME required. It looks a bit darker than I'd hoped, but hey, its only a pint...

t

Date: Tue, 6 Apr 93 09:33:00 MDT
From: pyle@intellistor.com (Norm Pyle)
Subject: Roller Mill, Rev. 1

Well, I've done it. OK, OK, my father-in-law has done it, but he's done it to my specifications. My roller mill, rev. 1 is complete and working. This thing is a dandy. It is motorized, with a 1/3 horse washing machine motor, and uses four pulleys to gear down the speed. The rollers are reworked iron pipe (3.5 inch diameter, I believe). It is sort of a scaled-down version of the one presented by RW and (??) in the latest Zymurgy gadgets special issue.

He is a tinkerer from way back, but the only special tools used were a welder and a table-mounted belt sander. The total cost of supplies was around \$75. I will give more info if there is interest, but I'm very busy right now and if I have to choose between brewing a batch of beer and writing a legible report on this mill, well, you can guess what'll happen. I can say without a doubt that the price of Jack's mill is very reasonable, considering the labor put into this one. I expect the two mills to produce roughly similar crushes, BTW, although I probably will never have the chance to do a direct comparison.

Cheers,
Norm

Date: Tue, 6 Apr 1993 13:50:46 -0400 (EDT)
From: S_TUTTLE@UNHH.UNH.EDU
Subject: Favorite Brew Pub or Tavern

I am compiling a list of favorite watering holes. I travel in the summer and want to make a list of places to visit. If the list gets long enough I may distribute it among the contributors.

What is your favorite brew pub, beer bar, watering hole, tavern, biker bar, blue collar bar or just plain bar? Send me a the name, location, phone number and a brief description of any place you think is worthy of a beer lover. Brew pubs and establishments with a good selection of beers are a must but bars with some other kind of quality ambiance will do also. No fern bars please (bars with guys in white shirts and ties who drive beemers).

If you include your name and address, I will send you a copy of the list when I deem it to be of good length and quality.

Also, how long should I age a cherry Kriek beer made from the malt extract that is available in the stores now? Any recipe ideas for the cherry Kriek malt extract?

Date: Tue, 6 Apr 1993 11:03:00 -0800 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: Dry Hopping

>From HBD 1113 Sherman Gregory comments on dry hopping. I dry hopped for the first time a week ago and both observed and expected this behavior. I threw hop pellets into the secondary before siphoning from the primary. Sure enough a "krauesen" developed and even though I didn't fill it right up, I still ended up with this green, hoppy froth bubbling out the neck. Next time I'm going to fill it even less and put the remainder into another container, to transfer into the secondary after the action subsides. I think I'll put the hops into a hop bag also to keep them in one place. Does this work as well as putting them in loose?

The cause seems obvious enough. There is lots of dissolved CO2 in the beer after fermentation and the hops act as nucleation sites causing loads of gas to be released. This gas continues to escape slowly (even without dry hopping) and looks like fermentation but isn't.

Peter

Date: Tue, 6 Apr 1993 11:02:51 -0700
From: paul@melody.rational.com (Paul Jasper)
Subject: Re: silly question on kegging

On 5 Apr, 11:43, C05705DA@WUVMD.Wustl.Edu wrote:
> Subject: silly question on kegging

Not a silly question at all... this is what distinguishes British Real Ales from processed "keg" beers. The cask conditioning is what adds the subtleties to the flavor of the beer. If you pump your beer full of gas, you are "killing" it because this will prevent any further fermentation taking place.

> Could anybody give me any insight on why NOT to carbonate a keg naturally,
> like in bottling, instead of using carbonated water and all the works
> needed to do kegging.

Well, it's quicker and requires less skill...

> My reasoning is simple; kegging didn't used to be
> done the way it is today. So, what are the pros and cons to throwing
> in
> priming sugars in a keg and cork it?

It's a bit more complicated, because you don't want the pressure to build up too much or it will have the same effect as artificially carbonating it.

> I would appreciate any HELPFUL suggestions.

Hopefully, I am being partially HELPFUL, if a little provocative... ;^)

Interestingly, the April edition of What's Brewing, the monthly newspaper of Britain's Campaign for Real Ale, has a two page feature on the preliminary results of some research they have been doing into whether brewers are cheating by minimizing the cask conditioning of their beers. They have been measuring the drop in gravity of beer delivered to beer festivals (and in some cases to "friendly" pubs) and also the quantity of yeast present. They have been able to confirm that many beers are sufficiently cask conditioned, but they can't prove when this isn't so (due to factors such as the beer having completed its secondary fermentation before they got their hands on it). Reading between the lines, they are particularly suspicious of Courage (Foster's) Directors' Bitter. However, they do conclude that the Campaign is right to place so much emphasis on the benefits of cask conditioning in its definition of the term "Real Ale".

>-- End of excerpt from C05705DA@WUVMD.Wustl.Edu

P.S. The same issue of What's Brewing has an article by Michael Jackson on the topic of German double bocks, including Paulaner's Salvator, recently the subject of some discussion on HBD.

- --
- -- Paul Jasper
- -- RATIONAL
- -- Object-Oriented Products
- --

Date: Tue, 6 Apr 93 13:17 CDT
From: korz@iepubj.att.com
Subject: Re: why blowoff?/Goose deliveries/Length of chiller/dryhopping

Gerald asks, why use the blowoff method?

It's merits have been argued in the HBD, but I believe it makes the beer taste better, so I continue to use it. Papazian says that the kraeusen contains fusel oils (I've seen fusel alcohols elsewhere) which some say contribute to hangovers. The most graphic proof I have for using the blowoff method is to challenge anyone to drink a glass of blowoff. YUK! Just sniffing it is enough to guarantee my continued support of this procedure.

The arguments against using the blowoff method (just to be fair) are that you lose beer and that you lose some of the bittering you just but in with the hops. One of the test batches that I made was severely underhopped.

It turns out in this case that the non-blowoff half tasted better than the blowoff half albeit the bitterness was a bit harsh.

If you are going to use the blowoff method, I suggest you go and get some 1.25" tubing and just stuff it into the top of the carboy. Stick the other end in a bucket or jug with a little water in it. Don't use a thin tube and a one-hole stopper as it will eventually clog and really make a mess (especially likely when fermenting with fruit -- I know firsthand).

Kevin asks:

>Does anyone know if the AHA will accept hand delivered entries at the Goose

>Island Brewery in Chicago for the annual competition? I will be visiting my

>brother this weekend in Chicago, and he said that he would deliver my entries

>for me. This would save me the hassled of having to deal with UPS.

The AHA won't know and won't care, the only people who might would be the organizers of the Midwestern 1st-round judging and Goose Island itself. Last year they accepted my entries hand-delivered, so I assume they will accept them this year too.

John writes:

>>The longer the better. Many of then are 20', some are 25', mine is a 50'

>>double helix (homemade). It all depends how fast you want to cool and how

>>cool your tap water is, and how much water you want to use.

>

>Aha! A personal pet peeve, that I know nothing about. Spout-off warning!

>

>My own personal theory is that the shorter the better, until you get to a

>reasonable minimum length.

>

>Why?

>

>Let me interject personal observation from my 15 ft. copper coil.
Probably
>more than a foot is outside the wort, say one foot on each end, making
13
>ft. in the wort. I think that is too long. Why? Because the water
comes
>out boiling hot at the other end. [I placed my quick-reading
thermometer
>in a cup which got the outflow from the wort-chiller, and it quickly
jumped
>to 210 or so.]
>
>OK, what good does boiling-hot water do in your wort chiller? I submit
it
>does no good at all. So if I had another ten feet of copper in there,
it
>would be another ten feet carrying boiling hot water, doing no good.

John then goes on to theorize that length may be important when the wort approaches the temperature of the water.

I think you're wrong in the first assertion and right about the second one -- as the wort cools, the length of the chiller becomes more and more of an issue... you need a longer chiller. My chiller is 50' of 1/4" copper tubing (immersion) and it chills the wort from boiling to 70F in about 15 minutes during Chicago winters when my tapwater is about 45F.

William writes:

Questions:

What are pros & cons of pelletized vs whole hops when dry hopping?

I've found that when I use whole hops, they simply float and I siphon out from under them -- no hops in the bottling vessel or bottles.

Any advice on removing hops when preparing to bottle?

If you use pellets, you can put a copper scrubbing pad over the end of the siphon hose followed by a mesh bag (this idea was originally introduced by Al Taylor (I think it was Taylor...) and then independently by Kinney Baughman).

Alternatives to dry hopping that will give good hop nose?

See Kinney Baughman's article on a sort of hop-back in the Gadgets and Equipment special issue of Zymurgy.

Al.

Date: Tue, 06 Apr 93 15:30:19 EST
From: YC06000 <YC06%FERRIS.bitnet@CUNYVM.CUNY.EDU>
Subject: Thanks ...and more...

I would like to thank everyone who responded to my recent inquiries about getting started. I have purchased a couple of the recommended books and I have located a homebrew shop in the area. They offer a class plus a discount on supplies to those who take the class. Now all I need are the supplies to get started and the nerve to begin....

Next, what is the best source for bottles? Are bottles bottles, or are some better than others? Should I stay away from bottles all together?

Also, does anyone know if the Frankenmeuth (sp?) brewery gives tours and if they do, do you know the hours of the brewery?

One more...I will be in Atlanta, GA in May. Are there any brewpubs or microbreweries to worth going to?

Thanks for everyones help. I wish I had something to contribute.

Dan deRegnier yc06@ferris.bitnet
Ferris State University
Clinical Lab Sciences
Big Rapids, MI 49307

Date: Tue, 6 Apr 93 12:51:57 EDT
From: richk@icad.COM (Richard Kasperowski)
Subject: Rehydrating dry yeast?

The recent thread about rehydrating dry yeast before pitching drove me to make my first submission to HBD. (Loud clapping and cheering can be heard from audience.)

As a relatively new brewer, this is the first I've heard of rehydrating dry yeast before pitching. For the few batches that I've made, I pitched the dry yeast directly into the primary, with no noticable bad effects (i.e., it fermented just fine, and the beer tasted the way it was supposed to taste).

Is there any advantage to rehydrating the dry yeast? Is there any disadvantage to tossing the dry stuff directly into the primary?

- --
Rich Kasperowskirichk@icad.com

Date: Tue, 6 Apr 1993 16:23:58 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Immersion Chiller Length

John Decarlo <jad@pegasus.mitre.org> suggests that a shorter cooling coil might be better than a longer one, down to some minimum. What he has noticed is that there may be an inflection point in the time vs. temperature curve on this heat exchanger. He's right. There's no point in making a coil so long that no additional heat is picked-up by the cooling water during some portion of its travel. Not that I could reproduce the work today, but this was a problem on a physics assignment I did maybe 12 years ago. It has to do with the modulus of heat transfer in materials. Essentially, heat takes time to "travel" in a material, and the speed with which it "flows" depends on the temperature difference. A bigger difference in temperature causes faster heat-flow.

So when you get to the point that a new, incoming volume of water is picking up heat faster than some number of volumes of water already inside the tube, your exchanger is too long. What does this mean in practical terms? Gee, any physics students out there who'd like to take a shot at finding the optimal heat exchanger length vs diameter vs flow vs tap-water temp for cooling wort? Could be fun... Or maybe we can do a net-wide emperical data collection experiment. If anyone's interested in the latter approach, send me e-mail.

Oh -- mine's 50 feet of 3/8" copper, fwiw.

t

Date: Tue, 6 Apr 93 15:06:38 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: dry hopping/fermentation in secondary

I'd like to hear more from people who have dry-hopped and had their fermentation re-start in secondary. I have dru hopped with pellets 3 or 4 times, and with whole hops once, and this is the first time I've had my beer jump-start on me.

Specifically: when do I know when to bottle? I've still got a krausen sitting on top, although the bubbling is very slow now. I hate musking around in the beer to get gravity readings, but I suppose that's the obvious answer.

Also: I had thought that next time I dry-hop I might try whole hops in a muslin bag, weighted down with a couple sanitized marbles. Will this be more or less likely to cause the same renewed fermentation?

And finally: should one perhaps not rack until the beer is within a point or two of final gravity if one is going to dry-hop? My gravity was still in the high teens when I racked this time, and I'm thinking this may have contributed to the jump-starting effect.

Thanks in advance.

Jonathan Knight
Grinnell, Iowa

Date: Tue, 6 Apr 1993 14:51:20 -0700
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re:immersion cooler length

Oh, this is so much fun! This is the first time I have been flamed on HBD!

Anyway...

In HBD #1113 "John DeCarlo" <jad@pegasus.mitre.org> writes:

>Aha! A personal pet peeve, that I know nothing about. Spout-off warning!
>
>My own personal theory is that the shorter the better, until you get to a reasonable minimum length.
>
>Why?
>
>Let me interject personal observation from my 15 ft. copper coil. Probably more than a foot is outside the wort, say one foot on each end, making 13 ft. in the wort. I think that is too long. Why? Because the water comes out boiling hot at the other end. [I placed my quick-reading thermometer in a cup which got the outflow from the wort-chiller, and it quickly jumped to 210 or so.]
>
>OK, what good does boiling-hot water do in your wort chiller? I submit it does no good at all. So if I had another ten feet of copper in there, it would be another ten feet carrying boiling hot water, doing no good.

It is true that for the first minute or so that the output is nearly at boiling temp, but after that it is far less. After that, hotter the water coming out indicates more efficient cooling. The idea here is to remove as much heat from the wort as fast as possible. The temperature delta times the cooling water volume is proportional to the heat removed. With a longer tube, the output temp will be closer to the wort temp meaning more heat removed. I see two measures of efficiency here. One is cooling rate. The other is temp change/water volume (important in waterless So. CA). Both of these will be improved with a longer chiller. I know that this is not linear with chiller length, but more length always helps.

So much for flaming and counter flaming! It is so much fun!

Sherman

Date: Tue, 06 Apr 93 18:06:58 EST
From: U033000 <U033%SETONMUS.BITNET@PUCC.PRINCETON.EDU>
Subject: How to begin brewing?

Hello all, I am new this forum and am completely clueless as to how to begin brewing my own beer. One of my MAJOR considerations is money (I am a college student; therefore, I am poor). Could anyone recommend to me a simple, good tasting recipe? Where can I get supplies? How much will it cost? How long does it take to brew the average beer? Etc. I live in the New York/North New Jersey area if you wish to recommend any homebrew stores.

Thanks,
Bob

Date: Tue, 6 Apr 1993 17:07:19 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Immersion cooler design

Sherman has asked about immersion cooler design, what length and diameter is appropriate, etc. John DeCarlo sez short is good enough.

I'm sorry, John, but you are right and wrong. It is correct that short coolers put out very hot water initially, but longer is better. Here's why--

Heat flow is proportional to temperature differential. The rate of temperature drop is fast at first, but slows down as the wort cools. If your cooler is smaller, it will take a lot longer to cool down below 90 degrees. My water temperature varies from 45F (winter) to 55F summer. The final 10 degrees of temperature drop takes a lot longer in the summer than in the winter, due to the smaller differential.

All other things being equal (now there's a simplifying assumption!), the greater the mass of copper tubing, the faster your cooler will chill that brew. I'm talking about using 1/4" - 1/2" i.d. soft copper tubing in the longest length you, your brewpot and wallet feel comfortable with. I have been using 20 ft of 1/4" i.d. and just got 50' of 3/8" i.d. cause bending over the pot for so long makes my back hurt.

BTW, there was a long (3 month) thread last summer on immersion and counterflow coolers. I have extracted the messages into one BIG file, and will gladly send it to anyone who wants one. If the demand is too much for me to easily accomodate, I'll see about posting it to the sierra.stanford.edu FTP site.

see ya in Portland,
Paul.

Date: Mon, 5 Apr 93 08:23 EST
From: LYONS@adc3.adc.ray.com
Subject: Grain during fermentation?

Following up on the recent thread of adding grain during fermentation ... In Dave Line's book (BBLTYB) he gives an extract recipe for a brown ale (Brown Jack Best Brown Ale) in which he uses crushed roasted barley in both the pre-boil and in the primary fermentation (pitched with yeast) stages. I haven't considered this before, but wonder if anyone has any comments on it. Also, since many have found that an ideal time to add hops, fruit, peppers, spices, or any miscellaneous flavorings is during the secondary, it seems that this would be a better time to add the roasted barley. Has anyone experimented with the addition of speciality grains during secondary fermentation? Thoughts?

Chris,
LYONS@ADC3.ADC.RAY.COM

Date: Tue, 6 Apr 93 09:10:36 EST
From: boomer@sylsoft.com (Richard Akerboom)
Subject: Corrections on Samichlaus

Well, I spoke from memory which is always a mistake.

Samichlaus (note spelling) beer from Huerlimann in Zuerich, Switzerland is, according to Jackson's Pocket Guide, Third Edition, brewed with a original gravity of 27.6 Plato (about 1.110) and ferments out to 11.1-11.2 % alcohol by weight, which is 13.7-14 by volume.

OK, now that we have that correct, I am still interested if anyone knows the real story on Sam Adams Triple Bock.

Rich

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-

Richard Akerboom Domain: boomer@sylsoft.com or akerboom@dartmouth.edu
Sylvan Softwareuucp: dartvax!sylsoft!boomer
Mechanic St. Phone: 802-649-2231
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Norwich, VT 05055 USA

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Date: Wed, 7 Apr 93 09:25:33 MET DST
From: THOMASR@EZRZ1.vmsmail.ethz.ch
Subject: historical, part 1.

Historical Recipes by F Accum 1821
translated by Rob Thomas.
All recipes are adjusted to give 4 UK gallons
of beer at fermentation (i.e. 5 US gallons).
All measurements are UK units (same as US, except
gallon US = 0.8 gallon UK)

PART 1

Brown Stout Porter.

Ingredients.
13.99 lb malt, 1/5 pale, 1/5 amber, 3/5 brown
5.3 oz. hops.

Mashing.
Mash 1: 2.375 gall of water at 165 F, 1.5 hours.
Mash 2: 1.875 gall of water at 160 F, 1.5 hours.
Mash 3: 1.938 gall of water at 186 F, 3/4 hours.

Boiling.
mash 1 boiled with the hops for 1.5 hours.
mash 2 boiled with the used hops for 1.75 hours.
mash 3 boiled with the used hops for 2.5 hours.

Produces 4 gall at 1071.
fg. 1024.

London Ale.

Ingredients.
25.45 lb pale malt
9.29 oz. hops.

Mashing.
Mash 1: 1.820 gall of water at 175 F, 0.5 hours,
then add a further 0.91 gall at 175 F, 2 hours.
Mash 2: 2.180 gall of water at 180 F, 1.75 hours.
Mash 3: 1.270 gall of water at 150 F, 1.25 hours.
Mash 4: 1.270 gall of water at 150 F, 1.25 hours.

Boiling.
mash 1 boiled with the hops for 1.5 hours.
mash 2+3+4 boiled with the used hops for 3 hours.

Produces 4 gall at 1068.
fg. 1026.

Table Beer.

Ingredients.

10.1 lb pale malt

1.92 oz. hops.

Mashing.

Mash 1: 2.880 gall of water at 160 F, 0.75 hours,
then add a further 1.71 gall at 160 F, 1.5 hours.

Mash 2: 2.700 gall of water at 180 F, 1.25 hours.

Mash 3: 1.980 gall of water at 185 F, 1.25 hours.

Boiling.

mash 1 + 1/2 mash 2 boiled with the hops for 1 hour.

rest of mash 2 + mash 3 boiled with the used hops for 2 hours.

Produces 4 gall at 1035.

fg. 1012.5.

Date: Wed, 07 Apr 93 08:43:01 EDT
From: Peter Bartscherer <BARTSCHP%DUVM.BITNET@PUCC.PRINCETON.EDU>
Subject: Dry Hop Sediment

In response to William Kitch's dry hopping questions, (his _slightly
edited_ text below):

>I tried dry hopping for the first time. I used hop pellets.
>When I started racking the beer into my bottling bucket the
>hop head got broken up and started sedimenting--a fair amount
>got siphoned into the bottling bucket.

FWIW, I had a similar experience with my first dry hop.
However, I found that GENTLY swirling, NOT SPLASHING, the beer in the
fermenter a day or two before bottling caused the hop head to break up
and settle out. I haven't had a sediment-in-the-bottling-bucket problem,
and I did get good hoppy results.

Peter Bartscherer 215.895.1636 Design & Imaging Studio
BARTSCHP@DUVM.OCS.DREXEL.EDUDrexel U / Philadelphia, PA

Date: Wed, 7 Apr 93 09:09:54 EDT
From: envkas@sn370.utica.ge.com (Karl A. Sweitzer)
Subject: vortex drain strength, and coriolis acceleration

I have found that the best vortex drains are formed when you swirl the bottle or carboy in a counterclockwise direction (when viewed from above, in the northern hemisphere of our spaceship earth). The reason is the coriolis acceleration vector caused by the counterclockwise rotation of the earth. When you rotate the bottle in the same direction as the earth rotation the coriolis acceleration vectors constructively add, forming a greater force on the liquid molecules. The coriolis acceleration vector tends to force the liquid to the outside of the rotation circle leaving room in the middle of the bottle for air to enter and replace the exiting liquid. This air path is more efficient than "gurgling" air entering the bottle as periodic bubbles. (note, for those of you in the southern hemisphere, rotate the bottle in the clockwise direction. For those at the equator, rotate in either direction.) Some say that the coriolis accel. vector makes pigs tails curl (no kidding!). I have seen pictures of pigs from Equador with straight tails!

I have also found that you can drain a full carboy quickly by inserting an air tube into the neck and extending to the bottom. The air tube allows air to enter while the liquid exits. Another trick is to cut an air hole in the top corner of the handle of plastic gallon jugs. I have several jugs like this that I have marked in quart divisions that are handy for measuring and pouring large quantities of liquid.

Karl Sweitzer

Date: 07 Apr 1993 10:59:19 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: decoction

I had heard from a reasonably reliable source (at least, he *claims* to be reliable :) that decoction was classically performed by thrusting a bucket into the top of the mash to make a well, and collecting any liquid that collected there. The decocted material then contained mostly liquid, with a small quantity of grain (maybe 5-10% by weight). When I mentioned the line about taking a quantity of grain and leaving the liquid behind he thought I was looney. Anyway, his suggestion was to use a picnic cooler/lauter tun and drain liquid only off the bottom, boil it, and dump it in on top. So I set up my slotted manifold and tried just that. I did a protein rest, and then a rest at 149-145 F, and another at 159-155 F. I had to decoct and boil several times to accomplish this. All I can say is whoever claimed that drawing off the liquid and boiling it would seriously reduce the enzyme content should have watched the mash clear during the last rest. You could literally watch it clear it happened so fast; from cloudy starchy muddy water to crystal clear wort in about 15 min. I don't know, maybe this is a decoction-infusion hybrid if I don't boil any grain, but it sure worked well.

ed

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-----  
Ed Hitchcock      *-----*  
Dept of Anatomy and Neurobiology |   |  
Dalhousie University   |JUST BREW IT |  
Halifax, Nova Scotia   |   |  
ech@ac.dal.ca      *-----*
```

Date: Wed, 7 Apr 93 09:10 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Decoction Mashing

>From: Darryl Richman <darrylri@microsoft.com>

>I did spend all day with my first decoction. Part of that was due to it going from a planned two decoction mash to a four decoction, because I was far short of my temperature marks. But having got beyond that, decoction requires less equipment than a step infusion, and I believe, produces a different spectrum of flavors and aromas.

There is a simple alternative method I use that makes the first step a lot easier and totally predicatble along with cutting the time down to about the same as a "normal" kettle mash.

I use the stove to bring the mash to the low end of the saccharification range and just use decoctions to maintain the temperture. I scoop out several quarts of mash and bring this to a boil in a separate kettle. By the time this is boiling the main mash has cooled enough to need the decoc to maintian the proper temp. Several gallons are boiled (during a one hour mash) in this manner and although far from a "real" decoction, it is a compromise that is easy and probably provides some measure of "a different spectrum of flavors and aromas" as noted above.

js

--Darryl Richman

End of HOMEBREW Digest #1115, 04/08/93

Date: Wed, 7 Apr 93 09:20 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Yeast, Kegging

>From: Jim Busch <busch@daacdev1.stx.com>

>There is an increased risk associated with "dipping" a loop into a slant repeatedly. I would advise restreaking to a single cell at least once a year. In theory it can last for years, but why risk it? If you are already culturing yeasts, then what is the extra plate and slant once a year to ensure clean yeast?....

I guess I am more concerned about the risk of making it sound so complicated that people are intimidated. For the person who has never done any of this before, the simpler the better and if he has to buy a new slant every year is still way ahead of buying new yeast for every batch.

Turning that liquid yeast packet into ten or so slants directly would be my choice as the way to get one's feet wet. I think I tried to get too much into that "beginner's" article on yeast culture. The petri dish streaking can be ignored till the easy part becomes routine.

>From: C05705DA@WUVMD.Wustl.Edu
>Subject: silly question on kegging

>Could anybody give me any insight on why NOT to carbonate a keg naturally, like in bottling, instead of using carbonated water and all the works needed to do kegging.

Not sure what you mean by carbonated water but the two basic reasons most of us force carbonate are:

1. Although it improves with time, you can drink the beer within an hour of kegging.
2. It creates no additional sediment as natural carbonation does.

>From: "John L. Isenhour" <isenhour@lambic.fnal.gov>
>Subject: Dry Ice carbonating in keg

>I have to agree with Jim on this. You really should try this yourself and gather some empirical data before suggesting it to people who might not know better.

All my kegs were full at the time and I just had to lay out the idea. I got the answer I was looking for and presume anyone who tried it would have sense

enough to use a pressure gage and keep an eye on things. However, that is not what makes lawyer's rich and your point is well taken.

.....DISCLAIMER.....

IF YOU PUT DRY ICE IN A CLOSED KEG, SUE GOD IF IT BLOWS UP.

> I have a lot of experience with forced carbonation of water, wine, beer and soft drinks, and if you've ever tried gassing beer up to 50psi, you'll find that its difficult to even vent the pressure down to dispensing level without it blowing out your venting tube.

Here we are going to disagree. You may be interested to know that I carbonate all my beer at 50 psi.

Why?

1. My beer is always at basement temp.

2. I have found that some kegs don't seal properly at low pressure and must raised high enough to seal. This is actually why I quit naturally carbonating them. It seemed to take forever till I found out what was going on.

3. It's a lot faster.

Having said all that, the important issue is the volume of CO2 absorbed not the pressure it is done at. One could use 500 psi if the keg would take it and get it done real quickly. The key is knowing when to quit.

Here is the way I do it: I purge the keg several times to get all the air out then crank the pressure up to 50 psi and start shaking. The pressure drops in 10 lb leaps for several minutes. When it starts slowing down significantly, I turn off the CO2 and shake it down to about 30 psi and turn the gas back on. If it continues to flow while shaking, I continue to shake.

If not, I turn off the gas and let it sit for awhile. If it has not dropped or I can not shake it down to dispensing pressure after an hour or so, I bleed of the pressure to 20 psi and call it done.

For the record, I dispense through a cold plate with ice on it so my pressure is a little higher than normal but the bottom line is, I have no problem dispensing my beer (in fact I recently bought a Pilsner tap to create foam) and the one thing no one has yet complained about is the carbonation level of my beer.

>From: gummitch@techbook.com (Jeff Frane)
>Subject: That Damned Maltmill

>One real problem: the bolt holding the wooden handle on the crank seems to be threaded in such a way that it inevitably comes unscrewed while cranking.

All MMs are shipped with one defect just to generate hateful commentary on the Digest to keep me humble.

Seriously, this could be done my email but as there are 700 of them out there, you may not be the only one with this problem.

The thread on the inside of the crank is bunged up with a special tool so that when the knob/handle is screwed in, it can only go so far before tightening in the thread. I may have been sipping when I did yours but you can mush up the end of the treaded hole a bit with a screwdriver and a hammer. Just be sure to do the right end (inside).

>It also looks as though I'll need to put rubber feet on my bucket, so it doesn't slide and hop around while I'm cranking the mill.

Doing it on the bucket looks a lot easier than it is and depending on the floor surface, it can be like wrestling with an aligator. I think most people eventually conclude that it works best clamped to a table with the business end hanging over the edge so the grain can fall into a bucket.

Thanks for your humor.

js

Date: Wed, 7 Apr 93 9:20:34 CDT
From: tony@spss.com (Tony Babinec)
Subject: boiling concentrates the wort

Keep in mind that in all-grain brewing you collect sweet wort which is boiled down to 5 gallons typically. That is, one of the functions of boiling is to concentrate the wort. In a 90-minute or so boil, you'll be evaporating the water in the wort. As an example, a beer which would have SG of 1.050 at 5 gallons will give a gravity reading of 1.042 at 6 gallons and 1.036 at 7 gallons. At 7 gallons, the wort is dilute, and when boiled down to 5 gallons, the more or less same amount of sugars and stuff give the beer a gravity of 1.050. So, if you collect 7 gallons of wort and take a gravity reading of 1.036, you'll have a 1.050 beer provided you achieve a vigorous and sustained boil and boil the beer down to 5 gallons. One last point: the gravity reading done on the 7 gallon beer should either be done at 60 degrees F (typically) or should be adjusted for the temperature of the wort. An uncorrected gravity reading on hot wort will understate the specific gravity of the beer.

Date: Wed, 7 Apr 93 9:29:30 CDT
From: tony@spss.com (Tony Babinec)
Subject: diastatic power of some malts

Here are some numbers on some of the DeWolf-Cosyns malts:

Malt	color	diastatic power
U.S 2-row (Schreier)	1.78L	131.0
Belgian pilsner	1.8	105
Belgian pale ale	3.260	
Munich	7.850	
Aromatic	25	29

Any of these malts is capable of conversion by itself, including the Aromatic. Notice that the Schreier has the highest diastatic power. Keep in mind that mega-brewers like to use adjuncts such as corn in their mash, and are therefore interested in a base malt with high diastatic power. The homebrewer can use any of these malts alone or in combination. A typical pale ale malt can be mashed alone and need not be mashed with a malt of higher diastatic power.

Date: Wed, 7 Apr 93 15:20:27 GMT
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)
Subject: Help, I boiled away the hops

Hello again fellow brewers!

I've returned with a deal you can't refuse....I will continue to call myself a novice until I've got 2 years of hands-on homebrew experience, but I get to continue to ask the dumb-s**t novice, extract-brewer questions. OK? Knew you couldn't pass it up. :-)

I have been taking in all the advice I can read, and have taken much of it at face value, few questions asked, but alas, silly me, I should have known better without thinking things through.

Case in point, then an urgent request for opinions.

My beers have dramatically improved since that first fateful batch. Reduced, then eliminated the use of sugar. Then came the use of a secondary fermenter. Then the use of DME, and finally the failed attempt at using DME as a priming agent. Longer boils...longer boils...longer boils. No one reminded me that when using a hopped extract, the longer you boil, the more you remove what the hops were put in there for. No one to blame but myself, should have seen it coming. Knew better. Dealt with essential oils in Organic Chemistry those many years ago. Faithfully read the HBD daily, and see cautions about not boiling away the "hop nose", etc, etc.

Now the plea for help.

Should have guessed why everyone said "not bad, but not bitter enough". Now that I've screwed up another batch (now 3 days in the primary), is there a way to salvage what I'm sure will be another "bland", hop-lacking brew? The flavor of the past few batches has been ok; rich, sort of sweet, but kinda watery and again, missing a lot of what the hops were there for to begin with.

I have read with increasing interest over the past couple of weeks about "dry hopping" in the secondary. Would me adding some high alpha hop pellets to the secondary be worth the try to put back in what I boiled away? Any other suggestions (other than throwing it out) will be welcome. BTW, no more hopped kits for this kid, gonna take another step toward what many seem to feel is the

only way to brew.

Noch einmal, bitte!! Mark

Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil
Information Technology Laboratory (601) 634-2921
Waterways Experiment Station
Vicksburg, Mississippi USA

Date: Wed, 7 Apr 93 08:27:37 PDT
From: tima@wv.MENTORG.COM (Tim Anderson)
Subject: Re: Immersion cooler length

I made a change to my immersion chiller that made a noticeable difference. Like many others I made mine by attaching hose fittings to 25 ft of 3/8 in. copper tubing and coiling it into a helix (like a fat spring) which I just set into the boiling wort. While waiting for the magic occur, I entertained myself by probing various parts of the wort with my thermometer. There were huge temperature differences. The top middle was the hottest by far.

Well, it seemed to me that the chiller is doing the most good where the wort is hottest, so for the next batch I recoiled the tubing into a spiral (like the burner on an electric range). I suspend this maybe an inch below the surface of the wort. Since I use a big wide canning kettle, there's lots of room. Chilling is much faster. I can stand there and watch the cold break material form and fall between the coils to the bottom. In fact I have to stand there, because I haven't found a way to suspend it other than by holding it. Admittedly a pain, but the faster chilling is easily worth it.

tim
"My two favorite beer styles are Cold and Warm."

Date: Wed, 7 Apr 93 08:29:17 -0700
From: sag5004@yak.ca.boeing.com (Ford Prefect)
Subject: Request for decoction mashing help....

Sorry about posting this to the whole world, but... with all the recent talk about decoction mashing, I am a bit interested in giving it a try.

- a) What books/article/whatever should I read to figure out how it is done?
- b) Is there anyone in the Seattle area that is willing to come over and help/show/whatever brew a batch. I seem to be entering my busy season with an up coming wedding and the picnic season aproaching :-)

thanks

stuart galt boeing computer services
sag5004@yak.boeing.combellvue washington
(206) 865-3764 or home (206) 361-0190
#include <standard/disclaim.h>
I don't know what they say, they don't know what I say...

Date: Wed, 7 Apr 1993 15:47:01 GMT
From: "UARS::COOK"@CDHF1.GSFC.NASA.GOV (Chris Cook)
Subject: Problems with tab characters

Sorry to waste bandwidth with small stuff, but I have to mention about people's use of tabs. Please remember that your tab stops may not be mine.

In HBD 1113, for example, Jeff Frane included big tables of recipies, using lots of tabs. Well, his tabs don't match mine, and I had to work on his table extensively to make it readable. This is the case with almost everyone's articles that use tabs, signatures, etc.

This is rather like the problem with articles over 80 columns wide. They look good to the sender, but suffer in translation.

Chris Cook

Date: Wed, 7 Apr 1993 08:44:09 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Copper tubing sizes

Since it looks like we may be in for more interesting explorations of thermohydrodynamics (wort chillers), please be aware that there is a lot of potential for confusion about pipe (hard) and tubing (soft) sizes.

Soft copper tubing, like we use in most of our chillers, is usually measured, sold and fitted by o.d. (outside diameter). Hard pipe, that has threaded or soldered fittings is measured by i.d. (inside diameter).

To add to the confusion, soft tubing used in refrigeration is sometimes measured one way and sometimes another. Also, many chain stores use both i.d. and o.d. for soft tubing. This may be a marketing ploy to get hapless do-it-yourselfers to purchase the wrong fittings to clutter up their junk drawers :-)

Rounding sizes to nearest 1/8", for soft copper tubing:

O.D.	=	I.D.
1/4"		1/8"
3/8"		1/4"
1/2"		3/8"

Now *I've* probably added to the confusion,

Paul.

Date: Wed, 7 Apr 93 08:55 PDT
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Thanks for the decoction info.

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/07/93 10:56:34
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov>
SUBJECT: Thanks for the decoction info.

Thanks to all who posted info on decoction mashing. I made an American pilsener last weekend (my first attempt at an all grain) and got pretty mediocre extraction--2lppg using temp-controlled mashing on Klages malt. I'll try the same recipe (tastes good from the fermenter) using a decoction mash and post the taste test results (it may take a month). Anyway, someone wrote that some of the big breweries like Pilsener Urquell still use decoction mashing. How on earth do they remove the grains from the mash tun? They must have to boil hundreds of pounds of grain. Anybody taken a tour?

Dennis B. Lewis (713) 483-9145 ** NASA/JSC/DH65 Payload Ops
Homebrew, The Final Frontier.

Date: Wed, 7 Apr 93 10:55:16 MDT
From: "Steve Kurka" <kurka@bmcw.com>
Subject: Questions

I have a few questions:

This may be an insignificant question, but so what:

I would like to upgrade to a glass carboy soon, but don't know whether to go with a 5 gallon or 6.5-7 gallon carboy. What are the advantages of each size?

(Ex: - no blowoff tubes needed to large sizes

- no blowoff tubes on large size to blowoff stuff (but what stuff?))

Does anyone have more info on sulfites not killing bacteria?

Does anyone have simple ideas on cheap filtration methods?

I would also like to thank all who sent me lists of San Fransisco brewpubs recently, the trip was a success (good beer).

Thanks, Steve kurka@bmcw.com

Date: Wed, 7 Apr 1993 13:06:31 -0500 (CDT)
From: brewmstr@genesis.mcs.com (Jim Bayer)
Subject: Runaway Ferment... HELP!!!

I've been brewing for about 2 years now and just did my first all-grain batch 2 weeks ago. Until now I've never seen a ferment go so strongly and so long.

My grain bill is as follows:

6lb 2 row Klages
2lb Special Roast
1lb German Light crystal
1lb Cara-pils

I used Wyeast Irish Ale (forget the number), Northern Brewer, Cascade and Hallertau hops.

Since it was my first all-grain batch, I expected it to take me longer, and it did. My sparge ran about 2.5 hours (trouble with the Listermann system) and I ended up with some (very little) grain in the brewpot. The edges of the false bottom did not seal very well for me.

I tasted the output from the sparge and it seemed ok. I boiled it for about 1.5 hours and added the Irish moss 10 minutes before turning off the heat. I used a submersion chiller for the first time and got the temp down to about 65°F in 20 minutes. I pitched the yeast (no starter alas) and waited.

As a preamble, I should say I cleaned and soaked everything I used, spoon, primary bucket, hoses, etc. in bleach solution. I made it a little too strong (used about 1 to 1.5 cups to 5 gallons) so I rinsed everything before use. I soaked it all for 15 to 30 minutes before the rinse.

I filled the primary, stirred vigorously for aeration and pitched, closed the lid, sealed it tight and set up the air lock.

After 3 days of fermenting (took 36 hrs to start), I raked to the secondary and thought it would finish in a few days. To my surprise, it went to full kreausen AGAIN and is still giving me 1 blip per second after 10 days. I checked it last night and the secondary is still at full boil.

Am I infected? Is it the yeast? What is going on??

I did notice that the wort was REALLY REALLY SWEET. Never tasted one so sweet before. could it be the yeast are still feasting? OG was 1.040

Any input will be greatly appreciated

Jim

brewmstr@genesis.mcs.com

Date: Wed, 7 Apr 93 13:54 CDT
From: korz@iepubj.att.com
Subject: Re: Eternal ferment/how long does CO2 last?

Kirk writes:

>A few weeks ago, I asked you what you thought about my 'nonstop fermentation'
>and the concensus was that I should not throw the stuff out but check the
>airlock and the S.G. I won't print the recipe again. Suffice to say it's
>an extract brew with half a pound of maple syrup and 2 oz of apricot
>flavoring intended for wines, and Edme dry yeast.
>
>Update: now after eight weeks, it ain't over. The airlock is still giving
>a feeble 'glug' once every 70 seconds. The color got noticeably darker.
>No off flavors to suggest contamination. Specific gravity down to about 1.009
>(I think).

Recently, I had, what appeared to be headed for a record-breaking ferment.

It was a simple 1048 English Ale using Wyeast #1028 "London Ale." Well, the problem started when I got married. No, don't get me wrong, my wife is wonderful and very supportive of my brewing and related endeavors. However, when she got a look at one of our gas bills, she suggested we lower our thermostat, from 72F to 68F. I agreed.

I started my batch as usual with a 500ml starter and pitched the 70F starter into well-aerated, 70F wort. I put it in the fermentation room just like I used to and proceeded to not worry. Well, I had forgotten about my wife's cost-saving measures and failed to look at the 9" diameter thermometer in the fermentation room. It said 61F!

Two days and no kraeusen. That's when the temperature dawned on me. I brought the fementer up into the study (68F), closed the shades and covered the fermenter with a couple of dark brown plastic garbage bags to prevent light damage. The next morning, although the fermentation had started, I still thought it was too bright in there and closed the door. Guess what, the closet is not insulated and the temperature dropped to 60F by that evening. Fermentation back to a standstill. I opened the door and put some cardboard around the fermenter.

10 days later, it was still fermenting slowly at about 30 seconds between glubs. 20 days from the start of the ferment, it had gotten down to a minute between glubs, so I added the dryhops (1oz of Goldings plugs).

10 days of dryhopping, still 1 glub/min. 14 days of dryhopping, still 1 glub/min. Hmmm? Is this yeast brain-damaged or what?

Then, I thought, perhaps a lot of the yeast had gone dormant thanks to the cold and had not awakened from simply warming the wort. I rocked the carboy around-and-around to swirl the yeast up from the bottom. Naturally, lots of CO2 started escaping through the blowoff tube. 8 hours later, the ferment was going at a good pace, perhaps 1 glub per 30 seconds.

24 hours after swirling, the glubs were 2.5 minutes apart -- ready to bottle!

I came up with this thought to rouse the yeast from what I've read about yeast rousing used in some very strong beers (Thomas Hardy's may be one, I'm not sure). Next time a ferment is taking longer than you expected, try rousing the yeast (without aeration, of course -- I just swirled my airlocked carboy).

Chris writes:

>On another note, how long should I expect my 20lb CO2 tank to last? I got
>it last summer and have made at least 10 batches of beer since then. I
>also use it to push the sterilizer out of the keg when cleaning it. The
>pressure gauge for the high side hasn't really moved.

I have a 20# tank, but it hasn't run out yet since I got the leaks fixed. The first filling only lasted perhaps 10 kegs, but the second is well over

20 and still going. It's very important to change that washer between the

valve and the regulator with each filling -- it's a common source for leaks. Regarding the high-pressure side gauge, I'll stick my neck out and

say I think it's useless. It won't begin to drop till all the liquid CO2 has run out and has turned to gas. Then it will drop to zero in one or two days. That's not my idea of warning you that it's about to run out!

I plan to weigh my tank the next time it runs out and use its weight as an approximation for when I should go get it refilled. It should weigh, well... 20# more when full (for a "20#" tank).

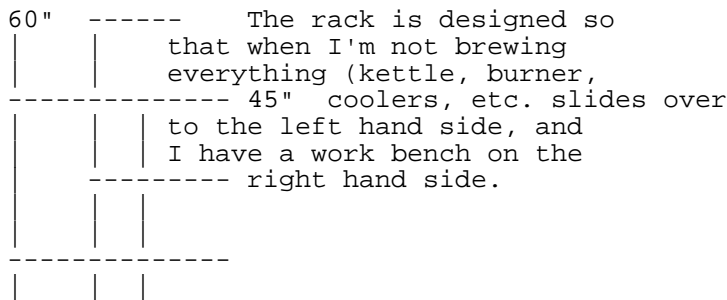
Al.

Date: 07 Apr 1993 15:48:10 -0500 (CDT)
From: ATKINSON@vaxb.acs.unt.edu
Subject: Follow-up: Tower System

I promised a posting of comments made on the Tower System, and am glad to do so! Thanks to everyone who showed interest. My initial impression is that the Tower System is a good idea because there were no flames. However, it may be because of the limited experience that people have with this system. I'm still putting my system together (working on limited funds, you know) and will let everyone know what I think after its up and running and the little kinks have been worked out. So some of the replies:

1. Stuart Galt suggested that I build a welded steel rack with wheels to house the tower so that it could be moved around for brewing and storage. Sound like a great idea, but since I have a hammer and saw, but not a welder, I built my rack out of 2 by 4's and 3/4 inch plywood. I used Simpson Strong-Tie (TM) connectors to make sure that there was plenty of strength to hold 10 gallons of hot sparge water and mash (if you haven't seen these connectors, they are great for building work tables and shelves - ask your hardware store about them). Also, by planning for my glass 6.5 gallon fermentor to sit on the ground and allowing the kettle to gravity drain into it, the mash/lauder tun to drain into the kettle, and the hot water tank to drain into the mash/lauder tun, I designed the rack so that nothing with hot water ever has to be lifted (other than pumping from the kettle up to the hot water tank). Thus, my rack has a working surface 45 inches above the ground for the mash/lauder tun to sit on, and a shelf 20 inches higher (a total of 65 inches above the ground) for the hot water tank to sit on. This allows me to slide the mash/lauder tun underneath the hot water tank when I'm not brewing so that I've got a work bench. However, since my mash/lauder tun is 16" tall (a 58 quart Igloo cooler), and it sits on top of a 45" high shelf, it is a too tall for even my 6'2" body to work with. Therefore, I built a 10" platform that I can stand on when stirring the mash. This platform simply slides underneath the rack when not in use.

My rack, from the side, looks something like the sketch below.



2. Rich Lenihan had several comments and suggestions.

a. Rich suggested that I put a rolled screen/tube inside the kettle (like the EasyMasher (TM)) to filter out hops and trub. An excellent idea that I have included.

b. Rich also was concerned about heat loss along the way, and that perhaps by preheating the system prior to mashing, this problem might be eliminated. I checked with several people and using a picnic cooler for the hot water tank will hold the temperature to less than a couple of degrees heat loss over the few hours necessary. Thus, preheating should probably not be necessary. Also, Rich reminded me that Papazian has a grain bill/water temperature/water volume chart so that I can use that for a guideline. I looked, and sure enough, it will be usefull!

3. Bob Hodge suggested that instead of two manifolds in the mash/lauter tun, that only the lower one be used, and that mash water can be introduced from the bottom (underletting) like a recent thread had suggested. I like this idea, and will implement it, but I still will need the upper manifold for sparging.

A few people had questions about what I was going to use for high temperature hose, what kind of fittings I was going to use, etc. I mentioned Grainger's and McMaster's supply catalogs for sources.

Finally, this post was originally to the Home Brew Digest, and not rec.crafts.brewing. So now, I am posting both the original and this follow-up post to rec.crafts.brewing to see if there are any other suggestions.

Thanks to all for the ideas!

Sam Atkinson

Date: Wed, 7 Apr 93 16:35 CDT
From: korz@iepubj.att.com
Subject: Re: Enzyme potential

Thomas writes:

>Does anybody know of the enzyme potential of Belgian 2-row pale
>ale malt from Dewolf-Cosyns? Would I need to mash with some
>Klages to get quicker conversion? Thanks in advance.

Sure, it's 60 degrees Lintner. I don't think you would get much of a increase in conversion -- you certainly would not *NEED* to add anything. By the way, Klages hasn't been grown in the US for (I believe) two seasons -- Harrington is what most (all?) of the brewing barley growers are producing. If your supplier is advertising Klages, either they don't know what they are selling or are selling very old malt.

Al.

Date:Wed, 7 Apr 1993 14:49 MST
From: 2 <A317-475@lab.bus.utah.edu>
Subject: kiwi wine

Here is an experimental recipe I came across and it actually worked.
This is for all you wine lovers.
This recipe need not be followed exactly and even if you do I doubt
you'll
get the same result twice.
Get a 1 gallon jug, empty milk jugs work great. Be sure to clean it good
otherwise you'll end up with vinegar, not wine.
Clean the jug with a tablespoon of bleach and 3 cups water. Swish it
around
for a few minutes.
Take about 2 1/2 lbs. of fresh kiwi and put it through a juicer. If you
don't
have a juicer just smash it up and use the pulp and all. In this case
you'll
need to avoid the lower 1/3 of your wine when you drain the wine from the
container.
Put the kiwi juice, or pulp, into the container. Add 2-3 cups of sugar
and 1
tablespoon of yeast. fill the jug almost full with distilled water.
Regular
water will work but it increases the chance of having a bacteria which
will
produce vinegar.
Cover container lightly, it must be able to "breathe" but not have stuff
fall
into it. Leave sit in a semi-cool place and wait a)1 month for harsh
wine,
or b)2-3 months for a smooth wine your freinds will love you for!!!!
Any questions about kiwi wine a317-475@edu-utah-bus-lab

Date: Wed, 7 Apr 1993 18:04:32 -0400
From: Alan Christopher Braddock <braddock@wam.umd.edu>
Subject: Vermont brews and brewpubs

Hi there, homebrewers. Another brewing/email neophyte here with a query out of left field. Any answers would be greatly appreciated. I'm planning a trip to Burlington, Vermont in early June and I'd love to know where to eat and what to wash it down with. I only know about Catamount (it is Catamount, isn't it?), but if anyone can suggest a brewpub or two, I'd be grateful. It doesn't have to be in Burlington -- it's a small state and I don't mind doing the Euell Gibbons thing, stalking the wild fermenter, etc.

Alan Braddock
BRADDOCK@WAM.UMD.EDU
(in Baltimore)

Date: Wed, 7 Apr 93 16:34 EST
From: LYONS@adc3.adc.ray.com
Subject: Problem with initial SG value?

>Mashed in 2 gallons of distilled water at ~154 for 1.25 hours at which
time
>the iodine test was negative. The pH of mash was around 5.2. Used a
Zapap
>type lauter tun with grain bag. Recirculated about 0.5 gallons. Used
>distilled water for sparging. Placed a pie plate on top of grain bed
and
>added water at about 165. Also mashed out at 170. Sparged till
gravity was
>1.008 .Ph of run off was still around 5.5. Collected about 7 gallons
of
>wort. Gravity after boiling down to about 6 gallons was only 1.028.
Where
>did I go wrong?

I'm not sure you did anything wrong. SG is a function of
temperature. So if you read an SG of 1.028 at 212F, that would
be equivalent to an SG of 1.068 at 60F (which sounds great to
me). Its common practice to record the temperature and SG
simultaneously, and then correct the SG for a temperature of 60F
(actually I normalize to 59F).

Date: Wed, 7 Apr 93 17:08:25 EDT
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Re: Heading Agent

Phil relates:

>My local homebrew shop also sells small packets of off-white
>"heading agent." I didn't ask the manufacturer's name, but I
>did ask about the contents: "ground bark of the gum acacia
>tree" I was told.

Close. It is probably gum arabic, the dried sap of the acacia
plant, not the bark itself. It's used as a thickening agent,
to seal envelopes, and hold stamps on.

Carl
WISL,BM.

Date: Wed, 07 Apr 93 19:30:33 CDT
From: If wishes were cows@iastate.edu,
Subject: Re:miles of trooob

>From HBD#1114 Steve Rowell ponders,

>I brewed a scotch ale last night, and noticed today a curious thing.
>On the bottom of the carboy lies a thick (4-5 inches) layer of trub.

Other stuff deleted

>For those out there interested in this mystery:

>I used pellets not whole hops and partial mash with
>3#syrup/3#dry extract and 1#munich/1#crystal/ 1/2# roasted.
>Any comments/ helpful words of wisdom?

I beleive, and I am only guessing, it was the pellet hops, I used those
in a
cotton hop bag, and received a huge mess for my trouble. No the bag
didnt
break when it swelled.

I funneled into the primary through a "fine" screen, which quickly
clogged.

John Bartleson

Date: 07 Apr 1993 13:00:13 GMT
From: "Tom Stolfi" <ceco!CWEMAIL!WAUTS@uunet.UU.NET>
Subject: Rauchbier

Date: 04/05/93
From: Tom Stolfi wauts - cweliin
Subject: Rauchbier

Hello all,

I am going to make a one gallon mini-batch of rauchbier for this summer. Rather than smoke some malt I was considering using the "LIQUID SMOKE" available in the grocery stores. Has anyone used this? If so, how much did you use and at what point in the process did you add it. I am planning a light amber beer with OG around 1.050 and hopping with Tett or Saaz. Any helpful comments or recipes would be greatly appreciated. Thanks.

Tom Stolfiwauts@cwemail.ceco.ceco.com
Commonwealth Edison Co Waukegan, IL

Date: Thu, 8 Apr 93 02:30:59 PDT
From: Pat Lasswell <patl@microsoft.com>
Subject: Decoction mashing vs Infusion Mashing

My brew-partner and I have done a side-by-side comparison of identical brews, one decoction mashed and the other step-infusion mashed.

The differences were slight. The main difference was notably more malt aroma in the decoction-mashed beer. One of our club refers to decoction mashed beers as tasting "wet". I know what he is noticing, but I do not have vocabulary to describe such a subtle effect.

Ars Zymurgia
Pat Lasswell
patl@microsoft.com
Redmond, WA

Date: 08 Apr 1993 11:01:45 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Coriolis force

Karl Sweitzer writes:

>I have found that the best vortex drains are formed when you swirl the
>bottle
>or carboy in a counterclockwise direction (when viewed from above, in
>the
>northern hemisphere of our spaceship earth). The reason is the coriolis
>acceleration vector caused by the counterclockwise rotation of the
>earth.
>When you rotate the bottle in the same direction as the earth rotation
>the coriolis acceleration vectors constructively add, forming a greater
>force on the liquid molecules. The coriolis acceleration vector tends
>to force the liquid to the outside of the rotation circle leaving room
>in the middle of the bottle for air to enter and replace the exiting
>liquid.
>This air path is more efficient than "gurgling" air entering the bottle
>as
>periodic bubbles. (note, for those of you in the southern hemisphere,
>rotate
>the bottle in the clockwise direction. For those at the equator, rotate
>in
>either direction.) Some say that the coriolis accel. vector makes pigs
>tails
>curl (no kidding!). I have seen pictures of pigs from Equador with
>straight
>tails!

To this I can but say: Horse poop. The coriolis force on the
liquid in a carboy 30cm or so in diameter is virtually nil. Swirl it any
way you please, there will be no difference. The friction of the side of
the jug is far greater than any coriolis effects on the water. As for
the
pigs, they can poop too.
ed

Ed Hitchcock *-----*
Dept of Anatomy and Neurobiology | |
Dalhousie University |JUST BREW IT |
Halifax, Nova Scotia | |
ech@ac.dal.ca *-----*

Date: Thu, 8 Apr 1993 10:10 EST
From: Carlo Fusco <G1400023@NICHEL.LAURENTIAN.CA>
Subject: Re: chiller lenght

Hello everyone,

I am here to back up some of John's claims. I also use a 15 ft chiller.
It
is 3/4 inch diameter, the water is 38F, and it will chill 5 gallons in
20-25
min.

It is true about the chilling effect slowing down as the wort approaches
the
chilling water temperature. But, by then I am already below 70F and I am
ready to pitch my yeast.

>From Northern Ontario where water is found in abundance and wort chiller
materials are expensive.
Carlo

Date: Thu, 8 Apr 1993 10:19:23 -0400 (EDT)
From: David C Mackensen <cygnus@unh.edu>
Subject: boiling exploitation

Hi,

How much does boiling change the malt... i.e. I know that you should boil the malt for a little bit to sanitize it, but...

what if I were just to have plain water in my boil with the hops and then add the malt into said boil long enough to sanitize it at the end... of course adding the appropriate irish moss or whatever...then cool and pitch like normal...

would this affect the taste of my bier (mackensen extra stout:)?

thanks,
-chris

- ---.

- -- Chris Mackensen (dcm2@kepler.unh.edu or puck@unh.edu)

Date: Thu, 8 Apr 93 08:32:27 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Re: Wine and Oxidation

In HBD #1113, Jack Scmidling says:

>We all know what evils to expect of beer that gets oxidized after
fermenting
>and the need for quiet racking and transfer. However, wine drinkers
also
>know that good red wine needs to "breathe", which of course is, a snob
word
>for oxidize.

>I have also seen several references to the fact that one of the reasons
for
>racking wine at regular intervals is to promote oxidation. Clearly, we
have
>a conflict here and my Fall Wine is now in the aging stage and it would
be
>nice to know if I should intentionally splash it around while racking or
use
>the usual beer cautions.

First, there is a difference (if only semantically) between breathing,
which refers to the exposure of wine to air immediately before
consuming, and aging, which is done either in bulk or in bottle, but
before uncorking.

As to breathing: There is no general agreement on why (or even
whether!) breathing is beneficial. Some feel it releases the aroma of
the wine, or helps dispel volatile compounds (such as SO₂) which may
mask aroma and flavor. Others feel it is desirable to oxidize a
certain portion of the phenols (e.g., tannins), especially if the wine
is big and young.

As far as aging goes, oxidation is definitely involved. However, slow,
controlled oxidation is what we want, as it tends to oxidize metallic
ions, phenols, etc., improving the wine. It is generally believed that
too rapid oxidation (as may result from splashing, etc) will tend to
oxidize other components instead, such as alcohols, leading to
undesirable byproducts such as aldehydes, etc.

Remember that as a home winemaker, your wine is already getting much
more oxygen than commercial wines, due to the much higher surface
area/volume ratio present in small scale operations. IMHO, your wine
will be oxidized enough just by such things as airspace in your carboy
or bottle, normal exposure to air during gentle racking, etc. Any
intentional splashing may be overkill.

Disclaimer: Little is really known (or agreed upon) about the mechanism
of oxidation, aging, breathing, etc. In the end, your own experience
and evaluations will have to guide you.

Hope this helps,

Kelly Jones <k-jones@ee.utah.edu>

*** I make my own beer AND wine --- I'm crosstraining!! ***

Date: Thu, 08 Apr 93 10:31:55 EDT
From: Bridget Cullinan <BCULLIN@american.edu>
Subject: hard cider brewing

Dear Homebrewers:

Having once lived in the south of England and fell in love with English
cider (hard cider), I want to find out if anyone else out there has tried to
brew their own. I'm looking for good recipes for "dry" English-style cider, not
the sweet overly-carbonated [I think] stuff like the Vermont Woodchuck cider.
So, if anyone is interested in the idea, I can offer a few suggestions, but so
far I have stuck to brewing from a Boots Country Cider kit -- which is very
good, by the way, but only available in England.
Please send any info to me at BCULLIN@auvm.american.edu. Thanks. Bridget

Date: Thu, 8 Apr 93 09:23:20 -0500
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Lee Menegoni

Lee> I got your e-mail, and sent you my answers to your questions. I got a response from nectech that lee=a.=menegoni@nectech.com was not a good address. Do you have another one?

George Fix

Date: 08 Apr 1993 07:50:07 PST
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>
Subject: Homebrew Digest #1115 (April 08, 1993)

*** Reply to note of 04/08/93 00:21
Subject: Homebrew Digest #1115 (April 08, 1993)
I've seen several posts re; dry-hopping. I always get krauesen in the
2ndary
when dry-hopping and have come to accept it as normal. I've also taken
to
using hop plugs. They provide the advantage of pellets in terms of
convenience
and of whole hops in that I seem to get better aroma from them (as I seem
to
with whole hops) with none of that ubiquitous green sludge clogging the
carboy
neck. Only problem is, they're slightly too large to fit thru the neck
so I
end up cutting them in half with a steak knife. I put them in a boiled
hop
bag with marbles. This usually prevents it from rising to the top and
clogging
things up.

On another topic... keg-conditioning, I always keg-condition my beer,
and by
trial and error, have found that 1/2 the normal priming sugar recommended
for
bottling works best.

| If it's good for ancient druids runnin naked thru the woods |
| drinkin strange fermented fluids then it's good enough for me. |
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

Date: Thu, 8 Apr 93 07:58 PDT
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Givin' carboys a swirly

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/08/93 09:59:07
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov>
SUBJECT: Givin' carboys a swirly

From: Karl A. Sweitzer

>I have found that the best vortex drains are formed when you swirl the
>bottle or carboy in a counterclockwise direction (when viewed from
above, in
>the northern hemisphere of our spaceship earth).

OK, I haven't tried this but, I assume that when you start swirling the
water
in the carboy, that the carboy is already inverted (and over the sink/
lawn).

If you get up a good swirl and then try to invert the carboy, you would
really
goof up your swirl when the carboy gets horizontal. Plus the rotational
inertia of 3+ gallons of water spinning fast enough to hug the sides
would be
impressive when you tried to flip it around. I think it just needed to be
said.

*** Physics disclaimer ***

It has been years since my last physics course. I wasn't there, I wasn't
drinking, and it's not my fault. That's my story and I'm sticking to it.

Dennis B. Lewis (713) 483-9145 ** NASA/JSC/DH65 Payload Ops
Homebrew, The Final Frontier.

End of HOMEBREW Digest #1116, 04/09/93

Date: Thu, 8 Apr 1993 15:50:12 GMT
From: "UARS::COOK"@CDHF1.GSFC.NASA.GOV (Chris Cook)
Subject: **Bottle Sources**

Dan deRegnier asked for sources for bottles, which has been a common request.

The usual source is from beer distributors. I've gotten cases of returnable beer bottles (longnecks) for little more than the cost of the deposit (and an occasional promise to bring them a sample of the resulting beer). That kept me in beer bottles for several years, but I was still having problems finding wine or champagne bottles.

For the last few years, though, I've done my bottle shopping at the local recycling center. I don't know if you have any in your area, but there's a recycling center near me (near the University of Maryland, for anyone local) that accepts aluminum, paper, some plastics, tin cans, and (the most important for me) glass, separated into clear, green and brown 55 gallon drums.

While everyone else was depositing their stuff, I'd be withdrawing. You want to talk about some strange looks. I'm one of the few people who leave with more stuff than I brought. I have to weed through a lot of junk, but there are some fascinating bottles there.

It's the best recycling I can think of.

Chris Cook cook@cdhf1.gsfc.nasa.gov

Date: Thu, 8 Apr 1993 08:49:58 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Chiller Study?

In HBD #1115, Tom Leith has a *great idea* for collecting data for an empirical chiller design study. Does anyone have the time and stats pack to do the regression analysis? I know the theory, but don't have much practical experience or time, since my job is being shut down in June due to budget cuts.... [Our motto: "Leading the Way in Deficit Reduction."]

Anyway, Thanks to Mike Hall, [hi Mike] the necessary parameters are:

tubing length, ID & OD, flow rate (may I suggest seconds needed to fill a 5 gal. carboy), water in/out temps (actually in temp would be sufficient, but will increase the number of data points needed)

,
final temp of wort and time to reach that temp, wort stirred or not (Y/N).

Additional temp readings at various times of water out and wort will speed the process and reduce the number of data sets needed.

All the other things are more or less equal for all of us: wort SG doesn't alter specific heats much, water pressure is difficult to measure and flow rate is really what counts. Copper tubing is pretty standard in terms of wall thickness and conductivity. A yes/no datapoint should be sufficient on stirring, since it will be hard to standardize measuring stir rates. I heartily recommend stirring anyway, since wort is a very poor conductor of heat and the delta_t around the chiller doesn't generate very strong convection.

There's a Nobel prize (or at least a lot of HBD fame and gratitude) here for someone who wants to do the work. It will probably take a month or more to get an adequate number of data sets....

Free Beer in Portland this Summer,
Paul.

Date: Thu, 8 Apr 93 09:36:52 PDT
From: "Peter Hadikin (HDIP9235)" <HDIP9235@BCIT.BC.CA>
Subject: Hawaii Brew Pubs

FROM: Peter Hadikin (HDIP9235)
(604) 432-8452

I will be heading off on holidays to the islands of Hawaii and Maui at the end of April/ beginning of May. Just wondering if there is such a thing as brew pubs on either or both of these islands. Any responses may be directed back to me and would be greatly appreciated.

Take it easy, Peter.

BC Institute of Technology
Computer Resources
3700 Willingdon Avenue

Date: Thu, 8 Apr 93 12:31:57 EDT
From: casey@bbt.com (Kevin Casey)
Subject: Help! Need Hop plant info

My brother (the one with the green thumb) recently volunteered to grow hops for me. I need to order some plants (or do you order rizomes sp?). Can someone guide towards a mail order house for hop plants? Also, could you recommend varieties that could grow well in Raleigh, NC (hot humid summers). Please respond via private email. Thanks in advance!

Kevin Casey | "What you doin' daddy?,
BroadBand Technologies, Inc. | cookin' beer"
Research Triangle Park, NC |
Internet: casey@bbt.com | My 2 year old son

Date: Thu, 8 Apr 93 14:11:11 EDT
From: Michael W Worobiec <mworobie@magnus.acs.ohio-state.edu>
Subject: Verify address

address verified

Date: Thu, 8 Apr 93 13:21 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Skimming, Hops, Color

>From: korz@iepubj.att.com
Subject: Re: why blowoff? dryhopping

>Gerald asks, why use the blowoff method?

>It's merits have been argued in the HBD, but I believe it makes the beer taste better, so I continue to use it. Papazian says that the kraeusen contains fusel oils (I've seen fusel alcohols elsewhere) which some say contribute to hangovers. The most graphic proof I have for using the blowoff method is to challenge anyone to drink a glass of blowoff. YUK! Just sniffing it is enough to guarantee my continued support of this procedure.

>The arguments against using the blowoff method (just to be fair) are that you lose beer and that you lose some of the bittering you just but in with the hops.

The above arguments seem to be based on only two possibilities:

1. Blow-off
2. Do Nothing

Based on this, it would seem that blow-off is the preferred method.

The third possibility is to ferment in an "open" container and skim the bitter crud floating among the foam.

I put "open" in quotes because by this, homebrewers mean a large container with an opening large enough to get in to skim and a lid to keep out contaminants while fermenting.

This usually is the "standard" 7 gal plastic fermenter universally available in retail shops. In my case, I use my 10 gal ss mash kettle for a fermenter.

So, once we agree (ha ha) on the need to get rid of the crud, the discussion becomes... skimming vs. blowoff.

As Al mentioned, little or no beer is lost by skimming. I wait till the foam is just about gone and only skim the brown crud that floats because that is what is bitter. The foam is just wort puffed up with CO2 and it turns back into wort when the fermentation subsides.

On the negative side is the risk of contamination every time the fermenter is opened to skim but reasonable precautions can reduce this to the noise level.

I don't think anyone will argue about the ease of cleaning an open fermenter vs. a carboy and associated tubing.

.....

>If you use pellets, you can put a copper scrubbing pad over the end of the siphon hose followed by a mesh bag (this idea was originally introduced by Al Taylor (I think it was Taylor...) and then independently by Kinney Baughman).

First of all, whatever happened to Kinney? I still see his ads but he has not posted here for months. I am sure it is just a coincidence but it seems that he vanished about the time Jay Hirsh started his censored, politically cleansed, alternative forum.

Well, anyway the pot scrubber is a nifty idea but in a recent experiment with dry hopping, I found a new use for the easy masher. It just so happens (ha ha) that the ID of the strainer tube is 3/8" and fits snugly over the end of the "standard" siphon tube. You can slide it up or down to expose as much or as little of the strainer as you like and keep it whatever distance off the bottom you wish.

BTW, the experiment was interesting in that I prefer the normally hopped beer to the dry hopped but the gang at CBS has exactly the opposite view. Guess I will abandon all plans to become the World's Greatest Beer Judge. Not liking hops could be considered a restrictive bias.

.....

Someone recently posted an article on diluting Michelob Dark with various amounts of water to make color calibrators. I know have the beer and can't find the article.

js

know = now

jjs
ZZ

Date: Thu, 8 Apr 93 13:46:02 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Hop Alpha Acid rating

A fellow brewer and I were talking about ingredients recently and made the following observation:
The European hops we have been getting pellets and plugs have been steadily declining in Alpha Acid rating each year. My current Saaz pellets are 2.1%
What is the cause of this. Is it due to economics, fixed supply of hops going into an expanding market and homebrewers getting what mega brewers do not purchase. Or is it that that the hops actually are becoming less acidic.
Or are have the measurement methods changed. Is it cyclic or seasonal. Reviewing the original Papazian CJHB and its list of hops and alpha acid ratings what I am getting now are almost 50% less than listed then.

Date: Thu, 8 Apr 93 07:47:09 EDT
From: Jim=Curl%Eng.West%PTLSANJOSE@ptltd.com
Subject: Sorry for the noise...

Just a test.

Date:Thu, 8 Apr 93 14:52:30 EDT
From: "David C. Skeldon" (CCAC-LAD) <dseldon@PICA.ARMY.MIL>
Subject: "Party Pig"

Frank Jones had an excellent post back in the middle of January on the "Party Pig" made by Quoin. Since then I haven't heard anything about it, and I was wondering if anyone has more input/experiences. I bottle all of my beer right now, but I could see the advantage to a couple of kegs for summer parties.

Thanks

>Dave Skeldon: Owner, Operator, and Brewmeister of Wooddale Brewing Co.

Date: Thu, 8 Apr 93 14:00 CDT
From: korz@iepubj.att.com
Subject: Wrestling aligators

Jack writes, quoting Jeff:

>>It also looks as though I'll need to put rubber feet on my bucket, so
>it doesn't slide and hop around while I'm cranking the mill.

>

>Doing it on the bucket looks a lot easier than it is and depending on
the
>floor surface, it can be like wrestling with an aligator. I think most
>people eventually conclude that it works best clamped to a table with
the

I disagree. I suggest a square of rubber-backed carpeting under the
bucket!

Shame on you Jack-- my solution is *simpler* than yours...

Subject: Resurgent fermentation

Caleb writes:

>I am a relatively novice homebrewer (about a year) and I have just
recently
>noticed some trouble with an extract/specialty grain beer. I used
crystal
>malt (1/2 lb) biscuit malt (1/2 lb) and Alexander's pale ale (6? lbs.).
The

DeWolf-Cosyns Biscuit (if that's what you used), although it is a roasted
malt (like very pale chocolate malt) still has LOTS of starch in it and
should be mashed. Given the pale-ness of your beer (judging from your
ingredients), I suspect that you'll have a starch haze.

>problem: the beer sat fermented in the primary until the fermentation
was
>nearly done (i.e. more than 90 seconds between bubbles). I racked(?) to
the
>secondary and everything looked fine for about a day. Yesterday I
noticed
>that the secondary was bubbling about once every 45 seconds. There is
also
>a light foam forming on top of the beer -- basically a thin airy head.
The
>gas escaping from the lock doesn't smell like the usual gas so I am
suspicious.
>Does it sound like I have a contaminant yeast. If so is there anything
I
>can do?

I suspect that you have roused the yeast which may have indeed caused a
little bit more fermentation or perhaps simply provided nucleation sites
for dissolved CO2 to form bubbles and come out of solution. A day is
much
too short a time for a wild yeast or bacteria to begin releasing any gas.

Subject: Are bottles, just bottles? PLUS: Question for Charlie Papazian

Dan writes:

>Next, what is the best source for bottles? Are bottles bottles, or
>are some better than others? Should I stay away from bottles all
>together?

The best bottles, in my opinion, are, what we call here, "bar bottles." They are the thick, brown longnecks that require a deposit and are often so scratched up you can't see through them. You can really mishandle these bottles and still not break them. On the down-side, they do tend to have chipped-up lips (which can result in a bad seal) and are pretty ugly. I've heard that they are as scarce as hen's teeth in the West. Around here, several small, old Wisconsin breweries, such as Huber, use them as well as AB, Miller and Heileman's. Go find a bar that uses them or a big liquor store that stocks beer in them -- you can buy them for the deposit and you get a nice waxed cardboard case free!

The reason I say these bottles are the best is because they are competition-ready... you can use them for competitions. Besides having no raised lettering, I would be willing to bet that of all the broken bottles that arrive at competitions, less than 1% are "bar bottles" just because they are so durable.

My two other favorite bottles are much harder to get: Orval and the *old* Whitbread (and Mackeson's) bottles. Alas, they have raised lettering so are not usable for AHA-sanctioned competitions. They are really thick, brown glass and usually are not re-used by the breweries so they are in much better shape than "bar bottles."

The general rule is the thicker the glass and the darker brown they are, the better the bottle. Also, if you have your choice, you might as well get bottles that are usable for competitions. I need to make sure that I have enough competition bottles of each batch. It would be a shame to have best beer ever just at its peak, right in time for the Nationals and then find out you've only got Bass, Youngs, Fullers and Orval bottles left. Oh yeah... generally, only (approximately) 12 ounce bottles are acceptable for competitions, so don't bottle the whole batch in Weiss, Xingu and other jumbo bottles if you plan to enter some competitions. Actually, if you only want comments on your beer, any bottle will do -- it will be judged, but will probably be disqualified if it doesn't meet the bottle requirements.

Now, I have a question for Charlie: "What about the bottles that have raised glass codes or "NO DEPOSIT" on the bottom edge of the bottle, like McEwan's Scotch Ale or Samuel(tm) Adams(tm) Boston(tm) Lager(tm)?" Last year, at the 1st round judging, we were told to accept such bottles and disqualify only bottles with raised brand names such as "Bass," "FULLERS" and "ORVAL." I complied, but feared that the 2nd-round Nationals may be more demanding on bottle requirements. What's the official word?

Subject: Re: Rehydrating dry yeast?

Rich writes:

>As a relatively new brewer, this is the first I've heard of
>rehydrating dry yeast before pitching. For the few batches that I've
>made, I pitched the dry yeast directly into the primary, with no
>noticeable bad effects (i.e., it fermented just fine, and the beer
>tasted the way it was supposed to taste).

You could have excellent sanitation and study yeast or just good luck.

>Is there any advantage to rehydrating the dry yeast? Is there any
>disadvantage to tossing the dry stuff directly into the primary?

From Paul Farnsworth's article in the Yeast Special Issue of Zymurgy:
"The latest data from Intek, an Australian dried-yeast producer who is just entering the U.S. market, are as follows: Rehydrate the dried yeast in one-half cup of water. Clean water between 95 degrees F and 104 degrees F (35 and 40 degrees C) should be used. City water supplies containing high concentrations of chlorine will inactivate dried yeast during rehydration. Chlorine can be removed [and any live bacteria killed - Al] by boiling. Cold water will significantly decrease the viability of dried yeast during rehydration. It is advisable to not rehydrate yeast in wort because compounds extracted from hops are antiseptic and can decrease yeast viability while the yeast is being rehydrated."

Also, the Lallemand Newsletter has very similar recommendations (alas, I don't have it here to quote), but mention that the osmotic pressure difference rehydrating in wort can cause the yeast to produce off-flavors when it later switches to fermentation.

I have a personal experience with a two three-quarter-gallon test batches using Lallemand Nottingham yeast. The 1048 wort was cooled to 80F, aerated and the yeast was pitched. In batch 1, the dry yeast was simply sprinkled on top of the wort. In batch 2, the dry yeast was rehydrated in 104F water for 15 minutes and then pitched. Both batches were kept in a 65F room. Batch 2 was actively fermenting in about 8 hours, whereas Batch 1 took over 72 hours to begin fermentation. Fermentation in Batch 2 appeared normal and healthy and was complete in about 5 days, whereas the fermentation of Batch 1 was sluggish and took much longer.

Time and other projects prevented me from completing this experiment, i. e. taking FG readings and tasting (in fact Batch 1 is still sitting there in my fermentation room between pseudo-Kriek#2 and pseudo-Gueuze#1), but the importance of rehydration was clearly shown.

Al.

Date: Thu, 8 Apr 1993 12:00:35 -0700
From: Richard Stueven <gak@wrs.com>
Subject: Re: vortex drain strength, and coriolis acceleration

Got this from the sci.physics FAQ...

Summary: the Coriolis force is real, but irrelevant at the bathtub (or carboy) scale.

have fun
gak
Richard Stueven, Castro Valley CA

Item 12.

Which Way Will my Bathtub Drain? updated 11-May-1192 by SIC
----- original by Matthew R. Feinsein

Question: Does my bathtub drain differently depending on whether I live in the northern or southern hemisphere?

Answer: No. There is a real effect, but it is far too small to be relevant when you pull the plug in your bathtub.

Because the earth rotates, a fluid that flows along the earth's surface feels a "Coriolis" acceleration perpendicular to its velocity. In the northern hemisphere high pressure storm systems spin clockwise. In the southern hemisphere, they spin counterclockwise because the direction of the Coriolis acceleration is reversed. This effect leads to the speculation that the bathtub vortex that you see when you pull the plug from the drain spins one way in the north and the other way in the south.

But this acceleration is VERY weak for bathtub-scale fluid motions. The order of magnitude of the Coriolis acceleration can be estimated from size of the "Rossby number". Coriolis accelerations are significant when the Rossby number is SMALL.

So, suppose we want a Rossby number of 0.1 and a bathtub-vortex length scale of 0.1 meter. Since the earth's rotation rate is about 10^{-4} /second, the fluid velocity should be less than or equal to $2 \cdot 10^{-6}$ meters/second. This is a very small velocity. How small is it? Well, we can take the analysis a step further and calculate another, more famous dimensionless parameter, the Reynolds number.

The Reynolds number is $= L \cdot U \cdot \text{density} / \text{viscosity}$

Assuming that physicists bathe in hot water the viscosity will be about 0.005 poise and the density will be about 1.0, so the Reynolds Number is about $4 \cdot 10^{-2}$.

Now, life at low Reynolds numbers is different from life at high Reynolds numbers. In particular, at low Reynolds numbers, fluid physics is dominated by friction and diffusion, rather than by inertia: the time it would take for a particle of fluid to move a significant distance due to an acceleration is greater than the time it takes for the particle to break up due to diffusion.

Therefore the effect of the Coriolis acceleration on your bathtub vortex is SMALL. To detect its effect on your bathtub, you would have to get out and wait until the motion in the water is far less than one

rotation per day. This would require removing thermal currents, vibration, and any other sources of noise. Under such conditions, never occurring in the typical home, you WOULD see an effect. To see what trouble it takes to actually see the effect, see the reference below. Experiments have been done in both the northern and southern hemispheres to verify that under carefully controlled conditions, bathtubs drain in opposite directions due to the Coriolis acceleration from the Earth's rotation.

The same effect has been accused of responsibility for the direction water circulates when you flush a toilet. This is surely nonsense. In this case, the water rotates in the direction which the pipe points which carries the water from the tank to the bowl.

Reference: Trefethen, L.M. et al, Nature 207 1084-5 (1965).

Date: Thu, 8 Apr 93 15:10:50 EDT
From: Brett Baumberger <bsb@hpuerca.atl.hp.com>
Subject: Georgia Legalizes Homebrew

Hi Brewers,

Georgia Governor Zell Miller signed a bill yesterday making it legal for Georgia residents to brew 50 gallons of beer/year to be consumed at home. The newspaper did not carry an article on it that I could find. A local TV station gave a 45 second story about it (using last year's footage).

So the hoppers here in the Peachtree state will no longer live in fear of the local Gestapo.

YC06000 <YC06%FERRIS.bitnet@CUNYVM.CUNY.EDU> writes in hbd1115:

>One more...I will be in Atlanta, GA in May. Are there any
>brewpubs or microbreweries to worth going to?

Sorry. GA is a firm enforcer of the 3 tier distribution law. No one may be involved (commercially) in more than one of the following:
 manufacturing, distributing or retailing
of beer i.e. no brewpubs. :(

Brett

Date: Wed, 7 Apr 93 20:58:05 PDT
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>
Subject: RIMS AND Immersion Heater Length?

I just picked up a two stainless steel vessel double wall insulate with copper coil that runs between the two walls. It was made for A&W rootbeer . Freon was pumped in the coil to keep it cold. It came with four pumps two for pumping the rootbeer and two as a Freon compressor . It holds 48 gals. and has a lid and a bottom drain with a stainless steel screen that rises 1 inch off the bottom and a stainless steel valve. I am going to use one for a fermentor and the other as a hot water vessel used for sparging and rims. Now I want to set up a rims system and to heat the mash I will pump wort out of the bottom of the mash tun through some copper coils that is placed in side the hot water vessel to boost the mash temp. Now I will use a pump to transfer hot water from my boiler kettle to the hot water vessel. The pump has a max flow rate of 5 gals. a minute but I have built a pump speed control. I will keep the temp. of the hot water vessel at 80 degree C. . My mash tun is a converted 15 gal. keg that has 6 inches of that spray in foam around it and my wort boiler is a 15 gal. converted keg also with a hop back.

1.) So what size and what length should I use to get a 1 degree C. rise in temp. ?

2.) What should I use to seal the lid of the fermentor down to keep the air out ?

v-ccsl@microsoft

Date: Thu, 8 Apr 93 12:49:11 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: vortex drain strength, and coriolis acceleration

envkas@sn370.utica.ge.com (Karl A. Sweitzer) writes:

>I have found that the best vortex drains are formed when you swirl the
>bottle
>or carboy in a counterclockwise direction (when viewed from above, in
>the
>northern hemisphere of our spaceship earth). The reason is the coriolis
>acceleration vector caused by the counterclockwise rotation of the
>earth.
>When you rotate the bottle in the same direction as the earth rotation
>the coriolis acceleration vectors constructively add, forming a greater
>force on the liquid molecules. The coriolis acceleration vector tends
>to force the liquid to the outside of the rotation circle leaving room
>in the middle of the bottle for air to enter and replace the exiting
>liquid.
>
> [snip]
>
>Karl Sweitzer

Yes and No. Yes: the coriolis force does exist and is in the direction
you
indicate. No: the size of this force is negligible compared to the
other
forces acting during the process, e.g. the forces you exert by swirling
the
carboy, and the viscous and frictional forces of the water and carboy. I
have not done a calculation, but I would bet the coriolis force is even
smaller than the surface tension of the water.

My \$0.02: whether you get a better vortex CW or CCW will most strongly
depend on whether you are right handed or left handed.

Also (I hate to quibble, but...) it is the CENTRIFUGAL acceleration
(not coriolis) that forces the liquid to the outside when it is rotating.

No flame intended. Just wanted to put my degree to *some* use :-)

Troy

Date: Thu, 8 Apr 93 14:04:05 PDT
From: Gordon Baldwin <gbaldwin@unix11.eldec.com>
Subject: Brew Shops in the Olympia WA region

Sorry to take up bandwidth for a local question, but does anyone know of any brew shops in the Olympia Washington area? I will be leaving Seattle and I would like to have something local.

- --

Gordon Baldwin
ELDEC Corp
gbaldwin@eldec.com

Date: Thu, 8 Apr 1993 15:06:08 -0800 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: Dry Hop Sediment

Peter Bartscherer writes:

> However, I found that GENTLY swirling, NOT SPLASHING, the beer in the
> fermenter a day or two before bottling caused the hop head to break up
> and settle out.

With all the frothing that the hop pellets cause in the secondary I would think that all the air would have been purged out and the beer was sitting under a layer of CO2. This being the case, what's wrong with causing some splashing as long as the airlock is left on?

Peter

Date: Thu, 8 Apr 1993 17:14:30 -0700 (PDT)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: Lab Equip. Resources

Does anyone know of reasonably priced mail order resources for lab equipment and supplies? Specifically looking for the full range of slant tubes, petri dishes, erlenmeyer flasks, stoppers, agar, and the like for yeast culturing. I know that a couple of brew supply stores have put together "kits" but the reviews suggest that additional material would probably be required and I'd like to compare buying my supplies directly from a lab supplier vs. the kit price as well as having access to other material.

If you don't know of any mail order suppliers, I live in Oakland and work in SF, so Bay Area stores would be appreciated as well. Reply by e-mail please unless you think the community would like to know about the mail order places.

And, since I seem to be in the information gathering mood, what about Bay Area liquor (or other) stores that have a good range of Belgian beer products that you would trust to be well handled. I recently bought a bottle of Chimay that was a couple of years old (didn't know it until I pulled the cork).

BTW, Norm Pyle posts of a homemade roller mill:
>...sort of a scaled down version of
>the one presented by RW and (??) in the latest Zymurgy gadgets special issue.

(??) is Wayne Greenway and its a beautiful mill, my extract rating soared after switching from buying precrushed to using this mill. I'll miss having it in the neighborhood when he moves.

Eric Wade <ericwade@ class.org>

Date: Thu, 8 Apr 93 12:53:16 EST
From: joseph@joebloe.maple-shade.nj.us (Joseph Nathan Hall)
Subject: Blowoff (fusels, etc.)

Korz says,

> Gerald asks, why use the blowoff method?

>

> It's merits have been argued in the HBD, but I believe it makes the
> beer taste better, so I continue to use it. Papazian says that
> the kraeusen contains fusel oils (I've seen fusel alcohols elsewhere)
> which some say contribute to hangovers.

"Fusel oil" is the oily byproduct of ethanol distillation consisting of mainly long-chain alcohols: propanols, butanols, etc. The terms "fusels," "fusel oils" and "fusel alcohols" are synonymous so far as I know. I don't know whether the term applies to aromatic as well as aliphatic alcohols; since I don't hear phenols grouped in with fusels, I assume that it doesn't.

Fusel alcohols are an important flavor component. The shorter ones have medicinal/disinfectant flavors (e.g. isopropyl). The longer ones are pungent and have a kind of fruity-citrusy-medicinal character that is unmistakable. I've had quite a few homebrewed pale ales where the octanol (orange-sweet-medicinal) was quite prominent.

In fact, the last Liberty Ale I drank smelled and tasted strongly of octanol or something similar. I was a bit surprised by it and intend to try another bottle from a separate source, since I consider it a defect. The last bottle of Liberty Ale I had was a few years and quite a bit of palate training back, so I don't remember what it used to be like.

A professional brewer who was drinking with me (at the Brickskellar) at the time said that it seemed "old." I'm not so sure; I've never seen beer change in flavor this way in a bottle. (Anyone care to comment on the Liberty Ale profile?)

Some people claim fusels contribute a "clinging bitterness" to beer. Bitter though they may be, they are so pungent that the flavor of the beer will be negatively affected long before the finish, at least in my opinion.

As far as hangovers go, long chain alcohols may well be a factor. They become increasingly toxic and intoxicating as the chain of carbons grows, to a point, anyway. Many many other fermentation byproducts are also mildly toxic. I would bet that the aldehydes, ketones and esters contribute unpleasant metabolic byproducts.

Finally, fusel alcohols are quite soluble in alcohol, and can not be removed by blowoff. The unpleasant substances in blowoff residue are tannins, unisomerized hop resins, etc. They are largely insoluble, even in a weak alcohol solution, and are not going to be a primary source of bitterness or astringency in your beer once it has cleared.

===== O Fortuna, velut Luna, statu variabilis =====
uunet!joebloe!joseph (609) 273-8200 day joseph%joebloe@uunet.uu.net
2102 Ryan's Run East Rt 38 & 41 Maple Shade NJ 08052
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Date: Fri, 9 Apr 1993 08:23 EST
From: CROWELL%NSLVAX@Venus.YCC.Yale.Edu
Subject: malt extract for priming; exploding bottles

I'm a beginning extract brewer, and would appreciate any comments on a couple of questions about bottle conditioning...

(1) On my first (and so far, only) batch of beer (a brown ale), I used 1.25 cups of malt extract for priming instead of 0.75 cups of corn sugar. Papazian mentions parenthetically that this can be done, and I thought, why add sugar to my beer? I was happy with the results... does anyone know why corn sugar seems to be the standard method?

(2) I had a bottle explode while I was out of the house (4 weeks after bottling). What would be a common reason for this? I wonder if I left too little air-space, or whether it might have to do with using malt extract for priming.

- Ben Crowell, New Haven, CT

Date: Fri, 9 Apr 93 07:31 PDT
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Hops afterthoughts

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/09/93 09:32:21
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov>
SUBJECT: Hops afterthoughts

Mark Elliot writes:

>Should have guessed why everyone said "not bad, but not bitter enough".
Now
>that I've screwed up another batch (now 3 days in the primary), is
there away
>to salvage what I'm sure will be another "bland", hop-lacking brew?
Theflavor
>of the past few batches has been ok; rich, sort of sweet, but
kindawatery and
>again, missing a lot of what the hops were there for to begin with.

If I read your note correctly, you've been using hopped extract kits and
boiling away. A long boil will indeed destroy any hop aroma that was in
the
beer. You can still use hopped extract kits, but make sure you add some
flavor
hops in the last 20 min of the boil and/or aroma hops in the last 5 min.
Keep
in mind that there are styles that do not typically have appreciable hop
aroma
or flavor--like stouts and most german lagers.

If you want to add bitterness, see if you can find pre-isomerized hop
extract.
This is essentially what you get when you boil hops for bitterness.
Keeping in
mind that your beer probably already has some bitterness, follow the
directions for adding LESS than the full amount. This stuff is
concentrated
and a little goes a long way. Remember, you can always add more. It will
also
add some hop flavor. You could add it to the secondary or to a malt
extract
primer at bottling time.

If you want some hop flavor or aroma, there are two things you can do.
(1) Dry
hop with pellets if you have no head space in your secondary or use leaf
if
you have room. (2) Add hops when you bottle using the "coffee-pot
method."This
was discussed on HBD a couple months ago.

Dennis B. Lewis (713) 483-9145 ** NASA/JSC/DH65 Payload Ops
Homebrew, The Final Frontier.

Date: Fri, 9 Apr 1993 11:00:03 -0400 (EDT)
From: "Michael E. O'Connor" <mo0q+@andrew.cmu.edu>
Subject: Re: `Breathing' of wine

Excerpts from internet.homebrew-beer: 6-Apr-93 `Breathing' of wine by
KURZ@GANESA.PFC.MIT.EDU
>> and the need for quiet racking and transfer. However, wine drinkers
also
>> know that good red wine needs to "breathe", which of course is, a snob
word
>
>> for oxidize.
>
>I beg to differ. From my experience in wine making and my limited
>qualities as a wine connoisseur I believe that what is commonly referred
>to as "breathing" has nothing to do with oxidation. Usually when you
>pour a red wine from the bottle (i.e. decant it) you don't drink it
>immediately. Instead, you let it `breath' in a caraffe for some time
>(half an hour to one hour or so). The rationale is to let it develop
>its bouquet. Some volatile substances in the wine evaporate and
>saturate the air immediately above the wine (that's also, by the way,
>one of the reasons why you should serve red wine in big, wide glasses;
>so as to retain the `aromatic air', i.e, the bouquet). There is no
>oxidation involved (to my knowledge). That would take much longer.

>From what I understand, `Breathing' of wine *is* to let it oxidize.

In wines, tannins are very important to the the aging of wine, but do
produce a somewhat undesirable taste. I am pretty sure that the
`Breathing' period is so the oxygen can react with the tanins and sort
of `surround' them to mellow their taste.

I do agree however that oxidation of whine before it gets to the bottle
and ages is a bad thing...

I hope I'm not way off on this...

-stew

I DRINK beer *and* I collect cute bottles! ;-)

Date: Fri, 9 Apr 93 10:09:37 CDT
From: hinz@memphis.med.ge.com (David Hinz)
Subject: Re: vortex drain strength, and coriolis acceleration, wort chillers.

Karl writes:

- - - -

I have found that the best vortex drains are formed when you swirl the bottle or carboy in a counterclockwise direction (when viewed from above, in the northern hemisphere of our spaceship earth). The reason is the coriolis acceleration vector caused by the counterclockwise rotation of the earth. When you rotate the bottle in the same direction as the earth rotation the coriolis acceleration vectors constructively add, forming a greater force on the liquid molecules.

- - - -

A couple of terms spring to mind here...."unmeasurable", "negligable", and "insignificant" spring to mind.

The amount of force you are imparting into the molecules is, I would guess, on the order of thousands or millions of times stronger than that of the coriolis effect. Yes it exists, yes it is measurable, but your swirling a carboy full of water gives you a heck of a lot more force than the earth's rotation, neutrino bombardment, specific gravity of your tap water, or the color of the paint in your kitchen.

- - - - -

About wort chiller length (oh no, not more!).....

I've got a 50 foot, 3'8" chiller I made, by wrapping it around a 5-gallon bucket, then laced up the sides in 3 places with copper wiring wire. It chills the wort to pitching temperature in a rather rapid time (guessing 15 minutes, I can look at my records to tell you for sure). The water comes out boiling (steam, actually) for a few seconds, then comes out progressively cooler. Stirring with a sanitized spoon speeds up the heat transfer, and the lacing keeps the coils far apart enough so that the wort can circulate pretty freely.

I, personally, can't see any benefit to a shorter length, at all. You want to give the water as much opportunity to absorb the heat of the wort. I would think the following are involved:

>Coil surface area (not mass, as someone else mentioned???)
>flow rate of water passing through coil
>temperature differential between wort & water.

So, let's try this: We bring our cold water into the hot wort. Should we bring it in the top, or bottom? The wort is probably warmer at the top, so we should put the cold water in at the top so the temperature differential is highest, or maybe not. Any ideas?

Now, how about flow rate? Slower flow would give the water more time to absorb the heat, but I think the extra length does the same. I dunno, I'm asking. I suppose you could adjust the flow from the faucet for maximum outlet temp in your chilling water, which would indicate maximum heat transfer. It will change as the temperature delta changes, however, I THINK.

What about tubing diameter? Surface area goes up, flow rate goes up, but restriction, and therefore time in the chiller, goes down. Where is the optimal point, extrapolated across all temperature differentials?

There are probably a thousand more variables. I like the idea that someone proposed here, to do an empirical study of what we are using, and decide which coil construction works best. I propose we look at the following variables:

- 1> water going in at top or bottom of chiller coil
- 1A> Coil rotation direction (for the hell of it, can't think of an effect but who knows...maybe a coriolis thing after all!)
- 2> diameter of tubing & length of tubing
- 3> flow rate used (how long to fill a quart bottle from the outlet of the chiller coil?)
- 4> temperature of your tap water (just for reference, not really something you can change all that easily)
- 5> amount of time to chill the wort to, say, 75 degrees F.

Can't think of anything else to measure offhand, any ideas? Someone else mentioned they'd tabulate results, I'd be willing to do so also or help. Of course, it would mean that we'd all have to brew a batch of homebrew to tabulate the results....sorry for the inconvenience ;-)))

Dave Hinz
hinz@picard.med.ge.com

Date: Fri, 9 Apr 93 08:32:46 PDT
From: Darryl Richman <darrylri@microsoft.com>
Subject: re: Thanks for the decoction info.

Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov> writes:
> wrote that some of the big breweries like Pilsener Urquell still use
decoction
> mashing. How on earth do they remove the grains from the mash tun?
They must
> have to boil hundreds of pounds of grain. Anybody taken a tour?

Umm, yeah, I have taken a tour. Most of the info was published in a
Zymurgy article about 3 years ago. (Sorry I can't tell you the issue
right off hand, my collection is at home.)

But to answer your question, a tour of nearly any of the German
breweries would do, since they almost all practice decoction mashing.
The usual arrangement is a 4 vessel brewhouse: a mash tun
(maischebottich), mash cooker (maischepfanne), lauter tun
(lauterbottich), and a kettle (wuerzefanne). The process involves
doughing in in the mash tun, and then pumping from a bottom outlet to
the mash cooker the decoct. That's how a "thick mash" is obtained for
boiling. This decoct is eventually returned to the "rest mash" to
raise the whole to the next temperature plateau. When the decoction
mash is finish, this outlet is used again to pump the entire mash to
the lauter tun. During lautering, the bed will compact, and lautering
is stopped while an arrangement of "mash knives" is run around the tun
to loosen the bed. When lautering is complete, the knives can be
turned sideways to form a moving wall, and this pushes the spent grist
into an outlet that leads to a holding tank or a farmers truck. A
final wash is required, of course, to get the last recalcitrant husks to
leave.

The reason for a 4 vessel system, rather than a two vessel system
(kettle and lauter tun) is that the commercial breweries can get a
significant overlap of successive batches on the equipment. This is
important if your mash and boil process takes 11 hours to complete and
you want to make more than a million barrels of beer each year, as it
does at Pilsner Urquell.

--Darryl Richman

End of HOMEBREW Digest #1117, 04/12/93

Date: Fri, 9 Apr 93 11:29:01 EST
From: Ulick Stafford <ulick@bernini.helios.nd.edu>
Subject: cooling

Tim Anderson posted an adjustment he made to his chiller to improve cooling. I have been considering a simple change - reversing the flow. At present cold water enters at the bottom of the coil and exits at the top. That combined with water's tendency to stratify in layers causes the wort to be still, stratified and hot near the top. A reverse in flow would chill the top stuff first and it would then sink setting up convection currents that may aid coagulation and heat transfer. The reason I haven't until now is worry about air pockets being trapped in the coil, but given high flow rates that is probably a foolish concern, and an actual desire not disturb the hop pellets so much so I could rack off them quicker. However I usually have to rack wort twice anyway before pitching so this is of less concern. Comments?

Also related peripherally to cooling, Al's post interested me. I have roused yeast since the first batch I did when I was a whelp, thought everybody did it, and thought it was essential for beers brewed with bottom fermenting yeast (not Al's beer of course). But the temperature thread intrigued me. 72 or 68 is much too warm for a house I have to heat, but then 60 is what I am used to. In Ireland I usually had to put the ferments in a warm place. But 60 is too cool for my SO's guinea pigs and bird. So their room is heated to 68-70. This means that for nice temperature steps I can start at 68 in the rodent room, rack to secondary and move to the kitchen (60) and then put it in the basement 50-55 to clarify prior to bottling. If only lager temperature steps were so easy.

Another ale comment is that I have gone back to my plastic bucket for ale primaries. I never used to skim, but now I have decided after reading Warner that I should collect yeast from the top. I did so on my last ale. The yeast is quite the foulest stuff I have ever tasted due to the hop resins and other lovely scum. It doesn't seem to be contaminated in that I can't taste anything off but that could be due to masking by the hop resin. I have decided that I should rinse and, to be sure, acid wash the yeast prior to reuse. Comments?

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@bach.helios.nd.edu

Date: Fri, 9 Apr 93 09:14:33 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: Wyeast reuse/stretching

Howdy all,

Well, after all this talk about dry yeast contamination (notwithstanding the recent posts concerning the improvements at Whitbred) I have finally decided to take the liquid yeast plunge.

!*SPLASH*!

Ok, so I shelled out \$4 for Wyeast Belgian Ale yeast. FOUR BUCKS! For microscopic fungus! It boggles the mind. In HBD #1103, Philip J Difalco <sxupjd@fnma.COM> reposted an article by Rick Cavasin on stretching Wyeast by making a 1/2 gallon starter, fermenting to completion, bottling the results in 5-6 bottles, and using the bottles to make starters for pitching into your wort. In the post, Philip asks for comments from the yeast-gurus out there.

I have not seen any replies posted, so I thought I would ask again; with a slightly different slant (no pun intended).

I have followed Rick's instructions and I now have a 1/2 gallon starter fermenting away. This should yield ~6 bottles of yeast. However, for my next brew, Belgian may not be appropriate. So I'll go out, get another packet of Wyeast (say, London Ale), and do the same thing for it. Then, I'll have 5 bottles of Belgian and 5 bottles of London in the fridge.

So now I forsee obtaining my own collection of Wyeast, all bottled in 12 oz. beer bottles and stored in the fridge. I might only have to buy yeast once a year (once my collection is established).

This seems like a very cheap, very easy form of yeast management.

Is it?
Are there draw backs (like problems with autolysis, or the yeast just dying)?
Am I wasting my time?

Rick mentions he has had bottled yeast last 6 months. Will they last longer?
Are those 6 mo. old yeast just as good as those from a new Wyeast packet?

Please, please, please, send me guidance.

Lost in the terrifying world of expensive microscopic organisms,

Troy

Date: Fri, 9 Apr 1993 11:56:42 -0500 (CDT)
From: STOREY@fender.msfc.nasa.gov (BadAssAstronomer)
Subject: camra

Hi everyone

Just back from England with a bunch of real ale under and around my belt :) Man it was great, but I'll bore you with the details in some other post.

However, the CAMRA Guide to Good Beer impressed me so much, I was thinking of joining CAMRA. Anybody out there a member or ex-member? Any and all comments will be appreciated.

thanks
scott

Date: Fri, 9 Apr 1993 13:24:15 -0400 (EDT)

From: David C Mackensen <cygnus@unh.edu>

Subject: Re: Tabs and the such

try using emacs and the M-x untabify... this will replace tabs with spaces and preserve columns.. what a bargain!

- --

- -- Chris Mackensen (dcm2@kepler.unh.edu or puck@unh.edu)

Date: Fri, 09 Apr 93 14:46:39 -0400
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
Subject: RE: Request for decoction mashing help....

In HBD 1116 Stuart Galt asks:

> Sorry about posting this to the whole world, but... with all the
recent talk
> about decoction mashing, I am a bit interested in giving it a try.

> a) What books/article/whatever should I read to figure out how it is
done?

> b) Is there anyone in the Seattle area that is willing to come over
and
> help/show/whatever brew a batch. I seem to be entering my busy
season
> with an up coming wedding and the picnic season aproaching :-)

I like Noonan's book - Brewing Lager Beer. I re-read it all the time.
Also, FWIW, decoction mashing is easy! Easier, I think, than a temp.
controlled mash. Much less to worry about. It is my favorite mash.
Enjoy!

Bob Santore
rsantore@mailbox.syr.edu

Date: Fri, 09 Apr 93 15:05:26 -0400
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
Subject: RE: Help, I boiled away the hops.

In HBD 1116 Markham R. Elliot writes:

> My beers have dramatically improved since that first fateful batch.
Reduced,
> then eliminated the use of sugar. Then came the use of a secondary
fermente
> Then the use of DME, and finally the failed attempt at using DME as a
primin
> agent. Longer boils...longer boils...longer boils. No one reminded
me that
> when using a hopped extract, the longer you boil, the more you remove
what t
> hops were put in there for. No one to blame but myself, should have
seen it
> coming. Knew better. Dealt with essential oils in Organic Chemistry
those
> many years ago. Faithfully read the HBD daily, and see cautions about
not
> boiling away the "hop nose", etc, etc.

> Now the plea for help.

> Should have guessed why everyone said "not bad, but not bitter
enough". Now
> that I've screwed up another batch (now 3 days in the primary), is
there a w
> to salvage what I'm sure will be another "bland", hop-lacking brew?
The fla
> of the past few batches has been ok; rich, sort of sweet, but kinda
watery a
> again, missing a lot of what the hops were there for to begin with.

Mark, In my opinion most hopped extracts are way underhopped. You didn't
give us a recipe to work with but I suspect that if you are relying on
the

extract to give you your hops, that could be your problem.
I would recommend using unhopped extract and adding your own hops.
There are many advantages: it is more fun, you become more familiar with
recipe formulation (after all, you may want to brew all grain some day),
and your flavor will drastically improve. You also have much more
freedom
to brew what you want.

If you use your own hops, remember - you cannot boil away bitterness!
A vigorous 1-hour boil is just what you need to extract bitterness from
hops.

You will lose some of the more volatile flavor components but thats ok
because you can add hops near the end of the boil to give you flavor and
aroma. The amount to add and when to add it really depends on the style
you're after. Find a homebrewer with a beer you like and get the recipe!
Then stick to it (just once anyway).

As far as the batch you have in the carboy, I know that hop extracts
are available. Some are for bitterness, some for aroma. I've never used
them. Ask your supplier and make sure you get the right kind (or both?)

Good luck!

Bob Santore
rsantore@mailbox.syr.edu

Date: Fri, 9 Apr 93 12:33:10 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: Help, I boiled away the hops

Markham R. Elliott writes:

>My beers have dramatically improved since that first fateful batch.
Reduced,
>then eliminated the use of sugar. Then came the use of a secondary
fermenter.
>Then the use of DME, and finally the failed attempt at using DME as a
priming
>agent. Longer boils...longer boils...longer boils. No one reminded me
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>when using a hopped extract, the longer you boil, the more you remove
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>hops were put in there for. No one to blame but myself, should have
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>coming. Knew better. Dealt with essential oils in Organic Chemistry
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>many years ago. Faithfully read the HBD daily, and see cautions about
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>boiling away the "hop nose", etc, etc.
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>Now the plea for help.
>
>Should have guessed why everyone said "not bad, but not bitter enough".
Now
>that I've screwed up another batch (now 3 days in the primary), is there
a way
>to salvage what I'm sure will be another "bland", hop-lacking brew? The
flavor
>of the past few batches has been ok; rich, sort of sweet, but kinda
watery and
>again, missing a lot of what the hops were there for to begin with.
>
>I have read with increasing interest over the past couple of weeks about
"dry
>hopping" in the secondary. Would me adding some high alpha hop pellets
to the
>secondary be worth the try to put back in what I boiled away? Any
other
>suggestions (other than throwing it out) will be welcome. BTW, no more
hopped
>kits for this kid, gonna take another step toward what many seem to feel
is the
>only way to brew.

OK, I'll give this one a try. I am not sure I am right, so if any of you
out there know better, please feel free to gently correct me.

Hop essence and hop bittering are two very different things.
You are certainly right that boiling for any significant period will
almost
completely eliminate hop aroma. However, my understanding is (and this is
the
part I am not really sure about) that the alpha and beta acids which are
responsible for hop bitterness are not really all that volatile. So they
should not easily boil away.

Also, as I understand it, hopped extracts don't really have that much hop aroma to begin with.

If I understand you correctly, you did not add any hops to the boil, and just relied on the hopped extract.

So my suggestions depend on what you want:

1. If you want more bitterness, try boiling some hop pellets for 30 minutes in a ~pint of watter, and add this to your secondary. [I have never tried this.

It seems like it should work. Any one know any better?]

2. If you want more hop aroma, try dry hopping in the secondary.

3. If you want both, try 1 AND 2.

In the future, add your own hops. It's as easy as falling down, and it opens up a whole new dimension to your brews.

Troy

Date: Fri, 9 Apr 93 12:45 PDT
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Bucket Sealer

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/09/93 14:45:54
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov>
SUBJECT: Bucket Sealer

I recently acquired a couple of 20 liter plastic buckets. The bucket and the lid are both made from HDPE (which is food grade). The bucket is white and the lid is deep red. They used to contain laundry detergent. So far I've only used the buckets to soak-sterilize bottles. I would like to use them to ferment because if I put 19 liters (5 gal) in them the kraeusen will push the goop to the top of the bucket and stick it to the lid (Budweiser does this with their fermenters; it eliminates the need for a blow off hose, although I'll have to change the airlock a couple times.) I have a couple of questions regarding these buckets:

1.) Is there any hazard associated with detergent that may have seeped into the bucket walls? They have been cleaned, soaked in bleach water and in hot tap water (160F). The buckets no longer have any perfumy smell whatsoever.

2.) The lid does not seal well. Is there any food grade cheap sealant that I could use to caulk up the lid? How about some sort of gasket? Regular lids from other buckets don't fit.

Dennis B. Lewis (713) 483-9145 ** NASA/JSC/DH65 Payload Ops
Homebrew, The Final Frontier.

Date: Fri, 9 Apr 93 15:12 CDT
From: korz@iepubj.att.com
Subject: Re: I boiled away my hops

Mark writes:

>My beers have dramatically improved since that first fateful batch.
Reduced,
>then eliminated the use of sugar. Then came the use of a secondary
fermenter.
>Then the use of DME, and finally the failed attempt at using DME as a
priming
>agent. Longer boils...longer boils...longer boils. No one reminded me
that
>when using a hopped extract, the longer you boil, the more you remove
what the
>hops were put in there for.

It's true that boiling boils-away hop aromatics, thereby removing hop bouquet and flavor, but boiling does not boil-away hop bitterness. What I think your problem may be is that you added some DME to an already underhopped kit but did not add some hops to make up for the increased malt. The Extract Special Issue of Zymurgy has a useful, albeit somewhat outdated, table of commercial malt extracts which gives, among other things, Homebrew Bittering Units (HBU) per can and HBU per pound for the hopped extracts. I've switched over to IBUs long ago since they are much more universal, especially given that not everyone does full boils (using IBUs and Jackie Rager's formulas from the Hops Special Issue of Zymurgy, you can compensate for partial boils and get consistent bittering).

>Should have guessed why everyone said "not bad, but not bitter enough".
Now
>that I've screwed up another batch (now 3 days in the primary), is there
a way
>to salvage what I'm sure will be another "bland", hop-lacking brew? The
flavor
>of the past few batches has been ok; rich, sort of sweet, but kinda
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>again, missing a lot of what the hops were there for to begin with.
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>I have read with increasing interest over the past couple of weeks about
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>hopping" in the secondary. Would me adding some high alpha hop pellets
to the
>secondary be worth the try to put back in what I boiled away? Any
other
>suggestions (other than throwing it out) will be welcome. BTW, no more
hopped
>kits for this kid, gonna take another step toward what many seem to feel
is the
>only way to brew.

It's okay to use hopped extracts, as long as you use quality brands and know how many IBUs have been added (in converting from HBUs to IBUs, 25% utilization is often what's used). To save this batch, what you can do is to buy some isomerized hop oil and add that at bottling time. Another alternative, is to make a hop "tea" by boiling some hops in water for an hour (and while

you're at it, you can add flavor hops 15 minutes before the end of the boil and finishing hops 5 minutes before the end of the boil), strain out the hops and add this "tea" to your batch at bottling. Try to minimize splashing so you don't oxidize the hop oils. Get the Hops Special Issue of Zymurgy to figure out how much hops to boil up in the "tea" for whatever IBU level you want your "tea" to have -- use 5 gallons for volume, since that's what it's going into, even though it's not what your "tea" boil volume was.

Subject: Re: decoction mashing

Stuart writes:

>with all the recent talk

>about decoction mashing, I am a bit interested in giving it a try.

>

>a) What books/article/whatever should I read to figure out how it is done?

Greg Noonan's book, *Brewing Lager Beer*, is probably the best modern discussion of the decoction mashing method that I know of. Greg also has an article in the All-grain Special Issue of *Zymurgy*, which has a condensed version of the decoction process -- I don't recall if it was enough info to actually do a mash.

DON'T PANIC!

Al.

Date: Fri, 9 Apr 93 22:42 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: CO2

Date: Wed, 7 Apr 93 13:54 CDT
From: korz@iepubj.att.com

> Regarding the high-pressure side gauge, I'll stick my neck out and say I think it's useless. It won't begin to drop till all the liquid CO2 has run out and has turned to gas. Then it will drop to zero in one or two days. That's not my idea of warning you that it's about to run out!

That confirms my suspicions. I inherited an antique single gage regulator from my father who used CO2 for his airbrush in his art studio. He's long gone and it has a lot of sentimental value but I always wondered what I was missing. When I moved into this house, strangely enough, there was another one in a drawer in the basement just like my father's. I put that on my 2.5 lb cylinder for traveling.

>I plan to weigh my tank the next time it runs out and use it's weight as an approximation for when I should go get it refilled. It should weigh, well... 20# more when full (for a "20#" tank).

I did that for the last two tanks and it leaves little doubt. If you look carefully, you will find the tare (empty) weight of the cylinder stamped on it somewhere. So if you forget to weigh it empty, all is not lost. This is important for those of us who just swap tanks instead of waiting around for refilling.

It is also a good idea just to be able to keep the gas man honest.

The last time I swapped tanks, it seemed a bit light and when I got home it weighed in at 39 lbs. The tank weighs 31 lbs so I got 8 lbs of gas instead of 20. He cheerfully gave me a different one but it was a pain never the less.

The final count on the previous tank was 40, 5 gal kegs carbonated and dispensed along with a lot of miscellaneous squiriting around.

js

Date: Sat, 10 Apr 1993 10:03:07 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: hops growing

I received my rhizomes and my Zymurgy special hops issue yesterday. Mr. Rajotte's article on growing is fine but does not give me enough information. Like first of all, I understand about needing a trellis and so on, but what do I do with these things to start? Do they go in the ground vertically? What kind of ground? How deep? etc. I've seen various postings on specific aspects of hop growing in the HBD over the past couple months, but could some one point me toward a more step-by-step treatment of the subject? Thanks for helping.

Kirk Anderson, Dept. of French
Wheaton College, Norton MA 02766

<Kirk_Anderson@Wheatonma.edu>

Date: Sat, 10 Apr 93 8:25:50 PDT
From: Martin McMenamin <mcm@orac.holonet.net>
Subject: mailing list

Date: Sat, 10 Apr 93 13:52 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: HOP ALPHA ACID

A Proposed Method for Determining Hop Alpha Acid Content

The following methodology is based on empirical measurement and experiments. It may be seriously flawed but as the end results seem to achieve the goal desired, it is worth further experiments by anyone who cares to replicate the results.

My pH meter arrived late last week and I must confess that I spent most of the time since then playing with it. Although I suspect it will not have much impact on my beer, I bought it mainly to learn whether pH could be used to determine Alpha Acid content of hops.

The instrument I purchased is made by Oakton and is the pH Tester 2. Claimed accuracy and resolution is .1 pH unit. After calibrating the unit with pH 7 and pH 4 buffer solutions, I proceeded to test just about everything in the house. The biggest surprise was to learn that tea, as we drink it, has a pH of 6.9. I always thought that the astringency of tea was a result of tannic acid. I also found that to test tap water accurately takes about 9 minutes to reach a stable value. Boiled tap water reaches stability within a few seconds. I presume it has something to do with dissolved gas.

My hypothesis on hops Alpha Acid was that a high AA hop should produce a tea with a lower pH than a low AA hop under controlled conditions.

To test the hypothesis I proceeded as follows:

Tea #1 3 grs Chinook (AA 12%) in 250 ml water.

Tea #2 3 grs Saaz (AA 2.9%) in 250 ml water.

The teas were brought to a boil for 5 minutes and poured through coffee filters.

The quantity of 3 grs was selected because that is 1/10 the amount of Chinook I normally use to hop a 7 gallon batch and it would make the math easier later on.

After cooling the teas to room temperature, the following pH measurements were obtained:

Tea #1 Chinook pH 6.2

Tea #2 SaazpH 6.6

The delta is .4 pH which I believe works out to a factor of 4 in the real world and nicely matches the delta of the AA in the hops.

Although, measuring at different times sometimes provided different numbers, the spread was always the same and I attributed the problem to lack of understanding of how to use the instrument.

The only significant anomaly was that on the third day, the pH of both teas dropped to 5.7. They had been left uncovered throughout the period but something significant happened overnight of the third day.

In conclusion, if the results are the product of Alpha Acid in the hops then it should be possible to work out formulae to determine the approximate AA of hops or at least determine how much of an unknown hop is required to achieve the same pH of a known hop.

js

Date: 9 Apr 93 24:31:00 PST
From: John Fitzgerald <johnf@ccgate.SanDiegoCA.NCR.COM>
Subject: Boulevard Brewing Co.

While on a recent trip through the mid-west, I picked up some micro brews (I assume) made by the Boulevard Brewing Co. in Kansas City,MO. I carried back some Bully Porter, and some Irish Red ale. Both of these beers seem to have a metallic after-taste, very noticeable in the Irish, less so in the Bully, because of the extra malt/hops flavor. What I am wondering is if any locals, or anybody else who has tried these beers has tasted something similar. Rather than criticizing their beers, I am trying to educate my taste buds. Is this taste from high metal ion concentrations as Miller suggests? Or is this what phenolic tastes like, perhaps from high chlorine content of the water? Or maybe the beer was stale - the label suggested drinking by April, so maybe I was catching the beer at the end of it's preferred life cycle. The two were tasted at room temp (Probably in the mid 60's F). If anybody has any input, I'd love to hear it.

John.

Date: Sun, 11 Apr 93 9:19:59 EDT
From: rjsmith@iron.afsac.wpafb.af.mil (Randy Smith)
Subject: Change of e-mail address

My e-mail address has changed to:

rjsmith@iron.afsac.wpafb.af.mil

The old address will continue to be recognized for another 6 months or so.

- --Randy--

Randy J. SmithDoD #2022'93 CBR900RR
C.E.T.A. Corporation rjsmith@iron.afsac.wpafb.af.mil

"Most of our so-called reasoning consists in finding arguments
for going on believing as we already do."

- James Harvey Robinson

Date: Sun, 11 Apr 93 13:33:42 CDT
From: Carl Eidbo <milo!eidbo@plains.NoDak.edu>
Subject: Dry Hopping

I have seen a lot of converstion about dry hopping lately. I have tried dry hopping a number of times, with limited results. I have tried enough that I do feel qualified to shoot my mouth off a bit. (I have only worked with pellets).

1. Several people have reported "gushing" upon the first addition of pellets. I have reduced and reduced the amount of pellets I add, to try and reduce the amount of gushing. The last amount I tried was one pellet about 1/8" long. The beer still gushed, although not quite as violently. I added the rest of the hops about a day later, with no gushing.

The beer was at about 68F, and virtually done fermenting. Apparently, there are several factors involved:

- A. The slow release of CO2 by the yeast has caused the cool beer to become super-saturated with CO2.
- B. The hops particles are nucleation sites for CO2 release.
- C. The hop oils support head (foam) retention.
- D. The "shock" of the initial CO2 release triggers a much larger release from the super-saturated fluid.

2. I have frequently seen a re-start in fermentation a few days after the addition of the dry-hops. Several others have also reported this effect to me. It is easily observable by charting the "seconds per bubble" count of the airlock. Usually, a nice foamy head rises for a couple of days. Normally, there are no off-flavors associated with this renewed fermentation, but I have detected contamination flavors if the dry hopping was performed when the gravity is too high. I also pitched from a dry hopped batch, and the resulting beer was badly contaminated.

Why? I don't know.

3. I have occasionally tasted a very bitter component after dry hopping. My feeling is that these are hop particles that have not settled out yet. Usually this "rough" flavor disappears in time.

Carl EidboPrairie Homebrewing Companions Fargo, ND

Date: Sun, 11 Apr 93 15:26 CDT
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: My Belgian rock collection

I have taken up rock collecting. And not just any rocks either. I collect only the finest. I collect Belgian rocks.

Oh sure. I know what you're thinking. The answer is no. I'm not on drugs. And yes, I still think that rock collecting in general is still up there with bird watching, golfing and other ectomorphic endeavors.

It's all come about innocently enough. I'm an avid user of Belgian malts. On top of that I don't buy it in no stinkin' five-pound bags neither. Only bulk flips my skirt up. If there's no risk of a hernia, why bother?

Mixed in with the malt is a strange collection of unidentified malted objects. Most are easy to figure out. A tangled clump of barley rootlets, an odd twig or a mangled piece of wire. But every now and then I'll find a rock. And while all of the objects warrant inspection, to me the rocks are keepers.

To date my collection numbers four. They all appear to be similar in appearance. All are bluish-grey, flat and layered. It's hard to tell whether they've been malted. I'd like to think that they have as I don't know of anyone who collects malted rocks. At least the authoritative source on the achievements of western civilization, The Guinness World Book of Records, doesn't seem to have a category for it.

I look at the rock and try to imagine it's voyage. I try to picture where the rock came from and how it got mixed in with the malt. Where was the farm located? The malting company? What does the local terrain look like and how close is it to the coast? Considering the region's history, has this rock ever been tread on by a Roman sandal or the track of an armored vehicle? Only the imagination can provide such answers.

When I go under I'll probably donate my collection to the Smithsonian. After all, when you consider what the Hursts, Rockefellers, and Carnegies of the world have donated, a Belgian Malted Rock Collection is far more interesting than a bunch of stupid paintings any old day. At least I think so.

chris campanelli

Date: 12 Apr 93 06:58:00 EST
From: "PAUL EDWARDS" <8260PE@indy.navy.mil>
Subject: proposed beer tax increase

I've just seen a memo from the Small Brewers Coalition which contained the following information:

Senator Daniel Inouye (D-Hawaii) has introduced Senate Bill 684, titled "National Health Care Act of 1993", which proposes to raise the excise tax on beer a whopping 450 percent, as follows:

Large brewers: currently \$18.00/barrel, proposed \$81.00/barrel
small brewers: currently \$ 7.00/barrel, proposed \$31.50/barrel

Increases in taxes for distilled spirits and wine are 215 percent and 20-30 percent, respectively.

Apparently, Sen. Inouye has it in his mind that beer is the root of all health problems in the US!

Based on what I've seen of production figures for the last year or two, A-B's taxes alone will go from about \$1.5 billion to \$6.5 billion.

Micro's would have to raise their prices to the point that some may not survive.

If you feel as I do, write or call your senators and representatives and let them know. Taxes are one thing, highway robbery is an entirely different matter.

-- Paul Edwards

PS - If the bill passes, be **real** glad you know how to brew your own.

It may be the only way to afford a beer.

Date: Mon, 12 Apr 1993 08:10:26 -0400
From: Michael D. Galloway <mgx@ornl.gov>
Subject: alternative forum

> First of all, whatever happened to Kinney? I still see his ads but he
has
> not posted here for months. I am sure it is just a coincidence but it
seems
> that he vanished about the time Jay Hirsh started his censored,
politically
> cleansed, alternative forum.

I musta been asleep or brain dead, what alternative forum are we talking
about here?

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: 12 Apr 93 03:23:37 EST
From: "Anderso_A" <Anderso_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
Subject: Fermenting Apple Cider & Filtering Cold Break

The following attachments were included with this message:

TYPE: FILE
NAME: ANDY

Greetings,

I had a friend over last night to help me with a Steam beer I was making. He had with him a gallon bottle of apple juice he had picked up for his son. He decided to experiment with the apple juice by re-hydrating an extra packet of dry yeast I gave him, pitching it into the apple juice bottle, and putting a cork with an airlock on top. This morning I got up and it's bubbling vigorously (I wish my beers fermented that quickly!).

My questions:

1. Does anyone know how this "cider" will turn out?
2. I never measured OG, so does anyone know how much alcohol should be created?
3. It may be too late, but is there anything that can be done now to make this concoction more palatable?

With regard to the beer I made last night, I have a question. After the boil was over, I chilled the wort down to about 70 degrees and strained it into my carboy. I let it sit for about a half hour and watched as the cold break gently settled down to the bottom 1/4 of the carboy. I then poured the carboy's contents through 2 separate funnels with strainers into another carboy. I was attempting to filter out the cold-break. Apparently, it is too fine to be trapped by the normal strainers which come with a brew shop's funnel. Almost all the cold-break passed through both filters into my second carboy. My question is, aside from siphoning off the clear wort from the cold-break sediment, is there any practical way to filter out the cold-break? If a finer filter is the answer, then how fine should it be and where do I procure one? (And yes, I realize that by all this filtering between carboys I am increasing my risk of contaminating my newborn beer!)

Thanks,

Andy A
Bitch's Brewery

Date: Mon, 12 Apr 93 06:23:36 PDT
From: brew it 12-Apr-1993 0923 -0400 <ferguson@zendia.enet.dec.com>
Subject: more comments on bottles / European system

I also agree that genuine bar bottles are the best for bottling. I've heard horror stories of Sam Adams (tm) bottles breaking during the capping phase after so many uses, although, I personally have not had this problem yet! Has anyone seen this yet?

Bar bottles are noticeably heavier than standard returnable bottles, such as Sad Adams(tm); the glass is much thicker, and hence, more durable.

Another bottle type I like is the 16oz standard european bottle. these are pretty heavy, and, then have 4oz more capacity than the bar bottle types widely used in the states.

When I was in Austria this past fall, we went on a tour of the Zipfer Brewery. It was completely in german, hence, I did not understand much, but I could guide myself through the tour with my nose! At any rate, they've really got their s&t down in Europe. Most of the brew sold in bottles there comes in a standard 16oz bottle (I think it is 16oz?!). So, on the bottle input side of the bottling room at the Zipfer brewery, you'll see returned bottles in standard returnable crates (much like milk crates) from all sorts of breweries. They all use the same standard bottle, they make it easy to return them to just about anyone, and just about any brewery can fill the bottles. Green ones, brown ones, etc. Being an environmentally concious person, I really liked what I saw. The US of A is so caught up in making \$\$\$ as quickly as possible that we'll probably never see anything like that...

JC Ferguson

Date: Mon, 12 Apr 93 08:38:30 -0600
From: John Adams <j_adams@hpfcjca.sde.hp.com>
Subject: Coriolis force/Givin' carboys a swirly

Ed Hitchcock writes:

> To this I can but say: Horse poop. The coriolois force on the
> liquid in a carboy 30cm or so in diameter is virtually nil. Swirl it
any
> way you please, there will be no difference. The friction of the side
of
> the jug is far greater than any coriolis effects on the water. As for
the
> pigs, they can poop too.

Interesting hypothesis but I doubt you've have ACTUALLY testing it (the
coriolis effects on the water that is). I have and I can say that
getting
the water swirling in EITHER a 5 gallon glass carboy or a 12 oz. bottle
will
indeed get the liquid to drain faster. I have been using this trick for
quite
some time but I'm sorry I didn't try to prove it on paper first.

While I will not comment on the actual forces involved (we all really
known
there is not true coriolis 'force') or their magnitudes, the technique
does
indeed work.

Dennis B. Lewis writes:

> OK, I haven't tried this but, I assume that when you start swirling the
water
> in the carboy, that the carboy is already inverted (and over the sink/
lawn).
> If you get up a good swirl and then try to invert the carboy, you would
really
> goof up your swirl when the carboy gets horizontal. Plus the rotational
> inertia of 3+ gallons of water spinning fast enough to hug the sides
would be
> impressive when you tried to flip it around. I think it just needed to
be said.

Yes, start dumping the water and then begin to swirl it about. As soon
as
the water starts to clear out of the mouth (and air can be drawn up) the
carboy will quickly drain. You do not need to continue to swirl the
carboy
after the water starts draining quickly.

Believe me the inertia is NOTHING to be concerned about in comparison to
a
gripping a wet, glass carboy containing somewhere between 16 and 32
pounds
of water.

John Adams

Date: Mon, 12 Apr 93 09:31:10 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Re: Chiller Study

I'd love to see someone perform this study, although one could probably get equally valid results by running a simulation, with less time/material expended. However, as I indicated in my last post on this subject, there are two important heat transfer coefficients at work here: one inside the tube, and one outside the tube. It would make little sense to accurately quantify conditions inside the tube in terms of ID, flow rate, etc. and then simply characterize conditions outside the tube as "stirred" or "unstirred". One should include parameters such as chiller diameter, spacing between coils, diameter of pot, height of coil, velocity of stirring, etc., etc. A compounding problem is that the inside convective heat transfer coefficient is highly dependent upon the "scale factor": a new, shiny tube will conduct much better than an old, crusty one... Not a simple problem at all, unfortunately.

PS: gak writes:

>Got this from the sci.physics FAQ...

>Summary: the Coriolis force is real, but irrelevant at the bathtub (or carboy) scale.

(followed by technical explanation of fluid dynamics involved in the coriolis effect)

Hey gak, could you get the guys at sci.physics to tell us how long to make our chiller coils?

Kelly

Date: Mon, 12 Apr 93 08:12 PDT
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Yeast pitching rates

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/12/93 10:12:54
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov>
SUBJECT: Yeast pitching rates

I have a question about how the yeast pitching rates affect the flavor/
quality
of the finished beer. I have been guilty of dumping in a puffed up pack
of
yeast directly into the fermenter. But lately, I've been brewing by
racking
cooled wort onto sediment from the primary of a previous batch. The
results
are like night and day. The resulting explosive fermentation is very
satisfying to watch and commences withing a few hours :-).

Anyway, here's to point: when I pitch the small packet of yeast into the
wort,
it makes copies of itself until it hits the terminal concentration (50 M
cells/ml(?)), THEN it goes into the fermentation cycle. If you pitch
about the
teminal concentration, then there is very little reproduction and all
fermentation. It seems to me that this method would leave a lot of
proteins in
the beer because they weren't used to make other yeast and more alcohol
for
the same reason. Is the taste noticable? Do the extra proteins increase
head
retention/taste? I haven't had enough experience doing this to tell the
difference.

One other point: one common thread I've noticed regarding yeast
culturing is
how many generations the yeast are good for. Since I'm only using one
generation(!?) for a couple batches... (N.B. I remove most of the trub
so I
don't think there is much of a problem with accumulated crud on the
bottom of
the fermenter.)

I may be nuts. If so the phaser me directly and save the bandwidth for
more
important things like Coriolis force physics lessons.

Dennis B. Lewis (713) 483-9145 ** NASA/JSC/DH65 Payload Ops
Homebrew, The Final Frontier.

Date: Mon, 12 Apr 93 12:01:31 EDT
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Immersion Chiller Efficiency

There seems to be a confusion in this discussion of IC efficiency between time, water, copper, and dollar efficiency.

To Improve Time Efficiency:

A larger, colder surface will cool the wort faster than a smaller, warmer one. Use as long a chiller as you can manage, and run lots of really cold water through it. The cooler the water exiting the chiller the faster the wort will be cooled. When cool water is exiting it indicates that there is an appreciable temperature differential between the cooling water and the wort for the entire length of the chiller tubing, therefor more heat energy is being extracted from the wort than if the exit water were warm or hot. Simply put: The more cold water you run through the chiller the cooler your wort will get, the faster you do it, the faster it will get cool. Especially if you stir the wort. Use the chiller to stir with.

To Improve Water Efficiency:

This is a whole other question, one best answered by a thermodynamacist, which I'm not, but I'll take a shot at a simple answer anyway. Regulate the flow so that the output of the chiller is at the temperature you want the wort to be. This will take longer. Theoretically, I guess it would take forever because you would always be approaching the target temperature, but the flow would become infinitesimal in an hour or two and you could get on with your brewing. I don't think the length of the chiller matters in this case.

To Improve Copper Efficiency:

Make the chiller very short. It will take a long time to cool the wort by either method but you won't be using much copper to do it.

To Improve Dollar Efficiency:

Borrow someone else's chiller.

The Real Question:

What's important to you?

Carl

"In practice the difference between Theory and Practice is greater than it is in theory."

End of HOMEBREW Digest #1118, 04/13/93

Date: 12 Apr 1993 11:34:07 -0600 (CST)
From: SWEENERB@memstvx1.memst.edu
Subject: kegging using a beer chiller

I have a question for you keggers out there. I have the opportunity to buy several used Cornelius (sic) kegs and connections for what seems like a reasonable price (\$10/keg with connections). I do not however have an extra fridge and probably won't for the near future. Is it possible to use these kegs by connecting up a beer chiller like the one displayed in the recent Gadgets issue of zymurgy--basically a copper tube running through an ice bucket through which the beer flows? I was wondering, beyond the obvious pain of having to fill the bucket with ice periodically, what are the disadvantages of this system? Any advice would be appreciated.

Your friend and mine,
Bob

Bob Sweeney - SWEENERB@MEMSTVX1.BITNET
Memphis State University
(901) MSU-4210

Date: Mon, 12 Apr 1993 11:03:30 -0800 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: long ferments

In HBD 1116 Al writes:

> Then, I thought, perhaps a lot of the yeast had gone dormant thanks to
> the cold and had not awakened from simply warming the wort. I rocked
> the carboy around-and-around to swirl the yeast up from the bottom.
> Naturally, lots of CO2 started escaping through the blowoff tube. 8
hours
> later, the ferment was going at a good pace, perhaps 1 glub per 30
seconds.
> 24 hours after swirling, the glubs were 2.5 minutes apart -- ready to
bottle!

Are you sure the yeast were really roused into fermenting? I offer the
theory that the 1 glub/min was due purely to escaping CO2 and not
fermentation, so the swirling just released a lot more gas (as evidenced
by
increased bubbling). After this had died down the release rate would
decrease. The lower temperatures that you'd been fermenting at would
allow
more CO2 to dissolve which would explain why it took longer to escape.

I'm convinced I'm right, but feel free to flame away at my ignorance.

Peter

Date: Mon, 12 Apr 93 13:08 CDT
From: korz@iepubj.att.com
Subject: Re: Blowoff (fusels, etc.)

Joseph writes:

>Finally, fusel alcohols are quite soluble in alcohol, and can not
>be removed by blowoff. The unpleasant substances in blowoff residue
>are tannins, unisomerized hop resins, etc. They are largely insoluble,
>even in a weak alcohol solution, and are not going to be a primary
>source of bitterness or astringency in your beer once it has cleared.

First of all, thanks for the very informative post -- I'd like to sit down with a few Pale Ales and do some palate training together -- how about Portland, say, late July?

I've had very little chemistry, so I can't disagree with you regarding what actually gets blown-off, but I have some beers done in split batches blowoff versus non-blowoff and the difference was stunning. I can't begin to explain it in chemical terms, but there definately was a big difference in bitterness and astringency between the two sub-batches. Perhaps its not the fusel alcohols or the tannins or the unisomerized hop resins, but the difference in flavor was unmistakable.

Over the weekend, I bottled an Imperial Stout which I fermented using the blowoff method. I would like to suggest an additional effect of using the blowoff method (although it seems quite negative and does little to reinforce my continued support of this method) -- loss of head retention. It's not so much that I've noticed a reduction in head retention with the blowoff-method beers, rather that the brown foam that oozed out of the blowoff vessel and onto the floor during high kraeusen, HAD DRIED AND STILL RETAINED IT'S SHAPE TWO WEEKS AFTER IT HAD FORMED! Do you follow me on this one? The blowoff filled the gallon jug which was supposed to catch it all and foamed out of the top of it, onto the floor. When this happened, I cleaned up most of it but some was back between the carboy and jug. This weekend, that stuff was solid and looked like brown styrofoam. Could this be some of the small proteins and big dextrans that give you good head retention? Could I have lost something useful, besides the quart and a half of beer? Or are the proteins and dextrans distributed throughout the beer and I'll just be able to do parlor tricks with this beer? [By the way, OG 1120, FG 1050 (approximately 9.2% Alcohol by volume) -- more attenuative yeast needed next time (very sweet).]

Al.

Date: Mon, 12 Apr 93 18:58:00 +0000
From: MOORE_ED/HP0800_01@mailhub.cs.itc.hp.com
Subject: All Grain technique questions

From: Ed Moore
Subject: All grain method?

I'm an extract brewer, interested in all grain. The logistics of all grain (bigger pot, chiller, heating up 6 gallons of wort) have so far kept me from trying all grain. My brother-in-law (Greg) told me of his method this weekend and I'm posting this note to see if others have used it (and with what success). FYI, Greg has been brewing for several years and makes a good brew.

OK, this is what Greg does which I found interesting.

- 1) Prepare mash in a pot with 'warm' water.
- 2) Put pot with mash into the oven, with the oven set to "warm". Leave it for an hour or two. (As Greg says 'no fuss, no muss'.)
- 3) Transfer mash to lauter tun.
- 4) Run 2 or 3 gallons of hot (170F) water into lauter to sparge.
- 5) Boil the wort (2-3 gallons) with hops.
- 6) Run 2-3 gallons of cold (tap) water into lauter to complete sparge.
- 7) Combine cold sparge/wort with boiled wort to make a complete batch AND to obtain cold break.

This is his tried and true technique. He does not seem to have any contamination problems and as I have said, makes a good brew. Has anyone else used this partial boil, cold sparge, method?

Ed Moore
egm@hpctdlb.col.hp.com

Date: Mon, 12 Apr 93 15:59:42 CDT
From: raudins@galt.b17d.ingr.com (Glenn Raudins)
Subject: Yeast Culture Kit & Lab Equip

Does anyone know of a mail order supply place that carries Dr.
Schiller's
Yeast Culture Kit? (Jim? Do you know?)

I would like to second that request for Lab equip supply places. Also
does
anyone have the number for Aldritch and know if they sell to
individuals?

Glenn Raudins
raudins@galt.b17d.ingr.com

Date: Mon, 12 Apr 93 17:00:16 EST
From: eric@synchro.com (Eric Haas)
Subject: Bigfoot in NJ?

While we here in New England see most of Sierra Nevada's fine products, for some reason two of their most interesting brews--the Maibock and the Bigfoot Ale--aren't distributed here. Rumor has it, though, that they can be found in New Jersey, where I'm going in a few weeks to visit the in-laws. Can some Garden State reader of the Digest help me find them?

I'll be getting on the Parkway at its northern terminus, right off the Tappan Zee, and driving it to south of Asbury Park. While my wife does like beer and is willing to put up with my interest in it, she doesn't have much patience for driving around aimlessly for very long, so I'd like to know of a store within a few minute's drive off the Parkway.

Send me private e-mail (eric@synchro.com), or even call me (old style: 617-536-9500 w; 617-965-0573 h).
Thanx.

--eric haas

- - -

Date: Mon, 12 Apr 93 17:12:14 EST
From: eric@synchro.com (Eric Haas)
Subject: Color calibration

Jack:

The use of Michelob Dark in dilution to
test for color can be found in an
appendix of George Fix's "Vienna" book

-- --

Date: Mon, 12 Apr 93 19:18:17 CDT
From: fahrner@milbrandt.wustl.edu (Tim Fahrner)
Subject: CAMRA Guide

Greetings HBD'ers

I know this info has been posted before, and I even wrote it down in my HB notebook. Of course, I then proceeded to lose my notebook. What I am looking for is how to get my hands on the CAMRA guide, since I will be going to England, Wales, and Ireland in another month or so. Any personal recommendations on real ale establishments would, of course, also be appreciated. Please reply via private e-mail to avoid clogging up the digest with responses to an FAQ like this (I usually hate these kind of messages too, but I wasn't sure how else to get the info).

Thanks in advance

Tim Fahrner

Date: Mon, 12 Apr 1993 21:24:49 -0400 (EDT)
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>
Subject: Oops, bottle bombs???

I recently made a batch of wheat ale (Wit style) with a new yeast (supposed to be Hoegaarden strain). It started slow, but built up a big krauesen -- needed a blow-off tube for a week. Eventually it slowed, and 3 weeks later was putting out one bubble every 45 seconds, roughly. I figured it was time to bottle. Racked onto priming solution in a second carboy, and took S.G. 1.020... Hmm... Initial gravity 1.040... Hmm... Tastes ok... Not too sweet... Late night decision -- let's go for it.
Bottled 2 cases.

But then, I got worried. Talked to the friend who gave me the yeast. He didn't think it should stop so soon. Talked to another friend who had used the same yeast in a similar recipe. His went from 1.047 to 1.014. Hmm... One major difference: my fermenter was in the cellar, at 56F, his was at 65F. Maybe this yeast doesn't like to be cold. Hmm...

Ok, brought a bottle up from the cellar, shook it well, and fitted a fermentation lock. Couple days later, it's still going nicely. Hmm... Haven't taken an S.G. on this one yet, but it's looking like I blew it, and mistook a stuck fermentation for a finished fermentation.

Now, I could chill the he** out of these bottles, and drink them up quickly, or I could try to relieve the pressure, or something. I'm not wild about pouring 2 cases of bottles back into a carboy (not to mention the inevitable aeration that would take place). I could see lifting and resealing (or replacing) the caps a couple of times. Or, I could chill the h*** out of it...

Any advice?

And, a hard scientific question: How many volumes of CO2 should I expect to get from a .001 drop in S.G.? Haul out the old envelope. Let's say that 3/4c corn sugar produces 2 volumes in 5 gal. That's 3/8 lb, at 40pts/lb/gal is 12/5 pts, so maybe I get 1 volume/gravity pt. So, if my test bottle keeps going down to 1.014, I'm going to get about 6 volumes! Bottle bombs for sure! But I could relieve the pressure a couple of times (if I do it at the right time!) and be ok, ... maybe ... Hmm....

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

Date: Mon, 12 Apr 93 10:13:21 PDT
From: grumpy!cr@uunet.UU.NET (C.R. Saikley)
Subject: Most Litigious Beer in the World

From: andrew@ftp.com (Andrew Lickly)

A while back, Andrew Lickly wrote about SA Triple Bock :

>During the tour, they bragged about being in the process of
>developing a "Triple Bock", apparently it is Jim Koch's goal
>to get the world record for the highest alcohol content in a
>commercialized "malt beverage".

Gee, he'd better be careful here. What if the brewers at Hurlimann
or EKV have trade marked the phrase "Strongest beer in the World" ?

Oh BTW, if you're listening Jim, I have a cousin named Sam who will
be contacting you soon. :+)

CR

Date: Mon, 12 Apr 93 23:26:41 CDT
From: atzeiner@iastate.edu
Subject: Cheap Carboys!!

I finally got around to looking for a 5 gal. carboy for a secondary and went to talk to my lab professor in the Chem E. department and guess what!! I got two 5 gallon carboys for \$5. They were really dusty, but didnt smell like any noxious chemicals and weren't stained or anything. So, if you have a university you might want to check out the Chem E or Ag department to see if there are any old carboys around.

BTW, one of the carboys is made of the old blue tinted glass and has the date 1932 stamped on the bottom!! I wonder if it's worth any money :-)

Andy

Date: Tue, 13 Apr 93 09:40:43 +0300
From: Nir <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Siebel Institute ... in Chicago

Could anyone tell me anything about the Siebel Institute? I saw some HBD
issues
ago a couple of lines concerning a two-week course on Brewing Technology
given
there, and I'd like to know more, but don't have their address.
Thanks, Nir.

Date: 13 Apr 1993 08:09:08 GMT
From: "BRIAN A. AURAND" <E#AURAN@CWEMAIL.ceco>
Subject: Hello?

Hello,

Who is this? I'm very interested in the subject.

-Brian

Date: 13 Apr 1993 10:24:36 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Wyeast Bohemian Lager yeast

In an effort to make a Pilsner Urquell type lager, I used the Wyeast 2124, Bohemian Lager, as per recommendations on the net. A friend also used the same strain, and his beer came out, well, bad. I chalked it up to an infection or some such. But I tasted my lager yesterday (still in secondary, clearing slowly) and it tastes the same as his. Quite phenolic, a little estery, and lots of dry sulfury compounds. In short, it tastes like a mediocre Lambik. Admittedly there was a long lag time when I pitched the yeast (the pack hadn't quite swelled up, so it took about 3 days to get going). But the fact that I have not once had an infection since my first batch (followed the instructions on the can on that one), and that my friend has yet to have an infection, and both of us brew with 2124 and it tastes the same in each case seems to indicate that either 2124 isn't the yeast for making PU clones, or these packs were contaminated. Anyone else out there with similar experiences?

ed

Ed Hitchcock *-----*
Dept of Anatomy and Neurobiology | |
Dalhousie University |JUST BREW IT |
Halifax, Nova Scotia | |
ech@ac.dal.ca *-----*

Date: Tue, 13 Apr 1993 09:37:43 -0400 (EDT)
From: yavo@ivy.Paramax.COM (Steve Yavorski)
Subject: Bottles (Europe/US) / Yeast Generations

JC Ferguson writes:

>
> At
> any rate, they've really got their s&t down in Europe. Most of the
brew
> sold in bottles there comes in a standard 16oz bottle (I think it is
16oz?!).
> So, on the bottle input side of the bottling room at the Zipfer
brewery,
> you'll see returned bottles in standard returnable crates (much like
milk
> crates) from all sorts of breweries. They all use the same standard
bottle,
> they make it easy to return them to just about anyone, and just about
any
> brewery can fill the bottles. Green ones, brown ones, etc. Being an
> environmentally concious person, I really liked what I saw. The US
of A
> is so caught up in making \$\$\$ as quickly as possible that we'll
probably
> never see anything like that...

Actually, all brown 12 oz. returnable bottles in the U.S. are a standard
shape and size. Any brewery can use these bottles no matter what
brewery previously used them. Open thine eyes and ye shall see.

Dennis B. Lewis writes:

> One other point: one common thread I've noticed regarding yeast
culturing is
> how many generations the yeast are good for. Since I'm only using one
> generation(?!?) for a couple batches... (N.B. I remove most of the
trub so I
> don't think there is much of a problem with accumulated crud on the
bottom of
> the fermenter.)
>

Each time a beer ferments out and the yeast is re-used for another
batch, this is considered a new generation. The multiple "life cycles"
and alcohol environment the yeast work in can cause mutations.

Steve

Stephen Yavorski internet - yavo@ivy.paramax.com
NEXRAD Integration phone - (215) 443 - 7500
Paramax Systems Corporation
Ivyland, Pennsylvania

Date: Tue, 13 Apr 93 09:44:54 EDT
From: curt@sundc.East.Sun.COM (Curt Harpold-Sun-Vienna VA-Systems
Engineer)
Subject: CAMRA

STOREY@fender.msfc.nasa.gov (BadAssAstronomer) writes:

> Just back from England with a bunch of real ale under and around
> ...
> However, the CAMRA Guide to Good Beer impressed me so much, I was
> thinking of joining CAMRA. Anybody out there a member or
> ex-member? Any and all comments will be appreciated.

Scott,

I've been a member of CAMRA for several years, mostly just to get the
Good Beer Guide, but it also to help me in planning my trips to the UK.
Their newsletter is good, and keeps me up-to-date on the dates and
locations
of Beer Festivals (to which CAMRA members are admitted free).

If you travel to the UK often, CAMRA membership is well worth the price.
While passing through an area, I can always rely on the pubs in the Guide
to give good service, beer, and usually food.

Keep in mind, however, that omission from the GBG does not imply a lower-
quality pub. Indeed, many of my favorites are not listed. If you're in
a town for more than a day, don't depend solely on the GBG - ask the
locals
about good pubs.

Curt Harpold curt.harpold@east.sun.com

Date: Tue, 13 Apr 93 08:53:02 -0500
From: gjfix@utammat.uta.edu (George J Fix)
Subject: Screen Tests

I received some e-mail from people asking for more detail regarding the sieving tests to evaluate grain milling. Apparently there are a few people who would like to build their own apparatus for doing this. I think this would be a terrific project for a homebrew club.

The best model that comes to mind for getting ideas for designing a screen sieving device is the Pfungstadt plansifter described by DeClerck (p. 321, Vol.2). Here the screens are in parallel, and placed in order of decreasing screen width.

One will note that the device is not large. Indeed, it is traditional to do tests on only 100 gram samples. This of course raises the practical problem of avoiding sampling errors. The usual rules regarding small sample sizes apply. It is often a good idea to run several tests on samples taken from a particular crush to make sure the measured results are robust.

There is strong agitation during sieving. DeClerck reports that the screens on the Pfungstadt plansifter are rotated ~300 times per minute for 5 minutes. It has been my experience that this is *****very***** important. As Jim noted in his post, the MM will leave over half of the kernels in a state where they look as if they were not crushed. Without the proper agitation they will be artificially captured on the coarser screens. This will result in very large errors (up to a factor of 2) in the measured results. With proper agitation, on the other hand, they will fall apart just as they do when we rub them in our hands.

The major application of a sieving device is in the determination of the proper roller spacing. This can be used not only for a MM, but for any other mill, and indeed even a Corona. It has been my experience that the best spacing will vary with the type of malt that is to be milled.

I hope that anyone who who starts a project along these lines will keep me abreast of their progress. I bet the whole affair turns out to be a lot of fun.

George Fix

Date: 13 Apr 93 04:43:38 EST
From: "Anderso_A" <Anderso_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navy.mil>
Subject: Fermentable sugars in honey

Message Creation Date was at 13-APR-1993 09:36:00

Greetings,

I was interested in using greater quantities of honey in some of my "Speciality" (or "Peculiar") Beers. In my attempt to calculate how much hops to use as well as body characteristics, I need to know how much fermentable sugars are in a unit weight of honey. I realize that there is no simple answer to this, given the fact that honeys can vary greatly depending on the flower and the regional conditions. However, that caveat being stated, any insight would be greatly appreciated.

Andy A
Bitch's Brewery

Date: Tue, 13 Apr 93 10:31:30 EDT
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)
Subject: re measuring alpha acids with pH meter

One problem with the assumptions and one with the results:

Tannic "astringency" doesn't have much to do with pH. Examples: colas are in the range of pH 2-3 (/very/ rough, but certainly more acid than your tea---the acid in colas is as much a problem for your teeth as the sugar) and nobody calls them astringent; typical vinegar at 5% acetic acid is something like pH 3 (it's been a /long/ time since I had to work from Kdiss to pH), ditto. There are many organic acids which have a very modest effect on the pH of water. I don't know the mechanism of astringency but I would guess it's some other reaction completely; try tanning leather with a random acid and see where it doesn't get you....

pH is a log10 measurement. .3 decrease in pH is 2x acidity, .47 is 3x, .6 is 4x, .7 is 5x. According to bc (UNIX calculator program), $e^{(.4 * \ln(10))}$ is 2.5, so your result actually doesn't agree with expectation--

--
EXCEPT that weak acids don't affect pH in proportion to their concentration. Crudely put, the acid has to break into H+ and (remainder) -, to change the pH; this is a balancing act in which the more acid you have, the less of it actually dissociates. What's the average Kdiss for hop acids? Damfino---George Fix or Steve Stroud might have numbers.

I also don't know how "utilization" (amount of acid extracted) varies with acid content---I would expect the % utilization to be lower for the same mass of high-alpha hops compared to low-alpha (since you're trying to make a more concentrated solution) but have no figures on /how/ /much/ of a difference this is. To eliminate this factor you might need a Soxhlet (sp?) extractor, which is fun to watch but not cheap.

Date: Tue, 13 Apr 93 07:57:05 pdt
From: Ted Manahan <tedm@hpcvcbbp.cv.hp.com>
Subject: Oregon Homebrew Festival
Full-Name: Ted Manahan

ANNOUNCING

THE ELEVENTH ANNUAL

OREGON HOMEBREW COMPETITION AND FESTIVAL

On Saturday, May 8, 1993 at 12 noon.
Benton County Fairgrounds - 110 SW 53rd Street, Corvallis, Oregon.

The Capitol Brewers, Cascade Brewers Society, Heart of the Valley Homebrewers, Mary's Peak Lagers, and the Oregon Brew Crew invite you to participate in the ELEVENTH annual homebrew competition and festival, the longest-running event of its kind in Oregon. The focus of the event will be a judging of homebrewed beer sanctioned by the American Homebrewer's Association (AHA). In addition, the Club will host a festival to promote awareness and knowledge of various beer styles, provide opportunities to share information about the homebrewing craft, and encourage interaction of homebrewers in a social atmosphere.

ENTRY REQUIREMENTS FOR THE COMPETITION:

Anyone 21 years of age or older may enter. All entries must be personally homemade by the entrant. No entrant can enter more than two entries in any one category. Entries must be registered for judging by 11 AM on Saturday May 8, 1993. Festival organizers will not assure registration or judging of entries received after this time. To help avoid a log jam of registrations the morning of the competition, entrants are encouraged to send or bring their entries to: Oregon Homebrew Competition and Festival, c/o Freshops, 36180 Kings Valley Highway, Philomath, OR 97370 by 5 PM Friday, May 7th for entry registration. All reasonable efforts will be made to transport, store, and serve each entry in the best possible manner. Entries that are mailed should be shipped via UPS as non-perishable food in appropriate protective packaging. As shipping may resuspend sedimented material, shipped entries should arrive with sufficient time for settling to allow the best appearance.

Three bottles of at least 10 fluid ounces each are required for judging (one each for first round judging, potential second round judging, and potential best of show). Each entry (not bottle) must be accompanied by a sheet of paper specifying the following information: Brewer's name and address, category to be judged in (note: brewers should specify style within category to assist judges in evaluation; e.g. Light Lager - Continental Pilsner), recipe, and a \$5.00 entry fee (checks must be made payable to Ted Manahan, not Heart of the Valley Homebrewers; the entry fee is used to cover expenses for hall rental and ribbons). Efforts will be made to allow entrants at the festival to reclaim unused entries and empties; however, festival organizers makes no guarantees in this regard.

Qualified judging of all entries is the primary goal of the event. Three judges will evaluate and score each entry using the American Homebrewer's Association (AHA) 50 point system. The average of the three scores will rank each entry in its category. The Master of Ceremonies or other qualified person will review elements of beer categories and styles with each panel prior to judging. The Best of Show will be

determined by the best average score in a second judging of the highest average scoring entry in each category. A club competition will also result from the outcome of the judging. Brewers associated with any homebrewing club will receive points for their winning entries credited toward a club total. Club members should include their club name on their entry form. Points scored in this competition count toward NORTHWEST Homebrewer of the Year. The descriptions and standards used by the AHA at the National Homebrew Festival and Competition will be used in judging. Judging will be conducted in a controlled environment (separate room) away from the hubris of the festival.

Entries will be received for judging in the seven following categories:

- 1) Light Lager (includes American and Continental styles)
- 2) Dark Lager (includes bock)
- 3) Stout and Porter
- 4) Light / Pale Ale (includes IPA)
- 5) Dark Ale (includes Brown Ale)
- 6) Specialty (includes wheat, fruit/herb beers, steam beer)
- 7) Strong Beer (includes dopplebocks, barleywines, and imperial stouts)

Festival organizers reserves the right to judge an entry in an alternate category if, after registration is completed, it is found to be entered in a category having fewer than four entries. Ribbons and prizes will be awarded to First and Second place in each category as well as for Best of Show.

We are looking forward to a highly enjoyable festival with a relaxing atmosphere, several displays, food concessions, music, a raffle and the opportunity to interact with masters and luminaries of the brewing craft. Judging and award presentations should be completed by 5 PM.

Any questions regarding the festival can be directed to Ted Manahan at 503/926-6228, internet address tedm@hp-pcd.cv.hp.com

- ----- CUT HERE -----

ENTRY FORM

Entrants must complete one form for each entry.

(Use either this form, or a form similar to that used in the AHA national competition.)

Brewer's Information:

Name of Brewer _____ Phone _____
Address _____
City _____ State/Province _____
Zip/Postal Code _____ Country _____
Are you a member of a Registered Homebrew Club? _____ (Y/N)
What is its name? _____

Entry Information:

Name of Brew _____
Category/Subcategory _____

Ingredients and procedures:

Number of gallons _____
Brand names and amounts of malt extracts used:
Type and amount of sugar used (if any):

Variety of hops used:

Boiling hops - weight and time _____
Boiling hops - weight and time _____
Aromatic hops - weight and time _____

Type of water treatment (minerals or salts) used:

Type of yeast used (liquid/dry) and brand:

Type and amount of adjuncts used (fruit, herbs):

How was beer carbonated? Indicate procedure and amount:

Original Gravity: _____
Terminal Gravity: _____
Duration of fermentation _____
Secondary fermentation used? _____ How long? _____
Date of bottling _____
Temperature of Fermentation _____

Any additional information such as temperature and length of mash or sparging techniques:

Date: Tue, 13 Apr 1993 08:05:41 PDT
From: Dimitri_Katsaros.Wbst139@xerox.com
Subject: Please point me in the right direction

Hi all,

I started reading this digest fairly recently and was wondering if you nice people could give me a hand on getting some beginner info such as what stuff I'll need, what is the process (books or ftpable texts would be cool) , what are some good suppliers, etc. Also, if anyone is interested in moderating a conference on my BBS on the subject, please have your modem dial 1-716-242-0440 (2400 baud) or 1-716-242-0441 (14.4K). The BBS is called Macsimizing BBS and runs on First Class software... you can either call in via text comm packages, or via the graphical interface that is available on both my BBS and info-mac for download. Also, I keep on seeing the (presumably) magazine Zymurgy being referred to..... could someone tell me how to obtain it? is it available on some news stands?

Thanks for any and all help in advance
Dimitri Katsaros

Date: Tue, 13 Apr 93 10:26:02 CDT
From: atzeiner@iastate.edu
Subject: Re: Immersion chiller

>From yesterdays HBD:

>Date: Mon, 12 Apr 93 12:01:31 EDT
>From: eisen@kopf.HQ.Ileaf.COM (Carl West)
>Subject: Immersion Chiller Efficiency

>

>There seems to be a confusion in this discussion of IC efficiency
>between time, water, copper, and dollar efficiency.

>

>To Improve Time Efficiency:

>

>A larger, colder surface will cool the wort faster than a smaller,
>warmer one. Use as long a chiller as you can manage, and run lots of
>really cold water through it. The cooler the water exiting the chiller
>the faster the wort will be cooled. When cool water is exiting it
>indicates that there is an appreciable temperature differential between
>the cooling water and the wort for the entire length of the chiller
>tubing, therefor more heat energy is being extracted from the wort than
>if the exit water were warm or hot. Simply put: The more cold water you
>run through the chiller the cooler your wort will get, the faster you
>do it, the faster it will get cool. Especially if you stir the wort.
>Use the chiller to stir with.

This isn't really right...A larger colder surface will cool faster
because of more surface area and with a larger tube diameter you would
want a
high flow rate so that there would be turbulent flow instead of laminar(
If it
was laminar flow, there would be a warm boundary layer of water near the
walls
of the coil and the water towards the middle would not be doing any
cooling).
However, I think you would want the exiting water to be warmer for a
given
length of tubing. The amount of heat removed from the wort should be:
 $(\Delta q) = m \cdot Cp \cdot (\Delta T)$
where m =mass flow rate of water
 Cp =heat capacity
 (ΔT) =temperature difference= $T_{out} - T_{in}$
So, if the flow rate increases, the heat removed increases, and if the
temperature difference increases, the heat removed increases.
(I'm sure there is a bit more analysis of this that can be done...It's be
a
couple years since I had heat transfer and I didn't like that class
anyway:-)

Andy

Date: Tue, 13 Apr 1993 08:26:10 -0700
From: sherman@qualcomm.com (Sherman Gregory)
Subject: Re: more comments on bottles

It HBD #1118 <ferguson@zendia.enet.dec.com> writes:
>I also agree that genuine bar bottles are the best for bottling. I've
heard
>horror stories of Sam Adams (tm) bottles breaking during the capping
phase
>after so many uses, although, I personally have not had this problem
yet!
>Has anyone seen this yet?

I exclusively use Sam (tm) Adams (tm) Bottles (tm?). These seem to be
good
bottles to me. I had one break on about my third batch, but that was a
homebrew virgin bottle (as opposed to many uses). I think that I was
getting overly aggressive with the capper, so I have never considered
that
the bottles fault. But maybe I am wrong. I have had no other problems.
Has anyone else?

Sherman

Date: Tue, 13 Apr 93 9:38:33 MDT
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Re: My Belgian rock collection

> Mixed in with the malt is a strange collection of unidentified
> malted objects. Most are easy to figure out. A tangled clump of
> barley rootlets, an odd twig or a mangled piece of wire. But
> every now and then I'll find a rock. And while all of the
> objects warrant inspection, to me the rocks are keepers.
>
> To date my collection numbers four. They all appear to be
> similar in appearance. All are bluish-grey, flat and layered.

Why not add some English rocks to your collection? I buy large quantities of Hugh Baird malt, and have noticed similar looking rocks in my grain. I usually discover them when the handle of my mill suddenly ceases to turn, so they're a little chipped around the edges and are therefore probably not museum quality.

Does anybody know if these rocks serve some mysterious purpose in the maltster's arcane art? Or are they merely slip-ups in the quality control department somewhere?

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: 13 Apr 1993 10:46:10 GMT
From: "Tom Stolfi" <WAUTS@CWEMAIL.ceco>
Subject: Krausening/Mashing

Date: 04/13/93
From: Tom StolfiWAUTS - CWE1IIN
Subject: Krausening/Mashing

KRAUSENING

I remember a recent thread regarding krausening and I am considering trying it soon. My question is this - in order to achieve the same carbonation as using 3/4 cup corn sugar I need to calculate the Degrees of Extract available in the corn sugar. Then, based on the SG of the wort for krausening add enough to create the same Degrees of Extract. Is the above statement correct.

MASHING

What is the proper mash temperature during sparging?? I would assume it to be very close to mashout temp (170deg F). I have noticed that the temperature of my runoff during sparging has been 150F. I typically heat my sparge water to 170-175 about fifteen minutes before I start my sparging procedure. Is this reducing my YIELD??????????

Next time I will heat the sparge water to the proper temp. immediately prior to using it.

Tom Stolfi wauts@cwemail.ceco.com
Waukegan, IL

Date: Tue, 13 Apr 93 12:27:40 -0400
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
Subject: RE: HOP ALPHA ACID

In HBD 1118, Jack Schmidling writes:

> A Proposed Method for Determining Hop Alpha Acid Content

> The following methodology is based on empirical measurement
> and experiments. It may be seriously flawed but as the end
> results seem to achieve the goal desired, it is worth
> further experiments by anyone who cares to replicate the
> results.

As well as further discussion! Jack, I heartily applaud your experiments. I did have some comments on your interpretation that seemed worth posting, but I think your efforts were worthwhile.

[stuff deleted]

> astringency of tea was a result of tannic acid. I also found
> that to test tap water accurately takes about 9 minutes to
> reach a stable value. Boiled tap water reaches stability
> within a few seconds. I presume it has something to do with
> dissolved gas.

Or another explanation involves the cantankerous nature of pH meters. In general, they will respond much more rapidly if they are used to measure similar samples consecutively. For example, if you calibrate the meter using the commercial buffers, then put the electrode in a solution with comparatively little dissolved solids (like water) it may take the electrode a while to settle down in its new environment. Once stabilized, the next water sample you measure should equilibrate much more rapidly. Try it!

[stuff deleted]

> After cooling the teas to room temperature, the following pH
> measurements were obtained:
>Tea #1 Chinook pH 6.2
>Tea #2 SaazpH 6.6
> The delta is .4 pH which I believe works out to a factor of
> 4 in the real world and nicely matches the delta of the AA
> in the hops.

Keep in mind the logarithmic nature of the pH scale. In the 'real world' this difference in pH amounts to:

$(10^{-6.2}) / (10^{-6.6}) = 2.5$ times the amount of free H in the Chinook tea

> Although, measuring at different times sometimes provided
> different numbers, the spread was always the same and I
> attributed the problem to lack of understanding of how to
> use the instrument.

The changes over time could be due to either temperature changes (although not in this case since you waited for the samples to cool) or they could be due to re-equilibration with atmospheric gasses (most notably CO₂) after the sample was degassed by boiling.

> The only significant anomaly was that on the third day, the
> pH of both teas dropped to 5.7. They had been left
> uncovered throughout the period but something significant
> happened overnight of the third day.

Distilled water in equilibrium with atmospheric CO₂ has a pH of 5.6!

Microbial action is also a possibility if the pH change was sudden.

- > In conclusion, if the results are the product of Alpha Acid
- > in the hops then it should be possible to work out formulae
- > to determine the approximate AA of hops or at least
- > determine how much of an unknown hop is required to achieve
- > the same pH of a known hop.

You may have something there, but I wonder what other types of acids might be present in hops that produce no flavor components. Ultimately we don't want to know the total acidity that the hops can produce in our beers, but the specific quantities of a particular class of acidic compounds.

Bob Santore
rsantore@mailbox.syr.edu

Date: Tue, 13 Apr 1993 12:30 EDT
From: HOWED@bcvax1.bc.edu
Subject: More on Immersion Chillers

After seeing all of the discussion on immersion wort chillers, I could not resist throwing in my paltry 2 cents.

Before I started to brew, I saw a friend of mine do a batch. He had a wort chiller, and so I thought it was a great idea. So, I went to the hardware store, got 50' of 3/8 O.D.flexible copper tubing and a compression fitting. The coil is fit so that there is about 2 inches of space between the coil and the side of the container for the wort. The outer coil just spirals down from the compression fitting [where the water comes in], then I made a much smaller coil inside the outer one which spirals up and out, where the water flows out.

This chiller will cool wort which is fresh from the stove in about 15 minutes. Usually, I notice when the temp is at around 80 degrees [F] walk into the next room to tell my partner that it's just about ready, toss a dart or two, then come in to the 65 degree wort, all ready to pitch.

All I can say is I have no complaints. It works for me.

Dave
HOWED@BCVMS.BC.EDU

"If you ever reach total enlightenment while drinking a beer, I bet it makes beer shoot out your nose."-Jack Handey

"Homebrew is enlightenment in a bottle, and it doesn't come out of your nose."
-Anonymous

Date: Tue, 13 Apr 93 11:56:42 CDT
From: paulb@mist@juliet.ll.mit.edu (Paul Biron)
Subject: rotten egg smell

Last weekend I brewed up a batch of wheat beer using Alexander's 60/40 wheat extract, a 1.5 lb 100% wheat kicker, and various grains and hops. I used Yeastlab Bavarian wheat liquid yeast. Prior to brewing I made up a starter using 5 tbsp DME. After 24 hours in the starter there was quite a bit of activity as well as a good deal of sediment but minimal kreusen. I pitched into the primary and vigorous fermentation began within 18 hours. Once fermentation started, I began to notice a sour sulphur odor. Now that fermentation has stopped and I've racked to the secondary, the odor isn't as distinct but it's still there. Questions:

- 1: Has anyone had this experience using Yeastlab yeast. This is my first experience with it. I've always used Wyeast before this batch.
- 2: Will the odor disappear with time.
- 3: Is there a chance that I have a contaminated batch.

Any feedback will be appreciated
Thanks.

Paul Biron
MIT Lincoln Laboratory
DFW Airport
Dallas, TX

Date: Tue, 13 Apr 1993 11:01:32 -0700
From: paul@melody.rational.com (Paul Jasper)
Subject: Re: camra

On 9 Apr, 11:56, BadAssAstronomer wrote:

> Subject: camra

>

>Just back from England with a bunch of real ale under and around
>my belt :) Man it was great, but I'll bore you with the details
>in some other post.

>

>However, the CAMRA Guide to Good Beer impressed me so much, I was
>thinking of joining CAMRA. Anybody out there a member or
>ex-member? Any and all comments will be appreciated.

>

>-- End of excerpt from BadAssAstronomer

I've been a member of CAMRA, the Campaign for Real Ale, since 1978. When I moved to the US, I brought my membership with me, and I certainly find it a good way to keep up with the UK beer, pub and brewing scene.

It costs 14 UK pounds (approx US\$21) for "overseas membership". I believe

CAMRA will accept credit card orders over the phone (they will for book orders, like for the Good Beer Guide). Their number is 011+44-727-867201.

They keep regular office hours, so remember to call early enough in the day

(before approx 12noon Eastern, 9am Pacific). Or write for details to CAMRA,

34 Alma Road, St Albans, England, AL1 3BW.

Membership includes a subscription to What's Brewing, their monthly newspaper. This is 32 tabloid-format pages of news about British pubs, breweries and beers, a column on homebrewing, a full page of beer hunting from Michael Jackson (April issue: German Bocks and Doppelbocks), various industry news (what's Anheuser Busch up to in Europe?), listings of beer festivals, etc, etc.

- --

- -- Paul Jasper

- -- RATIONAL

- -- Object-Oriented Products

- --

Date: Tue, 13 Apr 93 12:13:49 EDT
From: "Jim L." <JLAUKAIT@ccvm.sunysb.edu>
Subject: growing hops

Hello fellow homebrewers,

I am a little new to this forum as well as homebrewing itself. I am sure this has been talked about before, but I could use some information. I would like to grow my own hops. It doesn't look too tough. I have a supply that can give me rhizomes for Hallertau, Cascade, and one other I can't remember. The only info I have is out of Papizanian's (sp?) book. Can anyone give me maybe a little more insight, tips, etc.? Everything would be appreciated.

Thanks in advance,
Jim

End of HOMEBREW Digest #1119, 04/14/93

Date: Tue, 13 Apr 93 12:27:05 CDT
From: shaver@zeppelin.convex.com (Dave Shaver)
Subject: Seeking Albuquerque & Santa Fe beer recommendations

I'm looking for recommendations for brewpubs and the like in the Albuquerque and Santa Fe areas. I've done some research, and here's what I've found so far. I'm looking for confirmation and updates to this information.

I looked at all the 1990-1993 HBDs (issues 335-1118) and found this information (edited to conserve bandwidth):

Date: 16 Jan 90 12:25:00 MST
From: "2645 RUTH, GUY R." <grruth@sandia.gov>

Richard Tatz (former brewmaster at Santa Fe Brewing Co.) says that a real estate developer will be opening up a brewpub close to the University of New Mexico in Albuquerque this year.

This must have not happened based on comments below.

Date: Mon, 22 Jun 1992 09:17:54 -0800
From: sami@scic.intel.com
Subject: Brewpubs in Santa Fe, etc...

[...] It seems that there is a local microbrewery, but no brewpubs.

Date: Tue, 23 Jun 92 10:13:43 -0600
From: 105277@essdpl.lanl.gov (GEOFF REEVES)
Subject: SF Brews (That's Santa Fe - the original SF :-)

There are no brew pubs in Santa Fe. Embudo Station (on the way up to Taos) is the closest. It's probably about a 45 min drive but very pretty and worth going. Santa Fe Pale Ale is brewed at the Galisto Brewing Company just south-east of Santa Fe. It's not a brew pub but they will give you a tour (I think just on the weekends unless you arrange otherwise). If you just want to try the beers you can get any that are available at The Royal Buck on Galisto Street in Santa Fe. They have a pretty good selection of beer and they carry "Santa Fe" beers from the Galisto Brewery which are not available in bottles anywhere but at the brewery. Of course there are good beer drinking establishments in Albuquerque too.

Date: Sun, 28 Jun 92 00:11:15 CDT
From: bliss@csrd.uiuc.edu (Brian Bliss)
Subject: brewpubs in albuquerque

check out billy's long bar. they have 22 taps running, [...] Let's see, Watney's Cream Ale & Stout, Guinness, Bass, Anchor Porter/Steam/Liberty Ale, all the Paulaner Beers, and more. They also have yards [...] and the most gorgeous bartendresses I've seen in my life

Date: Fri, 19 Mar 1993 11:32 EST
From: "JOSEPH V. GERMANI" <GERMANI%NSLVAX@Venus.YCC.Yale.Edu>

[...] By the way, I hear that there is a small brewery half way between Santa Fe and Taos that makes a good green chili beer. I think that it is called Embudo Station.

The brewpub database contains these entries (again, with some edits):

- Pub List -
November 12, 1992

New Mexico -- Albuquerque:
Albuquerque Brewing
Microbrewery. As of '89 they were also planning a brewpub.
Oops sorry! They are reported closed.

So, are they dead or alive? :-)

Billy's Long Bar
Bar with 22 taps, yard glasses.

New Mexico -- Embudo:
Embudo Station
Brewpub on the way to Taos (from Santa Fe). (Is this the same
as Preston Brewery?)
Preston Brewery - P.O. Box 154; 87531 (505)852-4707
Microbrewery, aka Sangre De Cristo Brewing

New Mexico -- Santa Fe:
Royal Buck, The - Galisto St
Pub. "They have a pretty good selection of beer and they carry
'Santa Fe' beers from the Galisto Brewery which are not available in
bottles. <Geoff Reeves "105277@essdpl.lanl.gov">
Russell Brewing Co.
Microbrewery
Santa Fe Brewing Co - State Rd 41 (Flying M Ranch); 87540 (505)988-
2340
Microbrewery producing Santa Fe Pale Ale. Tours. In the (suburb)
Galisteo

New Mexico -- Taos:
Chili Connection, The
Restaurant
Eske's: A Brewpub/Sangre de Cristo Brewing Co
Brewpub

New Mexico -- Tijeras:
Manzano Mountain Brewing Co - No. 3 Los Alamitos Dr; 87059 (505)283-
5303
Microbrewery

Addresses and contact information that is missing would be nice. Thanks
for any additions or corrections you can make!

// Dave Shaver
// CONVEX Computer Corporation, Richardson, TX
// Internet: shaver@convex.com UUCP: uunet!convex!shaver

Date: Tue, 13 Apr 93 10:14:24 PDT
From: Brew me 13-Apr-1993 1311 -0400 <ferguson@zendia.enet.dec.com>
Subject: Guinness in cans

Does anyone have any word with regard to Guinness draught in cans making its way to more locations in the US? Currently, I've heard they are available in Wash DC, San Fran, and one other place. I live in the Boston area and I've been relying on my Irish comrades to supply me - I'm really surprised that Boston was not chosen as a "test" site for the canned draught Guinness, which, IMO, is very authentic.

I've heard that this summer we may see more of these. Anyone else know more about them? I wouldn't mind seeing the Murphey's in cans here as well 'cuz they too are quite yummy!

JC Ferguson
Digital Equip. Corp

Date: Tue, 13 Apr 93 11:11:34 -0700
From: tims@ssl.Berkeley.EDU
Subject: tips gleaned from Anchor brewing tour

Dear Folks,

I promised a while ago to report on some of the things I learned during my recent trip to the Anchor brewery. The folks there are very nice about giving tours and information, and most of all free samples of their various beers, all of which add up to a great visit if you have the chance to go.

Since they are in the business to sell beer, I hope you will patronize their products even as you attempt to duplicate them using the information below.

Here are some random notes, scribbled hastily during the tour. I can't guarantee the accuracy, but this is to the best of my knowlege and scribbling.

- their Steam beer is mashed at three separate temperatures
- steam beer uses both pale and crystal malts, while the Liberty Ale is 100% pale
- their wheat beer is 70% wheat malt

- The steam beer boil is 1.5 hours, with hops added throughout the boil. It gets a 2 hour sparge.
- Steam and porter both use lager yeast, and are fermented at 60 F.
- they reuse yeast after washing it.

- They use iodophor to santize their fermenting vessels
- Liberty Ale is dry hopped
- their steam beer is aged (lagered) at 50 F.

That's it. For you steam lovers like myself, the above info and the net-lore that steam uses 100% Northern Brewers hops should be able to come up with a pretty good match to the beer, if you are the mashing type.

Good luck, Tim Sasseen

Date: Tue, 13 Apr 1993 11:32:38 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Short answer on chiller size

Make your chiller out of 30' of 3/8" OD soft copper tube.

The long answer is 120K, and I'll be glad to send it (in two handy <100K chunks) to anyone who wants it.

P.

Date: Tue, 13 Apr 1993 10:12:06 -0700
From: GARETZ%EMAIL@AMD3.AMD.COM
Subject: SPECTROPHOTOMETER WANTED

I am looking for a cheap (as in almost free) used UV-VIS spectrophotometer to be used in hop research for a book that I am writing on hops. The intent is to come up with better bittering formulas than exist in the literature today, taking many more of the brewing variables into account. Spec specs:

Range: UV-VIS, usually 200nm to something
Bandwidth (aka slit width): 2nm or better

So check your surplus equipment closets and see if there's an older model hanging around that no one wants any more. Or if you live in the SF bay area and can get me access to an instrument in a lab during off hours, that would work also. Reply by email to mark.garetz@amd.com Thanks.

Date: Tue, 13 Apr 1993 10:02:46 -0700
From: GARETZ%EMAIL@AMD3.AMD.COM
Subject: RE: PH METER FOR AA%

Jack Schmidling is attempting to use a pH meter to measure hop alpha acids.

I had asked this question of some hop experts and always got the reply that the alpha acids were too weak to show up on a pH meter. Jack, can you try this: Dilute the Chinnok tea with distilled water by an amount intended to match the Saaz? tea's AA and see if the pH matches the Saaz tea. That should tell us if you are measuring the AAs or something else. I am also skeptical that only a 5 minute boil got any AAs in the tea at all. I would repeat the experiment with more water (say 1 litre) and do a 60 minute boil. This will give iso alpha acids, but should be proportional. You might also try a methanol extraction rather than water. This is a more common practice in the hop world.

Mark Garetz (new to the digest)

Date: Tue, 13 Apr 93 19:44:52 BST
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : Blowoff (fusels, etc.)

Joseph writes:

>In fact, the last Liberty Ale I drank smelled and tasted strongly of octanol or something similar. I was a bit surprised by it and intend to try another bottle from a separate source, since I consider it a defect ...

A professional brewer who was drinking with me (at the Brickskellar) at the time said that it seemed "old." I'm not so sure; I've never seen beer change in flavor this way in a bottle.<

Wine that has passed its peak is also sometimes described as 'fuselly' in pseudo German. On another thread, I would have presumed that wine is aired prior to consumption in order to permit unpleasant volatiles to escape, most likely sulphur compounds.

- - -

Conn V Copas
Loughborough University of Technologytel : +44 509 263171 ext 4164
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Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut
G Britain (Internet):C.V.Copas@lut.ac.uk

Date: 13 Apr 1993 12:20:18 U
From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.edu>
Subject: Reuse of bottles in USA

Subject: Reuse of bottles in USA Time:11:27 AM Date:4/13/93
>They all use the same standard bottle, they make it easy to
>return them to just about anyone, and just about any brewery
>can fill the bottles. Green ones, brown ones, etc. Being an >
environmentally
conscious person, I really liked what I saw.
>The US of A is so caught up in making \$\$\$ as quickly as possible
>that we'll probably never see anything like that...

In fact that used to be the way everybody did things. Well, almost. As
little
as 20 years ago I was able to purchase bottled beer in cases of
returnable
bottles. The beer came from Bartells in PA (I lived in NJ at that time)
it was
around \$3.50 a case plus \$0.03 deposit per bottle. I also recall buying
soda by
the case right from the plant in a refillable quart bottle around the
same
time. All glass containers for beverages were at one time returnable for
the
purpose of refilling. All milk was sold this way when I was a kid. While
we
never saw a standardized bottle which could be used by any brewery, the
principle was certainly there.

I suspect that the practice was abandoned when the range of sales for any
given
producer extended beyond where it was cost effective to reclaim the
bottles.
For the big breweries this was not such an issue (hence the continued
existence
of the "bar bottle") but for small regional or local brewers (or other
beverage
producers) if you wanted to get a bigger market share you had to figure
on the
loss of the container. Also one way to reduce or maintain the cost of a
product
is to reduce the cost of the package. Cans also contributed to the
elimination
of re-use containers.

Standardization of glass containers would go a long way toward
facilitating the
re-use ethic. Alas there would be no end to the cries of "foul" if such a
suggestion were made. The idea of cross-use between industries alone
would be
enough to get the neo-pros out of joint. "What?! Use the same bottle for
milk,
soda, water, AND BEER, WINE, or WORSE!?!"

Don't expect it in our timelines. We can't even get the world to agree on
a
measuring system! I can hear the Ayn Rand-ites coming for me now...

RW...Heretic at Large

Russ Wigglesworth (INTERNET: Rad_Equipment@radmac1.ucsf.edu - CI\$: 72300,
61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

Date: Tue, 13 Apr 1993 13:42:07 -0600

From: colesa@spot.Colorado.EDU

Subject: gushers

Recently my brewpartner and I bottled a Red ale. We were slightly disturbed that fermentation had stopped so soon (after four days of very high activity, the Spec. Gravity was the same for four more). We primed with malt extract (1 1/4 cup to 5 gal) and now about 1 in 3 bottles gush. Is it possible fermentation was stalled that long and picked up in the bottle? This is not a big problem, since we can easily open bottles over a sink, but I'd like to be sure when fermentation is complete. Replies via e-mail are welcome. Thanks in advance!

Adam Coles* I'm not giving in to security under pressure
Senior, Bioengineering * I'm not missing out on the promise of
adventure
College of Aerospace* I'm not giving up on implausible dreams
CU Boulder* Experience to extremes, experience to extremes
colesa@spot.colorado.edu * -N. Peart

Date: Tue, 13 Apr 93 12:32:08 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: Zima Review & Thanks

Hey, folks:

I had my first taste of Zima this weekend, and thought I would post a short review.

First, Relax. Beer it definately AINT. It calls itself a "clear malt beverage". While I cannot testify on it being malt, it was a beverage and certainly was clear.

COLOR: none
HEAD: none
HOPS: none
AROMA: sweet and slightly citrusy
TASTE: exactly like a vodka-seven (that's vodka and seven-up)

If you like 7-up, you'll love this drink. It was a little too sweet to be refreshing, even on a hot day.

I won't buy any more. If I want something that tastes like Zima, I'll mix up a vodka-7 myself. It'll be WAY cheaper.

Many thanks to all of you who responded to my plea for help on yeast culturing. Your suggestions/advice/experience were very timely and helpful.

Cheers,

Troy

Date: Tue, 13 Apr 93 16:22:06 -0700
From: ek@chem.UCSD.EDU (Ed Kesicki)
Subject: Recipe: Bigfoot Jr.

Here is a recipe for a beer similar in flavor to SN Bigfoot Ale, although it is not quite as high in alcohol content. (OG of 70 compared to 95 for the real bigfoot according to M. Jackson). Let's say it's Bigfoot Jr. I wasn't attempting to make a clone, it just came out that way--maybe not surprising since I used the SN yeast. In fact, I had never tasted SN Bigfoot until after I had made this one, and I found the flavor very similar.

SIERRA NEVADA BIGFOOT JR (4.5 gal batch):

10 lb2-row pale malt
8 ozDextrin malt
1 lbAmber crystal malt (40 deg L)
.25 cup Chocolate malt
2 tsp gypsum

Hops: 1.5 oz Northern Brewer loose hops, 5.7% aa, 60 min boil.
1.0 oz Cascades loose hops, 5.5% aa, 60 min boil
(total of 14 AAU bittering)
0.5 oz Hallertauer pellets, last 5 min of boil
0.5 oz " " , end of boil, sat 10 min before chilling

Yeast: Sierra Nevada Yeast, cultured from two bottles

PROCEDURE:

Mash in: 130 deg. F 12 qts water (San Diego tap water, boiled+cooled)
Protein rest: 125 deg F 30 min
Mash temp:155-146 deg F 1.25 hr
Mash out: 170 deg F 5 min
Sparge: approx 4-5 gal @ ~ 170 deg F

Total boil time of 1.5 hr, hops additions as noted above, chilled,
racked off trub
Final volume was 4.5 gal
Fermented in glass, temp in the low 60's Farenheit, used primary+
secondary.
Two week fermentation

OG: 71 FG: 15

Primed with 1/2 cup corn sugar, bottled 2.5 gallons like this, which became the Bigfoot Jr. The remailing 2 gal. was diluted up to 3 gal with water, then bottled after adding a little more corn sugar (~1or2 tbsp). This produced a very very good pale ale (Not at all bigfoot-like!) with a more civilized alcohol content.

Please try it and let me know how it turns out.

Ed Kesicki

Date: Tue, 13 Apr 93 17:18:06 -0700
From: "Carl J. Appellof" <cja@chmist.zso.dec.com>
Subject: Mashing temps for De Cosyns Belgian malts?

Went to a presentation by Dr. Michael Lewis from U.C. Davis a few weeks ago where he said that a temp. step mash was absolutely essential to give best extract yeilds and fermentability when using American lager malt (aka "klages" in this neck of the woods). He also said that with British Pale Ale malt, a single temp infusion mash was best. I get the idea that the mash temp profile really depends on what your malt was designed for.

I have some Belgian Pilsner malt and Pale Ale malt from De Cosyns maltings. Does anyone have info on the proper mash temps for these two fine malts? (If I had to guess, I'd do a single temp 150F infusion mash with the Pale Ale, and a temp step/ramp from 122F-142F-158F for the Pilsner malt.)

Carl J. Appellof
Carl J. Appellof (cja@chmist.zso.dec.com)

Date: Tue, 13 Apr 93 20:51:33 CDT
From: If wishes were cows@iastate.edu,
Subject: Re: Boulevard Brewing Co

>While on a recent trip through the mid-west, I picked up some micro
>brews (I assume) made by the Boulevard Brewing Co. in Kansas City,MO.

Other stuff deleted

>If anybody has any input, I'd love to hear it.

I was in KC over the Easter Holiday, and enjoyed a fine meal at Bristol's
on
the plaza. I had a IPA brewed by Boulevard and thought it was a fine
brew.
While everyone else had coffee for desert I had another IPA.

Just my 2 cents worth

John Bartleson

Date: Tue, 13 Apr 93 23:36:00 CST
From: hopduvel!john@linac.fnal.gov (John Isenhour)
Subject: How not to filter beer

Ok, so I've been asking around and reading up on how to filter homebrew and I went by and looked at some whole house water filters. It seemed that they contained an awful lot of liquid for filtering five gallon batches and might be wasteful. So I notice these cute little 'icemaker' filters by Pollenex that are clear tubes about 1.5" in diameter and about a foot long. These are filled with carbon but they have a threaded cap and an O ring seal on one end. I found one of these for \$5.00 and also a 5.0 micron string filter (two for \$5.00) so I figure I'll just pour out the carbon and stuff the wound string filter in the cartridge and see what happens.

BTW,

I've looked all over and I cannot find the 3.0 micron filters I think George Fix was talking about, if anyone knows where I can find one of those let me know. (the filter store says ??)

Anyway, I'm working on the little filter cartridge and found that the plastic connectors that come with it - that thread into each end of the cartridge, have outer threads that fit cornelius keg threads (ball lock type at least - I dont have pin lock), I added a compression ring (a little brass ring that looks like a double of the normal cornelius plastic compression washers i.e. "<>" rather than ">") to get a good seal.

Then I try to unscrew the O ring cap off the cartridge. It is stuck on really tight, so tight I thought I'd break it if I tried any harder (I had the hex-head cap in a vise and was using 2 pipe wrenches on the body of it). I thought I remembered testing one of them and it unscrewed, so I ran to Kmart but they were all beyond hand tight. So I went back home and heated the cap in real hot water... finally put some ignited propane on it. After about a half hour of heating and twisting and cursing, I got the cap off.

Ok, so now I pour out the carbon and take the poly wound filter cartridge and open it up and find the end of the string. I roll the string up in a tight little ball estimated to simulate what would pass through the poly string filter if I hadnt grossly mutilated it. I didnt want to filter it too much (gad! barley wine 'in' and Coors extra light 'out' red alert).

(CO2 purging, fixing leaks etc mercifully omitted)

I diverted a sample:) on the way out of the fermenter into tank#1 which I used to compare against the filtered stuff going into tank #2 (I was using CO2 to push the brew rather than a pump).

The glass I diverted after the filter looked exactly the same (clarity wize etc) as the stuff right outta the fermenter:-)

I disassemble the whole deal, stuff the little housing with as much filter string as seems sane, and repete procedure. same results.

So, I think that a small cartridge filter that would be disposable or reusable with a small amount waste is still a good idea. I think I could fabricate a smaller less wasteful housing if I could find the right media. FWIW, the Filter Store told me today that pleated filters were much more effecient and poly string filters were only

about 65% effecient at their rated effectiveness.

Now I've got a bunch of barley wine samples that I'm not about to waste and its getting late!

-john

- - -

John Isenhour
renaissance scientist and AHA/HWBTA National Beer Judge
home: john@hopduvel.UUCP (hopduvel!john@linac.fnal.gov)
work: isenhour@lambic.fnal.gov

Date: Wed, 14 Apr 93 06:45:16 EDT
From: dstotler@cygnus.PPPL.GOV (Daren Stotler)
Subject: RE: rotten egg smell

Paul Biron writes:

>Last weekend I brewed up a batch of wheat beer using Alexander's 60/40
>wheat extract, a 1.5 lb 100% wheat kicker, and various grains and hops.
>I used Yeastlab Bavarian wheat liquid yeast. Prior to brewing I made up
(stuff deleted)
>hours. Once fermentation started, I began to notice a sour sulphur odor.
>Now that fermentation has stopped and I've racked to the secondary, the
>odor isn't as distinct but it's still there. Questions:

I guess this is going around. My last batch was very similar to this; in particular, I also used the Yeast Bavarian Wheat Liquid Yeast (from a starter). The fermentation went on for nearly a week. And, it gave off a distinct "rotten egg" smell (my wife was the first to complain; I don't need to give her any more reasons to object to my brewing in the house). I called my local brew shop. The proprietor suggested leaving the beer on the yeast for four days after the krausen had fallen; by that time the smell should have dissipated. He was right! At this point I didn't see any reason to go to a secondary, so I went ahead and bottled the beer. My taste tests at that point indicated no ill effects; we'll have to wait until this weekend to test the finished product. My only complaint was that there were some fairly ugly remnants from the krausen floating on top of the beer when I started bottling. Some of it made its way to the last few bottles; I guess I can expect some puzzled looks from unsuspecting guests.

---Daren Stotler
dstotler@pppl.gov

Date: 14 Apr 93 02:58:29 EST
From: "Anderso_A" <Anderso_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
Subject: Drinking in Albuquerque, Buffalo, & Toronto

The following attachments were included with this message:

TYPE: FILE
NAME: TOM

I will be travelling in the near future to Albuquerque NM and Buffalo/Toronto and would appreciate any information on brewpubs/good beer bars in the vicinity(s). Thanks in advance.

Date: 14 Apr 93 02:52:52 EST
From: "Anderso_A" <Anderso_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
Subject: Yeast Propagation

Message Creation Date was at 14-APR-1993 07:26:00

Greetings,
I've a question about starter cultures and their OG's. I remember reading several items on hbd recently concerning whether an OG of 1.020 was appropriate or just a piece of folklore handed down over time. I've read that when a fermentation reaches full yeast saturation, there are supposedly 50 million yeast cells per milliliter of solution. Is this irrespective of the Gravity of the wort? Does a unit volume of 1.020 wort create the same number of yeast cells as 1.080 wort? If the OG of the wort does make a difference in the final quantity of yeast cells, is there some sort of mathematical relationship I can use to determine final number of yeast cells for a given volume of wort at a set OG? It seems to me that if the OG has no bearing in the final saturation number of yeast cells, and saturation will always be 50 Mill/ml, then why not just decrease the DME, increase the water, end up with an OG of 1.010, but because of a greater volume have a greater number of yeast cells.

Help!! I see yeast in all my dreams!

Andy A
Bitch's Brewery

Date: Wed, 14 Apr 1993 10:10:34 -0400 (EDT)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: hops primer

Just a reminder that I've got a primer on growing your own hops. If there's a lot of interest, I'll post it to the list. Otherwise it's available by personal e-mail.

Russ Gelinias
gelinas@unhh.unh.edu

Date: Wed, 14 Apr 93 07:54:36 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Milling nightmare

I recently brewed a Brown Ale. One of the malts in the recipe is English crystal malt. This stuff really makes a brown ale. I usually put it in the mashout to minimize some of it's harshness. I will mill the crystal malt separately from the pale malt. Well all was going well with the pale malt. I then started to crush the crystal malt. The mill started making funny bumping noises. I looked at the cracked grain and it didn't look cracked, more of a mashed look. Well I tasted the malt and it was like gum. Well I figured I would pass the malt through the mill one more time to better crack/mash it. The mill stopped! The malt gum/goo/sticky crab stuck to the mill rollers and clogged the mill! It took me about two hours to clean the rollers up. Not an easy task if you don't want to use water for fear of rusting the rollers. I think what happened here is the malt was in a room where the humidity was very high and it sucked up all the moisture to make bubble gum malt. Under my house flooded during the winter and created this high humidity. The lesson here is I will taste test all malt before they go through the mill and I am considering some sort of moisture tight bag around the malt to prevent this from happening again. Grooved rollers on a mill are a definite disadvantage in this circumstance.

Bob Jones

Date: Wed, 14 Apr 93 08:33 PDT
From: Bob_Konigsberg@3mail.3com.com
Subject: Wort Chillers

It's been a while since I got on my soapbox (so as not to get too tiresome on the subject), but having used both immersion chillers and counterflow chillers (former first, latter second), I believe that there is nothing like a counterflow chiller.

- 1) Because the wort and cooling water are going in opposite directions, you get a very efficient heat exchange.
- 2) The bulk of the wort in the boiling pot stays hot enough to discourage assorted bugs.
- 3) The wort is chilled in complete sterility and then dumped out at pitching temperature right into your sterile (I hope) carboy. I usually pitch the starter culture into the carboy and then dump the wort on top of it.
- 4) You get (depending on the temperature of your cold water) a really good cold break during the chilling process.

The big dread that most people consider is cleaning it. This is actually not too bad. First I run hot water through it, then a solution of chlorinated TSP and hot water and let that sit for 10 minutes. Then another two minutes of hot water flow and cap both ends and leave it sit with water in it. The chlorinated solution must NOT sit in it long term, it will corrode the copper. Then I always rinse for two or three minutes with hot water prior to use.

If anyone wants a drawing with detailed instructions, email me for my home address and then send me a self addressed stamped envelope for the drawing itself.

BobK

Date: Wed, 14 Apr 93 8:51:28 PDT
From: davep@cirrus.com (David Pike)
Subject: Cheap Hop Rhizomes

For those of you who are in the Pacific N.W. and want to grow your own hops, the Herbfarm in Fall City has inexpensive rhizomes (3 for 3.99) for sale.
Usual disclaimers.

Dave

Date: 14 Apr 93 08:21:00 EST
From: "ROBERT W. HOSTETLER" <8220RWH@indy.navy.mil>
Subject: Chicago stakeout...

I had to unsubscribe from the digest for a couple of weeks; what's the status of the stakeout on the homebrew/hydroponics supplier in the Chicago 'burbs?

While I'm at it, what's happening with the Boston trademark lawsuit? Jim Koch is doing commercials for Samuel Adams, and his voice just plain sounds weaseley...

Bob Hostetler8220rwh@indy.navy.mil

Date: Wed, 14 Apr 93 12:52:18 EDT
From: bszymcz@ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: re: Lab equip

>I would like to second that request for Lab equip supply places. Also
> does anyone have the number for Aldritch and know if they sell to
> individuals?

The toll free Customer service for Aldrich is 800-558-9160.
They sell non-chemicals to individuals but if you want
chemicals (agar included) you must order through a business.
I recently bought some Pyrex Petri dishes from them.
Theirs was the only catalog I found with Pyrex dishes, which they
sell in different sizes, namely,

o.d.XH(mm)	Cat. No.	Each	Pkg/12	Case
58X15	Z13,973-4	\$6.05	\$47.80	\$258.75/72
98X10	Z13,974-2	5.40	39.80	214.60/72
100X15	Z13,975-0	5.40	39.80	214.60/72
98X20	Z13,976-9	5.40	39.80	214.60/72

(100X15 seems to be the standard size).
They also added on a \$10.00 shipping charge to the order.

As far as other supplies for yeast culturing go

test tubes - The minimum order in the catalogs I've seen
is 144 for over \$100, so your best bet is
probably a local hobby shop.

agar - I took Jack Schmidling's advice and found it
both in stick and powdered form in a local Chinese
market. The powdered form seems most convenient
but the instructions were in Burmese (I think).

For some of the other items
J&H Berge, Inc. of 4111 So. Clinton Ave., So. Plainfield,NJ
(I don't have their phone number handy) have a more limited selection
of supplies than Aldrich, but at generally lower prices.

Bill Szymczak
bszymcz@ulysses.nswc.navy.mil

Date: Wed, 14 Apr 93 10:41:22 PDT
From: 14-Apr-1993 1341 <macneal@pate.enet.dec.com>
Subject: Equations for wort chiller and immersion heater length

All of this talk about proper wort chiller length and length of immersion heaters made me dig out my copy of Perry's Chemical Engineers' Handbook (5th edition, pp. 10-36 and 10-37). Here are some formulas that may be of help.

First, let's define some terms. This will be a little tricky since I can't sub and superscript easily. I'll use an * to signify multiplication.

A, area in sq. ft.; Ab, of tank bottom; Ac, of coil; Ae, equivalent; As, of sides; At, of top; A1, equivalent area receiving heat from external coils; A2, equivalent area not covered with external coils; Dt, diameter of tank, ft.; F, design (safety) factor; h, film coefficient, B.t.u./(hr.)(sq.ft.)(OF); ha, of ambient air; hc, of coil; hh, of heating medium; hi, of liquid phase of tank contents, or tube-side coefficient referred to outside of coil; hz, of insulation; k, thermal conductivity, B.t.u./(hr.)(sq.ft.)(OF/ft.); kg, of ground below tank; M, weight of tank contents, when full, lb.; t, temperature, OF; ta, of ambient air; td, of dead-air space; tf, of contents at end of heating; tg, of ground below tank; th, of heating medium; to, of contents at beginning of heating; U, over-all coefficient, B.t.u./(hr.)(sq.ft.)(OF); Ub, at tank bottom; Uc, of coil; Ud, of dead air to the tank contents; Ui, through insulation; Us, at sides; Ut, at top; U2, at area A2.

Case 1: Tank Maintained at Temperature with Internal Coil

For steady state: $q = U_s * A_e * (t - t')$

for a tank on legs: $A_e = (U_t / U_s) * A_t + (U_b / U_s) * A_b + A_s$

for a flat-bottomed tank on the ground:

$A_e = A_s + (U_t / U_s) * A_t + [(2 * D_t * k_g / U_s) * (t - t_g)] / (t - t')$

The coil area is: $A_c = (q * F) / U_c * (t_h - t)_m$

The safety factor, F, is a matter of judgment based on confidence in the design. A value of 1.10 is normally not considered excessive.

For a flat-bottomed tank indoors, not insulated, using water as a fluid, $U_s = 1.8$, and $A_s = 0.35 * A_t + A_s + 0.9 * D_t$. For an uninsulated tank on legs indoors, $U_s = 1.8$, and $A_s = 0.35 * A_t + A_b + A_s$.

Case 2: Heating with an Internal Coil from Initial Temperature for Specified

Time (wort chiller length for desired chilling time)

$$Q = Wc \cdot (t_f - t_o)$$

$$Ac = [Q / \theta_{h} + U_s \cdot A_e \cdot ((t_f + t_o) / 2) - t'] \cdot [1 / U_c \cdot (t_h - (t_f + t_o) / 2)] \cdot F$$

where θ_{h} is length of heating period.

Over-all heat transfer coefficient for copper coil with cold water flowing through it and immersed in hot water with no agitation is 105-180 B.t.u./ (hr.) (sq.ft.) (0F).

Good luck!

Keith A. MacNeal
Digital Equipment Corporation
Hudson, MA

Date: Wed, 14 Apr 93 12:16:34 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: dry-hopping, pitching rates

Brewing Comrades,

I have a couple remarks on postings in HBD#1118.

First, Carl Eidbo's remarks on dry-hopping problems remind me very much of what I have been through with a recent batch. I have only gotten a few comments on my trials and tribulations from digest contributors (I'm afraid my postings had to compete with that very lively thread on swirling) but enough to point me in this direction for future dry-hopping:

>>>when dry-hopping, I will (1) wait until the gravity is within a couple points of finishing, and (2) use leaf hops rather than pellets, probably sunk in a muslin bag weighted down with sanitized marbles.

Comments, anyone?

Second, regarding Dennis Lewis's post on pitching rates, I seem to recall a year or two ago there was this fellow identifying himself as "Father Barleywine" who claimed to be brewing multiple batches re-using the yeast cake over and over, just dumping the new beer on top each time. I was intrigued by this and tried it a couple of times, but the results were really not very pleasant. Papazian says that the phenomenon known as "yeast bite" can be associated with high pitching rates (and I also recall he says something like "there is no scientific explanation for this") and I think this was my problem - my yeasts were biting me!

However, thanks to the wisdom of the digest I no longer dump onto yeast cakes and I also plan to give up washing my yeast for re-use in favor of the "parallel propagation method" described herein recently, in which one lets a starter solution ferment to completion, then splits it up into several bottles fitted with airlocks and stores them in the fridge until brewing time.

Jonathan Knight
Grinnell, Iowa

Date: 14 Apr 93 09:43:26 EST
From: "Anderso_A" <Anderso_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>
Subject: Search for good Beer

Message Creation Date was at 14-APR-1993 14:33:00

Greetings,
I've a friend who will soon be travelling to
Harrisburg, PA. He wants to know if there are any
brew-pubs, good beer pubs, or just enjoyable bars in the
area. Any response will be appreciated.

Thanks

Andy A

Date: Wed, 14 Apr 93 16:08 EDT
From: hjl@gummo.att.com
Subject: Beer Chillers

In HB#1119 Bob Sweeney asks about the use of beer chillers comprising a coil of copper tubing, a bucket, and ice. He expressed some concern about possible negative aspects of this device. When I was very young (right after prohibition) such coolers were built right into the bar in all the neighborhood saloons. We had one in our summer house which was used during fund-raising picnics attended by large crowds (hundreds of people). They'd go through about a dozen half-barrels of brew. The beer was delivered cold but would get pretty warm towards the end of the day. The chiller worked great. It had about fifty feet of half inch copper tubing in an insulated box about two feet by one foot by one foot deep. The ice was delivered in large blocks about the same size as the cooler. It was chopped into smaller (fist-sized) chunks using an icepick.

The only problem I ever observed during the forty years I knew this gadget occurred late one hot afternoon when the bartender (who had been busily replacing his electrolytes) decided to save time in replenishing the ice by putting in large chunks and chopping it up in the cooler.

After a short period of furious chopping, the level of the ice began to rise. Then it became surrounded foam and finally beer began pouring over the sides.

This shouldn't be a problem with today's technology where the ice comes pre-chopped.

Hank
.//'

Date: Wed, 14 Apr 1993 13:47:04 -0800 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: dry hopping versus hop tea

In HBD 1118 Al talks about adding hop tea prior to bottling:

> to make a hop "tea" by boiling some hops in water for an hour (and
while
> you're at it, you can add flavor hops 15 minutes before the end of the
boil
> and finishing hops 5 minutes before the end of the boil)

How does this compare with dry hopping for the same effect? I would
think
that 1/2 oz hops sitting for a week in a secondary would have more effect
than the same quantity boiled for 5 or 15 minutes in water. Also, how
does
the volume of boiled water effect the extraction? It all has SG=1.0
which
implies it's independent of volume???

It would seem to be much easier to boil hops to make tea which is added
at
the last minute than to mess around with dry hopping.

Peter

Date: Wed, 14 Apr 93 12:17:26 PDT
From: WHATEVER IT TAKES <smith@zeke.enet.dec.com>
Subject: Zymurgy article copy request

Does anyone out there have the Zymurgy Spring 1989 issue (Vol.12-1)

If so; could you photocopy and fax me the articles on ?

Boiling Hops: how much is enough?

Carbonation Techniques: How to get the right amount of fizz in your beer.

Thank You in advance,

George Smith
Fax:(603) 881-0120

Date: Wed, 14 Apr 93 14:20:24 PDT
From: mikel@netlink.cts.com (Mike Lemons)
Subject: Guinness Stout (Imperial) Recipe

There has been some discussion lately about the difference between different types of Guinness Stout. Here are some statistics from The Essentials of Beer Style by Fred Eckhardt:

	Original Gravity	Alcohol ww/vv	Final Gravity	Hops ibu
Guinness Extra Stout	1052	4.4/5.51	1011	50
1901 Guinness Extra Stout (In Ireland)	1075	6.3/7.91	1014	90

The numbers for the Irish Guinness are quite similar to those for Grant's Russian Imperial Stout. (So the truly Irish Guinness is really Russian! -- go figure.)

The book also states: "Pale 2-row ale malt, plus 9% each of flaked barley and very dark roast barley, in a two-step infusion mash (1-hour at 148-151 F/64.5-66 C). Bullion bittering and Golding aromatic hops to 50 i.b.u." (This is for Export Guinness)

I would like to brew a beer in the style of Irish Guinness, but with more body. I also like the molasses flavor of Mackeson Stout. So I came up with this all-extract recipe:

Ingredients:

- 6 pounds, William's English Dark liquid malt extract
- 3 pounds, Australian Dark dry malt extract
- 1 pound, dry weizenmalt (60% wheat)
- 1 pound, crystal malt (40L)
- 1 pound, roasted barley (540L)
- 1 pound, chocolate malt (400L)
- 1/2 pound, black patent malt (500L)
- 1 cup, molasses
- 2.34 ounces, Bullion pellets (8.8% alpha), boil 60 minutes
- .78 ounce, whole Kent Golding (7.8% alpha), boil 10 minutes
- Wyeast Irish ale #1084

Leave out this ingredient, since it requires mashing:
1 pound, flaked barley

Any comments? Do you think the yeast will handle the high gravity or will I need to re-pitch with champagne yeast? Should I throw something else in to increase the body? (I would like it as thick as possible. Maybe I should make my first attempt at mashing with flaked barley and carapils.) Should I reduce the hops because the roasted barley will add some bitterness? How many i.b.u. worth? Does anyone think that lactic acid should be added?

- - -

INTERNET: mikel@netlink.cts.com (Mike Lemons)
UUCP: ...!ryptyde!netlink!mikel

NetLink Online Communications * Public Access in San Diego, CA (619) 453-1115

Date: Wed, 14 Apr 1993 19:31:28 EDT
From: Jay Hersh <herhsh@expo.lcs.mit.edu>
Subject: Wyeast Bohemian Lager yeast

I have brewed repeatedly with the Wyeast 2124 (as have others I know) and report nothing but excellent results. I would however contact Wyeast with the batch number to determine if there are any known quality problems with the lot you and your friend got.

Also how was it stored at the shop you got it from. There is some possibility that it might have been mishandled leading to damage to the yeast.

JaH

End of HOMEBREW Digest #1120, 04/15/93

Date: Thu, 15 Apr 93 01:46:01 -0500
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)
Subject: whitbread warning, part 3

There seems to be some confusion regarding the availability of the new Whitbread dry yeast. George Fix mistakenly believes Crosby and Baker is presently distributing the new Whitbread to homebrew shops. They are not but hope to make it available in 2 or 3 months. Additionally, Crosby and Baker is not currently distributing the Australian yeast, Mauri.

George reports the use of an actidione test to check for wild yeast. The basis of this culture test is the same as all culture tests; to prepare a medium on which the culture yeast cannot grow but contaminating yeasts can. Like all other culture methods it's limitation lies in the fact that many wild yeast contaminants common to breweries are quite similar to the culture yeast. If you inhibit the culture yeast, you often inhibit the wild yeast. In the actidione test, the wild yeasts are broken into 2 subsets - those that are more resistant to actidione and those that are less resistant. George apparently drew the line as fine as possible by using the minimal ('incremental') amount of actidione. This approach has been in the literature for at least a quarter of a century. George reports wild yeast counts are less than 1 in 10 million culture cells. A more accurate statement would be that wild yeasts which are more resistant to actidione than the culture yeast are less than 1 in 10 million. It's impossible to say what the overall level of wild yeast contamination is based on this test alone.

For those interested, there was an article in Journal of the Am Soc Brewing Chemists a few issues ago in which the relative merits of the culture tests were compared. Each of the culture methods individually misses many wild yeasts.

George Fix suggests the old Whitbread might be contaminated, perhaps by a dextrin consuming yeast, *S. diastaticus*. *S. diastaticus* may well be a common contaminant of dry yeast because it is a pastry yeast and as far as I know every dry yeast processor makes oodles more bread and pastry yeast than brewers yeast. There is a culture test for *S. diastaticus* but the easiest method of determining if it is NOT there is simply to make some beer. *S. diastaticus* and many other wild yeasts make beer with the characteristic 'medicinal' taste. The compound responsible for this flavor can be easily detected by running the beer through a gas chromatograph and also, as we all know, by merely sniffing the beer. This is just one example of the value of sensory tests. Sensory tests are not only easier and practical but often more reliable than culture tests, particularly limited culture methods. It would seem that George Fix is also of this opinion based on the following quote from his book. "Perhaps the best way to detect yeast disorders is by examining their by-products and the

resulting alteration of beer flavors." George may have only been referring to respiratory-deficient mutants at this point which is yet another common problem of dry yeasts. There is a reasonable hypothesis that respiratory deficient mutants (aka petite mutants) are an inherent problem of large scale commercial production.

The value of any test is diminished by distance and time from the brewery, in this case the homebrewery. The viability of dry yeast is one area where this can be easily recognized. It's not surprising that freshly dried yeast is still viable. The far more pertinent issue for the homebrewer is the viability in 6 months, a year or 2 years. Of course the history of the yeast packet has a lot to do with answering this question, but a dated package would surely help the homebrewer.

Since the new Whitbread is not even available yet to homebrewers, it's impossible to perform the culture tests and sensory evaluations on packets of the yeast directly relevant to homebrewers. It may well turn out that the new Whitbread is an improvement over the old and also a good clean yeast, but George's data is simply too limited and too removed from the point at which the yeast will be used by homebrewers to reach that conclusion now.

Finally, I have heard that the new Whitbread is in fact not the old Whitbread at all. The old Whitbread was a mix of three strains. The rumor is that the new Whitbread is a single strain. Perhaps George or someone else can confirm or refute this.

Date: Tue, 13 Apr 93 21:36:06 EST
From: chuck@synchro.com (Chuck Cox)
Subject: Riverside Garage & Brewery

Introducing the Internet's SECOND garage & brewery.

The Riverside Garage & Brewery, the new home of SynchroSystems, the Silent But Deadly electric autocrosser, and Brain Death Barleywine, is now open for business. Located in (the Peoples's Republic of) Cambridge, Massachusetts, just above the flood level of the Charles River, and just minutes from the Plough & Stars and the Sunset Grill & Tap.

Garage available for emergencies, futon available for guests, beer available for any occasion.

- - -

Chuck Cox <chuck@synchro.com>
The Bill of Rights is not available ala carte.

Date: Thu, 15 Apr 93 08:54 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Cold Plate, pH

>From: SWEENERB@memstvx1.memst.edu
>Subject: kegging using a beer chiller

>Is it possible to use these kegs by connecting up a beer chiller like
the
one displayed in the recent Gadgets issue of zymurgy--basically a copper
tube
running through an ice bucket through which the beer flows?

At the risk of boring the regular readers, herewith my program to stamp
out
refrigerators.....

Presuming that you do not keep your beer in a hot attic, you can chill
it as
you dispense it with several gadgets, including the one you mentioned.
The
cooler the keg is kept, the longer it will last but in typical basement
temps, the keg will be long gone before it spoils from the heat alone.

There is however a far better device for home use than the coil type
chiller.
First of all, I would not use copper for the coil and all the commercial
producers use stainless tubing to keep the greedy lawyers at bay.

The device of choice is called a cold plate. It consists of a
serpentine of
very narrow ss tubing, imbeded in a cast aluminum plate with in and out
fittings.

The plate is placed in a dish pan and hooked up between the keg and the
tap.
Ice cubes are dumped on the plate and voila, cold beer. Two cups of ice
will
chill several glasses of beer, depending on the ambient temp.

I have mine hooked up so that I can direct it to my counter-flow bottle
filler and it does a great job.

The major advantage of the plate over the coil job is that it only holds
about an ounce of beer and requires far less ice. You would typically
purge
the beer from the line between periods of non usage and the coils can
hold a
lot of beer.

On the other hand, for a picnic or large party the coil configuration
would
be more efficient.

For more information on cold plates and other beer type gadgets, you can
get
a free catalog from Superior Products by calling 800 328 9800.

>From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
>Subject: RE: HOP ALPHA ACID

<Keep in mind the logarithmic nature of the pH scale. In the 'real world' this difference in pH amounts to:

$(10^{-6.2})/(10^{-6.6}) = 2.5$ times the amount of free H in the Chinook tea

I can't find my old slide rule nor a log table and it does seem a bit simple minded to assume that if 1 unit equals ten then .4 must equal 4. Thank you.

- > The only significant anomaly was that on the third day, the
- > pH of both teas dropped to 5.7. They had been left
- > uncovered throughout the period but something significant
- > happened overnight of the third day.

<Distilled water in equilibrium with atmospheric CO2 has a pH of 5.6! Microbial action is also a possibility if the pH change was sudden.

Sounds like I am reinventing the wheel.

- > In conclusion, if the results are the product of Alpha Acid
- > in the hops then it should be possible to work out formulae
- > to determine the approximate AA of hops or at least
- > determine how much of an unknown hop is required to achieve
- > the same pH of a known hop.

<You may have something there, but I wonder what other types of acids might be present in hops that produce no flavor components. Ultimately we don't want to know the total acidity that the hops can produce in our beers, but the specific quantities of a particular class of acidic compounds.

Maybe we should redefine what I was trying to learn. As I recall, the whole notion of AAU and bittering units is a fiction created to help duplicate a given bitterness so as to make consistent beer. It produces a formula to guide the brewer in knowing how much hops to put in the kettle and what that number is based on is of little interest to the brewer as long as he gets an accurate number from the supplier to plug into his formula.

If another set of guidelines, that give the same results but based on a totally unscientific use of a pH meter, that anyone can purchase, it would be a boon.

I doubt that we could keep the producers honest by faulting the numbers on their packages but I am thinking more along the lines of helping the grower of hops who hasn't a clue.

js

Date: Wed, 14 Apr 1993 13:44:59 -0500 (CDT)
From: John Edens <johne@sa-htn.valmet.com>
Subject: chilling wort

I think I might be missing something in the discussion. I have a wort chiller made of about 15 to 20 ft of copper tubing that I run cold water through to cool the approximately two gallons of wort in my brewpot.

I have always assumed that since I am going to dilute the wort with cold water to bring the volume up to five gallons, I only need cool the wort to 100 degrees F, or 40 degrees C for our European and Canadian readers. I haven't noticed any bad results from this. My standard procedure is to siphon the wort out. What would happen if I just poured the cooled wort from the brewpot into the primary, skipping the siphon. I know that a lot of the leftover clumps of protein and hop residue would get in that would otherwise be left behind. Anything else?

John

Date: Wed, 14 Apr 93 11:47:29 EDT
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Re: Immersion chiller

Andy says:

>I think you would want the exiting water to be warmer for a given
>length of tubing. The amount of heat removed from the wort should be:
> $(\Delta q) = m \cdot C_p \cdot (\Delta T)$
>where m =mass flow rate of water
> C_p =heat capacity
> (ΔT) =temperature difference= $T_{out} - T_{in}$
>So, if the flow rate increases, the heat removed increases, and if the
>temperature difference increases, the heat removed increases.

You're OK until you define ΔT , the ΔT that is important here
is $T_{wort} - T_{water}$ at each point along the chiller.

To keep this ΔT high you need to keep T_{water} as low as possible,
if T_{out} is high then the ΔT through the wall of the copper tubing
is low for the last part of the chiller, wasting cooling potential.

If you want to cool the wort as quickly as possible, you want the chiller
to be as cold as possible for as much of its length as possible, the way
to do that is to run as much water through it as possible, starting as
cold
as possible.

Stirring helps. On both sides of the copper. It might help to install a
wiggly wire through the length of the chiller to cut down on laminar flow
through the tubing.

I believe the whole problem is really quite simple, it's alot like
putting
ice into a glass of soda, more ice cools it faster.

Carl

When I stop learning, bury me.

Date: Wed, 14 Apr 93 11:01:10 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Hard (Lager) Cider?

GOAL:
To make a Hard Cider?

PLAN:
I made a 1 quart yeast starter from Wyeast #2112, a California Steam Beer Lager Yeast (that ferments well up to 62°F).
I added the starter to 3/4 gallon of Apple Cider, affixed an airlock, and it's now fermenting in my basement (at 60°F).

QUESTIONS:

- 1) How long should I expect the fermentation process to last?
- 2) What would an ideal fermenting temp. be for such a concoction?
- 3) Is my result going to be a Hard Cider, or a (strange) Lager Beer?
- 4) I plan on conditioning the fermented result with either 1/6 cup of Corn Sugar, or 1 to 2 cups of Apple Cider - and then bottle it. First of all, is it necessary to do this conditioning? If it is, what ingredient is best, and how much should I use (for a 1 gallon batch)?
- 5) How long will such a (lager) cider last in bottled form?
- 6) Should I have submitted this query to rec.crafts.pyrotechnics?

Date: Tue, 13 Apr 93 10:02:39 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: is it beer?

Now what did I do now?

I decided to stray from dry (Ale) yeasts, and start using liquid yeasts. My first endeavor is with the California Steam Beer Lager Yeast - Wyeast #2112, which is to ferment well up to 62°F.

I also decided to stretch out this supply. I made a 1/2 gallon starter, and then bottled it (making 6 samples).

Before making a foray into a 5 gallon batch of Steam Beer, I thought I'd make a 1 gallon test-batch of something - to test out my yeast-stretching attempt, and to guard against potentially wasting a 5 gallon investment of beer ingredients.

First, I made a 1 quart starter from one of the bottled yeast samples. After the starter was ready, I made a test wort.

My test batch consisted of about 1.5 lbs of light DME, 3/8 oz. of Northern Brewer Hops, 4 oz. Clover Honey and 2 oz. peach marmalade - all boiled for about 45 mins. This yielded about 1 1/4 gallons of wort (I never took an SG reading). After the wort cooled, I added the starter and wort to a gallon jug, affixed an air-lock, and placed it in the basement (at 60°F). I got good blow-off the first day and a half. It's been almost 6 days now and the beer is still actively fermenting (bubble approx. every 15s).

QUESTIONS:

- 1) This is my first attempt at a lager. I've never seen fermentation this active after 6 days. Is this because it's only a 1 gallon batch, or is this because of the qualities of a lager yeast?
- 2) Wyeast #2112 is supposed to ferment well to 62°F, but would it hurt to put this in a colder environment (my fridge)?
- 3) I'm not planning on bottling until the apparent fermentation ceases, or 3 weeks have elapsed, whichever is soonest - is this wise?
- 4) What should I call the resulting beer?

Date: Wed, 14 Apr 93 15:48:13 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Is it beer?

Now what did I do now?

I decided to stray from dry (Ale) yeasts, and start using liquid yeasts. My first endeavor is with the California Steam Beer Lager Yeast - Wyeast #2112, which is to ferment well up to 62°F.

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- 4) What should I call the resulting beer?

Date: Wed, 14 Apr 93 15:44:46 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Hard (Lager) eider

GOAL:

To make a Hard Cider?

PLAN:

I made a 1 quart yeast starter from Wyeast #2112, a California Steam Beer Lager Yeast (that ferments well up to 62°F).
I added the starter to 3/4 gallon of Apple Cider, affixed an airlock, and it's now fermenting in my basement (at 60°F).

QUESTIONS:

- 1) How long should I expect the fermentation process to last?
- 2) What would an ideal fermenting temp. be for such a concoction?
- 3) Is my result going to be a Hard Cider, or a (strange) Lager Beer?
- 4) I plan on conditioning the fermented result with either 1/6 cup of Corn Sugar, or 1 to 2 cups of Apple Cider - and then bottle it. First of all, is it necessary to do this conditioning? If it is, what ingredient is best, and how much should I use (for a 1 gallon batch)?
- 5) How long will such a (lager) cider last in bottled form?
- 6) Should I have submitted this query to rec.crafts.pyrotechnics?

Date: Wed, 14 Apr 93 09:13:45 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Is it beer?

Now what did I do now?

I decided to stray from dry (Ale) yeasts, and start using liquid yeasts. My first endeavor is with the California Steam Beer Lager Yeast - Wyeast #2112, which is to ferment well up to 62°F.

I also decided to stretch out this supply. I made a 1/2 gallon starter, and then bottled it (making 6 samples).

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- 3) I'm not planning on bottling until the apparent fermentation ceases, or 3 weeks have elapsed, whichever is soonest - is this wise?
- 4) What should I call the resulting beer?

Date: Thu, 15 Apr 93 07:36:58 pdt
From: Ted Manahan <tedm@hpcvcbp.cv.hp.com>
Subject: Honey Wheat recipe
Full-Name: Ted Manahan

Don Leonard is looking for a honey wheat beer recipe. I have one that I have been quite happy with. This recipe originated as an attempt to take advantage of a sale on Brewmaker beer kits at our local homebrew supply store. Here it is:

Soak:

6 oz 20L crystal malt
2 oz chocolate malt
in water while heating. Remove malt when water reaches 170F. After the water boils, remove from heat and add
3.2 lb can Brewmaker Export Beer kit
3.3 lb can Munton & Fison Wheat malt extract
1 lb honey
1 t brewing salts (optional - my water is quite soft)

Bring to a boil. Hop schedule is as follows:

45 minutes: 0.5 oz 5.7 alpha Northern Brewer
20 minutes: 0.5 oz 5.5 alpha Cascade
5 minutes: 1.0 oz 5.5 alpha Cascade

Force cool with immersion chiller, pitch Steinbarts ale yeast in a 1 quart starter. After one week, rack to secondary. After one more week, rack to a keg and dry hop (in a bag) with 0.5 oz Cascade.

OG=1.050 FG=1.020

A few notes:

- 0) This produces a complex, brown beer with a lot of flavor. Dry hopping in the keg really makes a lot of difference in the hop aroma!
- 1) The OG reading seems a bit low, but I have gotten it twice. I also got 1.064 once using John Bull hopped extract instead of the Brewmaker kit. I suspect the Brewmaker kits of contributing less fermentable material than the "name brand" extracts. Another factor is that I am probably not consistent in the amount of honey I use.
- 2) I don't remember if I crushed the crystal and chocolate or not.
- 3) Steinbarts ale yeast is a mutant form of Wyeast Chico ale yeast.

Date: Thu, 15 Apr 93 12:42:41 -0400
From: Ron Natalie <ron@topaz.bds.com>
Subject: Canned Guinness

We've got it here (Washington, DC). I picked some up because there was an article in Advanced Imaging last year about the can construction (the imaging tie-in was that a vision system was used to inspect the construction of the cans). The cans have a plastic button in the bottom that releases gas into the can after it is open (to simulate how it would be if it just came from a tap). It's a cute gimmick. I don't know, I don't care for the stuff myself.

-Ron (Never drink anything you can't see through).

Date: Thu, 15 Apr 93 10:21:01 -0600
From: cbacco@ursa5.cs.utah.edu (Corby Bacco)
Subject: Chimay: types and clones...

Greetings all,

I just had a friend bring me a bottle of Chimay (it's difficult to find in Utah) and was wondering which type it was. Miller mentions Chimay having three different colored caps (red, white, and blue) for different styles and Papazian mentions Belgian ales typically being done in three styles (House brew, double, and triple). I was wondering which was which. The bottle I have has a red cap.

Also, now that I've finally gotten a bottle of Chimay I couldn't resist the temptation to try and brew with the yeast from the bottle. I popped open the bottle last night, put the yeast into a starter and then thoroughly enjoyed the Chimay (good stuff!). I was planning on using Miller's all grain recipe for brewing Chimay. Has anyone used this and care to offer advice/modifications?

Thanks in advance,
Corby Bacco (aka Brother Bacchus,
Trappist monk in training)

Date: Thu, 15 Apr 93 09:18:05 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Filtering beer

John Isenhour spoke about his efforts at filtering beer in the last digest.
John the reason your beer didn't filter well is probably due to colloidal haze particals. These haze particals and proteins must connect together to form a large enough partical to filter out. The best way to do this is to chill the beer to 32 deg f for at least a week. If you can't get to 32 deg f then as cold as you can get it. I have filered beer with a .5 um filter and not improved the clarity! The quantity of these colloidal hazes is very dependent on the malt quality. After I switched to GW malt (from Breiss) my beers are much clearer before filtering. I also think I have noticed some head problems with the .5um filtration. I am planning a split batch filtration vs no filtration to prove this to myself. I'll post the results.

Bob Jones

Date: Thu, 15 Apr 93 08:29:34 PST
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Mashing temps

I was amused by Carl J. Appellof's comments about what Michael Lewis at UC Davis said about mashing American grain. I have heard him say just the opposite! I sometimes think that Lewis loves to "tweak" people about the opposite of what they think is the only way to do something. He IS a teacher and this challenge to his students is a good idea. However, he seems to take it to the extreme. Cases in point. I have personally heard him say all of the following. "We here at Davis have never noticed anything (flavor or aromatic) from dry hopping", "decoction mashing is silly, our modern day malts only need a single mash temperature for complete conversion", and on and on. I would love to hear comments from students at Davis on Mr. Lewis's teaching techniques. From what I've heard and seen I'm not too impressed. He however does have an excellent staff! Mary Maranda is one of those that is overshadowed by Lewis and under recognized, IMHO.

Bob Jones

Date: Thu, 15 Apr 93 10:58:46 MDT
From: pyle@intellistor.com (Norm Pyle)
Subject: Malted Rocks

All this frivolity about malted rocks has me worried. My father-in-law and I have put many hours into building a nice motor driven mill and I really don't want to crush any rocks, or have any rocks crush my mill. Any great suggestions for a sieve to filter out large rocks? With 10+ pounds of grain it is impractical to find them by hand. I haven't, BTW, found any rocks in the American or British malt I've used so far, but I've only done about 5 all-grain batches. The Zymurgy grain mill avoids major damage by rocks by holding the rollers with engine valve springs. I, on the other hand, skipped this option and am now wondering if I should regret that decision...

Cheers,
Norm

Date: Thu, 15 Apr 93 11:24:13 -0600
From: cbacco@ursa5.cs.utah.edu (Corby Bacco)
Subject: Sake

Hello,

I have a friend who wants me to make a sake for him. Does anyone have any recipes or recommend any sources for this beverages?

Thanks,
Corby

Date: Thu, 15 Apr 93 10:56:18 -0500
From: gjfix@utam.uta.edu (George J Fix)
Subject: 3 micron filters; New Orleans

John Isenhour asked in HBD#1120 about the availability of filter cartridges.

I got my 3 micron filter several years ago from Zahm+Nagel in Buffalo. Their phone number is 716-833-1532. Ask for Al Lap. Their products are designed for commercial operations, and are priced accordingly.

Discussions with Jim Busch and others have convinced me that the 5 micron filters available to homebrewers can do just as good a job as the more expensive versions. Perhaps Jim can give us a review at the appropriate point of his own experiences.

George Fix

P.S. I hope those attending the IOB conference in New Orleans will look me up. Conrad Keys has informed me that he will be there with the first production version of his RIMS system.

Date: Thu, 15 Apr 1993 10:38:58 -0700 (PDT)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: Yeast Culturing Equipment

Thanks to those who replied to my request for sources (mail-order and otherwise) of lab glassware, etc. for yeast culturing. I've contacted the following four companies and requested their catalogs. I haven't received them yet so I can't determine if they have what I want nor how good their prices are.

Cole Parmer (708) 647-7600.
Friedrich & Dimmock (800) 628-2629
Chiron (800) 776-9154
Sigma (800) 325-3010

Notes: I believe I've seen Cole Parmer mentioned on the HBD before. Dean Lee, who sent me info on Sigma, says they are good about dealing with individuals, will take credit card orders, etc. Chiron sells products from more than one manufacturer and they want to know which manufacturer's catalog you want. Their catalogs list case prices but you can call them for prices on lesser quantities.

In all cases I identified myself as an individual who does yeast culturing at home; none of them had any problem with the fact that I wasn't a large corporate or university client.

For local sources: See if your local library (or employer, check with the procurement department) has a copy of the Thomas Register. It is an enormous catalog of industrial services and supplies. See volume 7, pp. 12,781+ "Glassware:Laboratory". Entries are listed geographically.

Finally, I know that yeast culturing can be done in beer bottles, milk bottles, wine jugs, etc. (I've got two 1/2 pt. milk bottles myself), I just like the toys and catalogs, you never know what you'll come across!

Repeat request: Any good sources of Belgian beers in the SF bay area, esp. east bay?

Eric Wade
<ericwade@class.org>

Date: Thu, 15 Apr 93 10:54:33 PDT
From: steve_kenshulo@csufresno.edu (Steve Kenshulo)
Subject: Carboy vs plastic bucket

What are some of the pros and cons of using a carboy instead of a plastic bucket? Most of the kits I see for beginners use a 6-7 gallon bucket, but a lot of "old-timers" use a carboy?

Buy the way, I am thinking on buying a few extra fermentation vessels and the price is about the same around here.

Thanks in advance,
Steve Kenshalo
skenshul@mondrian.csufresno.edu

Date: 15 Apr 1993 12:08:07 -0600 (MDT)
From: Mark Taratoot <SLNDW@CC.USU.EDU>
Subject: Beer Bread method (pretzels too!)

Greetings.

There was some talk a while back about making beer bread and several recipies and ideas were exchanged. Since then I have been doing a bit of experimenting on my own and have come up with a pretty good method.

Beer has been called liquid bread. I feel bread could also be called solid beer :) Indeed they are similar in their ingredients. There is nothing like enjoying a "slice" of liquid bread with a "hunk" of solid ale! Below are methods for making pretzels and bread from beer dregs. They are quite tasty!

I used to dump out the yeast cake from my fermenters onto my compost pile. My philosophy was that if more of the yeasts I like live in my environment, then if I get an infection in my beer, it is more likely to be a "beer friendly" yeast. I thought it would be a good idea to let the yeast live again and so I modified the L.A. Times pretzel article that was posted previously. The method is:

1. After siphoning off beer (to bottle/keg) swirl carboy around really hard to get as much of the yeast cake into suspension as possible. Pour it into a jar (to save the yeast to use within the next few days) or a bowl (to use immediately).
2. Add a bit more beer or other liquid to the carboy (dregs from bottles work fine). Swish this around and get the last of the yeast.
3. Add more liquid as needed (the more liquid you add, the larger the batch)
4. Add just a bit of sugar or honey.
5. Add flour to get the propper consistency (for pretzels, I have found that 2 cups liquid to 4 cups flour works. I use half whole wheat and half unbleached white flour.)
 - 5b. If you add an egg, it will rise more.
6. Knead. Allow to rise until doubled in volume. Knead again.
7. Roll into "snakes" and form pretzels. Put on greased tray.
8. Brush with one of the following, then sprinkle with salt if desired:
 - Egg (shiny rich crust)
 - Milk (crispy)
 - Butter (soft)
 - Nothing (easy)
9. Bake at 400 degrees for 10 minutes (approx) until just golden.

Pretzels are yummy and are a great idea for a homebrew club meeting. However, they are best eaten right away and they don't save well.

Making bread from beer dregs is also very simple:

Follow steps 1-4 above. I like to make large batches of bread so I can get 3-4 loaves from one breadmaking endeavour.

5. Add 2 cups flour (I use whole wheat) and let sit for half hour.

6. Add "stuff" (1-2 tsp salt, 1/3 cup melted butter or oil, 1/3 cup sugar or honey, and up to a couple of cups of the following: nuts, seeds, spent grains, etc.) and mix well.

7. Add more flour a little at a time (again, I use mostly whole wheat, but if you like white bread, use unbleached white flour) until the dough is firm.

8. Turn out onto a floured board and knead for 15 minutes adding flour until the dough is not sticky.

9. Put in oiled bowl and allow to rise, then knead again for another 15 minutes.

10. Form loaves. I like round loaves, so that's what I make. For loaf pans, grease them, for round loaves, sprinkle a tray with corn meal and put loaves on trays. Allow to rise again.

11. When doubled in volume, brush with melted butter (or other items listed above for different crusts) and bake at about 375 for 30-40 minutes.

12. Allow to cool 10-30 minutes, then enjoy.

Date: Thu, 15 Apr 93 12:20:34 MDT
From: mlh@cygnus.ta52.lanl.gov (Michael L. Hall)
Subject: The State of Beer in New Mexico

Strangely enough, there have been several requests of late about what there is to do in New Mexico with regards to beer. Even more peculiar is that I had gotten all of my info together before these requests came out :-)

Anyway, I have taken it upon myself to be the keeper (at least for now) of the "New Mexico Brewing FAQ". In it I catalog anything that has to do with both New Mexico and brewing/beer. I will send it out to anyone who requests it by email (my address is <hall@lanl.gov>). Here is the table of contents:

Contents:

1. Commercial Beer Establishments

- Albuquerque
- Santa Fe
- Los Alamos
- Taos
- Elsewhere

2. Homebrew Clubs

- Albuquerque
- Los Alamos
- Close to NM

3. Judges in NM

4. Competitions

5. Homebrew Supplies

6. Publications

7. Other

I think that this would be a good idea in other states too (or smaller areas, e.g. "The San Francisco Bay Area FAQ"). Maybe someone in each state would volunteer to keep track of all the info in his/her state.

Mike Hall
The Los Alamos Atom Mashers
hall@lanl.gov

Date: Thu, 15 Apr 1993 14:41:18 -0400 (EDT)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: hops primer

OK enough already! The response for copies of the Hops Growing Primer have been overwhelming. I'm getting it into HBD shape and will try to post it on Friday. Please no more direct requests!

Russ

Date: Thu, 15 Apr 1993 14:16:56 -1100
From: Kirk_Anderson@wheatonma.edu (Kirk Anderson)
Subject: cold break and blowoff questions

Seems like the more I brew, the more questions I have.

I'll still be an extract brewer for a little while. When I pour my gallon and a half of boiling wort onto three and a half of cold water, is that the dreaded Hot Side Aeration, or is that just a pretty good way of getting a cold break? Does the answer depend on whether or not I use a strainer to catch the hop gunk while pouring? (following Charlie)

So now I got my cold break. Do I have to rack the wort off this stuff before pitching yeast? or can it wait a few days until I rack to secondary?

There's a lot of talk about blow-off tubes lately. I assume you folks all use a carboy for primary AND secondary, since I don't see how a tube on my plastic primary would ever spit anything. (I may skim the next one, as js recommends.) I suppose too that you always brew exactly the same quantity, since blowoff volume would vary with the level of the wort in the vessel?

Well I just did my first Wyeast. And I had even made a starter. That baby was chugging 14 hours after pitching. By the way, how much extract syrup (not DME) does it take in a pint of water to make 1.020?

Thanks everybody. 'On a toujours besoin d'un plus petit que soi' (La Fontaine)

Kirk

Date: Thu, 15 Apr 93 14:13 CDT
From: korz@iepubj.att.com
Subject: Bandwidth

>Re: Seeking Albuquerque & Santa Fe beer recommendations
This should have been sent directly rather than being posted. 99% of us don't need to know.

Subject: Re: gushers

Adam writes:

>Recently my brewpartner and I bottled a Red ale. We were slightly
>disturbed that fermentation had stopped so soon (after four days of very
>high activity, the Spec. Gravity was the same for four more). We primed
>with malt extract
>(1 1/4 cup to 5 gal) and now about 1 in 3 bottles gush. Is it possible
>fermentation was stalled that long and picked up in the bottle? This is
>not a big problem, since we can easily open bottles over a sink, but I'd
>like to be sure when fermentation is complete. Replies via e-mail are
>welcome. Thanks in advance!

If only 1 in 3 gush, then I'd say either you did not mix the priming solution well with the green beer or you have inconsistent sanitation of your bottles.

Subject: Re: Mashing temps for De Cosyns Belgian malts?

Carl writes:

>Went to a presentation by Dr. Michael Lewis from U.C. Davis a few
>weeks ago where he said that a temp. step mash was absolutely
>essential to give best extract yields and fermentability when using
>American lager malt (aka "klages" in this neck of the woods). He
>also said that with British Pale Ale malt, a single temp infusion mash
>was best. I get the idea that the mash temp profile really depends on
>what your malt was designed for.

>

>I have some Belgian Pilsner malt and Pale Ale malt from De Cosyns
>maltings. Does anyone have info on the proper mash temps for these
>two fine malts? (If I had to guess, I'd do a single temp 150F
>infusion mash with the Pale Ale, and a temp step/ramp from
>122F-142F-158F for the Pilsner malt.)

Agreed that undermodified malt needs either a step-infusion or decoction mash for best results (protein splitting into amino acids, etc.), but the proper mash temp is dependent on what kind of dextrin profile you want in your wort, not on the grain type. I'm pretty sure that the DeWolf-Cosyns Pale and Pils malts are both fully modified (I'll check tonight and post a followup tomorrow) and can be used without a protein rest.

If you want a dextrinous wort, high in unfermentables, then do the sacchification rest (regardless of the mashing method) at the higher end of the saccharification temperatures (i.e. in the vicinity of 158F). If you want a highly fermentable wort, then do the saccharification rest at the lower end of the range (i.e. in the vicinity of 104F). Temperatures in between (e.g. 153F) will give you wort that is neither very high nor very low in dextrins.

Subject: Re:dry hopping versus hop tea
Peter writes:

>In HBD 1118 Al talks about adding hop tea prior to bottling:
>
>> to make a hop "tea" by boiling some hops in water for an hour (and
while
>> you're at it, you can add flavor hops 15 minutes before the end of the
boil
>> and finishing hops 5 minutes before the end of the boil)
>
>How does this compare with dry hopping for the same effect? I would
think
>that 1/2 oz hops sitting for a week in a secondary would have more
effect
>than the same quantity boiled for 5 or 15 minutes in water. Also, how
does
>the volume of boiled water effect the extraction? It all has SG=1.0
which
>implies it's independent of volume???
>
>It would seem to be much easier to boil hops to make tea which is added
at
>the last minute than to mess around with dry hopping.

Indeed it is easier, but just as you suspected, I've found that the hop bouquet is much, *much* more intense from dryhopping than from using finishing hops (last 5 minutes). Not only is contact time an issue, but the wonderful aromatics in hops are very volatile and therefore it takes very little boiling to drive them off completely. I'm afraid I don't have the answer to your question on water volume and extraction.

Subject: Re: Guinness
Mike writes:

>There has been some discussion lately about the difference between
>different types of Guinness Stout. Here are some statistics from The
>Essentials of Beer Style_ by Fred Eckhardt:
>
>
> Original Alcohol Final Hops
> Gravity ww/vv Gravity ibu
>
>Guinness Extra Stout
> 1052 4.4/5.51011 50
>
>1901 Guinness Extra Stout (In Ireland)
> 1075 6.3/7.91014 90

Note the year: 1901. A lot has changed since then. The Guinness on tap in Ireland is actually *lower* in gravity than the Guinness we get in bottles. Judging from my tastings of the Guinness in the special cans, I'd say that it's OG is also lower than the bottled variety, but it's been quite a few years since my last pint of Guinness in the Isles, so I could not say if in fact it was the same OG as the on-tap version there.

See Jackson's Pocket Guide for the exact gravities on modern Guinness.

<recipe deleted>

>Any comments? Do you think the yeast will handle the high gravity or

>will I need to re-pitch with champagne yeast? Should I throw something
>else in to increase the body? (I would like it as thick as possible.
>Maybe I should make my first attempt at mashing with flaked barley and
>carapils.) Should I reduce the hops because the roasted barley will
>add some bitterness? How many i.b.u. worth? Does anyone think that
>lactic acid should be added?

I don't think you need to re-pitch champagne yeast -- I think the
#1084 will handle the OG you propose. The heavy stouts can handle a
great deal of IBUs, upwards of 100 to 200 -- my last Imperial Stout had
(I believe) 180IBU, but that was with an OG of 1120. I don't think
that lactic acid is needed -- the dark grains will provide plenty
of acidity -- in fact you may want to add a couple of teaspoons of
Calcium Carbonate to mellow the acidity unless your water is already
high in Carbonates.

Al.

Date: Thu, 15 Apr 1993 14:18:29 -0600 (MDT)
From: limd@plasma.arraytech.com (Davin Lim)
Subject: sparge water acidification

Does anybody know of a cheap source of food-grade lactic or phosphoric acid? This would be used for acidification of sparge water. I'd like to not use more commonly available organic acids like wine acids or ascorbic acid. I can get lactic and phosphoric acids from the usual scientific supply houses (Carolina, for one) but the prices too high for "consumer" use. Has anybody heard of any homebrew supply shops selling this stuff via mail order for a reasonable price?

Here's a crazy idea for your collective speculation on its potential: Since colas are fairly loaded with phosphoric acid, and the pH of a cola is in the range of 2-3, I'm guessing that it would not take much cola to reduce the pH of my tap water to the desired range of 5.3 to 5.7. If the volume of cola required to bring the pH down is indeed quite small, I would guess that it's flavor contribution could also be quite small - if not totally unnoticeable in even the lightest beers. So, whaddya think? Is this plausible?

- - -
.....
.
* Davin Lim* limd@arraytech.com
* Array Technology Corporation * -- OR you can try ..
* Boulder, Colorado. *raid5!limd@devnull.mpd.tandem.com
.....
.

End of HOMEBREW Digest #1121, 04/16/93

Date: Thu, 15 Apr 93 20:30 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Hops and pH

Forgot who said...

>Jack, can you try this: Dilute the Chinnok tea with distilled water by an amount intended to match the Saaz? tea's AA and see if the pH matches the Saaz tea.

I did that but unfortunately, not during the same experiment. I did it just for taste comparison of the two hops to equalize the bittering.

>That should tell us if you are measuring the AAs or something else.

"Frankly, my dear, I don't give a damn". The objective is to find a simple method of estimating hop bittering for home grown hops or hops of unknown qualities. If the results provide that information and are repeatable, it doesn't matter if it is measuring cosmic rays.

>I am also skeptical that only a 5 minute boil got any AAs in the tea at all.

Ditto above.

>New to the Digest.

I was born cranky. You'll get used to me.

js

Date: Fri, 16 Apr 93 00:42:41 EDT
From: Jim <JLAUKAIT@ccvm.sunysb.edu>
Subject: hops primer

Russ,

I am having quite a hard time sending you mail, as a matter of fact nothing has gotten through yet, I think. Would you send the hops primer to me email? Thanks.

Sorry to take up valuable space in the forum, but it had to be done.

TNX,
Jim
JLAUKAIT@CCVM.SUNYSB.EDU

Date: Fri, 16 Apr 93 12:58:21 +0300
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Homebrew Expo 93 / Supplies in GB

I just got the No. 25 issue of (the British) Homebrew Today. Going to England?
Homebrew Expo will be held in Bristol on the 22nd of May. A wine and beer competition will be held there too (commercial wine and beer kits only (WOW)).
And if you'll be looking for brewing supplies in England, like I did till a couple of days ago, the same Homebrew Today magazine lists about 70 retailers, from all over the country. Just in case anybody is interested.
-nir
LCNAVOT@WEIZMANN.WEIZMANN.AC.IL

Date: Fri, 16 Apr 1993 08:24:54 -0400
From: Michael D. Galloway <mgx@ornl.gov>
Subject: Dry Hopping ?

I dry hop most of my beers regardless of style (read HopHead here) and get satisfactory results with hop pellets. However, the aroma associated with whole hops and plugs is quite appealing but the one attempt I made at dry hopping with whole hops was rather dissapointing. I use glass carboys for primary and secondary and I could not get many whole hop cones into the secondary without creating a BIG mess. How do you carboy users get whole hops and plugs into and out of your carboys with minimal fuss and contamination concerns?

Michael D. Galloway
mgx@ornl.gov

Living in the WasteLand

Date: Fri, 16 Apr 93 09:18:01 EDT
From: blazo@aol.com
Subject: PETE Bottles, Russ Wigglesworth

In response to: Subject: Reuse of Bottles in the USA, 11:27AM, 4/13/
93,
Russ Wigglesworth, et al.

The PETE bottles that soda comes in make excellent beer containers. Just make sure that they are the type with the plastic, versus the metal, top. They are available in one, two & three liter sizes, as well as the smaller sizes. The sanitization procedures are identical to those associated with sanitizing glass. In response to your suggestion re: standardization of containers, Switzerland, I have read, has a law that all beverage and food containers MUST be manufactured of PETE. Each container bears a \$0.10 (equiv. in SWFR) tax, which is used to finance the recycling of these containers. So, although the containers are not, per se, reused they are recycled on-mass with no separating, etc. I also consider myself an environmentally concious person and am delighted to be a recycling non-consumer by homebrewing. No taxes either (yet!).

John F. Blazier II
inet: blazo.aol.com
*P: TJKV20A

Date: Fri, 16 Apr 93 08:30 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Rocks, Bottles

>From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
>Subject: My Belgian rock collection

>I look at the rock and try to imagine it's voyage. I try to picture where the rock came from and how it got mixed in with the malt. Where was the farm located? The malting company? What does the local terrain look like and how close is it to the coast? Considering the region's history, has this rock ever been tread on by a Roman sandal or the track of an armored vehicle? Only the imagination can provide such answers.

The imagination quickly returns to reality when the rock enters on the most dangerous leg of the voyage, viz..... the trip through your roller mill.

Only truly monument class rocks are capable of surviving to enjoy a quiet retirement in the august Campanelli Collections.

On the other hand, you may want to save your mill from proving its metal by removing the treasure first.

>From: brew it 12-Apr-1993 0923 -0400 <ferguson@zendia.enet.dec.com>
>Subject: more comments on bottles

>I also agree that genuine bar bottles are the best for bottling.

A few weeks ago I walked to the neighborhood "bar" and was delighted to see big, tall, brown Bud bottles on the bar so I asked the nice lady if she could sell me some. "Sell them, why you can have all you want." she said.

As she started handing them to me I noticed they were imposters. They all had screw tops and felt like delicate china. So I headed for the local homebrew shop and bought a case of brand new long necks for about the same price as a case of Bud at the liquor store but I was saved the trouble of dumping out the Bud and removing the lables.

js

Date: Fri, 16 Apr 93 07:15:10 PDT
From: Rasta Mon 16-Apr-1993 1011 -0400 <ferguson@zendia.enet.dec.com>
Subject: Guinness talk

In Ireland, beer products are taxed based on their alcohol percentage:
the
more alcohol, the more taxes on the product. Hence, it is detrimental
for
brewers to sell high alcohol brew 'cuz it would be taxed to death and
consumers wouldn't buy it. Guinness in Ireland is fairly weak, I reckon,
maybe 3% tops. In the US, it is a bit stronger - kind of like Budweiser
in
the Carribean (it is 5% there!).

JC Ferguson
Digital Eq. Corp.

Date: Fri, 16 Apr 93 10:41:17 EDT
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: brewpot source - and a question.

I've given up the idea of trying to find a used SS brew pot - they're hard to find. I've just ordered a new one (38.5 quarts) from Rapids - wholesale Bar and Restaurant Equipment (1-800-553-7906) Rapid City, Iowa. The price was \$91 for the pot, \$25 for the lid, and \$9 for the shipping. \$125 sure is alot of money but it's better than the >\$158 that I've seen in the brew supply stores.

Is there any harm in giving a mash a protein rest even if the grain is fully modified? It seems like good insurance if no harm is done.

- --Tony Verhulst

Date: Fri, 16 Apr 1993 10:41:25 -0400 (EDT)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: Hops Primer

A Hops Growing Primer (ca. 1990 w/ additions)

- -- Acknowledgements to Peter Soper for writing the majority of this primer. --
- -- Thanks Pete! --

Hops for beer making grow from the rhizomes of female hop plants. Rhizomes look like root cuttings but have buds growing from them that will become new vines. Rhizomes also contain stored nutrients to support initial growth.

Hops grow vertically as one or more vines that spiral up a twine or anything else convenient. Depending on latitude, location, and variety, they sprout from about mid-March or April and grow through the summer and early fall. A single plant can easily grow 40 feet tall when it is mature but growth in the first year is usually much less. In most instances by the second or third year the plants will exhibit full growth. Height is very closely linked to the amount of sunshine the plant gets.

Hops grow best in full sun and you should pick a spot with the best possible southern exposure. Hops grow best in loose, well drained soil. Blended peat moss and sand make a good hops growing environment. In cases of poor soil drainage, it can be helpful to create a mound of soil a foot or so tall which will aid drainage.

Hops need lots of water. As they grow be sure to give them a very good soaking at least once a week. Mulch in the summer helps with weed control and also holds additional water. Also, hops have big appetites. Composted cow manure has been reported to be an excellent well balanced fertilizer.

Once a bed has been prepared the rhizomes are planted about four inches below the soil surface with any obvious buds coming from the rhizome oriented to point upward toward the soil surface.

After several inches or so the new vines should be thinned such that just the most healthy and vigorous three vines are left to continue growing. This will be an ongoing process as new shoots may show up later but the initial thinning

is an important one. It's been reported that the young shoots that are culled may be steamed and eaten like asparagus. On the other hand, some growers espouse cutting the new shoots at all, allowing all vines to grow to full height.

As the vines grow over a foot tall they should be trained to grow up a twine. This can be done by twisting the vine around the line. You may have to repeat this for a few days before the vine gets the idea. Remember, like most plants, hops will "follow" the sun, and so have a natural tendency to wrap from east to west, or counter-clockwise looking up for a south facing plant.

The most common hops trellis consists of strings running from the roof of a building down to stakes driven into the soil near the plants. Another option, often used by commercial growers, consists of a large central pole, with strings running from the top of the pole down to the foot of each plant, similar to the spokes on a wheel. Expect the string or twine to hold a lot of weight as the vines grow tall. A 25+ foot plant may weigh 20+ pounds.

Hop blossoms start out looking like large sand burrs and then take on a characteristic cone shape and grow in size. The size of a fully developed cone depends on the variety, varying from one to two inches long by one half to one inch in diameter.

The hops are fully mature and ready for picking when two changes take place. First, immature hops have a damp, soft feel and when squeezed slightly tend to stay compressed. Mature hops feel more like paper, spring back when squeezed and feel noticeably lighter. The second key test is to pick an average hop and cut it lengthwise down the center with a knife. When ready to pick the yellow powder (the lupulin sacs containing the essential oils and bitter substances that are "where it's at") will be a dark shade of yellow, like the stripes on a highway, and it will be pungent. If a light shade of yellow then chances are the hops are immature.

When ready to pick it is best to snip the stems of the cones with scissors or a knife to avoid jarring the hops and knocking lupulin powder out or worse, pulling the center of the cone out with the stem, causing a great loss of lupulin. Touching hops plants can cause skin irritation in some people; gloves and long sleeves can help in this matter.

Just picked hops are roughly 80 percent water; if left alone they spoil rapidly. For proper storage most of the water is removed by drying. A good

drying method it to lie the hops on a card or screen in an attic. Just a few hours during the heat of summer or a few hours more in cooler weather is enough to dry the hops. Use a before and after weighing and trial and error to try to achieve about 7-10 percent residual moisture after drying.

After drying, hops keep best at low temperatures and away from oxygen. A kitchen freezer easily takes care of temperature but to get the hops away from oxygen is difficult. Tightly packing hops in canning jars will minimize the trapped air but be careful not to use too much force and break the all important lupulin sacs since this accelerates oxidation. Purging the canning jar of oxygen by blowing in carbon dioxide from a kegging system will also help prolong freshness.

It's common to get 4 or 5 harvests per year by picking the biggest, most mature hops every two weeks or so as the flowers ripen. Patience and judgement are important since cones left on the vine too long turn brown and are obviously oxidized and spoiled, while immature hops have little lupulin in them.

At the end of the growing season when the leaves have fallen or turned brown, cut the vines at the surface of the soil and if possible remove the twine. After cutting back the vines a layer of three or four inches of mulch and composted manure can be put over the exposed vines for insulation and nutrition during the winter.

Japanese beetles are the number one nuisance in many areas. A common remedy is to position a "Bag a Bug" type beetle trap about 30 feet directly up wind from the hop vines. There is some concern that the "Bag a Bug" traps may actually attract more beetles than they catch, but that probably depends on the situation. Certain plants such as rose bushes may also attract the beetles, so it's best to keep those plants away from your hops. Also, the beetles' larvae live in the ground, and in cases of extreme Japanese Beetle infestation the surrounding lawn may need to be treated accordingly. A number of other pests, such as aphids, can harm hops, and can be treated with any number of pesticides. Remember, though, that you will be consuming these hops, and should use low toxicity natural pesticides, such as 1% Rotenone dust, for direct pest control on the plants. As with any consumable, you should ensure that any pesticide is well washed off before using the hops.

One other hazard is animals. A short fence of rabbit wire will keep cats, dogs, rabbits, etc. at bay. Deer have also been reported to be fond of hops.

Rhizomes are available from an increasing number of sources. American Brewmaster in Raleigh, NC and Freshops in Philomath, OR are two well-known suppliers. Cost is usually a few dollars each. They should be kept in plastic bags, moist and cold in your refrigerator until they are planted.

Additional information about hop growing can be found in "Homegrown Hops" by David R. Beach. Also, the 1990 special issue of "Zymurgy" is devoted to hops and contains an article about growing hops by Pierre Rajotte. The AHA also has additional hops-oriented publications.

-- Comments to r_gelinas@unhesp.unh.edu --

Date: Fri, 16 Apr 1993 07:38:36 -0700
From: esri!riker!mark@uunet.UU.NET (Mark Oliver)
Subject: California Festival of Beers

Does anyone have a phone number/address or know of the availability of tickets for the California Festival of Beers in San Louis Obispo, on May 29th?

Last year I purchased my ticket at a different Homebrew fest a few weeks before the one in San Louis Obispo. That one is already sold out!

Thanks in advance,

Mark Oliver (moliver@esri.com)

Date: Fri, 16 Apr 93 10:22:31 -0500
From: gjfix@utam.uta.edu (George J Fix)
Subject: Whitbread Warning

I respectively disagree with virtually all of O'Conner's analysis in HBD#1121. Those who want first hand information regarding my analysis of both the new Whitbread yeast as well as the Mauri strains from Austrlia should contact Seth Schneider of Crosby and Baker at the following toll free number:

1-800-999-2440.

George Fix

Date: Fri, 16 Apr 93 10:29:06 CDT
From: atzeiner@iastate.edu
Subject: Immersion chiller

Date: Wed, 14 Apr 93 11:47:29 EDT
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Re: Immersion chiller

Andy says:

>I think you would want the exiting water to be warmer for a given
>length of tubing. The amount of heat removed from the wort should be:
> $(\Delta q) = m \cdot C_p \cdot (\Delta T)$
>where m =mass flow rate of water
> C_p =heat capacity
> (ΔT) =temperature difference= $T_{out} - T_{in}$
>So, if the flow rate increases, the heat removed increases, and if the
>temperature difference increases, the heat removed increases.

You're OK until you define ΔT , the ΔT that is important here is $T_{wort} - T_{water}$ at each point along the chiller.

To keep this ΔT high you need to keep T_{water} as low as possible, if T_{out} is high then the ΔT through the wall of the copper tubing is low for the last part of the chiller, wasting cooling potential.

If you want to cool the wort as quickly as possible, you want the chiller to be as cold as possible for as much of its length as possible, the way to do that is to run as much water through it as possible, starting as cold as possible.

Stirring helps. On both sides of the copper. It might help to install a wiggly wire through the length of the chiller to cut down on laminar flow through the tubing.

I believe the whole problem is really quite simple, it's alot like putting ice into a glass of soda, more ice cools it faster.

Carl

When I stop learning, bury me.

>
>
>

I think you misunderstood what I meant. I was showing the equation for the amount of heat removed from the wort by the chiller. This equation should be correct for this. If water at 40F goes in and comes out at 150F at a flow rate of 1 gal/min there will be a certain amount of heat removed from the wort(I didn't bother to calculate it). I was just showing that you can pretty much get the amount of cooling you want with a given chilling coil. If you increase the flowrate you are not going to get as much of a temperature drop. I do agree with you in that the amount of heat transfer depends on the temperature gradient from the wort to the water.

If someone could figure out the heat capacity of wort, you could figure out how much heat you needed to remove to get it to a certain

temperature. You could then calculate how long your wort chiller would take to cool the wort. (You could calibrate your wort chiller by cooling a volume of water and measuring the flowrate and the in and out temperatures)

Now, if I could only build a shell and tube heat exchanger for a wort chiller I'd be happy!!

Andy

Date: Fri, 16 Apr 93 9:42:50 PDT
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)
Subject: address verify

PLease Send my daily article to sboxer@ucsd.edu]
Thanks very much

Date: Fri, 16 Apr 93 11:51 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Rollers

>From: pyle@intellistor.com (Norm Pyle)

>My father-in-law and I have put many hours into building a nice motor driven mill and I really don't want to crush any rocks, or have any rocks crush my mill. Any great suggestions for a sieve to filter out large rocks? With 10+ pounds of grain it is impractical to find them by hand. I haven't, BTW, found any rocks in the American or British malt I've used so far, but I've only done about 5 all-grain batches. The Zymurgy grain mill avoids major damage by rocks by holding the rollers with engine valve springs. I, on the other hand, skipped this option and am now wondering if I should regret that decision...

Perhaps, now that there are about 700 MALTMILLS (tm) out there, we have enough statistical evidence to suggest one of two things:

1. Relax, don't worry.....
2. Relax, don't worry if you have a MM

On the assumption that no news is good news, and I have only shipped one set of replacement rollers to date, we can assume that:

- a. rocks are few and far between
- b. customers are silently suffering
- c. the design of the MM makes it relatively immune to stones.

Commercial mills and the one in Zymurgy and Norm's have one thing in common, they use large diameter rollers. Generally speaking, these are preferable because they do not require knurling or texturing of the surface to get the grain to feed properly. They also have a higher throughput at a given speed. They also happen to be far too expensive for a mill designed to retail at under \$100.

The MM uses 1.5" diameter rollers with linear grooving to ensure proper feeding of the grain. The smaller diameter rollers just MAY make it very difficult for a stone to feed into the gap and just go round and round. It does not appear that any special safety arrangement is necessary.

The one set of rollers that a customer did destroy was done in by a wood

screw which probably was not in the malt. It was also running unattended with an electric drill doing the work. Not a good idea in the first place. To damage the steel rollers, a significant amount of noise and vibration would clue one in to turn it off. This also is another reason why a belt and pulleys are preferred to a direct drive. The belt will slip when the rollers jam.

I doubt that rocks would be a problem at all with hand cranked mills.

As far as a sieve to remove rocks, I would suggest that the most dangerous rocks are the ones about the same size as the malt and a sieve would be useless.

The .5" mesh screen that is on the MM is intended to keep fingers out. Anything smaller than this severely restricts grain flow.

js

Date: Fri, 16 Apr 93 10:56:12 MDT
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: hop questions

I have some questions about hops.

When I was a child, I remember hop fields around Mollala, OR.
Does anyone know what kind of hops are grown there? (Willamette?)
My father tells me it is one of the main hop growing regions in the
U.S.

I am planning on visiting OR this coming July. Any chance of finding
U-pick hops then? (It could happen!)

Another question: Anyone know if hops can be grown here in Phoenix?
I know it gets pretty hot in Yakima during the summer, so maybe...?

Thanks,

Joel Birkeland

Date: Fri, 16 Apr 93 14:10:16 EDT
From: mcglew@sde.mdso.vf.ge.com (McGlew Raymond)
Subject: Easymash, Harrisburgh PA brewplaces

I was at my neighborhood hardware store recently looking for ss screen for an easymash (home made) when I spotted some springs, some of which were loosely coiled (i.e. had about 1/8 to 1/2 inch spaces between coils. If I bought one that would snugly fit over copper tubing, and pinched off the other end, this might work great (especially if I waited until after the mash and placed the copper tube siphon-like into the mash kettle. Anything wrong with this idea?

Date: Fri, 16 Apr 1993 10:56:33 -0700
From: rpeck@pure.com (Ray Peck)
Subject: Homebrew Digest #1121 (April 16, 1993)

Eric Wade <ericwade@CLASS.ORG> writes:
>Repeat request: Any good sources of Belgian beers in the SF bay area,
>esp. east bay?

Well, a couple. But they don't have what I'm *really* looking for:
Liefmann's Goundenband and Frambozen (available from the Admiralty
Beverage
distributor in Portland), and Rodenbach Gran Cru (probably not
available anywhere in the States).

o The Cannery Wine Cellar in SF had Timmerman's, Chimay, Orval,
Grimbergen, and I think St. Sixtus and more last time I was there.

o Cost Plus wine store in SF had Grimbergen, St. Sixtus, Chimay,
Orval, and some French Biere de Garde's and more last time I was there.

o Whole Foods in Palo Alto carries Chimay (including the small
bottles of Red!), Orval, Duvel, Hoegaarden, Steendonk, Grimbergen
Triple, Lindeman's, and the Celis brews.

o Safeway (!) in Mountain View carries Chimay Red, Orval,
Lindeman's.

o Liquor Barn Mtn View carries Chimay White and Red, Orval,
Duvel, Lindeman's, Satan, and I think a couple more.

Any more sources are Very Welcome.

Date: Fri, 16 Apr 93 13:56:02 EDT
From: "John R. Calen - Contacting Systems - E.F., N.Y" <calen@vnet.IBM.COM>

Subject: Hard Cider

I'll address some of Phil's questions on hard cider, having dabbled with it myself and throw in my own two cents here and there...

As long as you start with sweet cider, the fermented result is hard cider. Add malt and you get a strange beer.

WRT yeast, I find there are three paths to take:

- * Control the ferment
- * Influence the ferment
- * Stand back and let it ferment

I prefer to influence the ferment. All I do is dump the cider on the yeast cake of my previous brew and let 'er rip. The yeast outnumbers the bacteria in this scenario and I've had good results thus far.

You can sanitize the cider with campden tablets, pasteurization or other means and introduce the yeast of your choice. I like ale strains for the ease of maintenance and the esters add complexity to the cider.

The opaque cider you get from a farm stand is already teeming with yeast. If you're a gambling type, just let it warm up and go it's merry way.

Conditioning: I like sparkling cider. The rate of 1/6 cup corn sugar to a gallon of cider sounds good to me. (3/4 cup to 5 gal, 3/20 cup to 1 gal is about 1/6 cup)

The cider should be ready for priming when it starts to clear, could be a few weeks. It should last indefinitely in the bottle, assuming you keep it cool.

P.S. This is the right place for this question, unless you over prime!

Regards,
John Calen -- Calen@vnet.IBM.COM
Hudson Valley HomeBrewers Chairman and Grucci Pyrotechnician (and still among the big blue.)

Date: Fri, 16 Apr 93 13:41 CDT

From: korz@iepubj.att.com

Subject: is it beer?/Canned Guinness/Chimay/filtering/DeWolf-Cosyns Pils Malt

Philip writes:

>I also decided to stretch out this supply. I made a 1/2 gallon
>starter, and then bottled it (making 6 samples).

>

>Before making a foray into a 5 gallon batch of Steam Beer,
>I thought I'd make a 1 gallon test-batch of something - to
>test out my yeast-stretching attempt, and to guard against
>potentially wasting a 5 gallon investment of beer ingredients.

>

>First, I made a 1 quart starter from one of the bottled yeast
>samples. After the starter was ready, I made a test wort.

>

>My test batch consisted of about 1.5 lbs of light DME, 3/8 oz.
>of Northern Brewer Hops, 4 oz. Clover Honey and 2 oz. peach
>marmalade - all boiled for about 45 mins. This yielded about
>1 1/4 gallons of wort (I never took an SG reading).

>After the wort cooled, I added the starter and wort to a gallon
>jug, affixed an air-lock, and placed it in the basement (at 60°F).
>I got good blow-off the first day and a half. It's been almost 6
>days now and the beer is still actively fermenting (bubble approx.
>every 15s).

First of all, if you wanted to test the yeast, you probably should have avoided bizzare ingredients such as the marmalade, I feel. Secondly, the marmalade has had pectin added and intentionally set, therefore your beer will have clods of pectin floating around in it.

Onward...

>QUESTIONS:

>1) This is my first attempt at a lager. I've never seen fermentation
> this active after 6 days. Is this because it's only a 1 gallon
> batch, or is this because of the qualities of a lager yeast?

Lager yeasts in general tend to be slower fermenters. Just because you used lager yeast doesn't mean you're making a lager -- it's the temperature that decides this. At 60F, you indeed, are making a steam beer, a sort of lager/ale hybrid halfway between a lager and an ale on the fruitiness scale.

>2) Wyeast #2112 is supposed to ferment well to 62°F, but would it
> hurt to put this in a colder environment (my firdge)?

It would slow the ferment down even more and make the beer more lager-like in the end.

>3) I'm not planning on bottling until the apparent fermentation ceases,
> or 3 weeks have elapsed, which ever is soonest - is this wise?

Wait till fermentation ceases -- if you bottle based upon time and not activity, you're asking for glass grenades.

>4) What should I call the resulting beer?

Call it Apricot Marmalade Steam.

Ron writes:

>We've got it here (Washington, DC). I picked some up because there was an
>article in Advanced Imaging last year about the can construction (the
imaging
>tie-in was that a vision system was used to inspect the construction of
>the cans). The cans have a plastic button in the bottom that releases
>gas into the can after it is open (to simulate how it would be if it
>just came from a tap). It's a cute gimmick. I don't know, I don't care
>for the stuff myself.

The plastic bubble in the bottom of the cans is full of beer, not gas.

This

plastic bubble actually separates the can into two sections, a small one and a large one. When you open the can, the pressure drops in the big section. Now there's a pressure differential between the big section and the small one. This forces a stream of beer from the high-pressure small section into the beer in the low-pressure large section, through a small hole, causing the beer in the large section to foam. Gosh, the stories people come up with -- when these cans were just introduced, some people dreamed up all kinds of stories about nitrogen being in the bubble and dry ice being in the bubble!

Personally, I like the bottled version better.

Corby writes:

>I just had a friend bring me a bottle of Chimay (it's difficult
>to find in Utah) and was wondering which type it was. Miller mentions
>Chimay having three different colored caps (red, white, and blue) for
>different styles and Papazian mentions Belgian ales typically being done
>in three styles (House brew, double, and triple). I was wondering which
>was which. The bottle I have has a red cap.

There are actually, four varieties of Chimay available in the US. I feel that the 750ml, corked bottles are different enough from the 330ml, crown-capped versions, to be considered a different type. I would not have investigated this difference if it had not been pointed out by Jackson in his Pocket Guide to beer. I agree with him that the corked versions tend to age slightly differently, due to the porosity of the cork -- I feel they tend to be more oxidized, but it adds an additional complexity to the beer.

There's a problem with the AHA's definitions in the Trappiste Beers area. Indeed, there are several beers that are loosely in the Dubbel style and several in the Tripel style, but a great many that don't fit into these categories. For example, Orval is a House brew, and Westvletteren's Abt (available here as St. Sixtus, albeit brewed by a secular brewery) is not a House, Dubbel or Tripel. It would be better if the AHA created a subcategory called "Trappiste, Other" and specified that further clarification must be listed (as they do with Fruit or Herb beers). I'll make this suggestion if I'm asked again to be a member of the National Homebrew Competition Committee.

Luckily, Chimay's red fits the Dubbel category quite closely, so that's what you tasted. The Blue-capped 330ml bottles are similarly a Dubbel, except brewed from a higher gravity. The White-capped 330ml bottles are much paler -- too pale for a Dubbel and quite highly hopped. Although it's new name escapes me, the Burgundy-labeled 750ml bottles are the

jumbo-version of the red, the 750ml Cinq Cents are the jumbo-versions of the white and the 750ml Grand Reserve are the jumbo-versions of the blue. The blue-capped 330ml bottles are vintage dated.

Bob writes:

>John Isenhour spoke about his efforts at filtering beer in the last digest.

I'd like to add that there's a good article in the 1992 Beer and Brewing (AHA Conference Proceedings) on filtering by Steve Daniels. He advocates only the polypropylene pleated filters and warns of all the problems he encountered before he switched to this style of filter.

I wrote:

>Agreed that undermodified malt needs either a step-infusion or decoction
>mash for best results (protein splitting into amino acids, etc.), but
>the proper mash temp is dependent on what kind of dextrin profile you
>>want in your wort, not on the grain type. I'm pretty sure that the
>DeWolf-Cosyns Pale and Pils malts are both fully modified (I'll check
>tonight and post a followup tomorrow) and can be used without a protein
>rest.

I've checked (according to Noonan's descriptions) and indeed the DeWolf-Cosyns Belgian Pilsner malt is fully modified -- the acrospire (sp?) is consistently the entire length of the kernel.

Al.

Date: Fri, 16 Apr 93 16:10:54 EDT
From: Jim Busch <busch@daacdev1.stx.com>
Subject: filters/Dr. Lewis/biscuit malt

In the last digests:

<Went to a presentation by Dr. Michael Lewis from U.C. Davis a few
<weeks ago where he said that a temp. step mash was absolutely
<essential to give best extract yeilds and fermentability when using
<American lager malt (aka "klages" in this neck of the woods). He
<also said that with British Pale Ale malt, a single temp infusion mash
<was best. I get the idea that the mash temp profile really depends on
<what your malt was designed for.

Ahhh, from the guru that claims that domestic 2 row converts in 5
minutes!

I have to agree with Bob Jones on the statements made by Dr. Lewis, take
them

with a grain of undermodified 6 row. The bottom line in my opinion is
that

all malts have thier attributes and many a fine beer can be made using
one of the three common techniques, step mashing, single infusion, and
decoction. Most malts to be found in the US (domestic or imported) can
produce a well made beer using any of the three techniques. In the past
I always used a step mash with 2 row domestic. Recently I do a infusion,
rest at 154, then mash out at 170. Works real good. The fun part of
brewing is to mix ingrediants with techniques and still create wonderful
beers. For a supper malty bock/speciality beer a decoction is almost a
must (even when using domestic 2 row). For a wheat beer with more than
40% wheat malt, again a decoction is a must. For many pale ales, and
porters/stouts one can use a infusion or a step. An issue to be aware of
when doing a step with domestic 2 row is that the time it takes to rise
the temp from 122 to the 150s will have several minutes in the 140s and
lots of conversion is taking place at these temps, resulting in a higher
fermentability, regardless of the sacchrafication rest temp. Note that
Dr. Lewis was pointing out how to maximize extract and fermentability,
and a step mash will indeed do this. When using the "Worlds Greatest
Yeast,tm" fermentability is the last of my problems, I do everything
I can to maximize my dextrin pool.

Re:filters, I believe submicron filtration is the wrong way for
homebrewers

to go. Cold conditioning, followed by filtration down to 3-7 microns
works

for my primary goal, yeast removal. If the still beer is not
rediculously

high in yeast cells, 5 microns works for me. I had a keg that was primed
with sugar, already had way too much yeast, and after filtration at 5
microns,

still was way cloudy. But, the beer went from undrinkable (looked like
Widmers "hefeweizen" :-)) to cloudy but delicious. BTW, I used a store
bought

spun filter to "coarse" filter my Barleywine and it worked. Disposable,
though is not too efficient.

RE:Biscuit malt. I used about one pound of this in a pale ale that had
50 lbs 2 row domestic, 5.5lbs caravienna and 2.4 lbs caramel 40, 3 lbs
Belgium Munich. I made this same recipe with aromatic instead of
Biscuit,

and was I suprised to see how much darker the biscuit made the wort. Some
pretty powerful stuff. Too early for taste results as it is currently
fermenting away.

Good brewing,
Jim Busch

Date: Thu, 15 Apr 93 09:19:43 EDT
From: Jim=Curl%Eng.West%PTLSANJOSE@ptltd.com
Subject: Sugar tests for priming

>Recently my brewpartner and I bottled a Red ale. We were slightly
>disturbed that fermentation had stopped so soon (after four days of very
>high activity, the Spec. Gravity was the same for four more). We primed
>with malt extract
>(1 1/4 cup to 5 gal) and now about 1 in 3 bottles gush. Is it possible
>fermentation was stalled that long and picked up in the bottle? This is
>not a big problem, since we can easily open bottles over a sink, but I'd
>like to be sure when fermentation is complete.

I have been kegging this year, but I eliminated my bottle carbonation problems in the past by using a sugar analysis test kit. These kits, which are basically just diabetic urine kits, allow you to measure the amount of residual sugar in your beer and then prime accordingly. If you let your beer ferment out, then this is unnecessary. But if you have a long slow fermenting batch or just don't want to wait, determining the residual sugar is a big help.

On batches that I have bottled, I have found that I usually didn't need the full dose of priming sugar and scaled back accordingly. On one batch, the test revealed that I didn't need to prime at all! My carbonation levels have been very consistant using this technique.

The kit I bought from a homebrew store cost about \$20 and included a bottle of tablets, a test tube, a small pipet and some instructions. You could probably get away cheaper if you bought a kit directly from a pharmacy and worked out the conversion (from urine test to beer test) yourself. But the kit comes with 100 tablets, so the cost is only about \$0.20 per test.

As to why your beer did what it did, I can only speculate, particularly without additional information. That sounds like a little too much priming extract to me, but that may not be a problem.

Beer is mysterious.

Jim Curl

Date: Thu, 15 Apr 93 08:42:07 EDT

From: wiehn@evax.gdc.com

Subject: Las Vegas - Brewerys? BrewPubs?

I'm off to Las Vegas in June and I'm curious to discover any Breweries or BrewPubs in the area ---- Any Suggestions?????

John Wiehn

Wiehn@evax.gdc.com

Date: Fri, 16 Apr 93 11:45:05 cdt
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>
Subject: cold break, stout

Kirk Anderson's questions about cold break were discussed at some length back in the fall. However, in the interest of reviving old topics (there may always be some new information), here's what I have been doing.

(1) I boil about 4 gallons, which shrinks to three after a one-hour boil.
(2) I don't have a wort chiller, so I put my brewpot in a sink full of ice & cold water, and I dump in two gallons of pre-boiled and chilled to almost-frozen water on top. This produces a good cold break and gets the temp down to the high eighties or so in a half hour or less.
(3) I DO rack off the cold break into a bucket, where I then add yeast starter solution and stir vigorously to aerate.

Then I rack into 5-gal. glass primary and use a 1-inch bolwoff tube (Diameter of course, not length!:-))

It seems to me that racking off the cold break and blowing off have produced better beer, but I can't prove it. I've only made about twenty batches (last half dozen or so this way) and I find these procedures relatively easy to handle for a not-very-experienced brewer.

Regarding stouts, here is a recipe which I made recently and liked quite a lot.

6 lbs. William's English Dark

1/4 lb each dark crystal, black patent, & roasted barley

hop schedule went something like:

1/2 oz. Chinook, 60 min.
1/2 oz. Chinook, 30 min.
1/2 oz. Fuggles, 15 min.
1/2 oz. Kent Goldings, 5 min.

Wyeast Irish

3/4 c. corn sugar to prime

I steep the grains for a good long while (at least an hour) in a separate pot and then sparge through a strainer into the brewpot. I don't have a thermometer to control the temp., but I guess this is sort of a "partial mash," or at any rate I think I get better results than when adding the grains to the pot in a bag and then taking them out before boil is reached.

This is a delightful stout, if on the light side (like I hear bottled Guinness is these days anyway) and even came out with a little bit of a

Guinness-y "tang." I wasn't using a sour mash or anything - maybe it's the recipe, or maybe just a lucky infection :)

Regarding the "Irish" Wyeast: I love it! And I made an Imperial Stout with it too, and the Irish yeast chomped through it just fine, so I would say it handles high-gravity brews pretty well.

Jonathan Knight
Grinnell, Iowa

Date: Thu, 15 Apr 93 08:33:44 EDT

From: wiehn@evax.gdc.com

Subject: Bottle brushes - Mail Order Source???

Can anyone give this newcomer a lead on where I can get bottle brushes through the mail?????? What would the cost be on the size brush needed to clean old soda/beer bottles?

John Wiehn

WIEHN@EVAX.GDC.COM

Date: Sat, 17 Apr 93 10:17:54 -0700
From: pascal@netcom.com (Richard Childers)
Subject: Re: Hard (Lager) Cider?

"Date: Wed, 14 Apr 93 11:01:10 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Hard (Lager) Cider?"

"QUESTIONS:

1) How long should I expect the fermentation process to last?"

A couple of months. Lots of complex sugars in cider.

"2) What would an ideal fermenting temp. be for such a concoction?"

Depends on the yeast. You're using lager ? 55 F.

"3) Is my result going to be a Hard Cider, or a (strange) Lager Beer?"

Cider. (Shades of Lysenkoism !!)

"4) I plan on conditioning the fermented result with either 1/6 cup of
Corn

Sugar, or 1 to 2 cups of Apple Cider - and then bottle it. First of
all,
is it necessary to do this conditioning?"

No.

"If it is, what ingredient is best,"

I think cider is a good choice.

"and how much should I use (for a 1 gallon batch)?"

Wing it. Try 1/4 cup to start.

"5) How long will such a (lager) cider last in bottled form?"

Dunno. Depends on local conditions and taste. You are on the frontier of
brewing, there are no precedents, you are making them as you do this.

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com
Was someone saying "God is dead."
The simple use of The Word
Negates the second, and the third. (Duke Ellington, Sacred Concert)

End of HOMEBREW Digest #1122, 04/19/93

Date: Sat, 17 Apr 93 10:09:52 -0700
From: pascal@netcom.com (Richard Childers)
Subject: Immersion chiller architecture

"Date: Wed, 14 Apr 93 11:47:29 EDT
From: eisen@kopf.HQ.Ileaf.COM (Carl West)
Subject: Re: Immersion chiller

"Stirring helps. On both sides of the copper."

Agreed, I don't think this is being addressed at all.

Despite the desire not to aerate the wort, if the wort is not moved around, somehow, it will develop relatively weak convection currents that will act to move the wort around very little. As a consequence, an insulating wall of wort of intermediate temperature will build up around the coil, much as an intermediate layer of water, in a foam-layered SCUBA suit, warms up to body temperature and then acts as an insulating layer between one's body and the colder outer ocean.

This can be corrected by building a immersion chiller strong enough to be used as a slow stirring mechanism, also. Unfortunately, this leads to thicker walls on the copper tubing ... which translates into less efficient transfer of heat from hot wort to cold water. Perhaps a 'skeleton' of a stronger wire could be wrapped, helix-style, around the softer and thinner copper tubing, to hold it and protect it from being bent by impact against the sides of the container.

"I believe the whole problem is really quite simple, it's alot like putting ice into a glass of soda, more ice cools it faster."

On that thread, has anyone considered a parallel chiller architecture ?

It would increase the available surface area available to the coldest water, as it enters the chiller and contacts the hottest wort (which would, I'm speculating, be at the top, assuming no heat is entering the system), and, all other things being equal, I speculate that there would be a fairly straightforward linear relationship between the speed wort chilled at and the number of fixed-length, unstricted-surface-area chiller segments in operation ... just as there is between the number of ice cubes one drops in a glass of water, and the speed at which it cools (again, assuming that the actual surfaces through which the heat is transferred remain free of obstructions).

I must say, this is a fascinating little thread and I'm waiting for someone to integrate it all and generate a matrix of optimal architectures out of the cross-indexing of length, diameter, wall thickness, architecture, and flow rate. (For purposes of simplification it seems best to assume that the wort will start out at just below boiling, worst case, and the water at just above freezing, say, 35-40 F, worst case.) While there may be no absolutely 'best' solution or architecture, there absolutely is a set of, shall we say, optimal solution to this particular problem in physics, just as there is a fairly finite set of possible container geometries within which the chiller is immersed ...

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com
Was someone saying "God is dead."
The simple use of The Word
Negates the second, and the third. (Duke Ellington, Sacred Concert)

Date: 18 Apr 1993 20:54:42 -0400 (EDT)

From: WESTEMEIER@delphi.com

Subject: Durden Park Beer Circle

Please excuse the bandwidth, but I will be in London later this week, and I understand the Durden Park Beer Circle meets on the 22nd. If visitors are welcome, I would greatly appreciate e-mail from anyone who can tell me exactly where and when -- I would love to attend.

Thanks,

Ed Westemeier, Cincinnati, Ohio, USA <<westemeier@delphi.com>>

Date: Sun, 18 Apr 93 22:20:23 PDT
From: tlopez@alt.cam1.unisys.com (Tito Lopez)
Subject: Gravity to high ...

I'm a first time brewer and just maybe I'm a bit too impatient. I bought the Stout kit (Guinness Extra Stout) and followed the direction as closely as possible. I let it ferment 5 days in the primary fermenter between 58 to 64 degrees. I transfered it to the secondary fermenter and it's been there for 9 days. The gravity on this day was 1018 (measurement adjusted to reflect temp above 60 degrees), 6 above the F.G. According to the kit it would take 7 to 9 days (after it's been transfer to the secondary fermenter) to bottle. What's wrong? Give it more time?

IMF (Tito Lopez)

Date: Mon, 19 Apr 93 08:34:55 EDT
From: casagran@gdstech.grumman.com (Lou Casagrande)
Subject: Skimming during fermentation

Fellow Brewmeisters,
I am still a relatively unsophisticated brewer, in that I am still using a single-stage fermentation with the 6-gallon plastic fermenter. I had heard about skimming, but I was always a little reticent to open my brew during fermentation for fear of contaminating it. My question, then, is: What is the proper method for skimming to minimize the chance of contamination or other "badness"? By the way, a quick answer to this question will be important, as I just put a batch of stout together last night.

Thanks,
Lou Casagrande
casagran@gdsnet.grumman.com

Date: Mon, 19 Apr 93 07:55 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: BREAD YEAST

One of the first "Momilies" I addressed shortly after starting to read the Digest was the seemingly hidebound belief that bread yeast makes lousy beer.

This was shortly before I became a born-again yeast culturer.

I decided to check out the bread yeast momily but knowing what I had learned about culturing, it seemed only reasonable that the test should be done on a pure cultured bread yeast. I suspected the real problem with bread yeast was the same as in all dry yeast, i.e. contaminants other than the culture yeast.

I pure cultured some Fleishman's bread yeast on petri dishes and then to slants. The real problem became one of committing a batch of beer, with all the expense and time that entails to the experiment. So the slants sat in the fridge for months.

Well, I finally got around to doing it. On March 12, I brewed up a 7 gal batch, using "only the finest ingredients". I even got a yield of 33 on this one and I pitched the bread yeast.

The primary at 55F was nominal and I pumped it to secondary a week later and noted a decided clove taste. As of Apr 16, it was still fermenting moderately with not a sign of clearing.

I decided I had tied up the equipment long enough to learn what I wanted to learn and kegged 5 gallons of it. I force carbated this and took it to a CBS meeting to share this great science with the rest of humanity.

With the notable exception of one nameless individual who thought it was "kinda nice", there will not likely be a sudden conversion to bread yeast at CBS. When I later made the rounds with a rather good lager, people sort of turned around and made like they didn't see me. I had to do a real sell job to get them to try this one.

The clove taste was, in my opinion, overpowering and rendered the beer more or less undrinkable. What is interesting is that I have made this very same beer before using Red Star beer yeast, even to the never-ending fermentation.

My suspicion is that Red Star beer yeast is either severely contaminated with

their bread yeast or IS their bread yeast.

.....

I also finally got around to trying a Wyeast primarily because Tim Norris practically forced it on me. It was the 2206 Bavarian and I pure cultured before using it. I brewed a batch of Munich style lager and it made a decent beer but can really say not much else about it. It was pretty nominal as far as my taster is concerned.

However, it is worth nothing that the two petri dishes have been sitting on my lab table for 6 weeks now and there still is not the slightest sign of contamination. I innoculated two plates directly from the package just by dipping the innoculating needle into the liquid. I dipped twice, once for each plate, to increase the possiblity of picking up a contaminant. One was opened once to innoculate slants and the other has never been opened. This speaks well both for the yeast and my procedure.

js

Date: Mon, 19 Apr 1993 09:00:16 -0400 (EDT)
From: julie <jaj406@kepler.unh.edu>
Subject: Where do I begin?

I would like to make my own homebrew, but I don't know where to start. Could someone give me advice on how to start and what I need to begin. I have some ideas, but not sure if I'm on the right track.

You can e-mail me at jaj406@kepler.unh.edu
Thanks.....

Date: Mon, 19 Apr 93 13:37 GMT
From: Phillip Seitz <0004531571@mcimail.com>
Subject: Pet peeve--Belgian beer "styles"

Al Korzonas recently took a jab at the AHA's beer style classification system, with particular reference to their Belgian beer categories. Way to go, Al! Usually I preface this sort of thing by saying "Don't get me started", but since it's too late already...

Where does the AHA get off classifying these beers as doubles and triples?

It seems to me that this classification is based on the beers of Westmalle, but there are lots of examples that don't conform. Orval is obvious. Rochfort offers its beers in 6, 8, and 10 degrees, as to many "abbey" brewers. If the 6 is a double and the 10 is a triple, what's the 8--2.5? Where does Chimay's Cinq Cents (a partial-wheat beer if I'm not mistaken) fall into this? Frankly I think it's ridiculous to have style parameters when the entire population of breweries in this style only equals five.

Sad to say, I think that Michael Jackson is responsible for much of the incongruity we see in the style listings, as these closely mirror his own scheme in the World Guide to Beer. Personally I've never heard a Belgian refer to Liefman's as a Flanders Brown, for example. I think Pierre Rajotte was a lot closer to the mark when he stuck to commonly accepted terminology and the Belgian classification system based on O.G.

Sorry, I'll get off the soapbox. However, I must say it irritates me to submit beers to contests where judges who may have only had a few beers of any given type in their lives will be ranking my beer based on these misconceived numbers.

Date: Mon, 19 Apr 1993 10:23:04 -0400 (EDT)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: a few observations

First, thanks to whoever started this conversation about rocks in malt. Never heard of such a thing, until this Sat. when the Corona went "crunch" on one. Nothing broke, just don't start talking about severe infection problems, ok?

Anyway, the grain (minus the rock) seemed quite soft when I was grinding it, which I attribute to it being stored in a not-exactly-dry garage for the last few months. But it crushed beautifully, in fact I had to admire how perfect the crushed grains looked. It mashed/converted just fine, and, it sparged sparkling clear immediately. I mean the first few *drops* were clear and it stayed that way, with an unrestricted flow. This is with the Gott cooler type of lauter tun. My guess is that the moisture in the grains allowed the Corona to sort of squeeze the shells open rather than grind them to dust; there was much less flour than usual.

Unfortunately, damp grains are not usually a good idea (they tend to spoil), so don't go soaking your grains to get a great sparge. I just happened to be lucky.

Again I chopped the whole hops in a coffee blender, and I'm getting convinced this is a very good idea. Besides the probable better utilization, they helped form a solid trub bed in the brewpot, and filtered so well I was able to rack almost all of the liquid from the pot. There may be a connection with the World's Greatest Sparge (tm) here also.

I plan to dryhop one of the batches with ground whole hops in a mesh bag; I'll report back anything interesting.

Russ

Date: 19 Apr 1993 11:47:12 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Immersion chillers

I finally got around to making my immersion chiller over the weekend. I used 25' of 1/4" tubing in a plani-spiral (like an electric stove burner). The input and outputs hook over the side of the pot, and the final (outer) coil cuts straight across the bottom of the coil (perpendicular to the input), and down to the bottom of the pot, across and back up to the coil before joining the input end over the edge of the pot.

Thus it supports itself about 2" or so below the surface of the wort.

From

test runs (I haven't tried on an actual beer yet) I can recommend that anyone wishing to use 1/4" tubing to save money (like I did) either go for

the 3/8", or make sure your connections are really secure. 1/4" tubing has

a very high resistance to flow. Remember, resistance to flow is the 4th power of the diameter of the tubing (ie reduce diameter to half, resistance goes up 16 fold).

In my case I (perhaps stupidly) bought 1/4" tubing because it was \$7 cheaper than the 3/8", and I already had most of the connectors, whereas

I would have had to dish out an additional \$7-8 on connectors for 3/8" tubing. I first connected it with rubber lab hose to the sink, and the hose swelled up like a ballon.

Anyway, any suggestions on whether to cool from outside in or inside out?

ed

Date: Mon, 19 Apr 1993 15:25:12 GMT
From: "UARS::COOK"@CDHF1.GSFC.NASA.GOV (Chris Cook)
Subject: Rocks in Belgian Malts

On the subject of rocks in the malt, I've had small rocks jam my MaltMill in two out of the last 8 or so batches. In both cases I had to stop, take the grains out of the hopper and actually unscrew the hopper to get the rock out of the mill. Worse, the rocks left scars on the rollers in both cases, smearing an arc of those careful grooves flat. Jack was right, though, when he said that, with the o-ring, the second roller would just slip, saving the mill from any serious damage.

I've been using the Belgian malts almost exclusively, so I don't have any idea whether this problem is widespread or just with these malts.

Mind you, one thing that aggravates my problem is my ongoing affair with high-gravity beers. It's been a problem ever since I started all-grain brewing: if it's less than 10 pounds of grain, I don't make it.

It's all Jack's fault: his mill made things too easy.

Chris Cook
cook@cdhf1.gsfc.nasa.gov

Date: Mon, 19 Apr 1993 15:25:39 GMT
From: "UARS::COOK"@CDHF1.GSFC.NASA.GOV (Chris Cook)
Subject: First and Second Runnings

Speaking of high-gravity beers, he said, I've been going to really big beers recently, with a grain bill from 25 to 30 or more pounds of grain for 5 gallon batches. The first runnings are the barley wine, double bock, Russian Imperial stout or whatever, and the second runnings are enough (with a pound of DME) to easily make an ordinary beer.

Easy was the surprising keyword, too. I'm all set up for the first beer anyway: I've got the pots dirty, the starter's foaming away, the sterilizer stuff mixed up, the hoses soaking and small parts waiting, the immersion wort-chiller all hooked up, everything. It becomes kind of an assembly line affair.

You can figure the procedure. After getting enough wort for the first beer, continue the sparge for the second. Chill the first batch while finishing up the boil on second. When the first batch is cool, pitch using 2/3 of the starter (I use more starter for this batch because of its gravity). Finish any last-minute hopping on the second wort, take it off the stove and move the wort-chiller (immersion) from the first pot into the second. After a little sloshing and swirling (if you like that kind of thing) start the first beer syphoning. The syphon usually finishes before the second batch is cool; I just leave the hoses in place until I'm ready. When the second wort's cool, I pitch the last of the starter in that wort, swirl again and move the syphon hose to the second wort.

I'm using the same equipment, I'm just using it twice instead of once. I plan the batches using the same yeast, so there's only on starter. I've noticed that the second beer is quite a bit lighter than the first, and you can always make more changes by adding more malts to the lauter-tun. The hopping is completely up to you, of course.

One thing that helps a lot is using a second cooler to hold the sparge water. That frees up the stove, calms my mind and generally organizes my frenetic procedures. The poor thing's a swelling 44 quart Coleman cooler I wouldn't choose on purpose, but it's what I had for free in the basement and it works. I fill it with the sparge water at 185 to 190, and I'm good to go for both batches. I know that that's too hot, but the water has to stay hot after heating the cooler, waiting for up to two hours and running slowly through the plastic hose into the lauter-tun. My sparge pH is naturally low, and I figure that, if it's not perfect, I'm only making beer.

I remember an article in Zymurgy where someone recommended brewing two batches staggered together, but I thought it would be way too much work. I think I was wrong. It took me a little longer, but only an hour or so, and

that's completely without prior planning. The cleanup was the same. If you're interested in high-gravity beers, I recommend going for two.

Chris Cook
cook@cdhf1.gsfc.nasa.gov

Date: 19 Apr 1993 11:16:06 -0500
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>
Subject: 1993 Mazer Cup Mead Competi

Subject: Time:11:13 AM
OFFICE MEMO1993 Mazer Cup Mead Competition Date:4/19/93

We wish to announce the 2nd annual Mazer Cup Mead competition. Full information and entry forms have been published on the mead lovers digest. They may be obtained from me via e-mail either electronically (preferred) or via snail mail upon request. An edited version follows.

1993 MAZER CUP MEAD COMPETITION

ELIGIBILITY:

This is an AHA sanctioned event. All Makers of Mead are eligible. You may enter as many categories as you like, but are limited to one entry per category.

ENTRY REQUIREMENTS:

- (1) Each entry will consist of TWO (2) BOTTLES of at least 177 mL (6 oz) but not more than 750 mL (25 oz) preferably, 12 oz. Both corked and capped entries are acceptable. Black out identifying marks on bottles or caps.

[snip]

WHEN, WHERE, HOW:

- (1) Entry fee is \$5.00 per entry. All North American entries will be accepted between Monday June 7 and Friday June 18, 1993. International entries will be received anytime before June 18.
- (2) First round judging will be held on Friday, June 25.
- (3) Best of Show judging will be held on Sunday, June 27.
- (4) Make checks Payable to: Dan McConnell, Mazer Cup Mead Competition.
- (5) Entries can be dropped off or shipped to the following location:

MAZER CUP MEAD COMPETITION
c/o Dan McConnell
1308 West Madison
Ann Arbor, MI 48103

AWARDS AND PRIZES:

The beautiful mazers are hand-thrown at the prestigious Pewabic Pottery.

- (1) The AHA/HWBTA 50-point rating scale will be used, with 25 points required for award eligibility.
- (2) The brewer of the 1st place in each category will be receive a ribbon and a mazer.
- (3) The brewer of the 2nd place in each category will be receive a ribbon and a mazer.
- (4) The brewer of the 3rd place in each category will be receive a ribbon and a mazer.
- (5) The BEST OF SHOW will receive the Best of Show ribbon and the coveted hand-crafted communal mazer.

FOR MORE INFORMATION, CALL:

Ken Schramm, Competition Director 313.291.6694
Dan McConnell, Competition Registrar 313.663.4845
Hal Buttermore, Judge Director 313.665.1236
Mike O'Brien FAX 313.485.BREW

MISC INFORMATION:

- (1) e-mail to Dan McConnell will get you a snail-mail copy of this flyer (in color!) and entry forms. Last year entries-check your mailbox.
- (2) User printed forms are acceptable and encouraged.
- (3) Qualified Mead Judges are invited to judge this event. Contact Dan McConnell via e-mail or Hal Buttermore by telephone.

MEAD CATEGORIES:

1. SHOW: Mead consisting of honey, water and yeast ONLY. No spices, fruit or other flavoring additives permitted. Addition of water treatments and acidification is permitted.
2. TRADITIONAL: Mead consisting of honey water and yeast. Other flavoring additives are permitted in small amounts, but the primary flavor must be of honey.
3. MELOMEL: Fruit, other than Grapes or Apples.
4. CYSER: Apples.
5. PYMENT: Grapes.
6. HIPPOCRAS: Spiced Pymment.
7. METHEGLIN: Herbs and/or Spices.
8. BRAGGOT (BRACKET): Malted barley (must be at least 50% honey).

SUBCATEGORIES:

- a) Sparkling.
 - b) Still.
-

Date: Mon, 19 Apr 1993 09:01:38 -0700
From: roth@avsan1.irvine.dg.com (John Roth)
Subject: Old Time Root Beer Request

Hi folks! I'm in search of recipes and/or references regarding homemade root beer. On a recent trip to the local homebrew supply shop, the proprietor bragged about the quality of homemade root beer as opposed to what is currently available in a can. My wife and son were in attendance, so I am now being pressed to make some. Please email any suggestions directly to me.
Thanks

-John

Date: 19 Apr 1993 13:33:11 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: getting rid of DMS

Having narrowed down the causes of my lager off-flavours to (way-)too much DMS either from bad yeast or slow cooling, I was wondering if there is any way to flush out the excess DMS? Is there any way to encourage the yeast to consume it, or will renewing fermentation at a higher temp scrub out some of it? It's pretty undrinkable now, is there anything I can do apart from bottle it in 2L bottles and hand it out to my friends who don't know any better? Is there anything (non-toxic) that will remove or neutralize DMS (like maybe fruit acids or hot peppers)? I really hate throwing away a brew.
ed

Date: Mon, 19 Apr 1993 11:07:23 -0800 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: dry hopping - HELP!

I tasted my first batch of dry hopped beer yesterday. The effect was great, but I was disturbed to see all this "stuff" in the beer. It was sticking to the sides of the bottles, which had to be rotated to loosen it so it would sink. It only "sort of" sank and they all have this fairly thick, loosely packed layer on the bottom - not at all pleasant.

Undoubtably the problem is that I dry hopped with pellets and just threw them in the secondary (allowing extra space for the frothing which occurred). I assumed they'd all sink to the bottom but apparently there was enough in suspension to give my sediment problem. I left them for a total time of one week. I can think of two ways to get around it and would like comments from those with experience.

(a) Use a fine-mesh hop bag for the hops. Would this reduce the extraction?

(b) Use the same hop bag tied around the end of the racking cane when siphoning out. Would this become clogged?

Any comments are most welcome.

Peter

P.S. In my darkest nightmares I have the picture that the sediment is not hops at all but due to some horrible infection. Is any infection likely to produce stuff like this?

Date: Mon, 19 Apr 93 13:06:44 CDT
From: jay marshall <marshall@sweetpea.jsc.nasa.gov>
Subject: clarity (Breiss vs GW)

in #1121 Bob Jones says:

> After I switched to GW malt (from Breiss) my beers are much clearer
> before filtering.

Does anyone else care to comment on the clarity of beers brewed with malts from different suppliers? I had not noticed any differences, but then I've not been looking for it either. I usually attribute variations in clarity and other qualities to my tendency to continually try new methods.

I have not looked specifically for those kinds of differences between the various suppliers. The reason I ask this is because I believe I remember a thread a while back about Breiss-based beer having higher levels

of DMS (due to their direct-kilning methods and the need to reduce nitrosamine levels using some kind of sulphur-based stuff??). If there is

a clarity difference as well, would it also be a by-product of their kilning methods, i.e. direct vs indirect?

BTW, I have two local suppliers of malt. The closest one has Breiss, the other (25 miles further away) carries GW where there is an option. If there is a consensus on this clarity issue, I might try and get the closer one to carry some GW.

Jay
marshall@sweetpea.jsc.nasa.gov

Date: Mon, 19 Apr 93 13:27 CDT
From: korz@iepubj.att.com
Subject: Dry Hopping?/bar bottles/protein rest/Chimay Duh!

Michael writes:

>I dry hop most of my beers regardless of style (read HopHead here) and
>get satisfactory results with hop pellets. However, the aroma
associated
>with whole hops and plugs is quite appealing but the one attempt I made
>at dry hopping with whole hops was rather dissapointing. I use glass
>carboys for primary and secondary and I could not get many whole hop
>cones into the secondary without creating a BIG mess. How do you carboy
>users get whole hops and plugs into and out of your carboys with minimal
>fuss and contamination concerns?

I have been using 5 gallon carboys with a blowoff hose. It's a rare yeast that does not blow off enough room for an ounce of whole or plug hops. I tried dryhopping with pellets, but was disappointed with the results -- it appeared to me that the pellets sank to the bottom and were covered with dying yeast, thereby negating their contribution. The whole hops and plugs that I use now float for at least 10 days (although I've found that much more or less than 7 days provides less bouquet than 7 days exactly). Also, since the whole petals are much bigger than the small particles of pelletized hops, they are less likely to get sucked-up by the siphon hose. Last night, I bottled a batch of American Pale ale. The 1 ounce of whole Cascades had been in the carboy (the primary) for 10 days (a bit longer than I wanted, but unavoidable due to scheduling problems) and 95% of the petals were floating on top, 5% were just sort of suspended. I siphoned all but about 12 ounces out of the primary into the priming carboy and only one petal made it into the priming carboy. There was no clogging of the siphon. Even if that one petal had been sucked up during bottling -- I'm certain it would not have made it past the bottling valve.

Jack writes:

> A few weeks ago I walked to the neighborhood "bar" and was delighted to see
> big, tall, brown Bud bottles on the bar so I asked the nice lady if she could
> sell me some. "Sell them, why you can have all you want." she said.
>
> As she started handing them to me I noticed they were imposters. They all
> had screw tops and felt like delicate china. So I headed for the local
> homebrew shop and bought a case of brand new long necks for about the same
> price as a case of Bud at the liquor store but I was saved the trouble of
> dumping out the Bud and removing the lables.

Few bars still use "bar bottles" but you only need to find one. If you can't, you can try finding a liquor store that sells Huber or Rheinlander or even Budweiser in bar bottles (I know that Mainstreet Deli and Liquors

in Countryside does). If they sell the beer in bar bottles, they accept the empties. Mainstreet will sell you a case of empty Rheinlander bottles for \$1.20 and you get a nice, strong, waxed-cardboard box too.

Tony writes:

>Is there any harm in giving a mash a protein rest even if the grain is fully modified? It seems like good insurance if no harm is done.

No harm, just a bit more time.

I wrote:

>There are actually, four varieties of Chimay available in the US. I feel that the 750ml, corked bottles are different enough from the 330ml, crown-capped versions, to be considered a different type. I would not have

Duh! How did I get an MSEE without simple arithmetic skills. Three plus three is six, not four. There are six different products sold by Chimay in the US. (By the way, Mainstreet Deli and Liquors in Countryside, IL just got in a shipment of all six so I know all six are currently being imported.)

Al.

Date: Mon, 19 Apr 93 16:42:02 EDT
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: 2112

Hi All,

In HBD#1121, Philip J Difalco writes:

>My first endeavor is with the California Steam Beer
>Lager Yeast - Wyeast #2112, which is to ferment well up to 62°F.

>My test batch consisted of about 1.5 lbs of light DME, 3/8 oz.
>of Northern Brewer Hops, 4 oz. Clover Honey and 2 oz. peach
>marmalade - all boiled for about 45 mins. This yielded about
>1 1/4 gallons of wort (I never took an SG reading).
>After the wort cooled, I added the starter and wort to a gallon
>jug, affixed an air-lock, and placed it in the basement (at 60°F).
>I got good blow-off the first day and a half. It's been almost 6
>days now and the beer is still actively fermenting (bubble apprx.
>every 15s).

>

>QUESTIONS:

>1) This is my first attempt at a lager. I've never seen fermentation
> this active after 6 days. Is this because it's only a 1 gallon
> batch, or is this because of the qualities of a lager yeast?
>2) Wyeast #2112 is supposed to ferment well to 62°F, but would it
> hurt to put this in a colder environment (my fridge)?
>3) I'm not planning on bottling until the apparent fermentation ceases,
>
> or 3 weeks have elapsed, which ever is soonest - is this wise?

I've used the 2112 for a half-dozen 5 gallon batches of steam beer,
I think what you're seeing is pretty typical of this yeast.

The yeast seems to be a fairly slow worker. I've fermented my batches
at 50F-58F, ambient basement temperatures at my place during the winter.
In each case, it took 9-14 days for the krausen to fall, and a good three
weeks for the beer to completely ferment out. My first batch, kegged
after
two weeks, had a fair amount of residual sweetness. An additional week
at 55F cleared that up, but I'm not surprised you still had significant
activity on day 6.

I believe 2112 is actually a lager yeast, one that doesn't produce
harsh
flavors at warm fermentation temperatures, hence it's use for steam beer.
It wouldn't hurt to put it in the fridge, but I don't think that you
would
get the muddy, rounded phenolic character of steam beer if you do. The
batches I made that were fermented at 58F had noticeably more of this
phenolic
character than the batches fermented at 50F.

It's always advisable to hold off on bottling until fermentation
ceases,
unless you're into glass grenades :-). Based on my experience with this
yeast, I'd advise you to wait at least three weeks.

Cheers,
Jim

Date: Mon, 19 Apr 93 14:11 PDT
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov
Subject: Bulk malt

***** PROFS Note *****
From: DBLEWIS --VMSPFHOU Date and time 04/19/93 16:10:27
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov>
SUBJECT: Bulk malt

I have a question for the net regarding storage of bulk malt grain. I've started moving toward all-grains and I'd like to start buying the grains in the 55-lb sacks from a mail-order place to save some cash. One problem I can see right now is storage of the grains. I live in Houston and it gets pretty humid here in the summer. While the house is air conditioned, I'm not sure that the humidity is low enough to protect the grains. Anybody have any ideas? Is it worth my time and money? I suppose that I could do it seasonally and buy grains from the store for summer brews. I would probably go through a 55 lb bag in 2 maybe 3 months at my current brewing rate.

Thanks in advance for all the expert advice.

Dennis B. Lewis (713) 483-9145 ** NASA/JSC/DH65 Payload Ops
Homebrew, The Final Frontier.

Date: Mon, 19 Apr 93 14:10:52 PDT
From: Gary Rich <garyrich@qdeck.com>
Subject: brewing videos?

Has anyone seen any good video tapes on the brewing process? At my current point, going from following the directions on the can (nasty!) to all-grain snob I've come up against a number of things that it would help a lot to just see. I haven't seen any videotapes on how to brew in the shops or newspapers, but it seems like something that must be out there. I have friends that would like a primer to watch while they make those first few batches. I also think videos on all-grain, decoction, etc would be a really good thing.

If you like that how about a weekly TV show on home brewing? Cable access anyone?

-Gary R.-
garyrich@qdeck.com

Date: Mon, 19 Apr 93 18:46:45 EDT
From: ab126@freenet.carleton.ca (Jay Cadieux)
Subject: ""Stretching" liquid yeasts

I've decided to make the change from dry to liquid yeast for my next batch. Can anyone tell me the procedure for "stretching" liquid yeasts via culturing? Thanks in advance...

- - -

Jay A. Cadieux (ab126@freenet.carleton.ca, 1:163/277.1@fidonet.org).
"His mind is not for rent, to any God or government" - Rush, "Tom Sawyer"

Date: Mon, 19 Apr 93 16:59:47 PDT
From: tpm%wdl180@wdl1.wdl.loral.com (Tim P McNerney)
Subject: Re: Hops Primer

Russ Gelinias writes:

> Hops grow vertically as one or more vines that spiral up a twine or anything

...

> single plant can easily grow 40 feet tall when it is mature but growth

So we are talking a plant which after a year or two could reach 40 vertical feet. Maybe I am missing some obvious trick (can you train or force the hops to grow horizontally), but how do people handle such growth? Do you have weather balloons with twine attached to give the plants full growing room or just use telephone poles as the "plant stakes"?

And in either case, do you harvest using a crane or can you just scale the critter? Perhaps getting people to skydive in and grab a couple of cones on their way down would work, but I would probably have to cough up a homebrew for each in repayment and that would make for a tough trade.

Not that I am worried, mind you. I expect my brown thumb alone will confirm that none of my hop plants grow more than a manageable 4-5 feet. But in case my best efforts are unable to control their growth, what should I (have you) done?

Thanks.

- --Tim McNerney
- --Loral Western Development Labs
- --(408) 473-4748
- --tpm@wdl1.wdl.loral.com

Date: Mon, 19 Apr 93 18:19:27 PDT
From: davidr@ursula.ee.pdx.edu
Subject: Root Beer

I'm looking for an old-time root beer recipe. My great-great grandmother used to make some. I don't know if it was alcoholic or not, but if anybody has either version, I'd appreciate a copy.

Date: Mon, 19 Apr 93 18:31:41 -0700
From: l200-cu@garnet.berkeley.edu (mARK WITTEMAN)
Subject: "objective" beer tasting

I write this note as a humble submission for help from a group of people who obviously know their beer a whole lot better than I. I have been subscribing to HOMEBREW for about three weeks now, initially for the novelty of it, but now for the fun facts and information it gives me.

Besides being a beer enthusiast, I am also a masters student at UC Berkeley's School of Library and Information Studies. I am looking to wed an academic term project with my pension for good beers. More specifically, an instructor in the School has asked that we create a mock cataloging system for a collection of things (real or imagined -- and not necessarily bibliographic in nature) for a hypothetical library or other collection. My bright idea is to create a catalog for the bottled beers of California Micro-breweries! The catalog would allow for a detailed description of the beer including such things as:

- * Name of beer
- * Brewer and bottler
- * Ingredients (right down to the region or variety of hops and other stuff)
- * Color, nose, and flavor
- * Seasonality (Winter Ale? Spring Bock?)
- * Stylistic family (Porter, dry stout, IPA, etc.)

What I need help with is defining the proper terms and definitions needed to describe the type of beer (stylistic family, above) and the essential qualities of beer (color, nose, and flavor, above). Is there a handy book that lays out the rules of "objective" beer tastin and judging? Where am I likely to find it? For that matter, is there a source that will list all the brews of California?

Obviously, I am an amateur at the beer and ale game. I don't need mountains of information, just a detailed outline.

Perhaps you're thinking,

"Hey! This guy is a grad student, and a future librarian besides! Why can't he find this for himself?" Well, I've tried. If such a tome exists, it has eluded my best formulated search strategies. Take pity on me and send whatever information you think might help.

Thanks in advance.

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*

mARK h. WITTEMAN0000000000 STOUT

0000000000 BITTER
MLIS Student 0===== IPA
University of California 0|..|===| PORTER
Berkeley 0|. : | || PILSNER
0|. . | || BOCK
1200-cu@garnet.Berkeley.EDU | . | || RAUCHBIER
|. .|===| SAISON
(Note that the first character in my|. . | WEISSBIER
address is a lower-case 'L,' not a one.)| : | BARLEY WINE
~~~~~

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Date: Mon, 19 Apr 93 18:38:30 -0700  
From: 1200-cu@garnet.berkeley.edu (mARK WITTEMAN)  
Subject: Cry for Help, Part II

I should have mentioned in my first message that I already own a copy of M. Jackson's New World Guide to Beer, which has been my brief introduction into the world of beer tasting and beer families. I need a little more info than it provides in its introductory chapters.

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mARK h. WITTEMAN0000000000 STOUT
00000000000 BITTER
MLIS Student 0===== IPA
University of California 0|..|===| PORTER
Berkeley 0| . : | || PILSNER
0|. . | || BOCK
1200-cu@garnet.Berkeley.EDU | . | || RAUCHBIER
|. . .|===| SAISON
(Note that the first character in my|. . | WEISSBIER
address is a lower-case 'L,' not a one.)| : | BARLEY WINE
~~~~~
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End of HOMEBREW Digest #1123, 04/20/93  
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Date: 19 Apr 1993 22:04:53 -0500 (EST)  
From: OIT\_JAMES@VAX1.ACS.JMU.EDU  
Subject: Hops Primer: a historic addendum

Thanks to Russ Gelinias for sharing his primer. After reading it, I wondered if some of the books in my dusty library contained any relevant information. I was surprised to find a short essay on growing & harvesting hops in an old Family Encyclopedia. I have typed the material as best I can, any mistakes are probably mine and not in the original text. I wonder if anyone has a copyright on something this old?

A New Family Encyclopedia; or Compendum of Universal Knowledge: Comprehending a Plain and Practical View of Those Subjects, Most Interesting to Persons, In the Ordinary Profession of Life\_. Edited by Charles A. Gooch, New York, 1831. Section II, Art of Gardening, or Horticulture, p459.

" HOP. Any bit of a root will grow and become a plant. The young plants should be planted in the fall, three or four together in a clump, or hill, and the hills should be seven to ten feet apart. The first year of planting, put four rods, or little poles, to each hill, and let two vines up each pole, treading the rest of the vines down to creep about the ground. In a month after the vines begin to mount the poles, cut off all the creeping vines, and draw up a hill of earth around the poles a foot high, covering all the crowns of the plant. At the end of another month, draw some more earth up, making the hill higher and higher. When the fall comes, cut off all the vines, that have gone up the poles, a foot from the ground; take down the poles; dig down the hills, and open the ground all round the crowns of the plants; and before winter sets in, cut all down to the very crowns, and then cover the crowns with earth three or four inches thick. Through this earth, the hop-shoots will start in spring. You will want but eight of them to go up your four poles; and the rest, when three inches long, you may cut, and eat as asparagus. This year you put poles 20 feet long to your hops. Proceed the same as before, only make your hills larger; and this year you will have plenty of hops to gather for use. Be sure to open the ground every fall; and cut all off close down to the crown of the plants. They are fit to gather when you see, upon opening the leaves of the hop, a great deal of yellow dust, and when the seeds which you will find at the sockets of the leaves of the hop, begin to be plump. Gather them nicely, and let no leaves or stalks be among them, and lay them out on a cloth to dry in the sun, taking care that no rain or dew fall on them. When perfectly dry, put them, very hardly and closely pressed into a new bag, made of thick Russia linen; and in this state they will keep good, and fit to use, for twenty, or perhaps, three times twenty years."

The Complete Book of Edible Landscaping\_ from Sierra Club Books, 1982, includes the following information:

The vine can attain 25 feet in a season. A hop vine can be trained on a trellis or with support posts to become a small weeping tree, and therefore can be grown in a container or planter box. The vines require rich soil, good drainage, plenty of water after growth starts, and full sunlight. The book also recommends thinning the shoots early in the spring, and eating what you harvest. Mildew, aphids, and mites can be a problem.

An organic gardening encyclopedia I have contained information about what to do with the spent hops, including amounts of nitrogen and phosphorus, if anyone is interested. I was going to send it as well, but this has gotten pretty lengthy and my fingers are worn out.

\*\* remember a standard disclaimer now \*\*

James Wilson  
oit\_james@vax1.acs.jmu.edu

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Date: Tue, 20 Apr 93 00:37:05 -0500  
From: oconnor@ccwf.cc.utexas.edu (donald oconnor)  
Subject: Whitbread warning

In HBD #1122 George Fix suggests calling Seth Schneider at Crosby and Baker for first hand information regarding the Whitbread and Mauri yeasts. Curiously, my posts on this subject were in part based on first hand information contained in recent conversations with Seth. These chats were in fact prompted by George's earlier posts. It was Seth's opinion, in view of all the data including George's plate counts, that the new Whitbread should be regarded as neither inferior nor superior to the old Whitbread. As of two weeks ago, Crosby and Baker had not decided whether or not to distribute the Mauri yeast.

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Date: Tue, 20 Apr 93 12:25:15 MET DST  
From: THOMASR@EZRZ1.vmsmail.ethz.ch  
Subject: damp barley grind, bread yeast, historical

hell all,  
Russ Gelinas (hbd1123) mentioned getting good results by chance, when he used a corona to crush "damp" malt. Well, this is sort of similar to the wet grinding that is often used in mainland europe to crush grains. The theory is if you could wet the outside of the grains without doing the same to the inside, then the husk would just split (being more elastic in a moist state) and the goodies inside would still be crushed finely. In practice, it works. However, usually there are two alternatives to wetting:

1. using steam treatment;
2. Contact with the strike water (which for these mashes is at ca. 30 deg. C, decoction) for a certain amount of time ---- down to 7 seconds!!.

I've been experimenting with lager grains from Hurlimann (which just crumble to dust in a Marcato Mulino mill) by spraying them with a plant sprayer just before the crush. This makes a great improvement, although I imagine nothing like a MaltMill(TM). Once I have my method down

I'll post full "instructions".

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Jack in the same hbd mentioned his experiment with fleishmann's (sp) bread yeast. I have also tried a couple of brews, with the locally available "bread" yeast. In all honesty one batch was highly clovy, but the other (albeit a heavy dark beer) was not overwhelmingly so. I suspect that my yeast was not actually bred for bread use, but was actually produced by a brewery. I must say, given another source of proper yeast, I'd never use bread yeast again.

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Finally, I'm still getting inquiries about the historical recipes from the 1820's book I've got a copy of. I have posted all but the table beer, but these may have been missed.

Could you mail me with a subject line: history yes if you think I should post again.

If I get sufficient responses I'll post, otherwise I'll send direct (if you already asked me directly, could you remail me, we have a serious disk space shortage on this machine, which means I get scrubbed very often.)

Rob Thomas.

P.S. how does everyone do those trailing remarks/quotes.... I presume they are automatic.?

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Date: 20 Apr 93 07:46:00 EST  
From: "ROBERT W. HOSTETLER" <8220RWH@indy.navy.mil>  
Subject: Nashville, TN, brewpubs

I'll be in Nashville this weekend, and any info on local brewpubs would be greatly appreciated. With TN's wierd liquor laws, they might not even be legal... Private responses welcomed.

Bob Hostetler      8220rwh@indy.navy.mil  
                    or roberth131@aol.com

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Date: Tue, 20 Apr 93 08:53 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Easymashs

>From: mcglew@sde.mdso.vf.ge.com (McGlew Raymond)  
>Subject: Easymash

>I was at my neighborhood hardware store recently looking for ss screen for an easymash (home made) when I spotted some springs, some of which were loosely coiled (i.e. had about 1/8 to 1/2 inch spaces between coils. If I bought one that would snugly fit over copper tubing, and pinched off the other end, this might work great (especially if I waited until alter the mash and placed the copper tube siphon-like into the mash kettle. Anything wrong with this idea?

Nothing other than the range of "1/8 to 1/2 in spaces". That goes from almost adequate to just about useless. The mesh size I use on the EM strainer is 32, i.e 32 holes to the inch. That makes the opening considerably less than 1/32" when the wire size is taken into consideration.

Furthermore, the spring is likely to bend and change the spacing during use.

You can buy the screen you need for about 10 cents and I don't see any advantage in the spring.

js

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Date: Tue, 20 Apr 93 9:47:16 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Infection in Plastic Primary

Forwarded message:

I just wanted to write in after seeing the messages on skimming out of a plastic fermenter. My last batch that I brewed (a "Golden" ale that I formulated to be a cheaper and faster quaffing alternative to my other brews) was placed in a plastic fermenter for the primary fermentation. It didn't seem as though the lid fit as tightly as it once had, because there was nary a jiggle of the airlock the whole time, but I could see the Krausen rise and fall. Anyway after 4 or 5 days I racked to my glass secondary and after a few days I noticed what looked like large spots on the surface of the brew but closer inspection showed them to be composed of tiny bubbles. I popped the airlock off and smelled the

brew, but couldn't detect any off odor. I swirled the contents around and the bubbles dissipated, but within a day they were back. It just doesn't look like anything I've ever seen before, and I thought that once the beer was fermenting and alcoholic that it wouldn't support an infection. Has anyone had such a problem before?

Tony Johnston  
Homebrewer and Chemist (Better Living through Zymurgy)  
anthony@chemsun.chem.umn.edu

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Date: Tue, 20 Apr 93 08:14:54 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: The Ultimate Chiller?

In the last digest Richard Childers suggested an immersion chiller that might be stirred and parallel cooling chillers. Well tomorrow is here..

. In my talk at the AHA conference, one of the topics will be a motor driven stirred parallel immersion chiller. Micah and I will be discussing several of our home grown hair brained ideas. For those that are attending I won't spill the beans about how much better it works. I'll just invite you all along. I will tell you that it IS better! I will bring pictures and slides of the chiller for all sceptics to see.

Bob Jones

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Date: Tue, 20 Apr 93 10:01:50 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Chimay Yeast Problem

I recently cultured yeast from a bottle of Chimay and used it in an ale recipe. The fermentation went fine but the yeast are extremely reluctant to settle out. It's been in the secondary for 10 days and only the top inch has clarified! Two questions:

- 1) Has anyone had problems w/chimay taking a long time to settle out?
- 2) Any suggestions for helping out the process? I could add some clarifying agents but at this stage I'm concerned about infection sense fermentation is complete and no CO2 is being produced.

WAK

| - William A Kitch (512) 471-4929 -|  
| - Geotechnical Engineering -|  
| - ECJ 9.227 -|  
| - Univ of Texas at Austin, TX 78712-1076 -|

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Date: Tue, 20 Apr 93 12:02:03 -0400  
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>  
Subject: RE: dry hopping - HELP!

In HBD 1123 Peter Maxwell notes:

> I tasted my first batch of dry hopped beer yesterday. The effect was great,  
> but I was disturbed to see all this "stuff" in the beer. It was sticking to  
> the sides of the bottles, which had to be rotated to loosen it so it would  
> sink. It only "sort of" sank and they all have this fairly thick, loosely  
> packed layer on the bottom - not at all pleasant.

Ah, Peter. Let me relate a similar dry-hopping experience. It involves a pale ale I brewed that I wanted to try dry hopping . . . like your batch, this was the first time I ever dry hopped. I used Cascade pellets in the secondary, about 5 days before bottling. When I bottled the beer tasted fantastic, and with a beautiful hop aroma. I put the batch down for the requisite conditioning, and after ten days wanted to have my first carbonated taste. To my horror, there was this almost feathery white growth throughout all of the bottles. I chilled one and tasted it - YUCK! It was undrinkable. I was devastated. I imagine some beastly got in with the hops. I know the batch was not otherwise contaminated, because I used a cup of the yeast from this batch's primary to start another batch that came out wonderfully well. Anyway, I left the beer in the cellar thinking that some day I'd have to open all those bottles and dump it down the drain. I had never had a throwaway and was not looking forward to it. Well, I'm good at not getting around to do unpleasant tasks, so I waited about three months before I dragged the cases upstairs to do the dirty deed. At the last minute I decided to put one in the fridge and wait 'till the next day. Incredibly, this batch turned out great! It is unlike anything I've ever had before. Whatever awful flavor developed early on is completely gone. I have no doubt that there was an infection. Even now there is this very fluffy sediment that stirs up easily, and the beer is over-carbonated. That is an unfortunate combination, because as soon as you pop the top, the bubbles rising up through the sediment cause it to mix all throughout the bottle. What I do now is get the bottles real cold, then take an opener and crack the top just enough to let out the gas, then recap (with the same cap) and stick it back in the fridge. That solves the overcarbonation problem. When pouring I leave an inch in the bottle to pour a clear glass, or if it's just for me I don't even worry about it. So the moral is, even if you do have an infection and some nasty tasting beer, don't be too hasty to dump it. I am not sure I'd want to repeat this brew (it really is wonderful, but man is it hard to wait four months before you find out if you have beer or sewer water). I've been reluctant to dry hop ever since, but the hop-tea alternative just does not give the same result.

Anyone out there have a way of sanitizing hops without destroying the aroma?

Bob Santore  
rsantore@mailbox.syr.edu

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Date: Tue, 20 Apr 93 10:09:13 -0600  
From: coronell@cadesm24.eng.utah.edu (Charles Coronella)  
Subject: Metallic Cherry Beer, or the cheapskate always loses

I recently made my third annual cherry beer. I was excited to use my new 4-gallon (aluminum) pot for the boil. I got this pot real cheap(\$12), and it would allow me to do nearly full boils. When I transferred the beer to secondary, the taste was pretty good, but had a slight metallic flavoring. Unusual, but I'm used to strange flavors in my beers. Hell, that's one of the reasons I brew. I thought nothing of it. But apparently, the taste got stronger with time. It was prominent at bottling, and the metallic taste has become overwhelming in the bottled beers. For the first time, I find myself pouring my own brews down the drain!! :-(

My previous pot was aluminum, but gave no perceptable metal flavors. I've been looking for a low cost, full sized kettle, and thought that I'd found an inexpensive alternative. Guess I was wrong. Let this be a warning for all the cheapskates out there. Any suggestions on where to find 28-quart stainless kettles for less than \$150?

Wonder if all this aluminum has anything to do with my recent memory loss problems...

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On another note, I'd like to congratulate all the recent contributors to the HBD for being so well behaved. And especially, I'd like to thank Rob for maintaining the HBD. Also, I note that there's been a small backlog of submissions, so that a note might not appear for a day or two. I think it would help if everyone tried their best to keep posts short (including .sig files and quoted text from previous posts.)

Chuck coronellrjds@che.utah.edu  
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Date: Tue, 20 Apr 93 11:05:59 CDT  
From: atzeiner@iastate.edu  
Subject: lauter tun and fridge questions

I am going to start partial grain and then all grain brewing soon and I have started to make a Zapap lauter tun. I drilled all the holes in the bottom of a 4 gal. pail and the bottom of it is around 3 inches from the bottom of the other 4 gal. pail. I think I remember reading that it's better to have only about 1 1/2 inches from the strainer part to the bottom of the outer pail. Is that right?? Also, how far from the bottom of the outer pail do you want to make the draining hole??( I think I read 1/2 inch) Another question I have is, what is the best way to disperse the sparging water into this kind of lauter tun? I know it should be sorta sprinkled rather than just poured into the tun. Is there a specific HBD digest that has good info on sparging technique? I would like to know a little more than the basics that are in TNCJOHB...

Also, I just bought an old fridge so I can brew in the summer and it's the old kind with just a single door. The freezer part is just a little metal thing at the top with a small plastic door. I figure that I would remove the door from the freezer so that when the thermostat turns the fridge on, the freezer section will cool the rest of the fridge. Is there any reason to not do this?

I am also wondering what kind of external temperature controllers are the best and where they can be gotten the cheapest... I saw a couple of ads in Zymurgy for these for \$30 and \$32, but I don't know what kind they are.

Thanks...Andy

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Date: Tue, 20 Apr 93 09:28:30 -0700  
From: Drew Lynch <chrnlgc!ra!drew@uucp-gw-2.pa.dec.com>  
Subject: Re: Hops Primer

> Not that I am worried, mind you. I expect my brown thumb alone will  
> confirm that none of my hop plants grow more than a manageable 4-5  
feet.  
> But in case my best efforts are unable to control their growth, what  
> should I (have you) done?

My plants went about 20' the first year. I simply tied strong brown twine (the really coarse kind) to the exposed beams at the second floor roofline. They climb like mad. This year, I am adding more lengths of twine. I have two hop plants in planters, one on each side of my porch. They each grow up a 6'x 1' vertical trellis rooted in the soil in the large pot, onto a 2'x 8' horizontal trellis mounted to the fence on each side, and from there to four strings reaching from each side up to a central point on the roofline. This should create a really nice shady hop canopy for those hot summer months. Harvesting is as simple as reaching out my second floor bedroom window and snipping the twine.

Hoppy Gardening,  
Drew

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Date: Tue, 20 Apr 93 9:45:54 PDT  
From: davep@cirrus.com (David Pike)  
Subject: German Weissbier yeast

Anybody out there in HBD land have a good weissbier yeast for let. Please contact me by private email. Thank you.

Dave

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Date: Tue, 20 Apr 93 12:01:36 PDT  
From: tinsethg@ucs.orst.edu (Glenn Tinseth)  
Subject: Oregon hops and storing grain

Recently Joel Birkeland asked about hops in Oregon and whether there are any U-Pick hop fields. First of all, the Mt. Angel area is a big hop growing center, at least a thousand acres of hop fields of every imaginable variety. Unfortunately for the homebrewer, U-Pick hops doesn't happen as far as I know. The hops are machine harvested and immediately kilned and baled, and then sold either directly to the big brewers under contract or to any of a number of brokers.

Yakima, WA is definitely the US hop center with Oregon and Idaho in 2nd and 3rd positions. California and New York were both historically hop producers but are not commercial today. Hops will grow just about anywhere but to be commercially competitive requires just the right conditions (Yakima being as close to perfect as the US has to offer).

Hopefully those of you coming to our fair state in July for the conference will have an opportunity to tour a hop yard or two. Let me know via email if there is much interest and I may be able to set up something (no promises) since several of the big Oregon hop farms are just up the road from my farm.

Cheers,

Glenn Tinseth  
The Hop Source  
tinsethg@ucs.orst.edu  
(503)873-2879

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Date: Tue, 20 Apr 93 19:18 GMT  
From: "ROSQUETE.WNETS385"  
<6790753%356\_WEST\_58TH\_5TH\_FL%NEW\_YORK\_NY%WNET\_6790753@mcimail.com>  
Subject: WE'D LIKE TO INVITE YOU T

Date: 20-Apr-93 Time: 03:13 PM Msg: EXT04099

WE'D LIKE TO INVITE YOU TO "RUN AWAY" WITH US IN JUNE AT THE "CORPORATE CHALLENGE". TOMORROW IS THE LAST DAY TO SIGN UP FOR THE RUN IN CENTRAL PARK, A SPECIAL RUNNER'S T-SHIRT & A PICNIC. Call 4981

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Date: Tue, 20 Apr 93 15:44:13 EDT  
From: eisen@kopf.HQ.Ileaf.COM (Carl West)  
Subject: Immersion Chiller <swan song>

One last try, after this, I give up.

Given any particular wort chiller, the object of the game is to remove heat from the wort as quickly as possible until it reaches the target temp. The way to do this is to keep the chiller as cold as possible for as much of its length as possible. If the output water is hot, the last portion of your chiller is warmer than it should be. The way to keep the chiller cold is to run as much cold water through the chiller as possible, the limiting factor here is mechanical, not thermodynamic; how much pressure can you put on your chiller before you blow a fitting? :) IF you are putting maximum available flow through your chiller, you're getting the fastest cooling your system will give you.

Yes, this uses a lot of water.  
Do you want to save water or get a good cold break?  
That's the question you have to answer.

Keep in mind when you think about this that heat and temperature are different concepts and that raising the temperature of the cooling water is not the object of the game, the object of the game is to pump as much heat as possible out of the wort as quickly as possible.

- -- Carl

Keep the chiller as cold as possible.

There, I'm done.  
Was it good for you?

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Date: Tue, 20 Apr 93 15:23:15 MDT  
From: frank@Solbourne.COM (Frank Jones)  
Subject: Re: Immersion chiller architecture

In #1123 richard childers asks

->On that thread, has anyone considered a parallel chiller architecture ?

Well, yes I have. . . more than considered it, I built and use one.

I've been following this thread with some interest myself. When first presented with the problem of a wort chiller, my thoughts were that the surface area of most commercial chillers is insufficient. My thought process was that the majority of the heat exchange would take place in the first few feet, and as the temperature of the water inside the tube approached the temperature of the wort the heat exchange rate would flatten off, so that the rest of the tubing would be mostly exhaust with little heat exchange properties. This is more intuitive than proven fact, not wanting to go to that much effort to build bunches of test chillers. I have some experience with auto air conditioning design and construction in a previous lifetime (BC :=: Before Computers :) ). It was the normal practice of condenser and evaporator design to split the flow of coolant into multiple paths, and to obtain maximum tube surface area by finning the coils. With that preamble. . .

My chiller: I dismissed the concept of finning the tubing because of cleaning issues (but that would undoubtedly make it most efficient). The design I ended up with needs one modification (e.g., I need to build another one to fix it, and haven't yet) which I'll cover after the description. The chiller uses four circuits of 1/4 inch soft copper tubing, each coil is about 9' to 10' in length and is coiled like an electric stove burner element, with the exit tube running under the coil (from the inside) to return to the outside of the coil (and support the coil as well) approximately 2" from the inlet tube. I attached these coils to an inlet and exit manifold that was made from a 1" rigid tube, elbowed vertically, with an elbow on top for the hose attachment. This allows several things to work together, in that the manifolds are close together (convenient hand hold), the coils are made to be about 4" smaller in diameter than my brew pot and vertically only take up about 5" of space, so the coils are below the surface of the wort. This allows me to use a gentle side to side motion while the chiller is running, but keep the coils below the surface, and with the manifolds together I can keep the lid mostly on the pot, to keep airborne stuff out. I used 1/4" tubing because the volume to surface area is greater than on 3/8", and it is easier to bend by hand without kinking. The 4-to-1 manifold was made by flattening a short section of 1" rigid tubing so that 4-1/4" tubes would slip fit into the flattened tube, then it was staked with a small chisel between the 1/4 tubes to minimize the gap area needed to be filled with solder.

I had wanted to run some "scientific" type tests against a friend's commercially built chiller to see how fast it is under the same conditions, e.g., start with boiling water, same cold water source, and measure times to drop to certain temperatures, but haven't had much time for that kind of thing lately. (I intend to do so in the near future.) My chiller will take boiling wort down to 60 deg F in less than 10 mins, which if memory serves me is faster than my





The return from the coils drains into another 'T' setup and out a drain hose. I assembled it using a wire tube bender, 1/2" rigid pipe and fittings, lead-free solder and a propane torch. I had to resolder some joints after I pressure tested it. I cleaned it, cleaned it, cleaned it, and boiled it. It seemed to work pretty good. :-) I sorta goofed, I wound the 1st coil one way and the remain three another. It still works. I would suggest using 1/4" tube for tighter coils and less wort displacement. Also, wind all the coils the same way, starting from the outside winding inwards and coming out from the center. I separated the coils with books while I soldered them into the 'T's. Kinda tricky :)

KJ

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Date: Tue, 20 Apr 93 18:32:27 EST  
From: Ulick Stafford <ulick@bizet.helios.nd.edu>  
Subject: Fleishman's yeast, wetting malt

In 1123 js spoke of a beer he made with plated out Fleischman's. A pale bock I made by adding adding a number of cakes to the wort won a ribbon in a competition. In another competition the worst comment was some ale character, high temp fermentation? or dried yeast? Hardly a total disaster. The other judge thought it might be oxidized but he was listed as a novice and the first of 5 judges or so to so judge the beer. Last competition I am entering. It is disgraceful to enter a contest paying someone money to drink your beer and not even getting a qualified judgement. It is about time I wrote AHA a snotty letter. Oops a bit of a sidetrack. Anyway, I suggest that Jack's plated out yeast was one of the contaminent yeasts rather than the predominant one. Fleischmans is not pure culture, but it is probably no worse than good dried yeasts.

Russ Gelinas spoke of a good grind he achieved in a Corona with damp yeast. I read somewhere (a German source, I think) that better grinds can be achieved by soaking the grains for 40 seconds prior to grinding. I guess the reason for this may be that the outside of the husks is lubricated slightly reducing shredding. Wet milling is another commercial technique. I think i'll try misting the grains slightly next time I brew to see if it helps.

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'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@bach.helios.nd.edu

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Date: Tuesday, 20 April 93 21:25:27 CST  
From: LLROW@UTXDP.DP.UTEXAS.EDU  
Subject: Bring the king's taster!

Yesterday I carved a hole in my old fermentation bucket (I now use glass carboys for both stages) in order to fashion a bottling bucket with spigot. I got carried away and ended up with a hole too big to fit the spigot gaskets well enough to keep water from trickling out. Out of desperation and in fear of having to buy a new bucket if I felt like continuing, I closed part of the hole up with a silicon sealant. Does anyone else think this was a bad idea? The sealant does not say that it's food grade, nor does it say anything about the health risks of the cured silicon (only the ropy stuff that stinks of molten horse bones). Will this affect my beer if it's only in contact for 10-20 min as I run it through whilst bottling? Should I peel the silicon off and try larger gaskets?

Steve

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End of HOMEBREW Digest #1124, 04/21/93  
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Date: Tue, 20 Apr 93 21:14 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Dupage County Homebrew Club

There's a new homebrew club forming in the western suburbs of Chicago in Dupage County. The first meeting will be:

Date: Friday, April 30th  
Location: My house  
Time: 8pm

If you plan to attend, contact myself or Todd for the address.

If the weather is accommodating the meeting will be outside so if you're a potato you might want to bring a chair. If it's indoors, those of you who are allergic to cats, beware.

Chris Campanelli akcs.chrisc@vpnet.chi.il.us (708) 833-9059

Todd Williams todd@gold.rtsg.mot.com (708) 971-8692

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Date: Wed, 21 Apr 93 07:41:04 EDT  
From: fingerle@NADC.NAVY.MIL (J. Fingerle)  
Subject: golden ale, dry hopping, fusels

Anthony Johnston writes:

I just wanted to write in after seeing the messages on skimming out of a plastic fermenter. My last batch that I brewed (a "Golden" ale that I placed in a plastic fermenter for the primary fermentation.

Strangely enough, me too.

Anyway after 4 or 5 days I racked to my glass secondary and after a few days I noticed what looked like large spots on the surface of the brew but closer inspection showed them to be composed of tiny bubbles.

Again, strangely enough, me too. Actually a friend pointed out the spots which, as I suspected, were actually clusters of very small bubbles. To me, this is nothing more than the evidence of continued fermentation. I have had them before with no problems.

I popped the airlock off and smelled the brew, but couldn't detect any off odor. I swirled the contents around and the bubbles dissipated, but within a day they were back. It just doesn't look like anything I've ever seen before, and I thought that once the beer was fermenting and alcoholic that it wouldn't support an infection. Has anyone had such a problem before?

Yeah, me, but I'm not so sure its a problem. While the alcohol in the beer will aid in preventing an infection, it is my understanding that it is not an absolute guarantee. As for what you are describing, I'd suggest that your batch is ok.

Other topics:

There's been a lot of talk lately about dry-hopping, hop tea, etc. Are there any guidelines on what quantity of hops to use? A half ounce, an ounce, what?

Regarding the subject of blowoff and/or skimming the krausen foam-I generally rack to the secondary after the vigorous fermentation has slowed, but before the krausen head "de-bubbles" and settles into the beer. What ends up happening is that the siphon removes the beer from the middle of the primary, leaving the sediment (bottom) and krausen (top) behind. Is this sufficient to keep the fusel oils and off flavors of the krausen out of my beer?

And, finally, a personal thanks to Joe Mulligan for the recent recipe. Sorry to waste BW, but mail to him keeps bouncing!

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////////////////////////////////////  
/////  
name: Jimmy I will have a cabinet that  
email: fingerle@NADC.NADC.NAVY.MIL"looks like America."-Bill Clinton  
-or- fingerle@NADC.NAVY.MILHe does-13 of 18 are lawyers! -Jimmy  
////////////////////////////////////  
/////



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Date: Wed, 21 Apr 93 06:05:35 PDT  
From: Brew Your Own 21-Apr-1993 0905 -0400 <ferguson@zendia.enet.dec.com>

**Subject: Wort pots**

re: Chuck coronellrjds@che.utah.edu

I purchased a stainless steel 20 qt (5 gal) pot at Lechmere's (discount department store chain in New England) for \$25.00. SO far, it has worked very good. I tend not to boil much more then 3gal worth in there. This is not one of those heavy-duty resturant types - it is pretty flimsy (read: thin).

Again, it works well, and for \$25.00 for stainless steel, I ain't complainin'!

JC Ferguson  
Digital Equip. Corp.

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Date: Wed, 21 Apr 93 09:49:35 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: **First and Second Runnings**

Noonan's Scotch Ale book has a discussion of "double mashing" and getting both high and low gravity beers from one batch of grain.

Pretty good book, he's a little repetitious in spots, but lots of good info. TONS of recipes!

=S

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Date: Wed, 21 Apr 93 15:22 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: Celis beer gossip

Last night (Tuesday) was the first of three nights of Belgian beer tastings at the Brickskeller; the same program will be offered each night. The program included the Celis line (with Pierre in attendance), the return of Rodenbach Grand Cru, and Timmerman's Framboise, Scaldis, and Saison Dupont. The F. Boon beers were originally scheduled in place of these last three, but they mysteriously disappeared somewhere en route between Belgium and Washington. (Anybody seen Mike Sharp lately?) Anyway, here's some information gleaned from the Celis portion of the program.

General:

- 1) Hops: all the beers use Willamette and Cascade (!) except for the Golden, which uses Saaz.
- 2) Yeast: Pierre uses his own for all but the Golden, which uses a Czech yeast. Yeast is used once and discarded. (This was touted as a purity thing, but I suspect the stuff is hard to work with; I'd heard from a Belgian brewer that the Hoegaarden strain had become infected about two years ago and had been replaced. Also Pierre Celis is obviously a knowledgeable businessman, and undoubtedly realizes the economies that can come from reuse.)
- 3) Packaging: all the beers except the white are filtered.

The beers:

- 1) Golden: a lager. Well, I'll believe it if they say so, but...you sure could have fooled me! This is a very soft beer with a wild-honey character. Don't get me wrong--I like the stuff, but Pierre admitted it was the first lager he'd ever made, and I suspect he doesn't have a German-style lager bone in his body.
- 2) Pale bock. Much to my own discredit, this one had always had me puzzled, as it sure doesn't taste Belgian, or like a bock beer either. It turns out to be a....pale ale. Actually, once this was mentioned it made immediate sense--has British-style hopping, good crystal malt color, and caramel flavor. Let it go flat and it could pass for a glass of Evrard's. The story (subject to reality checks as mentioned below) is that a beer can't be called an ale in Texas unless it is a minimum of 5% ABV. This one is just below that, so they called it something else.
- 3) The white: Before the tasting I had a bottle of Dentergems white, and was patting my back for doing so well with my own white clone. Then we had the fresh, kegged Celis white, and it was like when they go from black and white to color in the Wizard of Oz. Back to the drawing board. Yet more proof, if any is needed, that fresh kegs from a good brewery are unbeatable, while old bottles from a good brewery most certainly are. The first thing I'll do, too, is to triple the coriander. They use a blend of various orange peels--brewable details were not forthcoming.
- 4) Grand Cru: No special information was offered.

Pierre is quite talkative, although his English is more

functional than fluent, and very friendly. He does speak French as well as Flemish, so anybody out there who wants to practice can get a workout. We conjugated verbs together during the break.

All said, I'm pretty sure that some of the information we received had been tailored, embroidered, omitted, or spin doctored for public distribution. Nothing malicious, but perhaps devious in a sporting way. For instance, they went into great detail about the dangers of autolysis, which seems to me to be an excuse for filtering beers that were never filtered back in Belgium. There was the bit about the yeast, and they also went on and on about "Why Austin"? Explanations included the sunshine, the water, central location, location of his previous importer (who is now director of marketing at Celis). Well, all this is probably true, but Pierre's also pretty conservative, real entrepreneurial with a strong work ethic, and would probably fit into Texas without too much trouble. He thinks Europe doesn't have much of a future (he may be right), and prefers a place where people get rewarded for hard work. At any rate, he seems to be settling into the U.S. quite comfortably.

Those familiar with Celis' partnership problems and the Interbrew buyout will be pleased to hear that the new brewery was financed with the buyout proceeds and that there appear to be no pesky partners on the horizon.

Phil Seitz  
PSEITZ@MCIMAIL.COM

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Date: 21 Apr 1993 09:40:21 -0600 (CST)  
From: Robert Schultz <SCHULTZ@admin2.usask.ca>  
Subject: Re: Immersion Chillers

I made my chiller out of 1/8" id copper tubing (it was the right price - \$4.00 for ~ 20'). I made a couple of connectors to attach it to a garden hose.

It works great, ~30 minutes to take boiling wort to pitching: could have used a few more feet of tubing... cold water in at the top of the helix to aid in convection...but I still stir it around a fair bit...

Rob.

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Date: Wed, 21 Apr 1993 10:41:55 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Chiller Thread in Archives

The response to the thread from last year on wort chillers was (nearly) overwhelming. The file is now available via FTP as

/pub/homebrew/docs/wortchillers.Z on Sierra.Stanford.EDU.

Many thanks to Stephen Hansen for all the good work he has done for the archives.

The current discussion on parallel tube immersion chillers shows that people have been doing some good thinkin', workin' and drinkin' since last August. I'm looking forward to hearing Bob and Micah at Portland. In the meantime...

Paul.

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Date: Wed, 21 Apr 93 10:54:15 EDT  
From: lconrad@poincare.Prime.COM (Laura Conrad)  
Subject: whitbread warning

Donald O'Connor writes:

> Date: Thu, 15 Apr 93  
> From: oconnor@ccwf.cc.utexas.edu (donald oconnor)  
> Subject: whitbread warning, part 3

> There seems to be some confusion regarding the availability of the new  
> Whitbread dry yeast. George Fix mistakenly believes Crosby and Baker  
is  
> presently distributing the new Whitbread to homebrew shops. They are  
> not but hope to make it available in 2 or 3 months.

If this is true, what's the stuff I've been buying in The Modern  
Brewer, Cambridge, Mass?

It wasn't there for a few months, and then about the time the net  
started talking about the new stuff being available, it was back, so I  
assumed it was the new stuff.

Laura

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Date: Wed, 21 Apr 93 12:16:35 -0600  
From: coronell@cadesm35.eng.utah.edu (Charles Coronella)  
Subject: anodizing my cheap aluminum pot?

I gotta question for all you metallurgy type folks out there. Can I get my cheap aluminum pot anodized? A friend of mine, a metallurgist, says probably, (what a help). She says that many aluminum pots sold in the US are already anodized, and that local shops can do it for a price, but at what price, she didn't know. Also, there are apparently different types of anodizing, and I'm guessing that some would be less toxic than others. Bob Konigsberg, bobk@NSD.3Com.COM, called a local anodizing shop that told him no way, too dangerous, FDA won't permit it. So my specific questions are these:

- 1) Is there a nontoxic (and legal) method of anodizing my cheap Al pot?
- 2) Can I get it done cheaply, and at what kind of shop?
- 3) Can I expect that an anodized pot to keep its durability for a long while?

BTW, thanks to everyone who suggested places that sell cheap SS pots. Looks like I could get a 32 qt SS pot for ~ \$100.

Chuck

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Date: 21 Apr 93 07:05:26 EDT  
From: CHUCKM@PBN73.Prime.COM  
Subject: SS Pot and Propane Cooker

Hi everyone,

Here's something I thought I'd pass along.

I was at Pace Warehouse this past saturday. They had an outdoor cooker for sale which looked perfect for brewing. It is in the same line as a Cajun Cooker except the stand is about 3 feet high. Also, it comes with a 6 gallon Stainless Steel pot with strainer basket. Price was \$85. All you need supply is the propane tank. The stand looked strong enough to hold the weight of 6 gallons. Hopefully it is since a 6 gallon pot comes with it. Is anyone else using one of these?

Chuckm

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Date: 21 Apr 93 10:44:32 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
**Subject: Yeast Propagation**

Message Creation Date was at 21-APR-1993 15:42:00

Greetings,

I was recently told that the yeast used in Seirra Nevada Pale ale is identical to Wyeast 1056. Is there any thruth to this?

Also, I was told that Chimay uses only one type of yeast for a given beer. Supposedly, they do not bottle ferment with a different yeast strain. If this is true, I'll attempt to make a Chimay yeast culture. I'd just like to know if I'm wasting my time, or if I'll get the right yeast.

Thanks,

Andy A

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Date: Wed, 21 Apr 93 16:06:57 EDT  
From: "Mark Rich-mpr8a@acadvm1.uottawa.ca" <MPR8A@acadvm1.uottawa.ca>  
Subject: Stinky yeast

Hello hb-ers...

Last weekend, my brew partner and I mixed up an extract recipe as follows..

500g crystal(crushed), 250g choc-malt(crushed), 1kg clover honey, 2kg light-dry-malt, 1kg dark-dry malt, 100 g halertau hops, 2 pkgs edme dry ale-yeast (rehydrated in water 30 min before pitch). We use full boil, and cool in the bathtub with ice-water in a ss 10 gal pot. The resulting wort had an og of 1.078 !! (yikes). Anyhow here's the thing the yeast in the warm water REALLY smelled, BIG TIME! Being our first experience with Edme... in it went. The Brew took off like crazy about 4 hours later, and just slowed down this am. Still has that smell though... Should I worry???

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Date: Wed, 21 Apr 1993 16:36 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Honey Beer Recipe

A while ago someone asked about recipes for honey beers. This is a bit tardy, but perhaps people will find this of interest.

"La Souriciere" Belgian-style Wheat and Honey Ale

2.5 kg hard red wheat (husked) crushed and put into 12 L of water with 1.5 tsp of gypsum. Heated to boil over 1 hour with stirring.

1 kg malted wheat (British)  
4 kg 6-row pale malted barley (N. American)  
0.5 kg Munich malt  
0.335 kg Ireks crystal malt

All ground together, put in mash tun. The hot wheat/water was added along with 5 L warm tapwater, mash stabilized at 65C. Mash continued for 3.25 hours until iodine test showed starch conversion complete. Decoctions removed periodically to maintain mash temperature. Mashout by decoction to 83C for 30 min.

Sparged with water at 78-82C to a effluent gravity of 1.010.

Added 500 g buckwheat honey to the boiling pot.

1 oz Saaz plugs (90 min)  
1 oz Saaz plugs (60 min)  
.5 oz Hallertau flowers (30 min)  
2 g coriander seed (15 min)  
Irish moss (15 min)

Pitched Wyeast 1214 Belgian Ale starter. OG 1.077 in 21 L of wort. Fermented at 23C 4 days, racked to secondary. Continued fermentation at 23C. It was necessary to re-pitch active Wyeast 1214 after 1.5 months and again after 2.5 months to obtain complete fermentation. FG 1.021. Primed with 2/3 cup glucose.

COMMENTS: The hopping schedule doesn't really make much sense, and in retrospect, I would not add the hops so soon. The brew is perhaps a bit too bitter for the style, and not aromatic enough. I would have preferred to use Styrian Goldings rather than Hallertau. The honey character required the long fermentation and aging to smooth out, but the buckwheat gives a rich smooth taste to the brew. This stuff is potent, and seems to have an effect beyond what one would expect from the alcohol content. The re-pitching is probably due to inadequate aeration in the primary, but active fermentation was obtained after each addition.

Anyhow, hope this is of interest to the honey/wheat beer fans out there. P.

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Date: Wed, 21 Apr 93 13:58:58 PDT  
From: tooch@auspex.com (Michael J. Tuciarone)  
Subject: Re: Infection in Plastic Primary

"Anthony Johnston" <anthony@chemsun.chem.umn.edu> writes:

> I popped the airlock off and smelled the  
> brew, but couldn't detect any off odor. I swirled the contents around  
> and the bubbles dissipated, but within a day they were back. It just  
> doesn't look like anything I've ever seen before, and I thought that  
> once the beer was fermenting and alcoholic that it wouldn't support an  
> infection. Has anyone had such a problem before?

There are plenty of strains of bacteria, mold, and yeast that can and will live in fully-fermented beer. This is a prime cause of the infamous "bottle gushers" since bacteria or wild yeast keep eating (so-called) unfermentable sugars after the lager or ale yeast has given out, producing more CO<sub>2</sub>, resulting in pfft when you open the bottle.

HOWEVER,

this does not necessarily mean your beer is infected. You've sniffed it: that's a good first test. Now sterilize a glass turkey baster and draw off a couple ounces of beer, and taste it. Does it taste OK? Then at this point it *is* OK.

Keep an eye on it, especially after you bottle. Prime it lightly, and sample it after a week and every few days thereafter. If it shows signs of gushing then you have to decide what to do. If at any point it starts tasting bad, then you've definitely got a bad batch.

Until then, relax.

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Mike Tuciarone  
Auspex Systems, Santa Clara, CA 94043; 408-492-0900 vox -0566 fax  
Y'all wanna get this party started *\*quickly\**

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Date: Wed, 21 Apr 1993 15:08:25  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Dry Hop Sterilization, SS Pots, Temp. Controllers

Bob Santore asks:

>Anyone out there have a way of sanitizing hops without destroying the  
>aroma?

Firstly, I doubt that the hops were the source of the contamination, assuming they were handled correctly. There has been some published research done at UC Davis that showed there was no contamination risk from dry hopping, and beers such as Liberty Ale and Sam Adams Lager (both dry hopped) would have infection problems.

Anyway, if you are really concerned and want to "sterilize" the hops first without destroying the aroma and/or putting something nasty in your beer, I would suggest soaking them for a few minutes in some Everclear or 100 proof vodka. Strain the alcohol, or add it, your choice. If you strain, don't throw it away. It makes a tasty drink on ice, cut with some water.

Chuck Coronella asks about a source for cheap SS pots. High grade Vollrath SS pots (with aluminum clad bottoms) are available from Superior Products, a restaurant supply, for \$90 plus \$24.50 for the lid for the 38 qt model. 24 qt is \$69 plus \$18.50. Superior is nation-wide. 800-328-9800 for a catalog and the location near you. They also have the best prices on CO2 regulators (\$37 for twin gauge, \$30.50 for single) and other beer stuff like thick wall beer line, taps, etc.

Andy asks about a source for temperature controllers. I am using the Hunter Air-Stat that homebrew suppliers sell from \$30 up. I got mine at the local hardware super store (Home Base, but Home Depot also has 'em) for \$19.50.

Mark Garetz

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Date: Wed, 21 Apr 93 21:45 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Stirring and Cakes

>From: "Bob Jones" <bjones@novax.llnl.gov>

>In the last digest Richard Childers suggested an immersion chiller that might be stirred and parallel cooling chillers....

One of the most significant advantages of the immersion chiller is that by the time the wort is chilled, the trub has settled out and is left behind when the wort is run off.

Why on earth would you want to keep it all stirred up? You will either have to wait the additional time to settle after chilling or run the trub out into the fermenter. It will take some heavy science to convince me that chilling in 10 minutes vs 20 minutes will have a detectable effect on the end product.

>From: Ulick Stafford <ulick@bizet.helios.nd.edu>  
>Subject: Fleishman's yeast

>In 1123 js spoke of a beer he made with plated out Fleischman's. A pale bock I made by adding adding a number of cakes to the wort won a ribbon in a competition.

Two comments here. First of all, putting cakes in beer seems a bit of a reach and if the judge happend to be a chocolate freak... but then, you didn't really tell us what kind of cakes they were.

> Last competition I am entering. It is disgraceful to enter a contest paying someone money to drink your beer and not even getting a qualified judgement.

You should stick to cake beer. Everybody knows what good cake tastes like.

>Anyway, I suggest that Jack's plated out yeast was one of the contaminant yeasts rather than the predominant one.

The procedure I use makes that very unlikely but I will not deny the possibility. However, it seems far more likely that your success with cakes was based on such a fluke.

>Fleischmans is not pure culture, but it is probably no worse than good dried yeasts.



I am not sure how you can know that with such certainty. I would concede that it is probably no worse than dried Red Star but I already stated that.

The preponderance of evidence is that good dry yeast makes good beer far more often than not and possibly always for many. The small sample of inputs from those intrepid experimenters who have tried bread yeast, is exactly the opposite.

Finally, I make no claims for all bread yeast nor for "cakes". The yeast I used was from a small packet of Fleischman's dried baker's yeast. It was pure cultured to assure that the dominant yeast was cultured and bacteria left behind.

Those who have been around here for awhile, no doubt note that even old cranks can learn new tricks. I have always been a firm believer in the notion that when lightning strikes 3 or 4 times, it's time to rethink my position.

js

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Date: Wed, 21 Apr 93 21:20:55 PDT  
From: "Joe Stone" <JSTONE@SJEVM5.VNET.IBM.COM>  
Subject: Stirred Immersion Chiller

Speaking of home-grown, hair-brained ideas, I have had an ice cream maker motor and paddle sitting on my workbench for three months. The ice cream maker is of the plastic bucket variety. The motor is actually intended to turn an aluminum can of cream surrounded by ice in the plastic bucket. The plastic paddle is intended to remain stationary and the aluminum can turns around it. The hair-brained idea was to attach the paddle to the motor so that it would turn inside my double-helix immersion chiller. As I said, the parts are still sitting on my workbench, but all this chiller talk has got me fired up ...

Maybe I'll get to it this weekend, wife permitting.

Joe

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End of HOMEBREW Digest #1125, 04/22/93  
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Date: Thu, 22 Apr 93 10:27:24 -0400  
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>  
Subject: RE: Stinky Yeast

In HBD 1125, Mark Rich writes:

> 1.078 !! (yikes). Anyhow here's the thing the yeast in the warm water  
REALLY  
> smelled, BIG TIME! Being our first experience with Edme... in it went.  
The

I have brewed several batches with Edme dry ale yeast. My notes describe  
all of these batches as stinky. The sediment in the primary smelled of  
vomit. However, the smell was not evident in the final beer.

Bob Santore  
rsantore@mailbox.syr.edu

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Date: Thu, 22 Apr 93 10:41:01 -0400  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: Wyeast 1214

Just a Wyeast data point: I cracked a packet of Belgian (1214) last week that was dated September 30, 1992. That means 6.5 months old. Within 48 hours, it was fully puffed and I made a happy, healthy starter which I pitched about 40 hours later. The beer is bubbling merrily as I write.

Admittedly, I bought the yeast 4 days old, brought it straight home and kept it in the fridge throughout the whole period. Nevertheless, I'm pretty impressed at the keeping properties of this stuff.

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Date: Thu, 22 Apr 93 10:56:40 -0400  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: End of the season looming

It's a typical spring day on Long Island (mild and rainy) and I'm already contemplating the end of the brewing season :-( :-( :-(

A Belgian dubbel will occupy the secondary for a few weeks and a late-May trip out of town makes it hard to schedule another batch before the hot days of June-July-August. With neither a basement nor AC, it's hard to brew anything except possibly high-temperature Belgian-style stuff. Has anybody had any REAL success brewing quality ale using the "wet t-shirt" method when the ambient is above 80F? (Disclaimer: this is not a sexist joke. The idea is to place a carboy in a shallow pan of water and drape a t-shirt on it. The shirt acts as a wick, drawing up water. The water evaporates, alledgedly cooling the carboy to ale temperatures.)

Looking back over a successful season (11 5-gallon batches plus a 2-gallon barley wine and various apple and honey potions) my major regret is that so many good bottles of beer aged past their prime. I don't drink fast enough!!! I don't want to increase my alcohol consumption. Brewing a 3-gallon batch is just as much work as a 5-gallon batch. If I brewed less frequently, I would suffer from decreased variety. Perhaps the answer is to get find a brewing partner, so that I get only a case or so from each brew and cut the work down accordingly.

Any other recommendations? Any thoughts as to whether the HBD is a suitable forum to post a "personal ad" sseeking a brewing partner?

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Date: Thu, 22 Apr 93 08:15:02 PDT  
From: tima@wv.MENTORG.COM (Tim Anderson)  
Subject: Beer with body

Last night, as I was drinking one of the last few bottles of my "Mincemeat" Christmas beer, I was thinking how it really belonged in a crust with a scoop of vanilla ice cream. This got me to thinking about various ways this could be accomplished. One idea was to make beer jello. Another is to use a bunch of apples in the brew, go ahead and boil 'em and let the pectin set.

In the particular beer I was drinking, the recipe was based on a mincemeat recipe in The Joy of Cooking, but I left the apples out because of the pectin. Perhaps I should have left them in.

Anyway, I had a packet of Knox unflavored gelatin, so I made a cup of beer jello. I didn't want to waste a cup of precious homebrew, so I opened a bottle of Rogue Ale I had in the fridge. I just followed the microwave directions on the packet, substituting beer for fruit juice. (The microwave method has you warm a quarter of the "juice" and use the rest cold. I don't think I lost any alcohol at all). The result was less disgusting than I expected. In fact, I'm convinced that in the hands of a trained professional, good things could be done with this. I was thinking of adding, in place of the traditional sliced bananas and fruit cocktail, maybe sliced polish sausage, pretzels and pickled eggs?

Back to the pectin, would gelatinized wort ferment ok? Would the consistency prevent fermentation? Would fermentation prevent gelling? I can picture a magma-like glob working its way up the blowoff tube. I suppose bottling would be out of the question. Maybe wide-mouth canning jars. Then you could serve it with an ice cream scoop.

On a related note: Since apple cider is just apple juice allowed to ferment, and apple jelly is just (sweetened) boiled apple juice allowed to set, why not hard cider jelly? Boil, chill, pitch yeast, spread on toast.

tim  
"I'll have another slice of beer, please."

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Date: 23 Apr 1993 00:05:41 -0600

From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>

Subject: Yeast and Tin

Like others, I have some equipment with (lead-free) soldered joints. A comment made by Randy Mosher in the recent Zymurgy gadget special indicated that there is a potential problem with tin and yeast. Being new to this forum, I don't know if this issue has been resolved or not, but a quick calculation tells me that it takes 2.6 cubic millimeters (mm<sup>3</sup>) of tin to give 1 ppm in 5 gallons. My trusty counterflow wort chiller has two joints (3/8" copper tube) in the wort flow path, each of which I estimate used 16 mm<sup>3</sup> of solder. It seems that if even 1 ppm of tin were being dissolved into the wort, the device would soon fall apart. It hasn't. I am interested in finding out just how toxic tin is to yeast. Does anybody have any documented info on the concentration level which would adversely affect yeast performance?  
Martin Manning

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Date: Thu, 22 Apr 1993 13:55:59 -0400 (EDT)  
From: Mark Wells Wilson <mw4w+@andrew.cmu.edu>  
Subject: soda keg prices

Just wondering: How much do other homebrewers usually pay for soda kegs?

Mark

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Date: Thu, 22 Apr 93 13:34 CDT  
From: korz@iepubj.att.com  
Subject: Parallel immersion chillers

Guess I'll have to build myself a parallel immersion chiller...  
... just to keep up with the Joneses ;^).

Sorry, I couldn't resist.

But seriously, I've got a 50-foot, 1/4" OD immersion chiller (about  
1/4 of which is not even in the wort on a 5 gallon batch) and it  
cools my boiling wort to 70F in about 15 minutes. All this math  
and physics may indeed give me a chiller that is 20% more efficient,  
but all that means is that it will cut my 15 minutes down to 12 minutes.  
Is it really worth it? Let's not lose touch with reality, eh?

Al.

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Date: Thu Apr 22 12:01:34 PDT 1993  
From: sslovac@atss.calstatela.edu  
Subject: Carbonation w/ Dry Ice (February 24, 1993)

#### Carbonation with Dry Ice

Carbonation with dry ice can be done - we did it for years when I lived in Ithaca and had a ready supply. However, we used CO\*2 tank, removed the valve, broke the ice into smaller pieces, filled the tank about 1/4 full, recapped and connected tubes to the regulator. It worked fine and never imparted an off taste. Of course, we were carbonating kegs of beer, not bottles, but if you have a keggng system then you can buy (or make) a counter pressure bottle filler for \$15 - \$20 to bottle carbonated beer from the keg.

Concerning the proposal to use pieces of dry ice in each bottle, I would worry about the potential for explosion and wildly fluctuating pressure in the bottles owing to the expansion ratio of CO\*2 ice to gas: I seem to remember that water is roughly 1:17,000 so CO\*2 can't be too far away. So I don't recommend trying individual bottling with dry ice, unless you can safely and precisely experiment with measured amounts of (probably tiny) chips. Also, individual bottle carbonation is highly labor intensive - much like priming each bottle with a 1/2 tsp of sugar.

sslovac@atss.calstatela.edu ;^)

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Date: Thu, 22 Apr 1993 16:45:53 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: 5 litre kegs and N2O

I recently purchased a tap for 5 litre cans operated by those little N2O cannisters you can use to make whipped cream (among other uses). This little device is mighty keen, but I have already run out of N2O. Does anybody know where I could purchase these little things at a decent price? I currently live in Pittsburgh, but I'd be willing to mail-order.

I love the 5 litre keg thing, it is great! A very convenient size, and easy to use. If anyone else is interested in trying this, Randy at Brew Ha-Ha will sell you everything you need to keg and tap 5 gal batches for 40\$, or just the tap for \$20. Email me for his address (I don't have it with me)

Also, here's a question: I noticed in the instructions he gave me that the kegs are lined with plastic and they explicitly state that chlorine should not come in contact with it. I have been brewing for over a year and have never used anything other than chlorine and use it to sanitize my plastic bottling bucket. Is this just a cheap pitch to sell more b-brite, or is there a good reason behind this?

-steve

Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Thu, 22 Apr 93 16:01:19 PDT  
From: RDG3%SysEng%D CPP@cts27.cs.pge.com  
Subject: CA Festival of Beers Reply

For advance tickets for the California Festival of Beers, held in San Luis Obispo, Ca. you can send your request (and check) to:

Hospice of San Luis Obispo  
1432 Higuera  
San Luis Obispo, CA 93401

The tickets are cheaper if you buy them in advance, \$22.50. The Festival is a fund raiser for the Hospice and if you have any questions you can call them at (805) 544-2266.

Here's to the Irish .....

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Date: Thu, 22 Apr 93 16:30:43 PDT  
From: rush@xanadu.11nl.gov (Alan Edwards)  
Subject: Growing Hops Horizontally

#### GROWING HOPS

Last year, when I started growing hops, I mentioned my setup and that I would give a report on how it worked.

I grow the hops up 8 feet, then horizontally about 16 feet. My setup works really well. I run the vines up some nylon twine to a galvanized steel wire, that is stretched across two posts, and then across to the eaves of my house.

The first year, only two varieties made it most of the way across to my house, for a total of about 20 feet--Chinook and Nugget. This year, I expect more growth, and may even find some of the vines wanting more line. As I write, three of the varieties have already reached 8 feet.

You only need to twist the new growth around the horizontal part of the twine about every couple of days. It's not that big of a deal to get them to grow horizontally. And it makes picking MUCH easier. I don't need to take the vine down OR use a ladder; I usually stand on a chair-- a step-ladder will do nicely.

#### DETAILS

- I have seven hop plants of different varieties about 3.5 feet apart. The whole garden is about 24 feet by three feet.
- The garden is along my North fence, for maximum sun.
- Two 8 foot 2x4's are nailed to the wooden fence (at the corner and at a 4x4 post, for support), with a galvanized steel wire stretched across the tops (with a turnbuckle for tightening).
- Nylon twine is hung from the steel wire and staked into the ground near the hops. I would advise against using jute (natural fiber) twine. I used jute twine last year and after weathering, some of them snapped. Also, they stretch out over time, requiring retightening every so often (plan for this).
- The horizontal twines are tied to the steel wire and fastened to the eaves of the roof with screw-eyes.
- Some vines are not aligned with the house. And in those cases, the twine goes to a second steel wire stretched between the North-East corner of the house and an 8 foot 2x4 attached to the East fence. That wire forms an extension to the North side of the roof, where the other twines are attached.
- The garden is fenced in with a simple 2x4 frame and some chicken wire. If you have pets, you must fence it off. Don't trust your dog. I did two years ago, and he wrecked the garden. I had to start all over again.

#### CHANGES

This year, instead of training three vines from each plant up one twine, I am training four vines from each plant up TWO twines. All twines are equally spaced. This gives the appearance of having twice as many vines and should make harvesting much easier. Last year's crop got pretty bushy and hard to pick on the more prolific varieties. I also hope that the horizontal part will create some nice shade on my back yard, since



the vines will be 1.75 feet apart. I seriously doubt that they will grow together and cause me to misidentify the varieties. I also expect a bigger harvest from this configuration, since I can let more vines grow without worrying about clutter.

#### GROWING TIPS

Keep new shoots pruned until you see hop cones, then let a couple of vines emerge and wind around the existing vines. You'll have another harvest a few weeks after the first. Keep doing this and you can have several harvests in one season.

If you have some varieties that aren't doing too well (less than 6 vines emerge), go ahead and train them all--it may be your only chance. I had a pretty poor first harvest from my Willamette and Mount Hood last year. Tettnanger didn't do too well either. Some varieties just don't do as well as others. If you are growing Nugget, Cascades or Chinook, expect to trim them regularly. They grow very well. If you don't keep cutting shoots, things can get hairy quickly. The same goes for the long runners that you get coming out of the sides of the vine. Also, if you have the choice, put the least prolific varieties in the part of the garden that gets the most sun--they need all the help they can get.

If at all possible, water the hops with some kind of automatic system. They need much water, and often. I've got mine on a timer that waters them twice a day.

Good luck, and most of all HAVE FUN!

-Alan

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| Alan Edwards: rush@xanadu.llnl.gov | Member: The Hoppy Cappers  
| or: Alan-Edwards@llnl.gov | homebrew club, Modesto, CA  
|-----

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Date: Thu, 22 Apr 1993 20:17:50 -0400 (EDT)

From: "CURLEY::SOLVIBILEB"@JOE.ALB.EDU

Subject: CHIMAY YEAST

THERE IS ACTIVE YEAST IN THE CHIMAY BOTTLES. WE FILTERED IT OUT AND ATTEMPTED TO CULTURE IT. WE THOUGHT WE WERE SUCCESSFUL, BUT OUR BEER WAS NO CHIMAY. I THINK GOD MUST SAVE THE GOOD BEER FOR THE MUNKS. THERE IS A "BEER HUNTER" EPISODE THAT FEATURES CHIMAY. MAYBE YOU SHOULD CHECK IT OUT.

GOOD HEALTH AND GOOD BEER,  
BILL SOLVIBILE

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Date: Thu, 22 Apr 93 20:40 EDT  
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)  
Subject: New version of THREAD program for searching HBD

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Announcing Version 2.1 of THREAD for MS-DOS computers, by Tom Kaltenbach  
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I've just completed a new version of my THREAD program, which is designed to search the back issues of the Homebrew Digest and extract those messages that follow a certain "thread" of conversation. The new version is a much-enhanced program, now faster (w/multitasking!), neater, and easier to use. This program, like earlier versions, is released to the public domain: no licensing fees or donations are required. The only restriction is that the program may not be sold or otherwise used for commercial purposes.

THREAD searches for conversation threads by extracting all messages that contain specified key words; as a consequence, the program also functions as a general subject-searching program. For example, if you wanted to search for all messages related to kegging, you might use "kegging" as a key word. Logical combinations are also possible; for example, if you wanted all of the references to Jack Schmidling's MALT MILL, you could search for "malt" AND "mill" NOT "miller" (the NOT "miller" excludes the many references to Dave Miller's books). The key words are not limited to a single word, for example, you can search for messages mentioning "dave miller" OR "dave line". Up to 10 key word specifiers are allowed. Each matching message is displayed, with all key words highlighted, for the user to view, save, skip, etc. An automatic mode allows non-interactive searches to be performed.

THREAD operates on IBM PC or compatible 8088/80286/80386/80486 microcomputers running MS-DOS, so it does require that the digests are stored as ASCII text files in a directory on the PC hard disk. The program has been uploaded to the archives at sierra.stanford.edu, where it can be found in the /pub/homebrew directory. The files are as follows:

|              |                                                          |
|--------------|----------------------------------------------------------|
| thread21.exe | ver 2.1 binary file, MS-DOS program executable           |
| thread21.pas | ver 2.1 source code, written in Turbo Pascal 5.5/6.0     |
| thread21.uue | uencoded version of thread21.exe, for those without ftp  |
| thread21.xxe | xxencoded version of thread21.exe, for those without ftp |
| thread21.doc | documentation and program description                    |
| thread21.new | list of new features and enhancements in version 2.1     |

NOTE: the "thread21.exe" file is a binary file and cannot be requested using the listserver. The uencoded and xxencoded versions are included for use with the listserv archive server, which sends files via mail. The uencoding format is more popular, but fails with some IBM mainframe mail nodes. Xxencoding is required in these cases. An xxencode/decode program for MS-DOS computers is available from the Sintel-20 archives.

A note to those not using MS-DOS: version 2.1 of THREAD is highly customized for MS-DOS computers. Consequently, version 2.1 probably will

not be translated to "C" for porting to other platforms. I recommend that any non-DOS users of THREAD version 1.2 continue to use that version, which, for the most part, is functionally equivalent to the new version.

Any comments, questions, or suggestions can be sent to me at the email address below.

Tom Kaltenbach      Upstate New York Homebrewers Association  
tom@kalten.bach1.sai.com      Rochester, New York USA

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Date: Thu, 22 Apr 1993 20:31 PST  
From: CIS309137@axe.humboldt.edu  
Subject: Un-suscribe

Please remove me from the homebrew digest list

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End of HOMEBREW Digest #1126, 04/23/93  
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Date: Fri, 23 Apr 93 8:34:08 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: Bully Porter

I recently had the opportunity to have some Boulevard Brewing (Kansas City) Bully Porter delivered to me (thanks Ken.) In response to a recent review, I decided to see if the metallic taste John Fitzgerald found was evident in this six pack. The review follows but to sum it up. I tasted no metallic taste. Very Clean. Anyone know what yeast they use?

Bully Porter from Boulevard Brewing  
-----

Aroma: Roasted Barley or Black Patent  
Hints of Chocolate Malt  
No hop aroma

Flavor: Hops not identifiable  
Dry Finish

Color: A bit dark but would fit the Robust  
Porter style (AHA).

Carbonation: Appropriate

Body: A little thin for the style. (American or English)

Overall: AHA "Robust Porter" w/o the body.  
It is a bit too dry to be a porter, it resembles a dry stout with some of the roasted barley removed and the body taken away.  
Not an English Porter, it lacks the complexity and "fruitiness."  
An American Porter (though not smooth like Anchor.)  
A nice drinkable beer overall. (I like dry stouts.)

Notes: Expiration Notch on the Label (May)  
There was no metallic taste as John Fitzgerald reported.  
Many thanks to Ken Schmidt for delivering from Kansas City to the Alabama beer wasteland.

Glenn Raudins  
raudins@galt.b17d.ingr.com  
  
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Date: Fri, 23 Apr 93 09:47:26 EDT  
From: weir@cbmvax.cbm.commodore.com (Robert Weir - Manuals)  
Subject: Removal

Please remove me from the homebrew list. I'm changing jobs and no longer will have net access. Thanks for running the list. Great service.

RSW  
weir@cbmvax.cbm.commodore.com

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Date: 23 Apr 1993 09:04:48 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.edu>  
Subject: King Kooker

Subject: King Kooker Time:9:00 AMDate:4/23/93  
Any one with Costco access that is in the market for a propane driven  
burner,  
come on down! \$48.00 for the 3' high 120,000 btu stand with regulator.  
You even  
get a pot which you can use for heating water (its aluminum). Looks like  
a good  
deal. It might require some modification to support a sawn-off keg.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: 23 Apr 1993 08:51:32 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.edu>  
Subject: California to Portland Trai

Subject: California to Portland TrainTime:8:49 AMDate:4/23/93  
Anyone interested in information on the California Crazy Train to the AHA  
conference please e-mail me directly.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Fri, 23 Apr 93 16:05:09 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 23-Apr-1993 1557  
<macneal@pate.enet.dec.com>

**Subject: Wort Pots**

What is this fascination for using stainless steel pots to boil wort in?  
It seems obvious to me that the way to save about \$100 on a boiling pot  
is  
to pick up a brand new enameled steel canning pot. I've seen them for  
around  
\$30.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Fri, 23 Apr 93 14:03:29 MDT  
From: pyle@intellistor.com (Norm Pyle)  
Subject: **Brewing Partners**

Rob Bradley asks if the hbd is a suitable place to seek brewing partners.  
I  
can't think of a better place. Your plans to use it to "keep up the  
variety"  
are quite good, too. I live in Longmont, CO and the idea of a brewing  
partner for those all-grain batches is a good one. I'd bet my wife would  
like it too, if it got me out of the kitchen faster. Any takers?

Cheers,  
Norm

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Date: Fri, 23 Apr 93 11:44:59 PDT  
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)  
Subject: direction of hop vine climb

I am growing three kinds of hops in my Southern California backyard, and they are all doing the same thing: climbing the stake \*clockwise\*.

I have planted my hops, initially, in planters, and this is their first year. The pots are dead center in my yard. I put a stake by each plant, and let the plant figure out which way it wanted to climb, rather than trying to train it. They all found the stake, and they all climbed it the same way.

So, I'd have to say that training them to go up a stake counterclockwise might be a challenge. Two points of reference: These are Cascade, Willamette and Nugget, with the Nugget being the real eager beavers; and the viewpoint for observing the direction of wrap on the stake is looking down from the top of it.

Garrett Hildebrand

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Date: Fri, 23 Apr 93 17:43 EDT  
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)  
Subject: Clarification of THREAD v2.1 announcement

Just a small correction to my last post, which announced that THREAD v2.1 was available for download via anonymous ftp from sierra.stanford.edu. The actual directory that thread is located in is "pub/homebrew/programs/thread", not "pub/homebrew" as I indicated in the post. The portable C version of the old (v1.2) THREAD source code will also be available in this directory.

Any comments, questions, or suggestions can be sent to me at the email address below.

Tom Kaltenbach      Upstate New York Homebrewers Association  
tom@kalten.bach1.sai.com      Rochester, New York USA

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End of HOMEBREW Digest #1127, 04/26/93  
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Date: Mon, 26 Apr 1993 07:17:43 -0400  
From: Paul Andrews <PANDREWS@hpb.hwc.ca>  
Subject: Foam and kegging problem

hi,  
I finally got a good price on a 50L keg equipped with gauges and tubing and a 16 Lb CO2 tank...Ok.great I thought. but being a bit naive about this I just forged ahead. I brewed up 23 L of my favourite pilsner to try it out.  
I racked it over to a secondary , clarified and siphoned into the keg after about 18 days. I pressurized to 50psi (at room temp).. let sit overnight.. (it went down to about 30 psi) after 16-18hours. I decided to see what it tasted/looked like the next day. Ugh.. most foam and very little carbonation.  
Ok.. I dropped the pressure to about 10 psi.. and kept this head pressure with the CO2.. same thing.. hmm.. maybe chill it.. Dropped the tank in my laundry tub and filled it with ice.:result not much better.. ALthough drinkable, There was a GREAT deal of foam.. and little carbonation. (very small bubble). Well I persevered and just filled pitchers with it.. drank it that way.  
Ok. I'm checking with some friends who have more experience to see what I did wrong. but I appreciate any comments from experienced keggers. The keg is 50L stainless with 1/4" copper tubing dip tube and 1/4" "tapping tube, both silver soldered into a stainless steel plug in the top of the keg.  
Any help.. or tell me what I did wrong?. I'm dying to have my first keg party.

Paul Andrews: Health and Welfare Canada, Ottawa, Ontario, Canada  
pandrews@hpb.hwc.ca

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Date: Mon, 26 Apr 93 08:48:03 EST  
From: thutt <thutt@MAIL.CASI.NASA.GOV>  
Subject: Clockwise?

> mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand) noted the following:  
>  
> I am growing three kinds of hops in my Southern California backyard,  
> and they are all doing the same thing: climbing the stake \*clockwise\*.

Must be the coriolis effect! :-)

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Date: Mon, 26 Apr 1993 11:07:41 CDT  
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>  
**Subject: Fascination with Stainless**

Either stainless steel or enameled steel can be used satisfactorily for brewing. Aluminum is the big no-no.

The reason for preferring stainless is simple durability. If you ding an enameled pot, the enamel chips off, and if that happens on the inside, the required thorough cleaning becomes impossible. Enameled steel also weighs quite a bit more than stainless, adding to the already considerable weight of five gallons of (hot) wort.

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Date: Mon, 26 Apr 93 12:02 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Wet T-shirts

Date: Thu, 22 Apr 93 10:56:40 -0400  
From: bradley@adx.adelphi.edu (Rob Bradley)  
Subject: End of the season looming

> Has anybody had any REAL success brewing quality ale using the "wet  
t-shirt" method when the ambient is above 80F?

My guess is that this would work about as well as an evaporation type  
air conditioner on Long Island. Seen any lately?

For this to work at all, requires very low humidity ala Arizona.

BTW, nice to see you survived your experience with the World's Greatest  
Beer.

Make that second greatest... a red ribbon sure is humbling.

>Any other recommendations? Any thoughts as to whether the HBD is  
a suitable forum to post a "personal ad" seeking a brewing partner?

Sounds more like you need a drinking partner.

js

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Date: Fri, 23 Apr 1993 17:52:11 +0400 (EET-DST)  
From: NIKKANEN@ntcclu.ntc.nokia.com (Kari Nikkanen, design engineer)  
Subject: RE: 5 litre kegs and N2O

in HBD1126 Steve wrote:

>I recently purchased a tap for 5 litre cans operated by those little  
>N2O cannisters you can use to make whipped cream (among other uses).

So you are using N2O instead of C02? Do you get  
better (smoother) head in your beers than with  
C02? I think I'll start kegging my beer too, and  
I just thought some time ago, that if Guinness  
uses N2O, why shouldn't I. Does anyone else  
have any opinions?

Kippis!/ Kari

---

Date: Fri, 23 Apr 93 10:47:30 PDT  
From: troy@scubed.scubed.com (Troy Howard)  
Subject: Easy Yeast Culturing 2

I wanted to follow up the compilation of responses to Easy Yeast Culturing with my own experience.

I followed Rick's method with my latest batch, a dopplebock. I made the 1/2 gallon "mother" starter, and bottled 5 12 oz bottles. Stored them in the fridge for three days. Next, I took one out, let it warm to room temp, then pitched it into about a pint of 1.020-1.030 wort. This I used as starter for my brew. I let this starter ferment for a couple of days. On brewing day I poured off some of the "beer" sitting atop the yeast cake in the starter (tasted ok, seemed to have high levels of diacytl), swirled the remaining beer to stir up the yeast, and pitched into the wort.

12 hours later I had a FABULOUS krausen going. One of the fastest starts I have ever seen. Fermentation looked like it was almost done in about 36 hours.

I have not tasted it yet, but so far I am quite impressed. I am bottling this weekend, so I'll taste it then.

Just wanted to post a data point that this method does indeed result in viable yeast (one of my fears as I started). I will post more data as I collect it. So far, though, so good.

Troy

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Date: Fri, 23 Apr 93 10:32:45 PDT  
From: troy@scubed.scubed.com (Troy Howard)  
Subject: Easy Yeast Culturing

Greetings all,

I have recently been inundated with email requests to forward summaries of the responses I received from my questions on Easy Yeast Management.

Since there has been so much interest, I thought I would post a compilation of responses.

Enjoy,

Troy

-----  
First, thanks to Rick (R.) Cavasin who posted the article which started the discussion. Here is (briefly) his idea:

>Step 1:

>Prepare some starter wort (S.G. = 1.020), see Miller's book for  
>recipe. Basically, you need about 1/2 gallon, but if you make  
>more and can it in mason jars (using standard canning procedures),  
>you will not have to prepare more at a later date.

>

>Step 2:

>Place 1/2 gallon or so of starter wort in a suitable container  
>(1 gallon glass jug), pitch (inflated) Wyeast package at correct temp.  
>and fit air lock. This is the 'master' starter.

>

>Step 3:

>Allow to ferment to completion. When fermentation has ceased,  
>agitate the 'beer' to suspend all sediment, and very carefully  
>bottle it.

>

>You will now have about 6 bottles of very thin beer with a good  
>deal of viable yeast sediment in each bottle. Use each bottle  
>as you would use a package of Wyeast - ie. prepare a starter  
>culture a couple days before brewing. This is facilitated by  
>canning wort when you prepare the master starter. All you need to  
>in that case is pop open a mason jar of wort, dump it into a  
>sanitized bottle/jug of appropriate size, pop open one of your  
>bottle cultures, add it, agitate vigorously, and fit an air lock.

>

-----  
Next, Daniel F McConnell <Daniel.F.McConnell@med.umich.edu> writes:

>I used to use a similar method-I would simply bottle 4 -6 bottles from a  
>batch  
>and keg the rest. Your method would yield even greater yeast cell  
>counts and  
>better, faster starts. I would purchase 2-3 Wyeast packages per year,  
>usually  
>an ale, a lager plus one that I had not yet tried, thus would have  
>sufficient



>cultures for more than 15 batches. I'm the kind of person that is rather  
>faithful to my yeast-I would stick to one ale (1098) and one lager (2206), get  
>to know them and understand when the fermentatuion has run into trouble.  
I  
>have carried some strains through a second generation with this method and had  
>no problems.  
>  
>I have since gone to other methods (top cropping, slants etc.-no longer with  
>Wyeast BTW), this method was not abandoned due to problems.  
>  
>Potential problems: 1) You must be extremely careful about sanitation. That is  
>why I would bottle beer, not starter wort-you can taste any off flavors.  
2)  
>keep the starter gravity low (<1.050) to prevent mutation. 3) keep them cold  
>once they have carbonated. 4) hop your starter but not so much to mask any off  
>flavors. 5) did I mention sanitation?  
>

Are there draw backs (like problems with autolysis, or the yeast just dying)?

>In the cold autolysis will be present but is not a problem. Your Wyeast is  
>autolysing too in the cold!!

Rick mentions he has had bottled yeast last 6 months. Will they last longer?

>I always purchased new cultures each season so I dont know about lifespan. This  
>insures success.

Are those 6 mo. old yeast just as good as those from a new Wyeast packet?

>Probably better. Good luck

- - - - -

Then, Dennis B. Lewis <InterNet:dblewis@jscprofs.nasa.gov> adds:

> About yeast stretching: Sure, you can do that and it makes perfect sense. Make  
> damn sure the stuff is completely fermented out or you'll get glass grenades.  
> About four days before brewing, take out your starter, pour off the beer on  
> top, pour in about 6 oz. of fresh, heavily-hopped wort (1.040 check Papazian  
> on this. He gives good directions on how to bottle wort for later use in  
> culturing.) Make sure you flame the mouths of the bottles before transferring.  
>  
> Attach an airlock to the bottle and let the yeast reactivate. After about 2.5

> days, pour off the top liquid (if it has started to clear again) and  
pour in  
> some more wort. Then about 6 hours prior to pitching, do the same  
thing. If  
> you care to do this much screwing around with your yeast, you will get  
> tremendous starts and almost no lag time. I just did this with some  
Whitbread  
> (Wyeast 1098) that I cultured from a bottle of ale that I had. It was  
glubbing  
> like crazy 7 hours later.

-----  
And finally, "William A Kitch" <kitchwa@bongo.cc.utexas.edu> suggests:

> I've recently moved away from dried yeast and like you didn't want to  
pay  
>\$3.50 a shot for liquid yeast cultures. For what it's worth here's my  
>experience.  
>  
> I didn't know a yeast from a slug before I started and have been  
brewing  
>great beer from my own cultures for six months. So my rule #1) anybody  
>can keep good yeast cultures if their careful and can think. I highly  
>recommend getting the "Beers & Yeast" special issue of Zymurgy. It has  
>a bunch of good and easily understood articles on everything from how  
>to get a culture from bottle conditioned beer to how to maintain culture  
>stocks.  
> Having read the Zymurgy yeast issue, some HBD threads on the subject,  
and  
>talked to other homebrewers this is what I have found to work for me.  
>  
>I don't brew with the same yeast often enough to keep starter bottles as  
>your post talked about. Instead I keep pure yeast cultures on slants  
(test  
>tubes 1/2 full of geletinized wort) and plates (petri dishes of  
geletinized  
>wort). These are pretty easy to make; refer to the Zymurgy issue or  
mail  
>me back for more info.  
>  
>Every so often when I brew I steal some of the wort and make up some  
>mason jars of sterile wort. I use two sizes: pint jars w/ 1/2 cup of  
wort  
>and quart jars w/ 2 cups of wort. The wort should be about 1.020 sg but  
>I don't worry too much about it (just take some of whatever you're  
brewing  
>and dilute it down). I process the jars just like any other canning  
>operation. I don't have a pressure cooker so I just use a boiling water  
>bath.  
>  
>Three days before brewing I take one of the pint jars of sterile wort  
and  
>sterilize around the top with grain alcohol (Everclear), and flame it. I  
>then take an innoculating loop (a small wire looped at the end) flame it  
and  
>pick one colony of yeast off of a plate I made previously. I swirl the  
loop  
>in the mason jar, set the lid back on and shake it to aerate the wort.  
Then  
>I set the jar aside and let the yeast work. I don't bother with an  
airlock,  
>the lid just sits on top. It will take about two days for this starter  
to

>work up to high krausen. When it's good and frothy I pitch the whole  
>contents into one of the large mason jars of sterile wort. Again  
sterilize  
>the tops of both jars and aerate the wort. This large starter batch  
will be  
>ready to pitch in your primary the next day so get ready to brew.  
>  
>When I pitch my large jar of starter into my primary I get vigorous  
>fermentation overnight (probably in 4 hours but I haven't stayed up to  
find  
>out). I've been very happy with this method. I have on hand three ale  
>yeasts and one lager yeast only one of which I had to buy. The others I  
>cultured from bottle conditioned commercial beers of got from friends.  
>It's really easy to do and gives you something to do inbetween batches.  
>  
>Read the Zymurgy issue and then mail back any questions, or post them if  
>they're of a general nature.

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Date: Sat, 24 Apr 93 17:16:32 EDT  
From: William Shirley <william@chemres.tn.cornell.edu>  
Subject: Wort Cooling

Why wouldn't it be possible to boil the wort down to a smaller quantity and then add a gallon of ice? The ice can be made a day in advance by putting boiled water in a sterilized refillable gallon container from a super market.

As for the optimum design for an immersion cooler: usually good ideas can be obtained by looking at designs which have withstood the test of time. In this case the car radiator seems go be a good model. If it were possible to obtain one without lead sodder then it might work well...

William Shirley  
ws15@cornell.edu

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Date: Mon, 26 Apr 1993 10:09:29 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: hops direction

Just so it's clear that we agree, yes, hops will climb "clockwise \*looking down\*". The Hops Primer states it as "counter-clockwise \*looking up\*". The reason for that orientation is that "up" is the direction of growth, ie. imagine that you're a hops plant....

Russ G.

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Date: Mon, 26 Apr 93 11:35:18 EST  
From: CW06GST <CW06GST@SJUMUSIC.STJOHNS.EDU>  
Subject: Westchester, NY homebrew club meeting

To all Homebrewers in Westchester, NY:

There will be a meeting of the Wort Ever Ales You homebrew club at my house, 219 Central Ave, Rye NY, on Tuesday April 27, at 7:30 pm. All those who wish to attend can contact me for directions at (914) 337-5897 at my office, and at (914) 921-4081 at my home in the evenings.

If you can not attend, but would be interested in joining the club, please contact Andrew Schmidt at (914) 238-4549 for more information. We are a fairly new club that has been started in the last year. We have about 20 members from all over Westchester Co. The membership includes some very experienced brewers, a certified beer judge, as well as quite a few beginners. All are welcome to join.

Also, Saturday, May 1, is National Homebrew Day, and our club will be participating in a homebrew demonstration, as well as other brew activities, at Mannion's Tavern, 640 Mc Lean Ave in Yonkers at about 1:30 pm until about 6:00. This event is open to the general public in order to promote homebrew awareness. Mannion's phone # is (914) 476-2786.

Mannion's has a large selection of bottled beer from around the world, as well as a tasty menu. Come one, come all, admission is free. Bring the kids. I hope to see you there.

Thanks,  
Erik Zenhausern

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Date: Mon, 26 Apr 93 10:58:07 EDT  
From: sims@pdesds1.atg.trc.scra.org (Jim Sims)  
Subject: coupla questions

Being new to homebrewing (since January, ~ 7 batches), I have a coupla questions:

(1) I've noticed that several of the batches dont have much head. I've seen the comments about spotlessly clean glassware, etc. I seem to notice a trend I'd like comments on: The batches i've done that had brewers sugar (or honey) seem to have a good head, the no-sugar batches seem to lack a good head. Anyone else observed this? Ideas why?

(2) Where can I get some hop plants?

(3) Can someone email me (or send me the ftp location for) the yeast culturing notes that were (apparently) posted here not too long back?

Please email me directly, I'll summarize to the list in a few days to conserve bandwidth.

THANKS!  
jim

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Date: Sat, 25 Apr 92 09:39:40 -0500  
From: gjfix@utam.uta.edu (George J Fix)  
Subject: Competitions and Dry Yeast

I have been entering a lot of competitions primarily with high gravity amber and dark lagers. The objective has been to get a measure of the new Belgian malts. A summary of our findings plus a general analysis of these malts can be found in an article I wrote for the first issue of Brewing Techniques. This issue should appear at the beginning of May. Our own cultured lager yeast was used for all these brews.

I have also made full scale brews with the dry yeast that was sent to us from Crosby and Baker, and these were also entered in sanctioned competitions.

In each case, the following "German Wheat Ale" was used:

Vol. = 50 liters  
Grain Bill - 7.5 kg. D-C pale ale malt, 2.5 kg. D-C wheat malt  
(SG = 1.048)  
60 grams Hallentau leaf hops, 60 grams Tettnang leaf hops  
(IBU = 26 mg/l)

This is a mild flavored beer, and was chosen for that reason. Any defects in the yeast used would stick out like a sore thumb in this one. The Belgian grains were used to remove malt quality as a issue.

Beer using the Mauri yeast from Australia that was sent to me by C+B was entered in the 3rd Annual March Mashfest in Ft. Collins, Co. The judges were

Skip Madsen and John Landreman. Both are in the "recognized judge" category.

One gave a score of 41 and the other 39. The beer took first place in the its category. I would be willing to bet that this beer was eliminated early

on in the BOS judging. This strain IMHO is not capable of producing beers that can compete at that level. Our analysis and the Ft. Collins results show that this yeast can nevertheless make creditable beer.

Beer made from the new Whitbread strain was entered in the March Pittsburgh

competition, the Bluebonnet, and the recent competition in Chicago. The judges

in the Pittsburgh competition were Cliff Beringer (certified) and Jim Desmond

(apprentice). They gave the Wheat Ale scores of 36 and 37, respectively. It won

a second in this event. The same was true for the Bluebonnet, except the score

sheets have not as yet been sent out. Jim Busch and a few others on this network also won ribbons. Presumably these and the score sheets will be sent

out soon. I also entered a Brown Ale which took 1st place. This one was fermented with a cultured yeast (BRY-204, a Belgian ale yeast from Siebel).

I have not seen the official results from Chicago. Al, when will we get this?

I personally prefer the Mauri strain to the new Whitbread, and indeed the old Whitbread to the new version. The latter can, however, make creditable

beer. Copies of all the relevant score sheets will be sent to C+B where



they will be kept on file with our analytical results.

None of this refutes Mr. O'Connor's assertion that my yeast evaluation procedures are invalid. They are rather simple, but then I am a simple homebrewer and never claimed to be anything else. Given Mr. O'Conner's depth of understanding of yeast and related matters I would love to taste some beer he has brewed. For reasons I do not understand, he has chosen not to participate in Texas events like the Bluebonnet and Dixie Cup. I have been told that he has sent samples of his beer to Chicago. They apparently called it "O'Conner's O-Ring Beer". Does anyone know anything about this?

George Fix

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Date: Mon, 26 Apr 93 09:49:06 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: Wyeast 1214, Parallel immersion chillers

Hi All,

In HBD#1126, Rob Bradley writes:

>Has anybody had any REAL success brewing  
>quality ale using the "wet t-shirt" method when the ambient is above  
>80F?

I've used this technique several times, it does work well. I do have a basement, but it still gets to 75F-78F during the dog days of July and August. In addition to putting the carboy in a basin of water and covering it with a wet towel, I use a small computer fan to circulate the air around the carboys. This keeps the evaporation rate high enough to cool the carboys the 6-8 degrees or so necessary for ale fermentation. The fan itself draws very little current, so it doesn't cost much to run it 24 hours a day, even at the larcenous rates that Public Screwing, er, I mean, Service of New Hampshire charges.

I've also been successful brewing dunkelweizens in warm weather using Wyeast 3506 Bavarian wheat yeast. The warmer fermentation temperatures seem to help this yeast produce more of the clove phenolic that's desirable in a weizen.

>my  
>major regret is that so many good bottles of beer aged past their  
>prime. I don't drink fast enough!!! I don't want to increase my  
>alcohol consumption. Brewing a 3-gallon batch is just as much work  
>as a 5-gallon batch. If I brewed less frequently, I would suffer  
>from decreased variety. Perhaps the answer is to get find a brewing  
>partner, so that I get only a case or so from each brew and cut the  
>work down accordingly.

>Any other recommendations?

Sure, throw a party! I have the same problem, as much as I enjoy drinking homebrew, I enjoy brewing it even more. On those occasions when I've developed a backlog of several cases, my friends have been more than happy to relieve me of the excess :-).

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Also in HBD# 1126, Al Korz writes:

>But seriously, I've got a 50-foot, 1/4" OD immersion chiller (about  
>1/4 of which is not even in the wort on a 5 gallon batch) and it  
>cools my boiling wort to 70F in about 15 minutes. All this math  
>and physics may indeed give me a chiller that is 20% more efficient,  
>but all that means is that it will cut my 15 minutes down to 12 minutes.  
>Is it really worth it? Let's not lose touch with reality, eh?

I built my immersion chiller from 50' of 3/8" OD copper, and like Al's, about 1/3 of it is not even submerged in a 5 gallon batch. It too will cool my wort from boiling to under 70F in 15 minutes. While this has been a fascinating thread, with all of the discussion of heat transfer

and convection currents, I confess to being totally unscientific in the construction of my chiller.

The copper came in a 50 foot coil, I was too lazy to cut it. I just sat down with a pin lock keg, and started wrapping coils. I left a few feet on either end for the inlet/outlet, and wrapped some bare 14 gauge copper wire vertically between the coils to give it some structural strength. I did the whole thing in about 30 minutes, it works great, and never once solved a heat transfer equation.

Cheers,  
Jim

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Date: Mon, 26 Apr 93 10:57:51 PDT  
From: davidr@ursula.ee.pdx.edu  
Subject: Re: Hops

Bravo! Nice info on the Hops report, Alan. I'm more of a gardener than a private brew master, so this was of great interest to me.

I would like to make a small clarification.

- The garden is along my North fence, for maximum sun.

Alan doesn't state which side of the North fence. This information of course, is dependant on what part of the world you live on. For most, if not all of the US, the "Southern Exposure" is what you are striving for. The side of a fence or house is nice because it stores and reflects heat/light for sun loving plants.

-David Robinson  
davidr@ee.pdx.edu

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Date: Sun, 25 Apr 93 12:26:03 EDT

From: roberts735@aol.com

**Subject: Carboy Drain/Fill**

Not only will the carboy drain faster with the Rack hose venting air, it will also fill faster if you are dunking it in a large container, as I do. I use a very large cooler to hold by sterilizing water/chlorine mix, and put the entire carboy in there, with a hose in it. It fills very quickly, without the bubbles and splashes too.

Bob Stovall

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Date: Mon, 26 Apr 93 12:05 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Steel Kettles

>From: Keith A. MacNeal<macneal@pate.enet.dec.com>  
>Subject: Wort Pots

>What is this fascination for using stainless steel pots to boil wort  
in?  
It seems obvious to me that the way to save about \$100 on a boiling pot  
is  
to pick up a brand new enameled steel canning pot. I've seen them for  
around  
\$30.

Let me take a guess. Your responses will run ten to one about the evils  
of  
chipping and how rust and iron will permeate your beer and make it  
undrinkable.

You will also get a few remarks about how the handles break off at the  
most  
inconvenient times.

I used one for years for everything from fish boils and maple syrup to  
beer  
making and although it was chipped in a number of places including a  
hole in  
the lid that actually rusted through, it worked just fine. Scrubbing  
off any  
rust before use seems to be all that is necessary and if you take care  
of it,  
there is no reason it should chip. I was very rough on the pot and  
deserved  
every chip it got.

I have never had a problem with the handles on my fossilized kettle but  
the  
new ones do creak and crackle when flexed. I would, under no  
circumstance,  
trust them with a full kettle of boiling liquid but they can easily be  
lifted  
by the outside lip with potholders or gloves.

My first easymasher was installed in such a pot along with a false  
bottom.  
The false bottom has been abandoned as a dinosaur and the easymasher is  
now a  
commercial product.

There are several issues that seem to be limiting the universal  
acceptance of  
the em and the most significant seems to be the cost of a large pot and  
the  
fact that most people are unaware of the existence of the 33 qt  
enamel-on-steel canning kettle.

There also seems to be a very powerful reluctance to drill a hole in a  
nice

new kettle. I am not sure what drives this paranoia but to buy a kettle for the sole purpose of brewing beer and not go the additional step for the ultimate in convenience seems a bit strange.

Finally, a product does not seem to exist until Zymurgy does a review of it.

Well, one thing led to another and I am now offering the EASYMASHER kit installed in the 33 qt canning kettle, ready to mash, sparge and ferment.

Yes, in spite of all the momilies, they make great primary fermenters IF kept in good condition.

email for details.

If you have received the Kettleashing article, just ask for POT info.

js

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Date: Mon, 26 Apr 93 13:59:18 EST  
From: woessner@psych.purdue.edu (Leo Woessner)  
Subject: petri dishes

I am trying to find a source of glass petri dishes to use for yeast culturing. Every place I have found that carries them has either will not sell to a individual, or has a large minimum order (\$75). I want to find somewhere I can order as few as say 5 or 6 petri dishes. I am also interested in locating possible sources of yeast slants which contain yeast which is hard to find. Is there a mail order place(s) which specialize in yeast culturing??

Thanks in advance,  
Leo WOessner

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Date: Fri, 23 Apr 1993 12:29:49 PDT  
From: Dimitri\_Katsaros.Wbst139@xerox.com  
Subject: Need info on how to bottle Single Malt Scotch

Hi all

My father had some barrels in Scotland and then had them shipped here...  
They are 5 single malt scotches with different alcohol contents and  
different  
darknesses. First, what is the legal way of bottling this stuff and  
second  
what goes into doing this methodically... are filters involved? is  
blending  
necessary or even desirable? This is (I think) 18 years old.... give or  
take a  
few years, so I don't want to screw this up :-)

Any advice is highly appreciated  
Dimitri Katsaros

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Date: Wed, 22 Apr 92 17:30:27 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Whitbread History

Apparently-To: homebrew@hpfcmi.fc.hp.com

Here is the recent Whitbread history as I understand it. The original 3 strain culture was produced at an old yeast plant, operated under license by Whitbread. It was distributed in the US to HB shops and micros by Siebel. This plant was shut down ~2 years ago as a part of Whitbread's company wide modernization program. Siebel then had the yeast sent to another plant in Canada to temporarily produce it there until Whitbread's new yeast plant went into production. This is where wild yeast infection occurred. It caused quite a scandal in California and Canada, the regions that apparently got the bulk of the bad yeast. Siebel promptly dropped distribution of this yeast. A short time later Crosby+Baker contracted with Whitbread to have some more production runs done at the old plant, and started distributing it.

Both versions of Whitbread can be found in homebrew shops, at least this is the case in the Southwest. The C+B version comes in a 14 gram packet, while the other version comes in a 12 gram packet. I have tested both, and the samples were quite acceptable as far as lactics and super-attenuators are concerned. The yeast in the 12 gram packets are now very old, and its viability was unacceptable in 2 of the 3 samples tested.

In general, the detection of wild yeast is extremely subtle, however the detection of super-attenuators is a piece of cake. One need only inoculate a sample of the yeast in a sterile dextrin extract and measure metabolic activity. As I mentioned in a previous post, the yeast was also checked with Rodney Morris' incremental actidione test. I have found this procedure to be very useful in my own personal brewing. If there is anyone out there who actually brews beer and who has evidence to the contrary, then I would be glad to exchange both beer and data.

The situation may become more complicated in the next few months. The Whitbread yeast that was sent to me from a test batch at their new plant appears to be quite different from the old mixed culture. First, I believe it is a pure single strain yeast. Secondly, it tends to give a soft, slightly woody flavor not unlike Wyeast's London Ale strain. It is a far cry from the crisp and snappy tartness produced by the old mixed culture. It, like Wyeast's London Ale yeast, is exceptionally clean and has >90% viability. Feedback on the new strain would be welcome by me when it becomes available. The hope is that it can serve as a beginner's version of the London Ale strain.

George Fix

Take care.

George Fix

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Date: Mon, 26 Apr 93 20:22:35 GMT  
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)  
Subject: Best British Beers

Fellow Brewers,

Thought I would share with you the contents of an article from the May issue of Bon Appetit. The article is the "Tasting Panel Report", and for May, they pick ..."the 10 best British brews available stateside."...

Listed in alphabetical order, with *their* comments:

Bass Pale Ale, England (\$1.50/12 Oz). This world-renowned brew is clean and bright, with a light color and lively, malty, well-balanced flavors.

MacAndrew's Scotch Ale, Caledonian Brewery, Scotland (\$3.00/17 Oz). A smoky, spicy ale that is marketed with a lovable Airedale on the label, and the slogan "Man's Best Friend." We can't decide whether this refers to the dog of the ale.

McEwan's Scotch Ale, Scotland (\$1.50/12 Oz). Anthony Dias Blue describes this dark ale as "dense, sweet and rich, with hints of molasses and fruit."

Newcastle Brown Ale, England (\$1.30/12 Oz). It isn't really so brown, but this ale does have nice flavors of spice and malt, with a crisp, fresh finish.

Samuel Smith Nut Brown Ale, England (\$2.50/Pint). A fine Yorkshire product that's smokey, toasty, lively and loaded with flavor.

Theakston Old Peculier Yorkshire Ale, England (\$1.50/12 Oz). This brew with the peculiar spelling of peculiar is lush and toasty, with a great finish.

Thomas Hardy's Ale, Eldridge, Pope & Co., Dorset, England (\$3.00/6.33 Oz).  
Named for Dorset's most famous writer, this ale, bottled with its natural yeast, will improve with age. Dark and complex, with Porter-like qualities.

Traquair House Ale, Scotland (\$5.00/12 Oz). Yes, it's expensive, but Traquair was tops with us. It's made on the estate of a historic Scottish manor house that was once occupied by Bonnie Prince Charlie. Angela Freire of Wine and Spirits magazine finds Traquair "earthy and hoppy".

Welsh Ale, Felinfoel Brewery, Wales (\$2.50/Pint). This brew was a favorite of the poet Dylan Thomas. It is loaded with attractive spice and is "full and

thick with a nice bitter finish," according to one panelist.

Whitbred Traditional Pale Ale, England (\$1.00/12 Oz). Bright, with fresh, snappy flavors. "Fine balance and structure," says panel member. Cirilo Octaviano.

\*Listed prices are approximate and may vary from one state to another.\*

Gosh, not too descriptive. By no means am I a qualified judge, but it sounds to me like the panel doesn't get around to judging beer too often, or at least they don't use the same language in describing things like you certified folks out there in HBD land do.

Wish they would have ranked them.  
Noch einmal, bitte!! Mark

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Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil  
Information Technology Laboratory (601) 634-2921  
Waterways Experiment Station  
Vicksburg, Mississippi USA

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Date: Mon, 26 Apr 1993 13:33:04 -0800

From: ulrich@sfu.ca

Subject: Clockwise Hop Growth

Garrett Hildebrand writes:

> I am growing three kinds of hops in my Southern California backyard,  
> and they are all doing the same thing: climbing the stake \*clockwise\*.

Assuming you live in the northern hemisphere, the sun also travels around the stake clockwise (clockwisdom being a holdover from sundials). Could there be a connection? Are the plants following the sunlight?

Or maybe it's the Coriolus effect. :-)

Charles Ulrich

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Date: Mon, 26 Apr 93 07:02:22 PDT  
From: URI course 26-Apr-1993 1001 -0400 <ferguson@zendia.enet.dec.com>  
Subject: University of Rhode Island course

Any homebrew digest folks attend a class related to brewing at URI this  
past friday?

Curious,  
JC

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Date: Mon, 26 Apr 93 07:01:31 PDT  
From: Soda Kegs 26-Apr-1993 0959 -0400 <ferguson@zendia.enet.dec.com>  
Subject: soda keg prices

BCI in the state of Tennessee, sells 3gal soda kegs for \$36.50 and 5gal  
soda  
kegs for \$26.50. These are reconditioned and quite clean. I just  
ordered  
a keggng system from them for about \$140-, including shipping (I got the  
3gal keg too). I have yet to put beer in the keg, yet!

JC

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Date: Mon, 26 Apr 93 16:56:34 EDT

From: emeeks@tx.ncsu.edu

Subject: Wooden trellis for hops?

Greetings--

I have persuaded a friend to let me grow some hops in his yard. To be specific, it is on the side of his house. I planned to use twine to make a trellis, but my friend's wife decided a wooden lattice-type trellis would look better. It seems to me that a wooden trellis, while more aesthetically pleasing, would get in the way during the harvest.

I'd like to know if a wooden trellis would be worthwhile. Anyone out there have one in use?

Thanks!

- --Ed

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Date: 26 Apr 1993 16:51:16 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: old style beer (not the bra

Subject: Time:4:48 PM  
OFFICE MEMOold style beer (not the brand) Date:4/26/93

Hi All:

Last year some of our club members and members of another club got together for several weekends and brewed beer (imagine that) at an outdoor Renaissance Fair.

These beers were brewed with a three tier gravity/stainless steel keg/propane burner system. There were many interested potential homebrewers and the events were a great success. The beer was good as well. This year there are plans to repeat the performance. All this got me thinking....why not take a giant leap backwards in technology?

Stainless is great at home, but primitive might be fun as well. I envision not a ss mash tun, but one made from half of an oak barrel, a large pot (cauldron) boiled over an open fire. A single infusion mash using a procedure in which the grain is doughed in at ambient water temperatures and boiling (or hot) water added to reach mash strike. Draining to the boiler the first runnings and a second mash possibly with no sparge.

Well, I am in the process of building such a beast out of a 55 gal used whiskey barrel, at least as a proof of concept. Noonan's Scotch ale gives guidelines for old style brewing ie. second mashing so I have something to start with. I suppose decoctions are not out of the question either.

Has anyone tried something similar to this that can offer some guidelines? Can you think of a better mash tun or boiler? I'm not sure how to cool this stuff without entering the 20th century.

DanMcC  
.....oh no, think'in again

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Date: Fri, 23 Apr 93 13:23 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Culturing Chimay

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 04/23/93 13:48:51  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Culturing Chimay

BILL SOLVIBILE writes:

>THERE IS ACTIVE YEAST IN THE CHIMAY BOTTLES. WE FILTERED IT OUT AND  
>ATTEMPTED TO CULTURE IT. WE THOUGHT WE WERE SUCESSFUL, BUT OUR BEER  
>WAS NO CHIMAY.

I have had several discussions with people on the net about Chimay yeast. I believe I read (in HBD probably) that Chimay yeast is a combination of 5 different strains plus some other microflora. One person said that his plate of Chimay yeast had several "different" colonies of yeast on it, while another said that his plate looked all the same. I think they got their yeast from bottle dregs, not from Wyeast 1214.

I'm starting to culture my own yeast and am curious about Chimay and other Belgian strains. Is it worth plating out the yeast or do you lose other important side strains? I would think that culturing the bottle dreg in wort and keep repitching until you get enough yeast slurry to pitch would be the way to go. Then keep repitching the slurry until there is a noticeable difference like one of the side strains taking over. I'm not worrying about it, because I don't have a batch in the fermenter, etc. etc., but I am curious. Thanks in advance for all the expert advice.

Dennis B. Lewis \* (713) 483-9145 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Fri, 23 Apr 93 13:23 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Soda adjuncts

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 04/23/93 13:51:04  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Soda adjuncts

In a recent HBD, someone asked about using cola to acidify the sparge water. This idea rekindled the one I had about using Coca-Cola as an adjunct in making a porter. So I gave it a sample try. While the labelling didn't indicate that there were any preservatives in the mix, there are "natural flavors" which, of course, can be preservative in their own right.

My test went like this: measure OG and pH; buffer with calcium carbonate to 5.4 or so, pitch yeast and yeast nutrient. The OG was a whopping 1.042! That's a pound of sugar (high fructose corn syrup) per gallon. Or a teaspoon per ounce. (Next time you have a can of Coke, think about eating 4 tablespoons of sugar. :-b) The pH was below 4.5, probably more like 3 something. Turned my pH paper bright yellow. I didn't bother to boil the Coke, but I did decarbonate it. I put 8 oz in a bottle with 1/2 tsp of dried ale yeast (rehyd) and a little yeast nutrient.

The resulting cloudy mixture gave 2 glubs total and then the yeast started dropping out of suspension. The SG didn't change much and the taste was terrible and not the least bit alcoholic. Moral: Don't bother with colas or other sodapops. They have stuff that will knock out your yeast and don't really taste that good. Blech.

Dennis B. Lewis \* (713) 483-9145 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Fri, 23 Apr 93 09:09:40 -0400  
From: gxd@po.CWRU.Edu (Guy DeRose)  
Subject: Chimay culturing question

After 6 batches of extract/specialty grain/dry yeast beer, I'm about to make my first attempt at culturing yeast. I would like to make a Trappiste style ale using the yeast from a bottle of Chimay. I have read and enjoyed the recent thread on HBD about yeast culturing and Papazian's and Miller's book descriptions of culturing. My question is: Is there a difference between the yeast in a big (750 ml) bottle and in a small (~11-12 oz.) bottle of Chimay red? Thanks for any feedback.

- - -

Guy DeRose  
Case Western Reserve University  
Physicist, PP-ASEL, homebrewer (NOT necessarily in that order)

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Date: 26 Apr 1993 17:44:28 -0500 (EST)

From: SMUCKER@UTKVX.UTCC.UTK.EDU

Subject: SUMMER MUST BE COMMING, QUESTION ON O2

Summer must be comming not much traffic on the Homebrew digest and we had a day without Jack!

Question? Have any of you out there used direct O2 before you pitched your yeast? I have read tails of some using direct injection of O2 instead of AIR and some problems with too much and getting way too much yeast growth. How much is right? What range of volumes do you use? Since I'm a welder and have the equipment to inject O2 it would seem a better way to go than with AIR.

Dave S,

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Date: Mon, 26 Apr 93 16:49:38 EDT  
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>  
Subject: hop growth direction

Could the clock wise direction observed be due to the plant tracking the sun?  
I think thye recent thread on Carboy tricks would eliminate the Coreolius effect

I just kegged a Chech Pilsner using the Wyeast Bohemian strain the package was mid February, It had no off flavors or aromas. fermentation was at 45 and lagering at 40 and a week at 32 to settle out yeast and proteins. I would have to say that the description is different from the result. It did not produce a strong malty flavor. I have heard other brewers have the same result.

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Date: Mon, 26 Apr 93 20:18:45 EDT

From: hopz@aol.com

**Subject: Premier Malt Extract**

Yesterday while grazing at the grocery store, I noticed a can of "Premier Malt Extract" next to the cereal section on the bottom (dusty) shelf.

It said it was malt extract used for brewing and baking. Has instructions under the lid along with unmarket packet of dried yeast. Bright yellow label.

Interestingly enough it was 2.3 pounds or so... at about \$4.50. Detailed label gazing revealed ingredients of malted barley, corn, and hops. Also sid it was made in United Kingdom for a U.S. company.

Any ideas what this stuff is?

Thanks

Bob

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End of HOMEBREW Digest #1128, 04/27/93

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Date: Mon, 26 Apr 1993 21:10:50 EDT  
From: dcse20516@topcat.bsc.mass.edu  
Subject: SIGNOFF

SIGNOFF

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Date: Tue, 27 Apr 1993 00:14:00 -0500 (CDT)  
From: David McDow <dmc dow@emx.cc.utexas.edu>  
Subject: Decoction mashing...

My first post to this here forum (gulp)

I am an all grain brewer, (7 batches) and have been doing the one step infusion method of mashing grains. The last 2 batches have been somewhat of a disappointment. They have been wheat beers, and my extraction has been poor. Previous to these 2 attempts, all have been barley batches and extraction has been acceptable. Someone (sorry forgot) mentioned that wheat beers should be decocted.

I would like to learn more about decoction mashing. If anyone would care to share their method I'd be appreciative.

Hanky (Thanx)  
dave  
dmc dow@emx.cc.utexas.edu

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Date: Tue, 27 Apr 93 11:11:36 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: old style brewing

hello all,

Daniel mentioned that he was thinking of brewing in an old/ancient way. I thought I'd send this extract in, for it's general interest:

Extracted without permission from Corran's History of Brewing:

.....The mash-tun, according to Nordland, who calls it the filter vat, was the only specialised piece of brewing equipment; it was generally reserved for brewing, whereas other vessels might be used for different purposes.

Filter vats were of coopered wooden construction, and some had individual staves lengthened to make legs. Others sat on tripods or T-shaped supports. Nordland's investigation extended to philological aspects of brewing, and he shows that one of the names for the filter vat is related to stampf or stumpf, the stub of a tree, and hence to wooden vessels or containers made by hollowing out logs.

Such vessels predated coopered vessels, but in more recent times were used only for crushing grain or bark into flour or for storing dry goods such as flour. Reference is also made to a trough-like filter vat made from a hollowed-out trunk and kept together by strong wooden half hoops and cross pieces at the ends. Taps were made of wood, generally beech, until well into the nineteenth century, when brass taps were introduced. Strainers for the mash were a source of much variation. Straw was used from Egyptian times for this purpose. The old Norwegian practice was to put down a grating of sticks, usually of juniper or alder, which supported the straw that did the straining. Notched sticks were also used to support the grating; later on came the wooden perforated bottom, which has almost certainly been used since medieval times by brewers in England. Juniper was widely used in Norwegian brewing, both for flavouring the malt and the beer. It was also included in the hot water used for cleaning brewing vessels. The importance of cleanliness was well understood. Before brewing, the wooden coopered vessels were made watertight by being put in running water. They might be kept filled with clean water, but a juniper extract was more efficacious, a decoction of the plant being boiled and poured into the vessel. But in order to make quite certain the vessels were not sour, the Norwegian brewers used 'stone boiling'. The practice of using hot stones for boiling liquids is known in many parts of the world, and is particularly associated with the processes of brewing and cooking. Although the use of stones for boiling has long vanished from Sweden and Denmark, Nordland states there were stone breweries in Finland and the Baltic countries within the twentieth century. The last known survival, as far as is known, was at Newmannsdorf, near Klagenfurt in Austria, where beer was still brewed by this method up till 1917, with the consumers' strong approval. This brewery is now installed in the Technical Museum in Vienna and comprises

(a) A fireplace for heating the stones. This was usually a hole dug in the brewery yard, 2m x 1m, bricked on three sides with a sloping fourth side. Long logs and stones the size of a child's head were piled in layers.

(b) A wooden mash-tun on wooden supports, with a low plat form surrounding it; its outlet hole, which can be closed by

a bung on the end of a pole, gives on to a wooden trough made from a hollow tree trunk.

- (c) A primitive wooden pump, also made from a hollow log, which pumps water into a trough that conveys the water to the top of the mash-tun.
- (d) Two other wooden vessels, one evidently for heating water and the other for fermenting.

The brewing procedure was as follows:

- 1 The malt was ground and the mash-tun outlet prepared by covering it with juniper twigs.
- 2 The stones were heated and dropped into the mash-tun, which had been filled with water and with the prescribed quantity of hops.
- 3 The liquor was boiled. (BY THE HOT STONES)
- 4 Cold water was added, followed by ground malt, and mashing took place.
- 5 The mash was heated again, by means of larger hot stones this time, and the mash worked with a mashing oar. (An oaken cradle was used for carrying hot stones from the fire place.)
- 6 When mashing was finished, more juniper branches were put vertically into the mash to facilitate filtration, which began after 1hr.

Meanwhile 'sparging' liquor was heated in the second vessel with the help of stones. Wort was ladled back into the mash-tun if it did not come through clear. When it was clear, it was run into the fermenting tun, which was placed in the cellar. It was easy to cool in the winter, but during the hot season it might be chilled by means of cold water and ice in some sort of floating vessel.

The similarities of a good deal of this procedure to the findings of

Nordland in Norway make it probable that here we have a picture of early ale and beer brewing in all the countries of Northern Europe.

#### Hops and Flavouring

The mixture of herbs known as gruit was extensively used in Scandinavia, just as it was further south. The most important ingredient, certainly in Norway, was the bog myrtle. Evidently the ale was potent when bog myrtle was added, and it was often used in addition to hops. *Hypericum perforatum*, St John's wort, was also used, as was yarrow (*Achillea millefolium*). Tansy and wormwood are also mentioned. Pine roots and spruce chippings might sometimes be added to prevent the ale from turning sour. There are further references to caraway, pepper and even potato leaves and tobacco ('but that kind of ale was no good - it made them sick'). Nordland considers that bog myrtle may still be used in western Norway. Hops might be put in a bag and boiled in the wort, which saved subsequent straining, or they might be strained off after boiling, for which purpose there were hop strainers of basket work, vegetable fibres or hair, or even perforated wooden boxes. Some indeed were small coopered vessels.

#### Yeast

Old Norwegian ale was top-fermented and the yeast was removed from the fermenter with a special skimming spoon, though the brewer's right hand might also be employed. The ale was generally drawn off before fermentation was finished,

and it fermented further in the cask. The brewing yeast was used also for baking.

SORRY ABOUT THE VARYING LINE LENGTHS.

ROB. THOMAS

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Date:Tue, 27 Apr 93 7:29:16 EDT  
From: Jpetty@PICA.ARMY.MIL  
Subject: Nottingham yeast problem ?

This is my second batch with nottingham ale yeast. After 48 hrs, still no activity. With my first batch after 48 hrs I gave up and pitched a different yeast which promptly got the bubbles going. Is Nottingham a particularly slow starting yeast ? For info, the OG was 1.052 and I rehydrated the yeast "by the book". I'm getting real nervous about letting it sit with no activity (68 deg F) although I use an airlock.

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Date: 27 Apr 1993 07:59:53 -0400 (EDT)  
From: KLIGERMAN@herlvx.rtpnc.epa.gov  
Subject: thanks to hbd

I didn't want to take up too much bandwidth but since the HBD has been sparse lately, I wanted to thank the HBD and the people I met in Finland. Because of contacts through the HBD I was able to meet 2 very nice homebrewers in Helsinki, Finland this past week. I wanted to thank Kari Nikkanen and Hanna for showing us some of the best in Finnish beers. For those who get a chance Koff porter and lager are quite good, but the standard Lapin Kulta, while better than most American lagers, was nondiscript and "watery." I also wanted to thank Ilkka Sysil and Anita Mikkonen for inviting us to their home and sharing their excellent beer. They make a truly fine lager--better than many I tried that won contests in the States. They also have a very interesting engineered system that he might be encouraged to share over the HBD.

Andy Kligerman and Lucy Adams

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Date: 27 Apr 93 02:25:50 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Guinness and N2O

Message Creation Date was at 27-APR-1993 07:18:00

In HBD 1128, Kari Nikkanen raises the question of using N2O:  
"... since Guinness uses N2O, why shouldn't I."

A properly poured Guinness only uses 20% Nitrogen. The remaining 80% is CO2. The Nitrogen definitely helps in the smooth head, but most important is the baffle plate and atomizer within the tap which "aerates" the stout.

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Date: 27 Apr 1993 08:15:11 -0400 (EDT)

From: JUKNALIS@arserrc.gov

**Subject: kegging pressures**

I'm having trouble keeping a consistent pressure in my cornelius kegs during the gradual emptying of the vessel. The first batch was fine until the end when more & more pressure was needed to drive the beer out. (It gravity siphoned fine during cleaning). Now after conditioning sometimes I get barely a trickle and sometimes a cup of foam.

Anyone have any experience or ideas on this problem?

thanks in advance. Joe

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Date: Tue, 27 Apr 93 7:51:31 EDT  
From: rjsmith@iron.afsac.wpafb.af.mil (Randy Smith)  
Subject: Typical Lager Fermentation Time?

Started my first genuine lager yesterday that will go into my Hunter Air Stat controlled fridge for fermenting. Most of what I've done in the past is ales. Usually we wait 2-3 weeks and then bottle. I do have a hydrometer, but never really use it. Just too lazy to track the readings, etc. Everything has come out good for the past few years, so we've been doing ok so far. I'm concerned with the lagering and how long it will take to be ready to bottle. How long is probably long enough? I used 6.6# of liquid malt extract, Y-yeast Bavarian yeast (forget the number), and will ferment at 48 degrees. Used Tetnang and Saaz hops, but that shouldn't affect the ferment time, right? Didn't take a hydro reading (the lazy part), but am making a typical 5 gal batch. My big fear is making two cases of beer grenades. What do you think?

- --Randy--

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Randy J. SmithDoD #2022'93 CBR900RR  
C.E.T.A. Corporation rjsmith@iron.afsac.wpafb.af.mil

"Most of our so-called reasoning consists in finding arguments  
for going on believing as we already do."  
- James Harvey Robinson  
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Date: 27 Apr 93 08:33:58 EDT  
From: RKING@VUNET.VINU.EDU  
Subject: Addr: Premier Malt

In response to the question about Premier Malt: I occasionally use this because it sells at our local grocery for \$3.99 for a 2.2 lb (?) can. It USED to be \$2.99 until about last year. I have always found it to be a good product, and will use three cans for a 4 1/2 to 5 gallon batch of "kitchen sink brew," where I just throw in all the left over ingredients I have. I have used the packet of dry yeast, at times, when I don't have any liquid, and have had surprisingly good results. I have no brewing store nearby, and the price is right. I'd like to hear comments from other brewers about this Premier.

\*\*\*\*\*  
Richard L. King, Reference Librarian, Vincennes (IN) Univ.  
RKING@VUNET.VINU.EDU

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Date: Tue, 27 Apr 93 09:45:01 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: 2124 Bohemian

Hi All,

In HBD#1128, Lee Menegoni writes:

>I just kegged a Chech Pilsner using the Wyeast Bohemian strain the  
package was  
>mid February, It had no off flavors or aromas. fermentation was at 45  
and  
>lagering at 40 and a week at 32 to settle out yeast and proteins. I  
would  
>have to say that the description is different from the result. It did  
not  
>produce a strong malty flavor. I have heard other brewers have the same  
result.

I tasted this brew recently, I'd have to agree with Lee's assessment.  
While the beer was quite good, it did not have the pronounced maltiness  
and  
slightly sulfury notes of a Bohemian pilsner. Instead, the malt  
character  
was "softer" and much more subtle.

I find this of interest because I provided both the undermodified  
pilsner  
malt and the decoction mashing procedure Lee used for this brew. We both  
brewed pilsners about one week apart, we both used Saaz exclusively.  
Using  
this same malt and style of mashing, I've produced Bohemian-style  
pilsners  
with the maltiness and sulfury notes I've come to know and love. The  
only  
difference in ingredients and procedures was that I used the Wyeast 2206  
Bavarian, one of the strains recommended by Miller in his "Continental  
Pilsner" book. For anyone planning to brew a Bohemian pilsner, the 2206  
produces a beer much closer to style than the 2124, IMHO.

I have seen this type of thing before, where beers were brewed with the  
same malt, hops, and procedures, but pitched with different yeasts to  
produce  
distinctly different beers. Never ceases to amaze me, though.

Cheers,  
Jim

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Date: Tue, 27 Apr 93 10:20:01 -0400  
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>  
Subject: RE: Soda Adjuncts

in HBD 1128 Dennis Lewis writes:  
> alcoholic. Moral: Don't bother with colas or other sodapops.  
> They have stuff that will knock out your yeast and don't  
> really taste that good. Blech.

It is my understanding that the sugar/soda extract combination does not have enough nutrients (other than sugar, of course ) to support a fermentation. Folks that make their own sodas rely on this fact since most recipies I've seen suggest mixing up your extract/sugar, pitching yeast, and bottling immediately. The yeast can maintain just enough activity to carbonate the mixture before dying of some horrible yeast malnutrition. This may explain why your test 'brew' didn't do much. Of course, it does not rule out the possibility that preservatives are at fault as well. A test with a soda/malt combo should be decisive.

Bob Santore  
Syracuse, NY  
rsantore@mailbox.syr.edu

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Date: Tue, 27 Apr 93 07:53:29 pdt  
From: Ted Manahan <tedm@hpcvcbbp.cv.hp.com>  
**Subject: Alcohol and other drugs**  
Full-Name: Ted Manahan

I wrote this article for our local club's newsletter. In the interest of generating controversy, I will post it here.

Ted Manahan

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At the recent Home Brew U, [In Seattle, WA] I heard Gene Ford speak. He publishes the Moderate Drinking Journal, which is devoted to reporting on the positive medical and therapeutic aspects of drinking. He is on a quest to counter the attempts of neo prohibitionists to limit access to beer, wine, and spirits.

One of Mr. Ford's basic philosophies is that our culture has a long history of using these drinks in moderation. They are social lubricators, and promote relaxation and well being. With this I agree. He also objects to the use of the term "alcoholic drinks" to describe beer, wine, and spirits. He feels this term is used to create a link between these legal drinks and illegal drugs. He claims there is a fundamental difference between alcohol and illegal drugs.

At the AHA conference last year, the keynote speaker presented this same point of view. Charlie Papazian put forth this same claim in a Zymurgy editorial. I have heard other homebrewers with similar opinions. I don't agree that there is any fundamental difference between these different types of drugs.

Homebrewing was legalized only in the last couple decades. At various times in history, alcohol has been out of favor, and even illegal. Alcohol is a very potent drug, with the possibility of death resulting from abuse. We homebrewers, as producers and consumers, need to be aware of this.

We also need to be vigilant against someone deciding they know what is best for us. The potential for abuse does not justify taking away the liberty to use. This certainly holds true for other substances. The current "war on drugs" is a prime example of creating criminals out of honest citizens, just as prohibition created criminals out of honest drinkers.

The main effect of the "war on drugs" is to guarantee a monopoly on drug profits to those willing to break the law. What newspapers call "drug related violence" is really money related violence - the most common drug related violence is bar fights between drunk people.

It is foolish to self righteously decry the attacks neo prohibitionists are making, while failing to see the connection with our own intolerance of, for instance, marijuana use. Homebrewers need to be aware that intolerance is contagious. People with "Zero Tolerance" will quickly see that alcohol is more dangerous than most illegal drugs. The urge to control people's behavior soon extends to everything we personally don't do.

So don't fool yourself. The next time your friends complain about the effort to lower the DUI limit to one beer, point out that they may be

contributing to the political climate that views government control of our lives as acceptable. Take note of your own attitude next time you hear of a drug bust. Would you have felt the same way about the BATF busting a homebrewer twenty years ago? Next time, it could be you!

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Date: Tue, 27 Apr 93 08:06:48 PDT  
From: BCI phone # 27-Apr-1993 1106 -0400 <ferguson@zendia.enet.dec.com>  
Subject: BCI phone number

The phone number for BCI is 1-800-284-9410.  
I'm in no way affiliated with BCI other  
than being a satisfied customer.

JC Ferguson

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Date: Tue, 27 Apr 93 08:38:00 -0640  
From: roy.rudebusch@travel.com (Roy Rudebusch)  
Subject: Old Dominion Brewing Co

From: roy.rudebusch@travel.com  
Subject: Old Dominion Brewing Co.

In Ashburg, Virginia.

How are their beers, in general?

Do they have any particularly good ones? Are they a Micro or a brewpub?

Thanks in advance for your time in replying e'mail!

roy.rudebusch@travel.com This internet node not supported by  
government tax money.

\* OLX 2.2 \* People who pun deserve to be drawn and quoted

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Date: 27 Apr 1993 11:44:46 -0400 (EDT)  
From: POLLARD%FRMNVAX1.BITNET@uga.cc.uga.edu  
Subject: Clockwise Hops

Just joined this list and am mighty impressed by the brewing knowldege of you all. I can't contribute much there, but I do know a thing or two about botany. Twining of vines appears to be unrelated to either sunshine

(they do the same under artificial light) or coreolis effect (I believe they may have even tested it in the space shuttle). It is controlled by internal factors related to planes of cell division and distribution of plant hormones. Some species are innately counterclockwise twiners, and others, like hops, go clockwise. Yes, it is conventionally viewed from the plant's point of "view", looking up. An unsupported hop shoot, viewed

with time-lapse photography, makes clockwise spirals (a type of movement called "nutation") in mid-air, until it touches something; then it twines around that support. So unlike the whirlpool in your toilet, it will also

go clockwise in the southern hemisphere.

By the way, re. British beer reviews, I agree they aren't very discriminating. Anybody who can use the same adjectives to describe Bass and Old Peculier must have no taste buds, and then to make no mention of original gravity??? Is it any coincidence that these "10 best" happen to correspond to the 10 brews most commonly found in a fairly good (but not spectacular) liquor store? Not much research done, I suspect.  
Cheers.

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Date: Tue, 27 Apr 1993 11:49:05 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: Brew Ha Ha address

Howdy,

To all those looking for the 5 litre keg and tap system. Here is  
where to find the goods:

Brew Ha Ha, Ltd.  
209 High Street  
Pottstown, PA 19464  
800-243-2620

They also sell a terrific starting kit for beginning homebrewers.  
Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Tue, 27 Apr 93 11:25 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Carbonation, Nitrogen, Yeast

>From: Paul Andrews <PANDREWS@hpb.hwc.ca>  
>Subject: Foam and keggng problem

> I pressurized to 50psi (at room temp).. let sit overnight..  
(it went down to about 30 psi) after 16-18hours. I decided to see what  
it  
tasted/looked like the next day. Ugh.. most foam and very little  
carbonation.

Shake the blazes out of it and it will be carbonated in a few minutes at  
50  
psi. I would suggest that you reduce the pressure to about 20 lbs when  
the  
big rush is over or you run the risk of over carbonating it although at  
room  
temperature, that is not very likely.

The problem you will have carbonating it at room temp is dispensing it.  
I  
use a cold plate to chill it as it is dispensed but without that, all  
bets  
are off.

>From: NIKKANEN@ntcclu.ntc.nokia.com (Kari Nikkanen, design engineer)

> So you are using N2O instead of CO2? Do you get  
better (smoother) head in your beers than with  
CO2? I think I'll start keggng my beer too, and  
I just thought some time ago, that if Guinness  
uses N2O, why shouldn't I. Does anyone else  
have any opinions?

After reading George Fix's article on nitrogen, I had to give it a try.  
I  
have been experimenting with a product called Aligal. This is 20% CO2  
and  
80% nitrogen and is sold in a cylinder with CO2 fittings, making it  
convenient to try. Unfortunately, it is only available as a rental and  
costs  
\$4.50 per month plus \$18 for the gas.

The first problem I encountered was when I attempted to carbonate a  
batch of  
with it. After pressuring up the tank to 50 psi, there was not the  
slightest  
absorption, no matter how much I shook it. I had to bleed of the gas  
and  
switch to the straight CO2 in order to carbonate it. When it was just  
about  
fully carbonated, I bled of the CO2 and switched back to the mix and let  
it  
sit at 50 psi overnight.

The results are very interesting but I am not sure it is worth the  
trouble or

expense. I have done 3 batches with this set up and although each one acts a little different, the common ground is a head that builds from the bottom up in a very peculiar manner. The beer can come out of the tap without a bubble and fill the glass with foam but it disipates in seconds, leaving about an inch that will stay for hours if you don't drink it.

What is interesting is that typical foam leaves a mostly empty glass when it dissipates but this foam just turns to beer. I c-p bottled some and took it to a CBS meeting and it acts the same way when poured from the bottle. It is really fun to watch.

I put it in the catagory of cute but not sure what value it has for homebrewers.

>From: sims@pdesdsl.atg.trc.scra.org (Jim Sims)

> (1) I've noticed that several of the bartches dont have much head. I've seen the comments about spotlessly clean glassware, etc.

My experience has been that head retention is a problem primarily associated with extract beer. "spotlessly clean glassware, etc." may be important with a marginal beer but since I started making all grain beer, it has become totally irrelevant how, if or with what, I clean the glass.

> (3) Can someone email me (or send me the ftp location for) the yeast culturing notes that were (apparently) posted here not too long back?

If you are referring to mine, it is on the way. Actually, it is on the way regardless.

>From: woessner@psych.purdue.edu (Leo Woessner)

> I am also interested in locating possible sources of yeast slants which contain yeast which is hard to find. Is there a mail order place(s) which specialize in yeast culturing??

Scientific Service  
7407 Hummingbird Hill  
San Antonio, TX 78255  
(512) 695 2547

This is a small scale operation run by Paul Farnsworth. He has lots of yeast and everything you need to deal with it. I have used 4 of his yeasts including Pilsner Urquel with good results.

>From: SMUCKER@UTKVX.UTCC.UTK.EDU

>Summer must be comming not much traffic on the Homebrew digest and we had a day without Jack!



Sorry to let you all down but if you note the dates on the two articles  
in  
the most recent Digest, you will see that it was not my fault.

>Question? Have any of you out there used direct O2 before you pitched  
your yeast?

Not personally but I just got a call from a customer who claims near  
Kreusen  
within 20 minutes of pitching with O2. Not sure if that's good or bad,  
just  
another data point.

js

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Date: Tue, 27 Apr 93 13:18 EST  
From: LYONS@adc1.adc.ray.com  
Subject: Brewing partners?

I'm not sure about brewing partners. But would others be interested in trading one or two six packs of your better brews for those of other brewers. It seems that this way many of us could enjoy a wide variety of brew. Perhaps a means of placing ads of which styles one had available and was willing to trade would be helpfull. Any interest or alternative ideas?

Chris  
LYONS@ADC3.ADC.RAY.COM

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Date: Tue, 27 Apr 93 13:27 CDT  
From: korz@iepubj.att.com  
Subject: Guinness

I just thought some time ago, that if Guinness uses N<sub>2</sub>O, why shouldn't I. Does anyone else have any opinions?

Actually, Guinness uses a nitrogen/CO<sub>2</sub> mix. I believe it's about 65% N<sub>2</sub> and 35% CO<sub>2</sub>. The reason for this is so they can dispense at high pressure without dissolving too much CO<sub>2</sub> into the beer. Pure CO<sub>2</sub> at their dispensing pressures would make for uncontrollably foamy beer.

This weekend, I had my first opportunity to drink ale drawn by hand pump in the US. After the judging at the Bidal Socielty of Kenosha homebrew competition judging, one of the brewers from Brewmaster brought over his \*portable\* beer engine! A Black&Decker workmate was set up with an open stainless keg underneath and the 3-by-3-by-3-foot wooden box in which the beer engine was mounted. At first, the beer was still a bit fizzy from the being originally, naturally carbonated, but eventually it became appropriately "flat" and the beer was more authentic. It was actually more of a novelty, but was nonetheless cool!

Al.

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Date: Tue, 27 Apr 93 13:58 EST  
From: LYONS@adc3.adc.ray.com  
Subject: Micros using dry yeast?

In George Fix's recent posts he mentions that Whitbread distributes their dry yeast to HB shops and micros. I am surprised to read that micros would use dry yeast. Does anyone know which micros use which dry yeasts? I would like to sample these beers and make my own judgement on the use of dry yeasts.

Chris  
LYONS@ADC3.ADC.RAY.COM

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Date: Tue, 27 Apr 93 14:48 EST  
From: LYONS@adc3.adc.ray.com  
Subject: Question on Whitbread History

I enjoyed George's posting on the history of Whitbread. I unfortunately have been getting the 12 gram packages, which I now understand to be very old. I would like to try the new Whitbread out (the one with similar characteristics to Wyeast London Ale yeast). How is this new product packaged? Any information on how to identify this particular Whitbread from the other two would be appreciated.

Thank you,  
Chris  
LYONS@ADC3.ADC.RAY.COM

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Date: Tue, 27 Apr 93 12:39:25 PDT  
From: rush@xanadu.11nl.gov (Alan Edwards)  
Subject: Re: Growing Hops Horizontally

In HBD #1128, davidr@ursula.ee.pdx.edu,  
David Robinson writes:

Bravo! Nice info on the Hops report, Alan. I'm more of a gardener than a private brew master, so this was of great interest to me.

Thanks David.

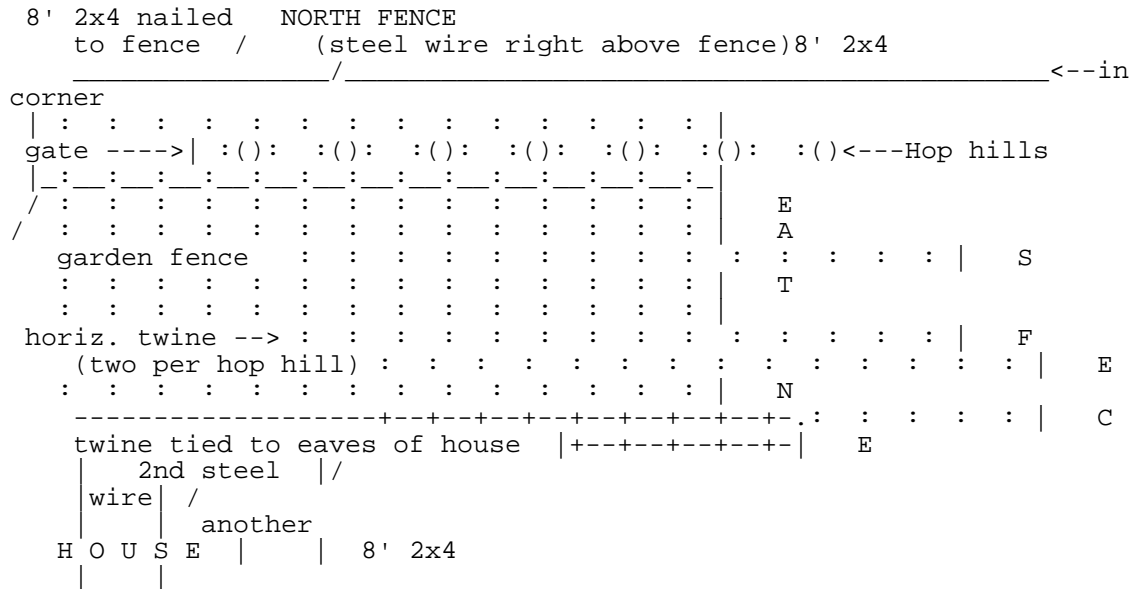
I would like to make a small clarification.  
- The garden is along my North fence, for maximum sun.  
Alan doesn't state which side of the North fence.

On MY side, silly. (Sorry, couldn't resist!)

This information of course, is dependent on what part of the world you live on. For most, if not all of the US, the "Southern Exposure" is what you are striving for. The side of a fence or house is nice because it stores and reflects heat/light for sun loving plants.

Seriously though, I live in California, so the plants are on the South side of the North fence, to get maximum Southern exposure from the sun. Clear as mud? Well, I drew a little picture to help clarify my setup. (I guess I should've done this in the first place.)

ARIEL VIEW



In HBD #1126, I wrote:

- I have seven hop plants of different varieties about 3.5 feet apart.  
The whole garden is about 24 feet by three feet.

| - The garden is along my North fence, for maximum sun.  
| - Two 8 foot 2x4's are nailed to the wooden fence (at the corner and  
| at a 4x4 post, for support), with a galvanized steel wire stretched  
| across the tops (with a turnbuckle for tightening).  
| - Nylon twine is hung from the steel wire and staked into the ground  
near  
| the hops. I would advise against using jute (natural fiber) twine.  
| I used jute twine last year and after weathering, some of them  
snapped.  
| Also, they stretch out over time, requiring retightening every so  
often  
| (plan for this).  
| - The horizontal twines are tied to the steel wire and fastened to the  
| eaves of the roof with screw-eyes.  
| - Some vines are not aligned with the house. And in those cases, the  
| twine goes to a second steel wire stretched between the North-East  
| corner of the house and an 8 foot 2x4 attached to the East fence.  
| That wire forms an extension to the North side of the roof, where  
| the other twines are attached.  
| - The garden is fenced in with a simple 2x4 frame and some chicken  
wire.  
| If you have pets, you must fence it off. Don't trust your dog. I  
did  
| two years ago, and he wrecked the garden. I had to start all over  
again.

A clarification:

| This year, instead of training three vines from each plant up one  
twine,  
| I am training four vines from each plant up TWO twines.

That's two vines per twine, four from each plant. You might want to try  
three per twine (six per plant), but I'm not sure that it would increase  
your harvest or not--it might. It would certainly increase the  
harvesting  
difficulty if the plants get too bushy, but it's not that big of a deal.  
According to the book I have, there IS a point of diminishing returns,  
and I think that six vines per plant is probably pushing it.

If you are only using one twine per plant, then the book I have says to  
train three or four vines.

| If you don't keep cutting shoots, things can get hairy quickly. The  
| same goes for the long runners that you get coming out of the sides of  
| the vine.

I'm not sure about the runners that come out of the sides of the plant.  
The book I have doesn't mention them. I think it's probably better to  
wind them up with the main vine. That's what I'm doing currently, and  
that's what I think I did last year.

What book am I referencing? Good question. I don't have it with me,  
but you've all probably seen it, at least in Zymurgy. I think it's  
titled  
"Growing Hops". Its the small paperback with hops all over the cover.

Good luck, and have fun,  
-Alan

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| Alan Edwards: rush@xanadu.llnl.gov | Member: The Hoppy Cappers  
| or: Alan-Edwards@llnl.gov | homebrew club, Modesto, CA  
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Date: Tue, 27 Apr 93 13:53:21 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Priming Scotch Ale

Part 1: I've been told the scotch ale (heavy OG 1.040) I've currently got in my secondary should be bottle to produce "low carbonation". I normally bottle ale with 3/4 cup of corn sugar for a 5 gal batch. This generally produces what I'd call a normal carbonation level. (Except when I'm hasty to bottle the I get high carbonation and wish I'd been more patient.)

Question 1: What amount of priming sugar would one use to get the 'low carbonation' appropriate for Scotch ale? (5 gal batch).

Part 2: I sometimes get varying levels of cabonation within a given batch. That is some bottles are more carbonated than others. I usually prime in the following way: 1) boil sugar w/a few cups of water & let cool. 2) Start syphoning beer from secondary to bottling bucket. 3) When about 4" of beer are in bottom of bucket add sugar solution. 4) Keep syphon near bottom of bucket hoping to provide enought mixing to uniformly disperse bottling sugar.

Since I still get different carbonation levels methinks I'm not properly mixing the bottling sugar with the beer. I'm reluctant to stir the beer for fear of oxidation and/or infection. Suggestions? Comments?

WAK

| - William A Kitch (512) 471-4929 -|  
| - Geotechnical Engineering -|  
| - ECJ 9.227 -|  
| - Univ of Texas at Austin, TX 78712-1076 -|

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Date: Tue, 27 Apr 93 14:56 CDT  
From: korz@iepubj.att.com  
Subject: Re: British Brews/Chimay yeast/O2/Hop growth

Mark writes:

>Thought I would share with you the contents of an article from the May issue  
>of Bon Appetit. The article is the "Tasting Panel Report", and for May,  
>they pick ..."the 10 best British brews available stateside."...

then later goes on to say:

>Gosh, not too descriptive. By no means am I a qualified judge, but it sounds  
>to me like the panel doesn't get around to judging beer too often, or at least  
>they don't use the same language in describing things like you certified folks  
>out there in HBD land do.

Yes, indeed, it's too bad that they did not enlist the talents of anyone who had experience in judging or writing about beer. Also too bad that they missed Young's Special London Ale, Samuel Smith's Tadcaster Porter, Oatmeal Stout and Imperial Stout and Mackeson's XXX Stout. Kudos are due for drawing attention to Traquair House Ale and Caledonian Ale (marketed here as and misnamed MacAndrew's \*Scotch\* Ale (a Scotch Ale it's not)) two of my favorites.

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Dennis writes:

I have had several discussions with people on the net about Chimay yeast. I believe I read (in HBD probably) that Chimay yeast is a combination of 5 different strains plus some other microflora. One person said that his plate of Chimay yeast had several "different" colonies of yeast on it, while another said that his plate looked all the same. I think they got their yeast from bottle dregs, not from Wyeast 1214.

Periodically, people write in the HBD that Chimay yeast is a mixture of 5 yeasts, so you may have read it here, however, it is NOT TRUE. Chimay \*used\* to be brewed with a yeast that contained several strains, but Father Theodore (I believe with the help of DeKlerck) isolated a strain out of many in their yeast which they have been using as their single strain yeast for (I believe) at least two decades. The label says that they bottle with an addition of yeast, but people who have brewed with Chimay bottle-cultured yeast that I've talked to have reported very Chimay-like beers, so I suspect that the bottling yeast is the same as the fermentation yeast. To answer Guy's question, the yeast in all the Chimay bottles, red, white, blue, 33ml and 750ml is all the same strain.

Orval, another Trappiste Ale, is a completely different story. They too ferment with a single strain yeast, but bottle with a mixture of 5 yeasts. I've successfully cultured what I believe is the Orval fermentation yeast just by trial and error. Orval also has a bit of lactic sourness, which means that there's some kind of bacteria involved which may be mixed-in with the fermentation yeast or just part of the

bottling menagerie.

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Dave writes:

>Question? Have any of you out there used direct O2 before you pitched  
>your yeast? I have read tails of some using direct injection of O2  
>instead of AIR and some problems with too much and getting way too much  
>yeast growth. How much is right?

I don't know how much O2 is right, but too much O2 can be toxic to the yeast, so be careful how much pure O2 you add to your wort.

\*\*\*\*\*

There were several posters speculating about the climbing of hops, suggesting that perhaps they are simply following the sun, which causes clockwise (as viewed from the top) growth in the northern hemisphere. Yes, it's the plant following the sun.

Al.

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Date: Tue, 27 Apr 93 18:24:26 EDT  
From: jkirsch@dolphin.uri.EDU (Jay Kirschenbaum)  
Subject: Help! Overbubbling!

Hi,  
A friend and I are making our first batch of Irish Stout. He has brewed a lager before, but this is my first batch of beer. We followed the directions that came with the beer kit (Irish Stout from Eastern Brewers Supply) but used a liquid yeast instead of the dry yeast supplied (on the suggestion of EBS).

We are fermenting in a ~6.5 Gal plastic primary fermenter, but now, two days after we pitched the yeast the wort is bubbling VERY vigorously. It is bubbling so much that it is getting in to the fermentation lock, which was 3-4 inches above the level of the brew when we began.

Did we do something wrong, or is a stout supposed to ferment that violently?

The ambient temperature is about 70-65 F as suggested in the recipe.

Thanks in advance,  
Jay Kirschenbaum (and Dave)  
jkirsch@dolphin.uri.edu

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Date: Tue, 27 Apr 93 18:24:30 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: southpaw hops

mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand) noted the following:

>  
> I am growing three kinds of hops in my Southern California backyard,  
> and they are all doing the same thing: climbing the stake \*clockwise\*.

you live in the N. hemisphere. when the sun comes up in the morning in the SE, the leaves and grow point turn towards it. As the sun moves across the sky toward the SW, the end of the stem follows it, winding clockwise around the pole.

just a hypothesis..

bb

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Date: Fri, 23 Apr 1993 8:21:07 -0500 (CDT)  
From: MEHTA01@SWMED.EDU  
Subject: organizing a BREW-OFF!!

Hi.

i just wanted to share a few notes on an 'annual' brew-off that we have going here at UTSouthwestern Medical Centre. The school is essentially composed of graduate students (almost all Ph.D. students), post-docs and fellows, and faculty and of course staff. There are millions of labs here, all doing some form of biomedical research.

There are a few of us who also brew in the little free time we have. We have a GSO party (paid for [artly from the student fees) held every month where we (GSO = Grad Student Organisation) serve beer and titbits...

The GSO council decided, on a wee little brewing voice's suggestions, to have an annual brew-off where the students, faculty etc would brew a batch for the school and bring it in at one of the monthly parties that would then be designated a Brew-Off!! It truns out that we have quite a few brewers in the university and the event was very well received, with brewers of all levels bringing forth their products. Lots of fun !! The brewers also get reimbursed for the supplies (inggredients)for the one batch they bring in, but so far very few people have brought receipts in.

So, we have a greast time. The brewers get a chance to spread the good beer (cheer :- ) ) and get some general ffeed-back on their styles...

i thought that some other univ people might be interested in hearing about this fun event.

Ciao

And happy brewing.. Here's to tiny bubbles..

Shreefal Mehta

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End of HOMEBREW Digest #1129, 04/28/93  
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Date: Tue, 27 Apr 1993 18:15:47  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Don O'Connor's Beer, Premier Malt

George Fix asks about Don O'Connor's beer.

I can personally attest to the high quality of Don's (and wife Lynne's) beers. As to why he doesn't enter competitions, I'll let Don answer that one but I suspect the beers would fare well. I'll also give Don a chance to post the story on the "O-Ring" beer. It was very interesting and in fact published in their latest newsletter (St. Patricks of Austin).

"Bob" asks about Premier Malt Products yellow can:

I read somewhere that Premier Malt Products had picked up the license to distribute the old "Pabst Blue Ribbon" extract. I think it was in the first issue of that supposedly funny brew paper out of Michigan.

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Date: Wed, 28 Apr 1993 0:43:21 -0500 (CDT)  
From: BIRMINGH@FNAL.FNAL.GOV (Hi-keeba!)  
Subject: **Headhunters May Meeting (W. Chicago 'burbs)**

The May meeting of the Headhunters homebrew club will happen on Friday, May 7, from 7-11 PM. The meeting will be at Greg Lawrence's place, 4 S 245 Wiltshire Lane, in Sugar Grove, IL. Bring beer or wine and munchies.

For more information, call Greg evenings at (708) 557-2523, or e-mail me at [birmingham@fne683.fnal.gov](mailto:birmingham@fne683.fnal.gov)

Phillip Birmingham

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Date: Wed, 28 Apr 93 03:10:19 CDT  
From: todd@gold.rtsg.mot.com (Todd M. Williams)  
Subject: Who's responsible for micbrewing??

Boy that guy in Boston(tm) does not give it a break....the new radio ads here in Chicago(tm) treat us to Jim(tm) Koch(tm) telling us how he practically invented the "microbrewery"(tm) and how the "big guys"(tm) spill more beer than he makes in a year. I'm geting really tired of this guys crap and shall continue to not drink his products. I also will continue to tell everyone I know/meet, about his never ending shenanigans. I urge y'all to do the same. This guy could give a lot of politicians a run for their (read:our) money.

Sigh...Sorry...had to get that off my chest...I feel better now...thank you.

Todd(tm) (starving a lawyer, by not drinking SA(tm))  
Downers Grove(tm), IL.(tm)

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/-----
-----/
/ -rwxr-xr-x 1 todd employer 69 Feb 10 1958 OPINIONS(tm)/
/ lrwxrwxrwx 1 employer other9 Jan 01 1970 OPINIONS -> /dev/null
/
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Date: Wed, 28 Apr 93 05:24:06 CDT  
From: todd@gold.rtsg.mot.com (Todd M. Williams)  
Subject: wishlist from vienna/berlin...

My Mom is going to Berlin and Vienna, and has offered to bring home some beer for me. Any Suggestions??? She will probably only bring a few. Which are the best. Can weiss yeast from German beer be cultured? As has been discussed, the stuff that is shipped to the States is pasturized, or shipped with different yeast. Help...she's leaving on Saturday May 1st. Please email replies to me directly.

Thanks muchly,

Todd Williams  
Downers Grove, IL.  
todd@rtsg.mot.com

Moderation sir, aye, moderation is my rule. 9 or 10 is reasonable refreshment, but after that it's apt to degenerate into drinking.

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Date: Wed, 28 Apr 93 09:08 EST  
From: LYONS@adc2.adc.ray.com  
Subject: Re: Problem with Nottingham Yeast

>This is my second batch with nottingham ale yeast. After 48 hrs, still  
>no  
>activity. With my first batch after 48 hrs I gave up and pitched a  
>different  
>yeast which promptly got the bubbles going. Is Nottingham a  
>particularly  
>slow starting yeast ? For info, the OG was 1.052 and I rehydrated the  
>yeast  
>"by the book". I'm getting real nervous about letting it sit with no  
>activity (68 deg F) although I use an airlock.

I've used both Nottingham and Windsor. As a side note I  
preferred the Windsor. However, the packages are rather small  
... I believe containing approximately only 5 grams. Since the  
pitching rate is important in terms of the lag time, I have been  
adding two packages of Nottingham for a single batch. This is still  
less yeast than a single package of Whitbread. The lag time  
I've experienced, when pitching at 60F is approximately 1 day.  
On lag times like this I occassionly shake the primary until  
notable fermentation kicks in. IMHO I think this helps reduce  
the lag time.

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Date: Wed, 28 Apr 93 08:43:12 -0600  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Re: Chimay yeast

I talked with one of Coors' microbiologists last night related to Chimay yeast strain question. He studied for his brewing PhD. in Belgium so I highly value both his academic and professional opinions.

He informed me that Chimay only uses ONE yeast and you can observe this in your cultures. Not all trappist styles use a single strain. His recommendation was to use Chimay if you wish to culture a trappist style yeast.

John Adams

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Date: Wed, 28 Apr 93 11:28:38 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Belgium Wheat Malt & Biscuit

Hi all,

I like to brew german HefeWeizens using 70% wheat malt, and following a decoction procedure as described by Eric Warner in his excellent book on weizens. The last two batches I made used DeWolf Cosyns Wheat malt. In both cases, my extract efficiency was way off. I used to use Bavarian wheat malt and always had great results. This is a bothersome result, but it could be due to other factors, notably both of these batches were produced in my newer brewery and it is possible that my decoctions are not as before. I am looking for feedback from the digest with respect to yields when using this wheat malt. Email me at busch@daacdev1.stx.com

The results are in from my latest celebration clone. I used a small percent of Biscuit in addition to large amounts of caramel malts. The biscuit resulted in an extremely pleasing light "roasted" character. It is subtle but evident. The ale is on the dark side of a pale ale, but the complexity and maltiness/roasted character is blending well with the spiceyness of Cascade and Centennial hops. The biscuit malt would seem ideal for use in Scotch Ales and other darker ales and even in small quantities in amber ales.

Good brewing,  
jim Busch

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Date: Wed, 28 Apr 93 08:46:53 PDT  
From: troy@scubed.scubed.com (Troy Howard)  
Subject: Re: Alcohol and other drugs

In 1129 Ted Manahan writes:

>We also need to be vigilant against someone deciding they know what is  
>best for us. The potential for abuse does not justify taking away the  
>liberty to use. This certainly holds true for other substances. The  
>current "war on drugs" is a prime example of creating criminals out of  
>honest citizens, just as prohibition created criminals out of honest  
>drinkers.

>

>The main effect of the "war on drugs" is to guarantee a monopoly on drug  
>profits to those willing to break the law. What newspapers call "drug  
>related violence" is really money related violence - the most common  
drug

>related violence is bar fights between drunk people.

>

>It is foolish to self righteously decry the attacks neo prohibitionists  
>are making, while failing to see the connection with our own intolerance  
>of, for instance, marijuana use. Homebrewers need to be aware that  
>intolerance is contagious. People with "Zero Tolerance" will quickly see  
>that alcohol is more dangerous than most illegal drugs. The urge to  
>control people's behavior soon extends to everything we personally don't  
>do.

I would like to express my whole-hearted agreement with Ted on this  
issue.

You took the words right out of my mouth. Excellent post!

Oh, by the way, Ted, may I suggest some flame-proof long-johns for the  
next  
couple of weeks :-)

Troy

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Date: Wed, 28 Apr 93 08:57:16 PDT  
From: troy@scubed.scubed.com (Troy Howard)  
Subject: Easy Yeast Culturing 3

Another data point for Easy Yeast Culturing:

I bottled my beer this past weekend. The Easy Cultured Yeast did a very nice job. Dropped the gravity down from 79 to 18 (perfect). The doppelbock tastes GREAT!

This allays one of the fears that I had when I started this experiment, i.e., that the yeast would not be viable. Now I guess the only remaining concern I have is how long will they remain viable.

I'll keep you posted.

Troy

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Date: Wed, 28 Apr 93 09:30:33 PDT  
From: David Ferguson <davidfer@microsoft.com>  
Subject: Mashing on an Electric Coil Stove

I am a semi-experienced homebrewer contemplating my first all grain batch. I'm wondering though if I will be able to use an electric stove to maintain the precise temperatures needed for a successful mash. I have an old klunker with red hot, hot, less hot and warm settings. Has anyone had any success on similar stoves? any suggestions on ways to buffer the radical temperature changes between settings (like placing the brew kettle over a pot of water perhaps)?

Thanks for any advice, direct replies are welcome and encouraged as usual.

Dave Ferguson

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Date: Tue, 27 Apr 93 16:04  
From: RMCGLEW.BUSSYS@mhssmtp.mdso.vf.ge.com (MCGLEW, RAY)  
Subject: Bottling Scotch Whiskey

The Scotch in the barrells is VERY flammable and can be considered a hazardous material with a flash point of about 110 deg F. I suggest that you let me handle this hazmat in a way that will prevent another Waco incident in your neighborhood!

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Date: Wed, 28 Apr 1993 13:17:45 -0600

From: colesa@spot.Colorado.EDU

Subject: Re: Alcohol and other drugs

I must applaud Ted Manahan's article in HBD #1129 on the use of drugs, drinking of alcoholic beverages and the moral soapbox some people get on when speaking of "illegal drugs".

I have had many an argument with those who believe it's fine to drink, but reprehensible to use other drugs. The laws of biochemistry don't care what is legal or not. I simply don't agree with being told what to do for MY own good. My body is my own, and by that same philosophy I cannot force my views about drinking or drugs on anyone else, but merely point out hypocrisy when I see it.

Thanks Ted!

Replies by e-mail are welcome.

Cheers!

Adam Coles\* I'm not giving in to security under pressure  
Senior, Bioengineering \* I'm not missing out on the promise of  
adventure  
College of Aerospace\* I'm not giving up on implausible dreams  
CU Boulder\* Experience to extremes, experience to extremes  
colesa@spot.colorado.edu \* -N. Peart

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Can anyone see potential problems with this configuration? Am I overly concerned with channeling?

tx,  
- --mik

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Date: Wed, 28 Apr 93 14:36 CDT  
From: korz@iepubj.att.com  
Subject: Nottingham/Whitbread/hop growth

Jpetty writes:

>This is my second batch with nottingham ale yeast. After 48 hrs, still  
no  
>activity. With my first batch after 48 hrs I gave up and pitched a  
different  
>yeast which promptly got the bubbles going. Is Nottingham a  
particularly  
>slow starting yeast ? For info, the OG was 1.052 and I rehydrated the  
yeast  
>"by the book". I'm getting real nervous about letting it sit with no  
>activity (68 deg F) although I use an airlock.

Some of the batches of beer that I've made with Nottingham took some time  
to start, but eventually everything worked out alright. You said that  
you followed rehydration methods "by the book." Well, there has been  
some contradictory information on rehydration in the past. Some  
descriptions

fail to mention a temperature differential between the "starter" and the  
wort.

I contend that this is still very important. You rehydrate the yeast in  
plain water between 104F and (I believe) 115F and then let it sit between  
15 and 30 minutes, right? Then you dump this 8 ounce "starter" into 5  
gallons

of 65F wort. This will definately shock the yeast. What I do with dry  
yeasts, is rehydrate them in 104F boiled water and then let them sit for  
30 minutes in a covered (with plastic wrap) pyrex measuring cup. In  
those

30 minutes, the "starter" has cooled to about 85F. I then pitch this  
into

my wort which I have intentionally only cooled to 80F (instead of the  
usual

70F) and aerated well. Even with this procedure, one batch took 48 hours  
to  
start.

For Wyeast batches, I warm the package to 70F and then pop the nutrient  
pack. This gets incubated at 70F and then pitched into a 70F starter.  
That gets subsequently gets pitched into a 70F wort. Positive pressure  
is obvious in the airlock/blowoff hose after 12 hours and kraeusen is  
formed in 24.

\*\*\*\*\*

Ted writes about alcohol and the "war on drugs."

Theoretically, I feel that it is not the government's job to protect  
us from ourselves. Let's face it... many things that are good in  
moderation are bad in excess. Then there are the things that are  
legal although there has been no evidence of any positive effects from  
these substances -- case in point: tobacco. Alcohol can be abused,  
but so can model airplane glue and aspirin and caffeine and automobiles  
and Whipped-cream propellants and... Education on the dangers and  
\*reasonable\* warning labels, and then "buyer beware." That's my  
position.

\*\*\*\*\*

Chris writes:

>I enjoyed George's posting on the history of Whitbread. I  
>unfortunately have been getting the 12 gram packages, which I now  
>understand to be very old. I would like to try the new Whitbread  
>out (the one with similar characteristics to Wyeast London Ale  
>yeast). How is this new product packaged? Any information on how  
>to identify this particular Whitbread from the other two would be  
>appreciated.

I thought it was the 14 gm packages that were the "old variety" and  
the 12 gm packages that are the "new variety," but I could have it  
backwards. I didn't particularly like the "black-bread-crust" flavor  
of Whitbread Ale and thus chose to use other yeasts instead of Whitbread,  
so I don't have any personal experience with it.

\*\*\*\*\*

I wrote:

>had experience in judging or writing about beer. Also too bad that they  
missed  
>Young's Special London Ale, Samuel Smith's Tadcaster Porter, Oatmeal  
Stout  
>and Imperial Stout and Mackeson's XXX Stout.

Subsequently \*I\* missed Fullers ESB!

I wrote:

>There were several posters speculating about the climbing of hops,  
suggesting  
>that perhaps they are simply following the sun, which causes clockwise  
(as  
>viewed from the top) growth in the northern hemisphere. Yes, it's the  
plant  
>following the sun.

But then POLLARD writes:

>you all. I can't contribute much there, but I do know a thing or two  
>about botany. Twining of vines appears to be unrelated to either  
sunshine  
>(they do the same under artificial light) or coreolis effect (I believe  
>they may have even tested it in the space shuttle). It is controlled by  
>internal factors related to planes of cell division and distribution of  
>plant hormones. Some species are innately counterclockwise twiners, and  
>others, like hops, go clockwise. Yes, it is conventionally viewed from  
>the plant's point of "view", looking up. An unsupported hop shoot,  
viewed

I guess I should have left it to the botanists to give the final word.  
Everything that I had read had said that the plants were "following the  
sun," but then again, mine were all homebrewing-related sources and not  
botany texts/journals/etc.

Al.

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Date: Wed, 28 Apr 93 16:00:29 EDT  
From: gorman@aol.com  
Subject: Dominion Brewing

>From: roy.rudebusch@travel.com  
>Subject: Old Dominion Brewing Co.

>In Ashburg, Virginia.

>How are their beers, in general?

>Do they have any particularly good ones? Are they a Micro or a brewpub?

Dominion Brewing (Ashburn, VA) is a microbrewery located in the flight path of Dulles Airport, outside Washington, DC

They brew several year-round beers, Dominion Ale, Dominion Lager, Dominion Stout and perhaps others I've forgotten. They also produce seasonal brews, the Christmas Ale was excellent, the current a Spring Bock I've yet to taste.

They also produce "house recipe" beers for a growing number of metro-DC area bars.

They conduct tours on Saturday afternoons, call 703-860-BEER for details. Last time I went, the president, Jerry Bailey, gave an excellent tour.

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Date: Wed, 28 Apr 1993 14:33:06 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Decocting and Concocting

David McDow asks about decoction mashing:

>I would like to learn more about decoction mashing. If anyone would  
>care to share their method I'd be appreciative.

Particularly if you're interested in real wheat beers, you should pick up a copy of Eric Warner's book on German Wheat Beers, published by the AHA. Eric's decoction procede is straight-forward and easy enough to accomplish (particularly on the stove), plus it makes a killer beer. Greg Noonan's book on Lager Beer contains a much more complicated and much longer decoction mash. Judging from my reading in other sources, Noonan's procedure is unnecessarily complicated given the malts we have to work with these days and you should be able to use Eric's method for other beers as well.

From: LYONS@adc3.adc.ray.com  
Subject: Micros using dry yeast?

>In George Fix's recent posts he mentions that Whitbread distributes  
>their dry yeast to HB shops and micros. I am surprised to read that  
>micros would use dry yeast. Does anyone know which micros use which  
>dry yeasts? I would like to sample these beers and make my own  
>judgement on the use of dry yeasts.

>Chris

There was a time a few years ago when it seemed every brewpub in California was using Whitbread yeast, either their ale yeast or their "lager" (which made remarkably ale-like lagers!). This was apparently due to the influence of UC Davis' Michael Lewis, who was busy convincing potential brewpub owners/brewers that anything else was too complicated and not worth the effort. The results were pretty spotty, and convenient or not, the yeast apparently did not respond well to re-pitching, which meant the brewer had to keep buying more. I wrote a report about a trip through the brewpubs back in 1988 or so and singled out one horrible example in Santa Rosa. Byron Burch wrote to say that, ordinarily, the pub turned out very good beer but that they'd had some real problems with their dry yeast (Whitbread -- and by-now familiar problems). The local homebrewers stayed away until the beer was cleaned up (although why the brewery was serving such awful stuff, I don't know).

I don't know for sure, but I suspect brewers down there have become a little more sophisticated in the last few years, and learned that "easy" is not always the best choice.

- --Jeff Frane

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Date: Wed, 28 Apr 93 15:53:11 -0500  
From: jmellby@iluvatar.dseg.ti.com  
Subject: Update to Pub list

The latest additions to my Publist have been made available on the Homebrew archive at sierra.stanford.edu in the pub/homebrew/docs directory, thanks to Stephen Hansen. The file is publist.Z (compressed with UNIX compress I believe). Listserver users just need to say "get homebrew publist".

This list includes brewpubs, pubs, restaurants, and beer (liquor) stores which have good beer. There are also some microbreweries, home-brew shops and the like, but these are not as complete.

The goal of this is to give travelers a reference on where to find good beers including sources to buy bottles to bring home.

My database which parses and searches this list currently says:  
#Done reading in the pub db, Pubdb Version 1.2 July 1, 1991  
#Recognized a total of 1417 pubs from 18 countries and 582 cities.  
---- (and the like)

I am trying to port the search program over from Sun to a PC, but don't hold your breath until the C++ class I'm teaching is over.

If you have any information especially about new brewpubs or beer pubs, brewpub closings, or useful notes/corrections please send me a message

John R. MellbyTexas Instruments  
jmellby@iluvatar.dseg.ti.com (214)517-5370 <h> (214)575-6125 <w>

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Date: 28 Apr 93 22:31:49 EDT  
From: Tim Norris <71650.1020@compuserve.com>  
Subject: Re: CO2 cartridges

Steve,

You can also get the CO2 cartridges used for Seltzer bottles, the kind that let you make and dispense your own.. I've never actually tried the sporting goods store route. I've always used the small CO2 carts used for Seltzer. Should still cost a lot less than Nitrous. They come in a package quite similar to the Nitrous carts.

The ultimate would be to rig an adapter that goes from the 5L taper gas thing to a real CO2 tank with a good regulator. In my experience, those ggas cartridges leak a lot. I seem to lose 1/2 my gas before I dispense any beer.

If I find an adapter, I'll let you know.

Tim Norris  
Chicago

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End of HOMEBREW Digest #1130, 04/29/93  
\*\*\*\*\*  
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Date: Thu, 29 Apr 93 09:43:05 MET  
From: dejonge@geof.ruu.nl (Marc de Jonge)  
Subject: Re: Mashing on an Electric Coil Stove

In HBD1130 David Ferguson asks about mashing on an uncontrollable stove:

I would suggest using decoction mashing when suitable for the beer you're making. You'll only need the hottest and nothing settings. An other method (which also buffers temperature drop) is placing the mash-tun in a larger kettle with water. (if you have a number of cheap enamel on steel pots ranging from 5 to 40L(1.5-10Gal))

Marc de Jonge

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Date: Thu, 29 Apr 93 11:19:14 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: historical recipes,part 1

Historical Recipes by F Accum 1821  
translated by Rob Thomas.  
All recipes are adjusted to give 4 UK gallons  
of beer at fermentation (i.e. 5 US gallons).  
All measurements are UK units (same as US, except  
gallon US = 0.8 gallon UK)

PART 1

Brown Stout Porter.  
- -----

Ingredients.  
13.99 lb malt, 1/5 pale, 1/5 amber, 3/5 brown  
5.3 oz. hops.

Mashing.  
Mash 1: 2.375 gall of water at 165 F, 1.5 hours.  
Mash 2: 1.875 gall of water at 160 F, 1.5 hours.  
Mash 3: 1.938 gall of water at 186 F, 3/4 hours.

Boiling.  
mash 1 boiled with the hops for 1.5 hours.  
mash 2 boiled with the used hops for 1.75 hours.  
mash 3 boiled with the used hops for 2.5 hours.

Produces 4 gall at 1071.  
fg. 1024.  
- -----

London Ale.  
- -----

Ingredients.  
25.45 lb pale malt  
9.29 oz. hops.

Mashing.  
Mash 1: 1.820 gall of water at 175 F, 0.5 hours,  
then add a further 0.91 gall at 175 F, 2 hours.  
Mash 2: 2.180 gall of water at 180 F, 1.75 hours.  
Mash 3: 1.270 gall of water at 150 F, 1.25 hours.  
Mash 4: 1.270 gall of water at 150 F, 1.25 hours.

Boiling.  
mash 1 boiled with the hops for 1.5 hours.  
mash 2+3+4 boiled with the used hops for 3 hours.

Produces 4 gall at 1068.  
fg. 1026.  
- -----

Table Beer.  
- -----

Ingredients.

10.1 lb pale malt

1.92 oz. hops.

Mashing.

Mash 1: 2.880 gall of water at 160 F, 0.75 hours,  
then add a further 1.71 gall at 160 F, 1.5 hours.

Mash 2: 2.700 gall of water at 180 F, 1.25 hours.

Mash 3: 1.980 gall of water at 185 F, 1.25 hours.

Boiling.

mash 1 + 1/2 mash 2 boiled with the hops for 1 hour.

rest of mash 2 + mash 3 boiled with the used hops for 2 hours.

Produces 4 gall at 1035.

fg. 1012.5.

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Date: Thu, 29 Apr 1993 05:28:47 PDT  
From: Dimitri\_Katsaros.Wbst139@xerox.com  
Subject: Re: Bottling Scotch Whiskey

You (Ray McGlew) replied to my initial post with:  
<The Scotch in the barrells is VERY flammable and can be considered a hazardous material with a flash point of about 110 deg F. I suggest that you let me handle this hazmat in a way that will prevent another Waco incident in your neighborhood!>

Well... I appreciate the offer... how would you handle it differently? I'm not going to bottle in an enclosed area, and I don't smoke so... what other considerations must I make? And once the stuff is bottled and is as flammable as you say, how do I store them without fearing that they'll turn into molotov cocktails? :-) My last question would be where are you located? :-)

Hope to chat again with you soon  
Dimitri Katsaros

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Date: Thu, 29 Apr 93 08:59 EDT  
From: tmr1@hotmailg.att.com  
Subject: BEER WITH THE BENDS

In HOMEBREW Digest #1130 of Thu 29 April 1993, Ed Hitchcock writes:

:> Although perhaps impractical as Jack mentions, it does provide  
:> aesthetics. To some, good head is part of a fine beer, but heavy  
:> carbonation may add an acidic tang, and deffinitely makes for a \*  
fizzy\*  
:> product. By nitrogenating the beer, you get good head without the  
soda pop  
:> fizz. The reason for this is, as Jack discovered, N2 is virtually  
:> insoluble in water at low pressures, which is why the pressure didn't  
drop  
:> in the keg. Ideally the beer in the keg should be naturally carbonated  
:> (primed like a Real Ale) before being dispensed this way, not force  
:> carbonated. Force carbonating defeats the purpose. The insolubility  
of  
:> nitrogen is the reason for the small bubbles, the beer gets "the  
bends"  
:> when it comes out of the tap.

As a SCUBA diver, I would like to clarify the term "the bends" or as it  
is also know as "decompression sickness" (DCS). DCS is caused by  
dissolved  
N2 coming out of solution from the blood, muscle and other fluids and  
body  
tissues when a diver ascends too rapidly. This forms tiny bubbles that  
cause neurological and physiological damage to the body.

Although diatomic nitrogen (N2) is a very stable element and is  
relatively  
inert at low temperature and pressure, it is easily dissolved in fluids  
such as blood, water or beer. I can't say if or why it causes a good  
head  
on beer, but I can say that it will dissolve in it.

Tom Romalewski

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Date: Thu, 29 Apr 1993 08:09:34 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Scotch Ale/Caramel Flavor

I tried to make a Scotch Ale six weeks ago or so, and I've just opened the first couple of bottles. I used about 1/4 pound of "Mexican" brown sugar in the five gallon batch. Mexican brown sugar seems to be highly unrefined, and has an absolutely delightful molasses taste to it.

Now that the yeast is firmly on the bottom of the bottles, I can tell that there is very little molasses on the nose, and just a faint aftertaste. Just for fun the other day, I went out and bought some MacAndrews and McEwain's Scotch ale to compare. Since I like the MacAndrews better, I'll talk about IT. The first thing I noticed was a strong malt/caramel nose and flavor. We're talking strength like drugstore candy. More caramel than malt, I think. Tasty. My attempt doesn't come close. MacAndrews has more hop bitterness than mine does, but with all that caramel it probably needs it. The color, body, gravity, head, and the rest are fine in the beer I made -- what's missing is the caramel flavor.

It was an all-grain recipe:

5# 2-row  
4# Cara-Vienne  
1# Cara-Munich  
1/4# Mexican Brown Sugar  
Wyeast 1098  
7 HBU Kent Goldings bitter

Mashed at 155 F to get unfermentables up

The question I have is "How do I get the stronger caramel flavor?" The only thing I can think of to try is to get a few quarts of the strong first runnings from the lauter tun, and boil the h\*ll out of it while sparging the rest to caramelize the sugars. Or maybe melt the brown sugar in a saucepan, and caramelize it before adding it to the boil pot. Or maybe buy some Brach's (tm) caramel cubes and dissolve `em in the wort instead of the brown sugar?

Got any ideas for me??

t

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Date: Thu, 29 Apr 93 09:20:34 EDT  
From: neilm@juliet.ll.mit.edu ( Neil Mager )  
Subject: Starting All Grain & Cooler Mash Tun/Lauter Tun construction

I compiled a digest on All Grain brewing and Cooler Mash Tun/Lauter Tun construction. The ~80 messages were extracted from HBD's from the last 18 months or so. Many of the messages are interrelated, so I left it in one file.

Stephen Hansen has kindly installed the digest in a file named all\_grain\_equipment.Z in the /pub/homebrew/docs directory on Sierra.Stanford.EDU (thanks Stephen). If you are using the listserver, remember to leave off the .Z.

I hope others find this as useful as I have.

=====  
=====

Neil M. Mager  
MIT Lincoln Laboratory Lexington, MA  
Weather Radar - Group 43

Internet<neilm@juliet.ll.mit.edu>  
Voice (617) 981-4803

=====  
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Date: Thu, 29 Apr 93 08:49 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Humor

It appears that Ulick Stafford (ulick@bernini.helios.nd.edu) took my recent attempt at humor over his "cake beer" as a personal insult and put down.

I meant nothing of the kind and apologized privately but thought it would be useful to mention it publicly in case anyone else thought likewise.

When someone says he put cakes in his beer, it is more than I can resist. He was obviously referring to cakes of baker's yeast. Just for the record, I used dry yeast in my experiment and make no claims about any other type.

Also, for the record I refuse to use :) and accept the consequences.

js

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Date: Thu, 29 Apr 93 9:52:10 EDT  
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>  
Subject: Single Malt Scotch Whiskey

Re: Bottling.

Single Malt Scotch Whiskey refers to the Whiskey coming from a single barrel. A whiskey like Chivas Regal is a blended whiskey. In a blended whiskey the intent is to produce a product with identical taste from year to year. With a Single Malt whiskey each barrel will have different taste, however subtle that provides a tasting adventure to the drinker.

If what you have is indeed barrels of single malt whiskey. I would bottle the contents of each barrel separately and label accordingly and enjoy the nectar of the heather.

Regarding bottling and flame point, If flammability is an issue do it in a well ventilated place like outside. Reusing glass liquor bottles with screw caps should be acceptable or wine bottles with corks. The liquor bottle and screw cap seems more practical with regards to re capping.

On principle I would not use plastic liquor bottles.

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Date: Thu, 29 Apr 1993 07:11:31 PDT  
From: Dimitri\_Katsaros.Wbst139@xerox.com  
Subject: Requesting the e-mail or snailmail address of Michael Jackson

Hi all.... I was corresponding with Ray McGlew and he suggested:  
<<I might try contacting Micheal Jackson. He was an expert in scotch  
before he  
got into beer. If you do try and contact him I would have the names of  
the  
makers, and the ages, of the scotches in question. .... I don't know if  
Jackson  
has an E-mail address, you might post on the HBD a request for an  
address,  
mailing or otherwise.>>

So... any of you out there know?

Thanks in advance  
Dimitri Katsaros

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Date: 29 Apr 1993 03:34:59 U  
From: "AUSQM1" <AUSQM1@ausqml.sps.mot.com>  
Subject: Please Resend.

Mail\*Link(r) SMTPHomebrew Digest #1130 (Apri  
!!!! Original Message >= 24K; See following enclosure. Preview follows  
!!!!

HOME BREW Digest #1130Thu 29 April 1993

FORUM ON BEER, HOMEBREWING, AND RELATED ISSUES  
Rob Gardner, Digest Coordinator

Contents:

Don O'Connor's Beer, Premier Malt (Mark Garetz)  
Headhunters May Meeting (W. Chicago 'burbs) (Hi-keebea!)  
Who's responsible for micrbrewing?? (Todd M. Williams)  
wishlist from vienna/berlin... (Todd M. Williams)  
Re: Problem with Nottingham Yeast (LYONS)  
N2 and beer / hops (Ed Hitchcock)  
Re: Chimay yeast (John Adams)  
Belgium Wheat Malt & Biscuit (Jim Busch)  
Re: Alcohol and other drugs (Troy Howard)  
Easy Yeast Culturing 3 (Troy Howard)  
Mashing on an Electric Coil Stove (David Ferguson)  
Bottling Scotch Whiskey (MCGLEW, RAY)  
Re: Alcohol and other drugs (colesa)  
RIMS, vent pipe, and channeling (J. Michael Burgeson)  
Nottingham/Whitbread/hop growth (korz)  
Dominion Brewing (gorman)  
Decocting and Concocting (Jeff Frane)  
Micros using dry yeast? (LYONS)  
Update to Pub list (jmellby)  
Re: CO2 cartridges (Tim Norris)

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For "Cat's Meow" information, send mail to  
lutzen@novell.physics.umr.edu

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Date: Tue, 27 Apr 1993 18:15:47  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Don O'Connor's Beer, Premier Malt

George Fix asks about Don O'Connor's beer.

I can personally attest to the high quality of Don's (and wife Lynne's) beers. As to why he doesn't enter competitions, I'll let Don answer that one but I suspect the beers would fare well. I'll also give Don a chance to post the story on the "O-Ring" beer. It was very interesting and in fact published in their latest newsletter (St. Patricks of Austin).

"Bob" asks about Premier Malt Products yellow can:

I read somewhere that Premier Malt Products had picked up the license to distribute the old "Pabst Blue Ribbon" extract. I think it was in the first issue of that supposedly funny brew paper out of Michigan.

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Date: Wed, 28 Apr 1993 0:43:21 -0500 (CDT)  
From: BIRMINGH@FNAL.FNAL.GOV (Hi-keeba!)  
Subject: Headhunters May Meeting (W. Chicago 'burbs)

The May meeting of the Headhunters homebrew club will happen  
on Friday, May 7, from 7-11 PM. The meeting will be at Greg Lawrence's  
place, 4 S 245 Wiltshire Lane, in Sugar Grove, IL. Bring beer or  
wine and munchies.

For more information, call Greg evenings at (708) 557-2523, or  
e-mail me at [birmingham@fne683.fnal.gov](mailto:birmingham@fne683.fnal.gov)

Phillip Birmingham

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Date: Wed, 28 Apr 93 03:10:19 CDT  
From: todd@gold.rtsq.mot.com (Todd M. Williams)  
Subject: Who's responsible for micrbrewing??

Boy that guy in Boston(tm) does not give it a break....the new radio ads here in Chicago(tm) treat us to Jim(tm) Koch(tm) telling us how he practically invented the "microbrewery"(tm) and how the "big guys"(tm) spill more beer than he makes in a year. I'm getting really tired of this guys crap and shall continue to not drink his products. I also will continue to tell everyone I know/meet, about his never ending shenanigans. I urge y'all to do the same. This guy could give a lot of politicians a run for their (read:our) money.

Sigh...Sorry...had to get that off my chest...I feel better now...thank you.

Todd(tm)

- ----- RFC822 Header Follows -----  
Received: by ausqml.sps.mot.com with SMTP;29 Apr 1993 03:34:52 U  
Received: by motsps (4.1/SMI-4.0/Email 1.1)  
id AA04712; Thu, 29 Apr 93 00:25:30 MST  
Received: from hpfcla.fc.hp.com by spsgate.sps.mot.com (4.1/SMI-4.1)  
id AA02984; Thu, 29 Apr 93 00:23:19 MST  
Errors-To: homebrew-request@hpfcmi.fc.hp.com  
Received: from hpfcrdg.fc.hp.com by hpfcla.fc.hp.com with SMTP  
(1.37.109.4/15.5+IOS 3.20) id AA06413; Thu, 29 Apr 93 01:14:11 -0600  
Received: by hpfcmi.fc.hp.com  
(16.6/15.5+IOS 3.22) id AA29039; Thu, 29 Apr 93 01:00:18 -0600

Date: Thu, 29 Apr 93 01:00:18 -0600

Message-Id: <9304290700.AA29039@hpfcmi.fc.hp.com>

**Subject: Who's responsible for micbrewing??**

From: homebrew-request@hpfcmi.fc.hp.com (Verify address before sending)

Reply-To: homebrew@hpfcmi.fc.hp.com (CHANGE THIS IF NECESSARY)

Errors-To: homebrew-request@hpfcmi.fc.hp.com

Precedence: bulk

Subject: Homebrew Digest #1130 (April 29, 1993)

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Date: Thu, 29 Apr 93 08:15:03 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: RIMS and dry yeast use by micros

>J. Michael Burgeson asks about RIMS, vent pipe, and channeling.  
>  
>  
>I am putting together a RIMS system, and have been reviewing designs  
>and discussions from past HBDs. I am most interested in the topics  
>of grain bed compaction and channeling of liquor through the grain  
>bed.  
>  
>In HBD #1088, Bob Jones posted concerns about grain bed compaction  
>in RIMS systems. He related that he was unable to get a 10 gal.  
>setup to work properly.  
>  
>In HBD #806, Alan Gerhardt posted an article about his RIMS system.  
>Alan's system included a vent pipe which extended above the grain  
>bed from the copper pipe manifold on the bottom of the mash/lauter  
>tun. I think the use of a vent pipe would go a long way toward  
>reducing the compaction problem. Bob, did you try a vent pipe?

I have not tried a vent pipe, but I would guess that due to grain  
compaction  
you will get a very large flow through the vent pipe and this would make  
for  
alot of HSA and poor heat transfer in the heater due to all the foam. ie  
I  
don't like it. Still an anti-RIMS zealot!

There are still alot of micros using dry yeast. The dry yeast used to  
come  
from Siebels and was of a pretty high quality. I understand from Micah  
that  
they are now being sold by Crosby and Baker (I think). He is planning on  
using them at Murphy's Creek. The use of dry yeast in brewing at micros,  
when you pitch a brick of yeast in a batch provides a large population of  
good guys to bad guys and I haven't seen much problem around here that I  
would contribute to dry yeast use. Now bottling (which Murphy's Creek  
plans  
to do) is another story. Those small counts of critters can cause  
problems  
when the beer is not stored and handled properly (which IS always the  
case).

Bob Jones

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Date: Thu, 29 Apr 93 11:17:24 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Re: RIMS, vent pipe, and channeling

In HBD 1130, Michael.Burgeson@Eng.Sun.COM (J. Michael Burgeson) writes about a proposed RIMS system, and says:

> With a RIMS system, channeling during the mash would not be a problem.

I am not sure this is the case. The purpose of the recirculation is to evenly distribute both the heat and the enzymes/starches/etc. If significant channeling is occurring, this distribution will not be as efficient, thus reducing the potential gains from the recirculation.

> What I would like to propose is using a vent pipe, but running it > outside the mash/lauter tun.

While putting the tube outside will certainly eliminate this as a source of channelling, I am skeptical as to whether this vent tube is worth having. My understanding of the compaction problem is that it is due to the suction from the recirc pump. If this is so, then a vent tube will not help (regardless of whether it is inside or outside the vessel). The tube will merely act as a manometer, displaying the suction inside the vessel as a drop in liquid height in the tube. The exception to this is if the suction is great enough to drop the fluid level in the tube below the level of where it enters the vessel, in which case air will be sucked into the vessel from the tube. This will "clamp" the suction in the vessel at its present value, not allowing it to increase any further. However, (1) you may already have significant compaction at this level of suction, and (2) air will be entrained into your recirc stream, possibly causing loss of pump prime, and hot-side aeration.

My suggestion is to use the vent tube, installed outside the vessel, but use a clear tube so that you can observe the fluid (suction) level. Find a level (by trial and error) where compaction does not occur, and set your pump flow rate to maintain approximately that level. (This would probably require constant monitoring, or better yet, a closed loop feedback system.)

Another suggestion, which I throw out for discussion, is this: why not recirculate upward through the grain bed? It seems as though this would reduce the compaction problem, as you are no longer creating suction within the bed...

Disclaimer: My degree is in Chemical Engineering, so I am very familiar with the physics involved here; however, I speak from in experience, as I have not built nor used a RIMS system. I am planning one, but will have to wait to get sufficient \$\$\$ before I can build one. Anyone from the Salt Lake area want to pool resources???

Good Luck,  
Kelly <k-jones@ee.utah.edu>

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Date: Thu, 29 Apr 1993 13:33:40 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: Re: 5 litre kegs and N2O

Since I only had one N2O cart to start with and that little one wasn't quite enough to empty one keg I'd have to say I'm not yet prepared to call N2O or CO2 superior. I'm willing to bet that with this equipment the results will be the same as the gas cannister does not carbonate the beer, only push it out of the keg. You still have to prime your beer before you put it in the keg.

Steve Peters = sp2q@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Thu, 29 Apr 93 13:47 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Mash Temp

>From: David Ferguson <davidfer@microsoft.com>

>I am a semi-experienced homebrewer contemplating my first all grain batch. I'm wondering though if I will be able to use an electric stove to maintain the precise temperatures needed for a successful mash.

I think it is worth stating an opinion which other may choose to disagree with.

Contrary to popular opinion and probably one of the many momilies that keep extract brewers from taking the plunge into all grain is the perceived need for precise temperature control for a "successful mash". If by a successful mash we mean producing a good beer at a nominal extract yield, I suggest that you can achieve that even if your mash temp wanders randomly between 150F and 160F for 30 minutes or more.

With the right equipment and attitude, the "plunge" into all grain really becomes more like falling off a log.

The notion about precise temperatures is based on the theoretical action of enzymes on starches which produce slightly different amounts of different sugars at various point in the temp range.

If that is important to a first time all grainer, I would be very surprised. These details are important for acheiving nominially different character for different styles of beer but I seriously doubt that very many home brewers are capable of maintaining the kind of temperature control required to prove the point.

js

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Date: Thu, 29 Apr 93 12:04:20 PDT  
From: David Ferguson <davidfer@microsoft.com>  
Subject: Mashing on an Electric Coil Stove

Thanks to all who replied to my question regarding mashing on an electric stove with limited heat settings. Sounds like it's not that big a problem. The following is a short collection of replies:

>From Tim Fairclough

I mash in my oven and boil on the electric coil stove all the time. By mashing in the oven I mean: setting my oven as low as it will go which will hold a mash at 150 degrees perfectly. I stir occasionally during the mash period and heat the sparge water during the last half hour or so of the mash period. I have done three partial mashes and one full mash this way with great success (IMHO). I should mention I have only done infusion mashes. Good luck.

>From Karl Sweitzer

I use a .25 inch thick plate of brass over my coil stove to more equally distribute the heat. I found that I got coil burn marks in the bottom of my thin boiling pot (even with extracts!).

>From Jason Goldman

I mash on an electric stove and I've been very successful. The trick is not to be in too much of a hurry. In other words, if you are 10 deg shy of your target temperature, don't turn the stove on red\_hot to get it up quicker. When I do ales, I heat my mash water to around 180 def F. Then when I add the grain, it settles out to about 158 deg F. After stirring in the grain so I achieve a good mash in, I take it off the stove and put the lid on. If the temperature was too low (or if the mash temp drops), then I put it back on the stove on hot/less hot for a while to raise the temp. Grain is a very good temp buffer on its own.

> From Ed Hitchcock

If you're making a lager, you can do a decoction mash. Heat the mash water to about 135-140F and add grist. Let rest 1/2 hr. Remove a portion of the mash (grain and liquid) and bring that to a boil on the stove and add back to the mash to raise the temp. You may want to do rests at 149-145F and 159-155F, so you'll want to remove maybe 3 quarts or so (I've never actually done a thick decoction, so I can't give you the exact numbers) to boil. You can take small amounts and repeat a few times which takes a little longer, but you won't cook too much of the mash, nor overshoot your target temperature.

\*\*\*\*\*

I couldn't resist throwing in my \$.02 on the Alcohol and other drugs thread too. The only reason I see to outlaw the use of drugs is to protect the public against people who use them. IMHO the government should have no right to tell me what I can and can't do to myself, but if I start affecting those around me I am beyond my rights. With that in mind, I would say someone high on a stimulant would be more likely to affect those around them and hence would be more dangerous. Alcohol, being a depressant, slows people down. Although they can

still be violent and troublesome, I think the general opinion is that they would not be such a threat to the public as someone on a stimulant, hence less regulation.

I am opposed to regulation of \*most\* drugs (although I use no illegal drugs by my own choice) and will never understand the arguments for legalizing alcohol, but not marijuana (sp?).

Dave "Don't tell me what to do" Ferguson

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Date: Thu, 29 Apr 93 16:47:47 EDT  
From: lconrad@poincare.Prime.COM (Laura Conrad)  
Subject: oatmeal

How do other people incorporate the oatmeal into an oatmeal stout (or other beer)?

I've made 3 or 4 batches, and previous to last weekend I had used Quaker oats from the supermarket, and added them to the mash.

Last weekend it was easier to go to the natural food store and buy rolled oats from the bulk bins.

I frequently taste the grain when the sparge is through, to verify that it is tasteless. This is usually the case. This is confirmed by the fact that animals (including birds when there are other food sources) don't seem to be very interested.

However, last weekend, there was still definitely oatmeal flavor in the "spent" grains.

I don't remember whether I've tasted the Quaker oats batches. However, I donate my spent grains to a friend who uses them for landfill/compost. He reported that there was definitely some animal who had been eating around that batch.

Would I get better extraction if I cooked the oats before adding them to the mash? Or is the flavor of the oats not really the point anyway?

Thanks,

Laura

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Date: Thu, 29 Apr 1993 16:45:40 -1100  
From: Kirk\_Anderson@wheatonma.edu (Kirk Anderson)  
Subject: Trappist Coors?

John Adams writes:

| I talked with one of Coors' microbiologists last night related to  
| Chimay yeast strain question. He studied for his brewing PhD. in  
| Belgium so I highly value both his academic and professional opinions..

| His recommendation was to use Chimay if you wish to culture a trappist  
| style yeast.

How many people like this does Coors employ, and what do they do there?  
Coors? As in, 'It's (the) water'? Coors? Will we see a  
Colorado Trappist ale sometime soon? Correct me if I'm wrong, but his  
must be a frustrating line of work. What does he drink when he goes home?

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Date: Thu, 29 Apr 93 13:06:28 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: A few questions about mashing...

I am planning to brew the following two batches this weekend.

- 1) Imperial Stout  
Desired Yield: 5.5gallons@.1075  
Estimated Extract Efficiency: 27 (pts\*gal/lb)  
Total Malt: 15.5  
  
.5 lb Chocolate  
.5 lb roasted Barley  
.5 lb flaked (barley or red wheat)  
14 lbs Klages  
Method: Overnight single step infusion mash starting at ~155F (should end at ~145F)  
Sparge with ~5 gallons 180F water (No Mashout)  
Boil 30 minutes  
Hops:  
Boil: 60 IBU Chinook (1 hour)  
Flavor: 10 IBU Cascade (15 minutes)  
Aroma: 1.5 oz Cascade (15 minute steep)  
Immersion Chilled to 80F  
Yeast: Wyeast Irish Ale (.5l starter from slant)
  
- 2) American Brown Ale  
Desired Yield: 5.5 Gallons@1.045  
Estimated extract efficiency: 27 (pts\*gal/lb)  
Total Malt: 9.25lbs  
  
.5 lb 40L Crystal  
.25 lb black Patent  
.25 lb Chocolate Malt  
.25 lb Flaked (barley or Red Wheat)  
8 lbs Klages  
Method: 2 hour single step infusion mash at 156F (should end at ~154F)  
Sparge with ~5 gallons 180F water (No Mashout)  
Boil 30 minutes  
Hops:  
Boil: 25 IBU Cascade (1 hour)  
Flavor: 5 IBU Cascade + 5 IBU Willamette (15 minutes)  
Aroma: .5 oz Cascade + .5 oz Willamette (15 minute steep)  
Immersion Chilled to 80F  
Yeast: Steinbart's Brown Ale (.5l starter from slant)

And, I have a few questions (imagine that!):

- 1) In the past, I have made my own roasted barley by toasting milled 2 row klages at 350F for 15 minutes. The beer came out *very* cloudy. Any ideas how to avoid this?
- 2) When a yeast's attenuation percentage is listed, is that %(fermentable sugar) or %(total sugar)
- 3) How can one determine the fermentable/unfermentable ratio *prior* to mashing? What percentage fermentables can I expect at 158F mash? At 148F mash?



4) I have never gotten the iodine test to go negative in less than 2 hours in the 153F-156F range. The top of the mash may test negative for starch, but upon stirring, the test will go positive. I always wait until the stirred mash tests negative. I also tend to get very alcoholic, thinner bodied ales. I would prefer a fuller bodied lower alcohol (4.5% desirable) brew. Should I be stopping the mash before the test goes negative?

5) I prime with 1.5qts 1.040 sweet wort for bottling. This is roughly equivalent to 3/4cup corn sugar. Should I increase this for the stout due to the high gravity?

Phew...

Thanks in advance,  
Drew

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Date: Thu, 29 Apr 93 18:30:13 -0400  
From: djt2@po.CWRU.Edu (Dennis J. Templeton)  
Subject: Long distance dispensing

I haven't yet resolved with my spouse the issue of space in the kitchen fridge for a beer keg, but I thought up this compromise the other day:

How about putting the keg and CO2 tank in the basement and running a 1/4 inch line up through the kitchen floor into the fridge, then through a steel cooling plate and a tap? This way, a single glass of beer would be cooled enough, and for a group, you could put the cooling plate into a tub of ice.

My major concern is that I'd have to crank up the pressure to get a good flow through about 12 feet of tubing, then the brew might be too gassy when it's finally dispensed.

I'd appreciate hearing from folks who have used a long line between the tank and the tap, and just what kind of problems you encountered.

dennis

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Date: Thu, 29 Apr 93 14:15:04 CDT  
From: agerhardt@ttsi.lonestar.org (Alan Gerhardt)  
Subject: RIMS

In HBD1130 Michael Burgeson mentioned possible differences in efficiency between a "conventional" sparge and a recirculating sparge ala RIMS.

I have used both methods, and both worked OK with virtually no difference in efficiency. So use whichever method you're comfortable with.

about channeling:

I also have never observed any channeling in my mashes, but to be honest, I've never really been looking specifically for that. I'll look a little closer next time.

about vent tubes:

The vent tubes I have used in the past worked very well for minimizing mash compaction due to suction from the pump. The tubes become less effective as the quantity of grain increases. I'm not sure, but there probably is a point where sheer weight of the grain is a factor. When the vent tubes do suck air, there is foam generated, and HSE could be a factor. HSE never seemed to be a problem for me, but it could be a concern in a RIMS setup. So far, I like my current method ( described later ), but being an obsessive tinkerer, wait till next week. :)

On my last two batches, I have used the vertical screen tube in the middle of the mash until sparge time, when I removed it and recirculated the wort at a slow rate ( no heat ), and then performed a "conventional" sparge. On the first batch with the tube, I simply had the copper return tube with a few holes drilled in it submerged below the surface of the wort. On the last batch I had a 3/8" copper tube ( again with holes drilled in it ) coiled in a spiral around the screen tube and spaced approximately halfway between the screen tube and the side of the mash tun. This setup gave a very consistent temperature in all parts of the mash, with no compaction at all.

As Bob Jones correctly pointed out, the ultimate test of a RIMS setup is a large batch using predominately wheat malt. I plan to try that sometime this summer.

Cheers,  
Alan

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Date: Thu, 29 Apr 93 14:16:55 CDT  
From: agerhardt@ttsi.lonestar.org (Alan Gerhardt)  
Subject: Refrigerator Idea

A few months ago, I successfully staged a coup de etat and gained possession of the family freezer, hooked it up to my airstat, and brewed happily it it while using my other beer fridge for serving temperatures. Unfortunately, after a spousal counter revolution combined with decreased availbility of food, the freezer is now a freezer again .. with food in it instead of beer.  
Oh well.

Now I have a dilemma with Texas summer coming. I need a 48-50F fermenting environment, and a little lower temperature for serving.

I have an idea I have been considering:

With the airstat set at 49F, and the plastic freezer baffles set for minimum freezer temp, I placed a container of water with a thermometer in the freezer compartment. The water temperature stays at about 34F, and has not frozen after about 3 days inside. The temperature inside the rest of the fridge is 49+-2F

Since the fridge holds 4 5gal soda kegs, I want to have two fermenting, one aging, and one serving. My idea is to construct the equivalent of a jockeybox inside the freezer compartment. ( A cold plate would be nice, but they are kind of pricey ) The beer from the serving keg would pass through the coil and be chilled some, depending on how long the tube was, flow rate, etc.

Has anyone tried anything like this?

Is this a crazy idea?

Any comments are welcome.

Cheers,  
Alan

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Date: Thu, 29 Apr 93 21:21:42 -0400  
From: danp@ursus1.ursus.maine.edu (Daniel Philbrick)  
Subject: What's up with Jim Koch?

Can someone tell me why Jim Koch's name and products seem to be MUD on this network. I just read a real caustic message about him and I remember several about six months ago along the same lines. What did he do?

Dan Philbrick  
|Sorry I Don't Have A Corny Saying|  
DANP@URSUS1.URSUS.MAINE.EDU

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End of HOMEBREW Digest #1131, 04/30/93  
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Date: Fri, 30 Apr 93 07:25:33 EDT  
From: Jim.Beauvais@East.Sun.COM (Jim Beauvais - CONTRACTOR HRIS)  
Subject: RE: What's up with Jim Koch

Dan writes,

Can someone tell me why Jim Koch's name and products seem to be MUD on this network. I just read a real caustic message about him and I remember several about six months ago along the same lines. What did he do?

Dan Philbrick  
DANP@URSUS1.URSUS.MAINE.EDU

Well he name is MUD for some of us because he has LOTUS syndrome, i.e. he wants to sue people.

He has tried to sue the Boston Beer Works a new brewpub in Boston who used the name boston in their name. He says people will try their beer not like it and it will hurt his sales. Well, ask people on the street who makes Samual Adams Boston Lager, and i will be it ask 10 people maybe one will say The Boston Beer Co.

Being unsuccessful at sueing the Boston Beer Works he then proceeded to bring suit against Commonwealth Brewery for having the name Boston on their neck label, well Commonwealth was the first brewer/pub in Boston so why not use the name.

Since this did not work he brought another suit against Boston beer works. This time it seems to have ended. BTW he lost again.

If you support small startup breweries and don't like the way big business tries to squeeze the small guy. Don't BUY Samual Adams, it seems like a good reason to boycott a product.

This is written up in the Yankee Brew News, last issue of 1992 i think, titled: The Boston Beer Wars..

Cheers

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Date: Fri, 30 Apr 93 7:28:54 EDT  
From: Jpetty@PICA.ARMY.MIL  
Subject: RE: Nottingham yeast

Thanks to all who responded to my Nottingham yeast question. The consensus is that this is a slow starter and a higher pitching rate may get it going sooner. My batch did start shortly after I posted the problem and is perking away. The temp was also a few deg cooler than I thought contributing to the slow start.

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Date: 30 Apr 1993 09:01:58 -0500 (EST)  
From: OIT\_JAMES@VAX1.ACS.JMU.EDU  
Subject: Freshops phone #

Freshops  
36180 Kings Valley Hwy.  
Philomath, OR 97370  
503-929-2736

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Date: Fri, 30 Apr 93 08:21 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: NEW PRODUCT ANNOUNCEMENT

ANNOUNCING THE EASYSPARGER

The EASYSPARGER provides a continuous supply of hot sparge water from any water tap. No more need to anticipate your sparge water requirements in advance, just shut off the EASYSPARGER when you have enough. It is the perfect companion to the EASYMASHER and just about any other lauter system.

Send email for details, price and delivery. Include postal address if you would like a complete catalog.

Jack Schmidling Productions  
4501 Moody  
Chicago Il 60630  
(312) 685 1878

js

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Date: Fri, 30 Apr 93 09:00

From: RMCGLEW.BUSSYS@mhssmtp.mdso.vf.ge.com (MCGLEW, RAY)

**Subject: On-line brewing resources**

I just looked at the on-line brewing resources from the listserv. As an avid user of the GENie system I'd like to put a plug in for it.

I've been on it for over a year and enjoy it quite a > bit.

For users with local nodes there is no charge other than the

\$4.95 monthly fee (most people have local nodes), for others

they can use Sprintnet to access GENie for about \$2/hr.

NO advertisements per page! Well organized topics (hey, I started some of them).

Downside, there ridiculously high Internet charges

makes reception of the HBD too expensive!

Now that I have been "Martinized" I have absolutly

no affiliation etc, etc, etc.

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Date: Fri, 30 Apr 93 09:21 EDT  
From: tmr1@hotmailg.att.com  
Subject: YO' MOMILY

In the Homebrew Digest #1131, Jack Schmidling uses the term "momilies" in the following message on mash temperatures:

>Contrary to popular opinion and probably one of the many momilies that  
keep  
^  
>extract brewers from taking the plunge into all grain is the perceived  
need  
>for precise temperature control for a "successful mash". If by a  
successful  
>mash we mean producing a good beer at a nominal extract yield, I suggest  
that  
>you can achieve that even if your mash temp wanders randomly between  
150F and  
>160F for 30 minutes or more.

I haven't been able to find this word in any dictionary. I have seen  
this  
word used before. Could it be that the author really wanted to say  
"anomaly"? Or is this a slang term used in homebrewing lingo?

Tom Romalewski

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Date: Fri, 30 Apr 93 08:48:42 -0600  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Re: Trappist Coors?

Hey I can imagine getting your PhD in brewing at one of the finest schools in the world. Studying in a country where some of finest beers are produced. Meeting some of the most knowledgable people in the industry/acedemia and when you're all finished...

...going back to the states to make Coors!

BTW he's a homebrewer.

John Adams

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Date: Fri, 30 Apr 93 11:21:45 EDT  
From: eisen@kopf.HQ.Ileaf.COM (Carl West)  
Subject: Re: mash channeling

Unlike the usual sort of channeling, I would expect channeling  
in a mash to put you in contact with future spirits.

Jack's not the only one that can't pass one up every now and then.

Carl

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Date: 30 Apr 1993 23:37:49 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: Scotch Ale Caramel/Defense of Koch

In defense of Jim Koch, he has done something that no one else except maybe Fritz Maytag has done, and that is to produce some interesting and characterful beers which have displaced some of the imports in pubs, restaurants, and even grocery stores nation-wide. His marketing tactics are rather aggressive, but maybe that's what it takes to be heard among the large domestic and imported beer marketeers (Anchor has succeeded in a much quieter, more dignified manner, though). If Koch has told a few white lies, or miss-represented himself, he is not the first to do so in the promotion of beer sales, nor will he be the last. The point is that he is helping significantly to awaken the public to the diversity in the world of beer which has been all but lost in the American market. I don't think anyone can argue that Koch's products are not of the highest quality, and generally representative of the style which they purport to be. The glaring exception to this, of course, is the ridiculous Cranberry "Lambic".

\*\*\*\*\*

In response to the inquiry by Tom Leith about caramel flavor in scotch ales, I suggest that the addition of some of the Belgian (DeWulf-Coysens) "Special B" caramel malt is what is wanted. This is a very dark caramel malt which, as mentioned in Pierre Rajotte's Belgian Ales book, is produced specifically for brewing (Belgian) Scotch Ales. It is available from several homebrew shops at outrageous prices, about \$1.30 per lb, usually. Bulk-buyers can get it for much much less.

MPM

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Date: Fri, 30 Apr 93 10:44:33 MST  
From: Steve Dempsey <steved@longs.lance.colostate.edu>  
Subject: AHA National Homebrew Competition, Western Region Round 1

AHA National Homebrew Competition  
Western Region 1st Round

[ The length of this posting is intended to inform folks in the region of significant changes for our site over past years. I know a number of people who have refused to participate when a number of problems started to appear over the last couple of years. We have tried to address these by changing the way the competition is organized and run.]

The first round of the AHA NHC for the western region will be held Saturday, June 5 and Sunday, June 6 at the Wynkoop Pub and Brewery in downtown Denver, Colorado. Judging sessions will run approximately 9:30am-12:00pm and 1:30pm-4:30pm each day. We will also have space available at the pub Saturday evening for socializing and potential extracurricular activities still in the planning stages.

We expect some 800 entries to arrive and will need many judges and stewards to complete the judging on schedule. Participation of every available judge is essential to the continuing success of this competition.

Some significant changes will be implemented this year over previous first round sessions held in Boulder. Organizers from each of the four major regional sites have been working together to ensure uniform procedures are used everywhere.

The first major change for us is registration for judges. We plan to schedule sessions in advance so judges will know their responsibilities for attending a specific session to judge a specific style. In the past, one could simply show up at any session, gather in groups of two to four judges, pick out a flight of beers, and have at it. While this offered great flexibility, it also presented the organizers with great anxiety in guessing how many sessions would be required and how many judges would show up -- and if the judging would actually be completed in time.

Large competitions such as the Blue Bonnet, the GABF Professional Panel Blind Tasting, and several prior NHC 1st and 2nd rounds at other sites have all used this format successfully. In order for it to work, judges will need to contact the organizers with their availability and preference for judging specific styles (see below). BJCP judges and registered clubs and retail suppliers will receive detailed information mailed on April 30.

All experienced judges including BJCP registered judges, professional brewers, industry consultants, and any

other individual with experience at large regional or national competitions is encouraged to judge. Beginning judges who have experience at one or two local competitions are also encouraged to participate as apprentice judges, and will be placed on a panel with more experienced judges. Anyone else wishing to participate is welcome to help with stewarding duties. A steward is responsible for maintaining order at the table by assisting judges with supplies, etc. and has the opportunity to observe the judging process and even sample some of the beers, but leaves the evaluation of the entries to the judges. One of the best ways to start learning about judging is to work as a steward and watch what goes on without having the responsibility of evaluating the entries.

The second major change this year will be the method for selecting entries qualifying for the final round. In the past, we have tried to go by numeric scores alone. The first round held in Chicago in 1992 used a two-tier approach: all flights of a particular style are judged simultaneously and a few of the best entries are collected by a leading judge. These contenders are gathered quickly and passed to a second panel of judges including one judge from each of the first groups. These judges decide which entries will advance to round 2. This two-tier system overcomes problems with skewed or inaccurate scoring by any panel of judges, and comes much closer to accurately determining the best beers from categories with large numbers of entries.

Judges and stewards may register by e-mail to:

<steved@lance.colostate.edu>

Please use a subject of "NHC". Include your name and phone number(s), a postal address if you are NOT on the BJCP or club mailing list, and indicate at least three or four beer styles you feel best qualified to judge. Once we know the judging schedule, you will be contacted by phone and/or e-mail to confirm the styles and sessions you will work. If e-mail does not go through, call me at (303) 491-0630 [day] or 482-1403 [evening]; you can leave a message with the above information at either number if I'm not in.

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===== Engineering Network Services
Steve Dempsey Colorado State University
steved@longs.lance.colostate.edu Fort Collins, CO 80523
===== +1 303 491 0630
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Date: Fri, 30 Apr 93 12:09:08 CDT  
From: shaver@zeppelin.convex.com (Dave Shaver)  
Subject: New brewsheet now available in the HBD archive

Over the last year I've been working on a new brewsheet for keeping track of my batches. Stephen Hansen was kind enough to add it to the archives. My sheet is very similar to the existing brewsheet in the archives created by Chris Shenton, but it has a few more bells and whistles.

I used FrameMaker to create the sheet, so both MIF (Maker Interchange Format) and PostScript versions are available. FTP users can get them from the archive on sierra.stanford.edu as:

```
/pub/homebrew/docs/brewsheet2.mif.Z
/pub/homebrew/docs/brewsheet2.ps.Z
```

Listserver users should request them with:

```
get homebrew brewsheet2.mif
get homebrew brewsheet2.ps
```

Happy brewing,

```
// Dave Shaver
// CONVEX Computer Corporation, Richardson, TX
// Internet: shaver@convex.com UUCP: uunet!convex!shaver
```

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Date: Fri, 30 Apr 93 10:38:45 -0700  
From: l200-cu@garnet.berkeley.edu (mARK WITTEMAN)  
Subject: A little more help

To all HOMEBREW Readers:

About three weeks back, I posted a request for help on my homework -- more specifically, I was looking for lists of California Microbreweries, info on the families or styles of beers, and info on the "objective" description of beer.

The response I've gotten has been stupendous. In all, about 30 people responded and everybody was wildly helpful even though they were obviously dealing with an ammateur. (Meaning me.) I wasn't able to respond to everybody individually, so I hope this will suffice as a thank you.

But aside from expressing my gratitude, I must make one more request. About two weeks back, a fella from AHA offered to e-mail me some info on beer judging and how to become a licensed beer judge. I meant to save his message and respond with my own message asking that he please send it my way -- it's just the sort of thing I need. But, as you can probably guess from the tone of this request, I lost the message.

If the author of that message, or anyone else for that matter, could e-mail me the aforementioned information, I'd be, once again, ever so grateful.

Sorry to fill the HOMEBREW screens with my personal projects. I'm not a HOMEBREWER, but subscribing to this newsletter has convinced me that some day, when I'm no longer a starving student, I will give it a shot.

Thanks for entertaining my request.

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mARK h. WITTEMAN0000000000 STOUT
0000000000 BITTER
MLIS Student 0===== IPA
University of California 0|.. |==| PORTER
Berkeley 0| . : | || PILSNER
0| . . | || BOCK
l200-cu@garnet.Berkeley.EDU | . | || RAUCHBIER
| . .|==| SAISON
(Note that the first character in my|. . | WEISSBIER
address is a lower-case 'L,' not a one.)| : | BARLEY WINE
~~~~~
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Date: Fri, 30 Apr 93 13:44 CDT  
From: korz@iepubj.att.com  
Subject: beer bends/mashing questions/long draft runs/Koch animosity

Tom writes:

>Although diatomic nitrogen (N2) is a very stable element and is relatively inert at low temperature and pressure, it is easily dissolved in fluids such as blood, water or beer. I can't say if or why it causes a good head on beer, but I can say that it will dissolve in it.

It is my understanding that although N2 may be soluble in beer, it is \*MUCH\* less soluble than CO2, which is why it is used by Guinness to dispense at high pressure without uncontrollable foaming.

\*\*\*\*\*

Drew writes:

> I am planning to brew the following two batches this weekend.  
>  
>1) Imperial Stout  
> Desired Yield: 5.5gallons@.1075

Note that this is at the low-gravity end of the Imperial Stout range. My last one had an OG of 1120.

> Hops:  
> Boil: 60 IBU Chinook (1 hour)

60 IBU of Chinook may be a bit abrasive. Many HBDigesters have reported harsh bitterness from excessive use of Chinook hops. As high alpha hops go, I use Nugget, which I find much more pleasant even at high hop rates.

Make sure you aerate well. High gravity ferments mean that the yeast are going to need a lot of oxygen.

>1) In the past, I have made my own roasted barley by toasting milled 2 row klages at 350F for 15 minutes. The beer came out \*very\* cloudy. >Any ideas how to avoid this?

You were making roasted malt (Brown, probably) not Roasted Barley. Roasted

Barley is made from \*unmalted\* barley. I don't know why the beer was so cloudy unless you roasted \*all\* the grain in the batch and denatured all the enzymes -- but then the starch test would have been positive forever.

>2) When a yeast's attenuation percentage is listed, is that % (fermentable sugar) or % (total sugar)

It's apparent attenuation (actual attenuation is much less, but alcohol is thinner than water, so it gets thrown off). Say for a 75% apparent attenuation, if the OG is 1.050, the FG you can expect would be about 1.0125

$((1.050 - 1) * (1 - 0.75) + 1) = 1.0125.$

^^^^^^^^^ ^

| | | This is because you're putting the water back

This is because you want to know what gravity  
is left, not what was taken away.

This is because the water won't be attenuated.

>

>3) How can one determine the fermentable/unfermentable ratio \*prior\*  
>to mashing? What percentage fermentables can I expect at 158F mash?  
>At 148F mash?

I'm sure you know the answer to this question, but all this talk of fermentables and unfermentables tends to make things seem complicated. Prior to mashing the malt is virtually all starch, so it's 0% fermentable and 100% unfermentable. I don't know about the exact numbers, but last night, I was re-reading George's article on Evaluating Yeast in the 1992 AHA Conference Proceedings and he mentions 65% fermentable wort if mashed at (I believe) 154F. Is that right George? Did your source for those numbers perhaps have other temps and percentages too? Of course these would all be thoretical ideals because of variations in grains from year to year and maltster to maltster, no?

>

>4) I have never gotten the iodine test to go negative in less than 2  
>hours in the 153F-156F range. The top of the mash may test negative  
>for starch, but upon stirring, the test will go positive. I always  
>wait untils the stirred mash tests negative. I also tend to get very  
>alcoholic, thinner bodied ales. I would prefer a fuller bodied lower  
>alcohol (4.5% desireable) brew. Should I be stopping the mash before  
>the test goes negative?

No, no, no. If you want a fuller beer, you want a more dextrinous wort. Mash at a higher temperature, approaching 158F. Don't linger at the low-temp end of the saccharification temperature range (148F) or you will convert too many dextrans into fermentables. 2 hours seems quite long. I suspect either that your pH is off, your water chemistry is impeding the enzymes or your thermometer is off and you're actually mashing at 145F.

>

>5) I prime with 1.5qts 1.040 sweet wort for bottling. This is roughly  
>equivalent to 3/4cup corn sugar. Should I increase this for the stout  
>due to the high gravity?

1075 is not really that high, but I used 1/2 cup corn sugar for priming my 1120 Imperial stout and it carbonated quite well.

\*\*\*\*\*

Dennis writes:

>

>I haven't yet resolved with my spouse the issue of space in the kitchen  
>fridge for a beer keg, but I thought up this compromise the other day:

>

>How about putting the keg and CO2 tank in the basement and running a 1/  
4

>inch line up through the kitchen floor into the fridge, then through a  
>steel cooling plate and a tap? This way, a single glass of beer would  
be

>cooled enough, and for a group, you could put the cooling plate into a  
tub  
>of ice.

>

>My major concern is that I'd have to crank up the pressure to get a good  
>flow through about 12 feet of tubing, then the brew might be two gassy  
when  
>it's finally dispensed.



You're right, it would be quite gassy. You're right about needing a lot of pressure to push the beer that distance, but the \*real\* culprit for needing high pressure is head (the change in height that you will have to push the beer up). It's all quite involved, but not too complicated to figure out. I suggest you pick up the 1992 AHA Conference Proceedings.

In there, you will find an article by Dave Miller which will give you all the formulas and step-by-step instructions for figuring out what you need to do to make your system work. HINT: the key will be using a bigger diameter hose.

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Dan writes:

>Can someone tell me why Jim Koch's name and products seem to be MUD on  
>this network. I just read a real caustic message about him and I  
>remember several about six months ago along the same lines. What did he  
>do?

Koch's entrance onto the HBD doo-doo list was thanks to his suing the Boston Beer Works brewpub for trademark infringement. This apparently was done for no other reason than to get some publicity since beer drinkers with enough taste to tell the difference between Bud and Sam Adams certainly have enough intelligence to tell the difference between Boston Beer Works and Boston Brewing Company. Not only did Koch sue in a lower court (which ruled in favor of BBW), but took the case to a higher court (which rules again in favor of the BBW). Hence the "starve a lawyer... boycott Sam Adams" motto was born.

A second reason for our hatred of Koch is due to his misuse of the appellation "Lambic" which he used on a weak Cranberry Beer, that I guarantee was not made by spontaneous fermentation as a true Lambic must be (in the vicinity of Brussels, no less).

Koch's recent ads in the Chicago area (the ones where Koch says he started the microbrewing revolution) would have probably been ignored by us HBD'ers if not for his "beating up" on a upstart brewpub which has far better things to worry about than court appearances.

All of this is too bad. Frankly, I think that Sam Adams makes some of the best beer that is available nationwide and at a reasonable price. His ads (incorrect as they may be) have, indeed, made inroads into changing the average American beer-drinker's taste. I would much rather see every second customer at a liquor store carrying a case of Sam Adams than Budweiser or Miller or Coors (as I see today), if only Koch would stop this litigative nonsense and stop with the false advertising. A public apology would be nice too...

Has anyone mentioned that Koch should have called his Doppelbock "Litigator?"

Al.

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Date: 30 Apr 1993 13:53:39 -0600 (CST)  
From: SWEENERB@msuvx2.memst.edu  
Subject: Compressed files/Extraction rates

Pardon my ignorance, but...

What program do I need to decompress the files with the '.Z' extension in the Sierra.Stanford archive? Is this some type of Unix program? Our system

here at Memphis State is a DEC VAX to which I can download to either a PC or a

Macintosh. Are there programs available on these platforms to decompress these archives? Please email soon as my account here may be taken away next

week when our semester ends. N\_ts!

Also, I brewed my first all-grain batch last week and some questions about

extraction rates have been bugging me ever since. I used 9 lbs of grain total

(7.5 lb klages, .5 lb cara-pils, .5 lb dark crystal malt, and .5 lb wheat malt)

and got an OG of 1036, which computes out to about 20 pts/lb/gal. This seems

low compared to some of the extraction rates I see bandied about on the HBD.

However, when I went examined some of the receipes in the Winners Circle section of Zymurgy I computed rates between 19 and 28 pts/lb/gal, with an average of about 24. Even these supposedly very good beers--I mean they placed

in a national contest so they must be good, right?--were lower than the 30-35

pts/lb/gal rates I often see quoted on the HBD. So what gives? Rates, I assume are related to the grain crush, the type of grain, pH, and the mashing

and sparging methods and temps. (My grains were Corona crushed, with a single

infusion mash in a picnic cooler with 3 gals h20 at 154 degrees for 90 minutes

- --with the first runoff at an OG of 1070, then sparged with 3.5 gals of 170

degree h20 @ 5.4 pH.)

I guess my question is, are higher rates necessarily better, since these winning

beers had lower extraction rates. Or are these lower extraction rates just

more common in the homebrewing community and therefore more likely to win at

contests? What are the disadvantages to having too high extraction rates, if

any? Are there other factors affecting the extraction rate than those listed?

Are there any glaring errors in my mash/sparging procedures? How do you know

when your grain crush is adequate? What is the air speed velocity of a fully

laden African sparrow?

There, I feel much better now. Thanks for letting me unload.

Bob Sweeney

Memphis State University  
(901) MSU-4210

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Date: Fri, 30 Apr 93 11:17 CDT  
From: akcs.wseliger@vpnet.chi.il.us (William M. Seliger)  
Subject: Texas Beer Sights & Tastes, Farnsworth Yeast

I will be travelling to Texas in early May to spend some time in San Antonio, Austin and Houston. I am interested in Beery sights and tastes in all three cities. Private email to the following addresses would be best.

Thanks in advance,  
Bill Seliger

wseliger@chinet.chi.il.us -or- akcs.wseliger@vpnet.chi.il.us  
p.s. Does Paul Farnsworth only do business via mail or does he take house visits for yeast pickups???

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Date: Fri, 30 Apr 1993 13:37:02 -0800 (PDT)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: help with 1st time partial mash

I'd like to augment my to-date extract-only brews with a partial mash. My plan is to use the oven, set at 150, and heat the mash on the stove top prior to putting it in the oven. My question relates to the initial heating. Everything I can remember reading about mashing talks about heating water to a higher temperature so that it comes down to the correct temp when the grain is added.

Why can't I put the grain in cold water and heat it all up together? This seems obvious, but what am I missing?

A second question relates to use of a manifold for sparging. When is the manifold put in? After mash-out (where I presume I'd have to stir everything up to get it on the bottom of the pot) or is it in the pot the whole time?

Thanks in advance for any help.

Peter

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Date: 30 Apr 1993 16:15:13 -0600 (CST)  
From: Robert Schultz <Robert.Schultz@usask.ca>  
Subject: plans for the 'malt mill tm'

Jack/brewing community:

Does any one have plans/pictures of 'A' or THE malt mill (tm) that they are willing to post. I don't really have a problem with the cost of the malt mill, but by the time one gets it to Canada with exchange and customs and duty I am looking at over to \$300 CND.

Being 'mechanically inclined' and access to a machine shop, I would like to attempt to build my own mill, and incorporate some (most?) of the design which Jack has apparently honed.

Greatfully....

Robert Schultz

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Date: Thu, 29 Apr 93 17:53:34 PST  
From: cboesel@diablo.uu.holonet.net (Charles Boesel)  
Subject: Want Supplies (Getting Started)

I'm looking to start homebrewing, but really don't want to spend a lot \$\$ on the supplies. I would like to know if anyone has used supplies they would be willing to sell to me. If so, send me e-mail.

Cheers,

Charles

- - -

|                                  |  |                                       |     |               |
|----------------------------------|--|---------------------------------------|-----|---------------|
| charles boesel @ diablo creative |  | If Pro = for                          | and | Con = against |
| cboesel@diablo.uu.holonet.net    |  | Then what's the opposite of Progress? |     |               |
| +1.510.687.3119(work)            |  | What else, Congress.                  |     |               |

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Date: Sat, 1 May 93 22:04:31 MDT  
From: Herb Peyerl <Herb.Peyerl@novatel.cuc.ab.ca>  
Subject: Tour of Canada Malting.

Today; our brew club (Marquis de Suds) had a tour of the Canada Malting facility and I thought it would be of interest to people on hbd.

I don't remember a lot of details since there was a certain amount of imbibing going on...

It started with us meeting the Head Maltster who took us into one of the malting "houses". He explained that they currently have 4 houses with a total output capacity of ~500 tonnes/day (I'm presuming metric tonnes). They're currently building a new house which will allow them to shutdown 3 of the current ones and it is of a european design which is apparently more efficient. It will allow them to layoff half of their staff (they gave the staff a 1 year notice of this and have allocated \$3000CDN to assist the staff in training for new careers. (\$3000/person)).

We looked at the steeping silos where the barley is brought in; steeped with water to facilitate washing of the grains. This is done in several cycles which are determined by the production manager. The current batch was a 6-6-10-8-6-7 steep/aeration cycle. This works like so:

- 6 hours of wash
- 6 hours of aeration
- 10 hours of wash
- 8 hours of aeration
- 6 hours of wash
- 7 hours of aeration

A wash consists of pumping water into the bottom of the silo until it overflows into an overflow reservoir and then letting it sit.

Aeration consists of draining the water and pumping air through the silo from the bottom.

The cycle is determined by several factors:

- a) customer spec (protein solubility; color; etc)
- b) The characteristics of the grain shipped.
  - i) They use a strain called "Henning" (sp?)
  - ii) Each batch of grain is different due to the farm season.

>From there; the grain is drained into what they call a "piece" which is basically a large (200yds long) concrete fenced off area where it sits to germinate at a depth of about 3 feet. It sits there with air flowing over it and through it (from the bottom) until the germination is at the level they expect (I believe this is about 15 hours)..

The grain is then dropped into a spray room which was a very damp loud place and I was unable to hear exactly what the purpose of this was...

>From there the green-malt is transferred to the kilning piece where it sits for another period of time to kiln according to colour again. The temperature varies also according to the level of diastatic potential that is required by the customer...



That's basically where the tour stopped. My main interest aside from the general process was in the machinery used. There is a large concern for excessive handling of the grain so as to minimize crushing of the husks. However; if during the aeration and germination stage; the grain isn't mixed then aerobic heat gets too high and this affects germination. So the trade-offs are there and are treated seriously.

Points of interest:

A) there were bags of sulphur outside the grain house and it was explained to us that grain tends to have "DNMA" (sorry) which apparently is carcinogenic so the sulfur is introduced into the flame of the kiln-burners and burnt. Apparently the sulfur binds to the DNMA and reduces the levels substantially. The sulfur is used at a rate of .2 to .6 Kg / tonne depending on the grain and even the amount of air-pollution in the area at the time (I guess smog contributes to the DNMA levels). Maybe one of our resident chemists can explain this further.

B) They use a naturally occurring growth hormone to encourage germination. Again; depending on the batch of grain; some are more sluggish than others. Specifically the 6 row tends to be more sluggish than the 2 row. (Labatts uses a 50/50 mix of 2/6 row whereas Molsons is 100% 2 row.). Apparently the customers know that a growth hormone is used but they don't want to "hear" about it... ie "I don't wanna know". It occurs naturally in the grains anyway apparently; they're just increasing the amount.

C) Due to the high humidity (upto 100% relative); approximately every three weeks they spray the humid areas with a bleach solution to keep the mold and fungii at bay.

D) They use approximately 800,000 gallons of water a day which they treat according to spec. Our fine city isn't normally a water-sensitive area (ie: We have plenty and it's very GOOD!).

E) They use the heat generated by germination and steeping to pre-heat the water in order to conserve energy and control the temperature of the grains.

F) They don't have "extra" bags of malt hanging around. :-)

G) 20% of their grain comes from the Huddersites in our area.

After the tour; we went to the coffee room and all partook of homebrew. Someone (A German member of our club) brought a keg of Wheat beer which the Maltster and his asst thought was just fantastic until someone used the "W" word. :-)  
Apparently they've tried to malt wheat and rye but they just soak up water and turn into a mush really easily with the husks falling right off. So; they just stick to barley. They don't do any specialty grains since that's too small a market for their operation. (Each piece holds approximately 10 tons of barley). They are apparently capable of producing color up to 3.0 but most of their orders are in the 1.6-1.9 lovibond range.

Well; sorry for the lack of detail. I hope some of you found this of interest. If you ever get a chance; I'd suggest you try to take a tour of a malting facility. It's eye-opening.

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"I was early to finish | hpeyerl@novatel.cuc.ab.ca <Reply-To> | I brew  
|  
I was late to start, I | peyerlh@cuug.ab.ca | there- |  
might be an adult, but | #define JANITOR "Network Anal-yst"| fore I |  
I'm a minor at heart." | JANITOR, NovAtel Communications Ltd.| AM. |
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Date: Sun, 2 May 93 15:00:52 -0400  
From: drose@husc.harvard.edu  
Subject: Cornelius Kegs

Hello:

After 6+ years of homebrewing, I am getting ready to move away from bottles and into draft. It looks like the cornelius system is the way to go.

I have a source for the equipment, but kegs are \$40 a piece, and this sounds

steep to me. I would welcome any information anyone can offer on where you

got your kegs, how much you paid, the pros and cons of reconditioned kegs verses as-is used ones, and the exact type of keg which is preferable (I have some vague notion that their are "ball-type" and "pin-type" setups, or something of this ilk), I would appreciate this. As these probably qualify as FAQs, the answers may not be particularly edifying to the HBD readership as a whole, it might be best to email me directly (drose@husc.harvard.edu). Thanks.

d.

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End of HOMEBREW Digest #1132, 05/03/93  
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Date: Mon, 3 May 93 12:44:51 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: dmna, sulfur etc

hello all,

Herb wrote about the Maltery trip in hbd 1132.

> on the question of DMNA, it's dimethylnitrosamine, the major (in terms of amounts and toxicity) nitrosamine found in beer. It gets there all the way from the malt. More often than not malts are treated with burning sulfur during kilning. The effect of this is to decompose the nasties into nontoxic dimethylamine. A side effect, appart from filling the atmosphere with sulfur dioxide, is that the malts contain more sulfur (in the form of sulphates etc) and often the acidity of the malt is increased.

> as to the hormone used in germination, it's gibberellic (sp) acid. This is indeed found in nature, in very many seeds and seedlings. It is what is found in "rooting powder" used by gardeners to make plant cuttings take root. It isn't in any way related to mammalian (human) hormones, and has no effect on the body. (A related hormone is acetylene, this stimulates the ripening of fruit... try putting a young tomato (green) in a bag with a little. It'll ripen alot quicker.. but watch out for flames otherwise it'll be fried tomato.)

Returning to malting, I tried making caramel malt this weekend. It turned out quite good, though the real test will be a full batch of ale brewed with it.

My process was as follows:

steep 1 kg whole lager malt in water for 12 hours (over night) then drain and put the grains in a covered pyrex dish in the oven at 65-72 degC for 2 hours. This mashes the insides of the fully moistened grains. The temperature is the theoretical optimum under these (abnormal) conditions.

After this time, the grains could be squeezed between my fingers releasing the hot(!!!) sweet contents. I didn't do this to all of them ofcourse, otherwise I'd get no malt.

I then warmed the oven to 120 degC and dried/baked the grains, being careful to stir regularly, otherwise toffee quickly formed on the bottom of the dish.

The length of time you leave the grains influences the final colour, I left mine for 2 hours to give a medium (sorry not very scientific description) roast.

The insides of these grains is like toffee, though possibly still a bit wet (sticky).

Any way, that's all I wanted to say,  
Rob Thomas.

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Date: 03 May 1993 10:12:03 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: manifold use

Peter Maxwell asks:

>A second question relates to use of a manifold for sparging. When is  
the  
>manifold put in? After mash-out (where I presume I'd have to stir  
>everything up to get it on the bottom of the pot) or is it in the pot  
the  
>whole time?

My manifold is in a bucket, not the pot. I do one of three things.  
I can mash in the pot and dump it into the bucket on top of the manifold  
for sparging. I can put hot water and grain in the bucket on top of the  
manifold and do a single stage infusion mash (ie just let it sit there  
for  
a while), then sparge. I can put warm water and grain in the bucket on  
top  
of the manifold and do a decoction mash. Some people have the manifold  
in  
the pot, but mine is made of PVC, so I don't like the idea of placing it  
on  
a burner.  
Have fun!

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS  
ech@ac.dal.ca +-----

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| Remember, God created the world in six days, |  
| and that was without the benefit of power tools! |

+-----+

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Date: 3 May 93 04:36:35 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
**Subject: Mail-Order Belgian Grains**

Message Creation Date was at 3-MAY-1993 09:23:00

Greetings,  
Does anyone out there in HBD-Land know of Mail-order businesses dealing in Belgian Grains? In particular, I am interested in the Belgian (DeWulf-Coysens) "Special B" caramel malt that MPM wrote about for use in Scotch Ales in the last issue.

Thanks  
Andy A

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Date: Mon, 3 May 93 07:49:37 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: drinking, diving, momilies, etc

Ed Hitchcock says :

"Don't drink and dive."

In passing, I wanted to add that alcohol's influence increases as you go deeper ( IE, as pressure builds up ). I forget the formula but it's a fierce increase in influence. Really, don't drink and dive.

The Schmidmeister says :

"ANNOUNCING THE EASYS-PARGER"

Cool !!

Tom Romalewski says, regarding "momiles" :

"I haven't been able to find this word in any dictionary. I have seen this word used before. Could it be that the author really wanted to say "anomaly"? Or is this a slang term used in homebrewing lingo?"

I think it's slang. Dunno the etymology or derivation but it translates, roughly, into "wives' tale", if context is a correct guide. IMHO, this does not mean it is untrue, rather, unverified grapevine gossip that may be true but needs further examination.

And Carl notes :

"Unlike the usual sort of channeling, I would expect channeling in a mash to put you in contact with future spirits."

< groan > (-:

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com  
Was someone saying "God is dead."  
The simple use of The Word  
Negates the second, and the third. ( Duke Ellington, Sacred Concert )

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Date: Mon, 03 May 93 11:05:00 EDT  
From: "Hobson, Kevin" <HobsonK@magic.dcrct.nih.gov>  
Subject: FTP ing

Could someone please enlighten me on FTPing to sierra? More specifically, I want to ftp a digest, are they available in a DOS format? zipped somewhere?  
I am under the impression that the ftp-able files under /pub/homebrew/digest are unix based zipped files. Is there a way to convert them? Help please.

I thank you ahead of time. Please e-mail directly unless you feel others may benefit.

I have never posted before (never needed to, it seems like every time I am about to my question is answered that morning!). I cannot tell you all how much I enjoy this listserv.

(I swear one of my hop shoots grew an inch on Saturday afternoon!)

Kev 8^)

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Date: 03 May 1993 09:35:07 -0600 (CST)  
From: Robert Schultz <Robert.Schultz@usask.ca>  
Subject: Cooker/boil post combo

Has anyone tried the 10-15 gallon electric water heaters for mashing/  
boiling?

I saw one on sale:

12 gallon (UK), 115 volt (220 would be better) for \$115 CND  
(that should translate to about \$90 US).

These are glass lined, so one would have to be careful cutting (grinding)  
the  
lid off, but otherwise the unit is insulated and temperature controlled,  
with  
the added feature of a 'bottom tap'.

I would put money on the fact that they would be great for mashing, but  
I wonder how they would work for boiling???

The Costco 120,000 BTU sounds like the right size to boil 10 gallons of  
wort. Coleman also sells a camp cooker - but only 45,000 BTU.

I am in the throws of ripping apart an old natural gas water heater and  
converting the burner to propane for cooking my wort, but it too was only  
rated

at about 40,000 BTU. Gas water tanks have the flame tube running up the  
centre  
which doesn't do much for a 'pot'

Robert.

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Date: Mon, 3 May 93 11:29:46 EDT  
From: richer@desi.HQ.Ileaf.COM (Al Richer)  
Subject: Guinness on the high seas...

This is from the "Irish Emigrant", an email newspaper featuring items of interest to Irish expatriates and those working abroad.

- The two ships which carried bulk Guinness from Dublin to Liverpool have made their last voyage. The crews of the two vessels staged a protest against their redundancy terms for the last few weeks but this was eventually resolved. About 40 seamen have lost their jobs. Guinness will in future be taken from the brewery in special tanks and loaded on board other ships.

If they used this same technique to ship elsewhere, could this perhaps explain the distinctive "tang" in guinness here in the States?

"The bilges are flooding, Captain!"

"Pump it into the container tanks. No one will notice..."

Tongue firmly in cheek,

Alan J. Richer

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Date: Mon, 3 May 93 11:09:20 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Am I ready to go all-grain?

Greetings.

I've got half a dozen extract batches under my belt (some were with specialty grains), and I really enjoy the brewing process. I \*THINK\* I'd like to try an all-grain batch, and I'd like to make sure that I understand the basic principles involved. So, here's what I understand the process to be:

- 1> select a recipe & get the ingredients
- 2> crush the malt (or buy it crushed)
- 3> start the WYeast pack, then make a starter (I'm already using this method)
- 4> malt the barley

OK, this is where it gets complicated, right? I want to basically make a barley soup type of concoction, and keep the mixture at 150-160 degrees, temperature decided by how much fermentables vs. body I want. Right?

OK, now I've let it sit at, say, 155 degrees. What's a protein rest? What's this about heating it up to two different temperature levels so the different enzymes can do their stuff? Am I worrying?

OK, so I have my 'soup'. Now, I need to sparge. So, I take my soup, pour it into my lauter tun (which I haven't made/bought yet). Which design is best? (uh oh, I'd better not start that one. How about 'which design is fairly easy to build and will last, cost isn't all THAT important')

So, I sparge, limiting the flow so that I get good extraction from the grain bed. I go through my sparge water, and recirculate it until clear? Is that the case? I'm not too clear on that bit.

Anyway, I finish my sparging, and I have somewhere around 5-6 gallons of wort at this point, right? From here, it's familiar.

So, have I missed anything, or misunderstood anything (probably)? Is that all there is ??????!?! It really doesn't seem like a lot more than just using specialty grains, with the exception that the specialty grains aren't sparged as completely, it seems.

Thanks for any info you can provide. The differences between my all-extract and my "some specialty grains" (is this partial mash?) batches have convinced me that it's worth the extra effort!

Thanks!

Dave Hinz  
hinz@memphis.med.ge.com

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Date: Mon, 3 May 93 12:03 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: GENIE, Momily

>From: RMCGLEW.BUSSYS@mhssmtp.mdso.vf.ge.com (MCGLEW, RAY)  
>Subject: On-line brewing resources

> I just looked at the on-line brewing resources from the listserv. As an avid user of the GENie system I'd like to put a plug in for it. I've been on it for over a year and enjoy it quite a bit. For users with local nodes there is no charge other than the \$4.95 monthly fee (most people have local nodes),....

Let me add my two cents here also. On the downside is that it can get pretty slow during the busy periods but considering that it is free compared to Compuserves oppressive fees, it is a great trade off. The only other problem is that it is not as active as CIS or HBD but that seems easy to rectify.

To re-iterate, GENIE beer forum participation is included in the \$4.95 monthly fee. Compuserve charges \$6 per hour for participation in their beer forum. That may not sound like much but for any kind of interactive participation, keeping it under \$100 per month is not easy.

I suppose the AHA got in bed with CIS before there was a Genie but at this point in time, I think it is time to reconsider the association. It is really a dis-service to promote a service that is so expensive when other alternatives are available.

If anyone wants sign up info on Genie, just call... 800 638 9636

>From: tmrl@hotmailg.att.com  
>Subject: YO' MOMILY

The history of the word is as follows: Some years ago, my wife thumbed through a book titled "MOMILIES" at a friend's house. It consisted of page after page of those silly little things that MOM used to tell us we must do because she said so. Some of them were good advice and many were just plain silly.

js

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Date: Mon, 3 May 93 10:06:23 PDT  
From: David Ferguson <davidfer@microsoft.com>  
Subject: RE: What's up with Jim Koch

I don't want to be accused of spreading rumors, so let me emphasize that the following is founded on word of mouth only.

I was told during a tour of a local brewery that Sam Adams is contract brewed out of the Weinhard's brewery in Oregon as well as others across the country. Would this disqualify it as a microbrew? Does anyone know if this is true?

Dave Ferguson

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Date: Mon, 3 May 93 12:23 CDT  
From: korz@iepubj.att.com  
Subject: Litigator

It turns out that my suspicions were correct... the name "Litigator"  
for S(tm) A(tm) Doublebock [sic] was too good to have not been  
already mentioned. Jim Ellingson coined the name.  
Al.

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Date: Mon, 3 May 93 18:16:45 GMT  
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)  
Subject: Cosmic Brew

Hello Fellow Brewers,

I'm back to share a newsworthy item I found in the Saturday, 1 May edition of my local daily newspaper, the Jackson, MS Clarion Ledger. The article is one of about 8 that appears each day "highlighting" little snippets of info about world events (with arrows to a country on a world map, as to enhance our geographical education).

Dateline OBERPFAFFENHOFEN, Germany

Beck hopes yeast in space brews cosmic beer

- ---Don't look now, but the German beer of your future may be orbiting overhead on the shuttle Columbia. A tube of Beck and Co.'s ingredients is fermenting aboard the shuttle to determine whether weightlessness and cosmic rays can genetically alter yeast to produce tastier beer. Experts at the University of Munich will make sample batches after the yeast is returned, said company spokesman Hans-Joachim Allgaier. Beck may know by the end of the year whether it has a commercially viable mutant. "We wouldn't sell it as space beer," Allgaier said. "We're too conservative to market beer like that. Besides, it wouldn't taste like space."  
===== END OF ARTICLE =====  
====

?Beck and Co.? Is this the same Beck as in Beck's beer from Bremen? I hope something works for them, 'cause even though I like a dark beer, their stuff don't do it for me, especially after having had a sampling of some dark home-brewed.

Noch einmal, bitte!! Mark

-----  
Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil  
Information Technology Laboratory (601) 634-2921  
Waterways Experiment Station  
Vicksburg, Mississippi USA  
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Date: Mon, 3 May 1993 11:47:56 -0700 (PDT)  
From: John Brooks <jbrooks@u.washington.edu>  
Subject: Coming Soon: Beer That's Out of This World ?

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The following article was drawn from the Associated Press and appeared in the May 2 Seattle Times:

"OBERPFAFFENHOFEN, Germany - Don't look now, but the German beer of your future may be orbiting overhead on the space shuttle Columbia. A spiral tube of Beck and Co.'s finest ingredients is fermenting aboard the shuttle, to determine whether the weightlessness and intense cosmic rays of space can genetically alter yeast to produce tastier beer. Germans may be tittering that their national passion for beer has been taken to the limits, literally. Beck's lovers hope the already prized brew will taste even better. The yeast is among the less weighty of the 88 experiments in Columbia's payload, which is being monitored at a space center outside Munich. The \$570 million program includes research into everything from energy-conserving turbine blades to semiconductors to robotics. The yeast experiment is one of several aboard the shuttle enabling scientists to observe changes in living cells in a weightless environment."

OK - let the beer naming begin!!  
"Weightless Beer" (it's less filling)  
"Intergallactic Ale"  
"Star Wars Stout"

\*\*\*\*\*  
John Brooks \* \*  
University of Washington \* "Don't worry, \*  
jbrooks@u.washington.edu \* \*  
ph: (206) 543-9149 \* Be hoppy!" \*  
fx: (206) 543-7654 \* \*  
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Date: Mon, 3 May 93 14:57:35 EST  
From: Ulick Stafford <ulick@bernini.helios.nd.edu>  
Subject: mash efficiency

Bob Sweeney writes in hbd1132

>section of Zymurgy I computed rates between 19 and 28 pts/lb/gal, with  
an  
>average of about 24. Even these supposedly very good beers--I mean they  
placed  
>in a national contest so they must be good, right?--were lower than the  
30-35  
>pts/lb/gal rates I often see quoted on the HBD. So what gives? Rates,  
I

2 points. I brew 5 gallon batches or so, but always want 6+ gallons of  
wort.  
Up to 1 gallon will be the hop trub, I will collect wort for priming, and  
will lose some volume to yeast trub in racking, and even through  
evaporation  
and loss of volume. Therefore the actual wort efficiencies of those  
batches  
may well have been higher.

The second point is that lesser extraction can result in less astringency  
and  
hence smoother - better beers. However, many consider this to be  
wasteful.

Yesterday I brewed and extracted about 8.4B per lb per US gallon -  
highish  
but I am usually over 7.5 (30 sg points approx) for the 6 gallons I  
collect,  
but for the 5 gallons of beer I produce, the efficacy drops to 28 for my  
batch yesterday, or better  
than 25 for the average.

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'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.

    Pabst Blue Ribbon!' | Notre Dame IN 46556  
    |     ulick@bach.helios.nd.edu

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Date: Mon, 3 May 1993 13:01:09 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: I don't "hate" Jim Koch

In the most recent Digest, Al Korzonas explains why "we hate Jim Koch." I don't hate anyone (except, perhaps, my ex-wife and Eliot Abrams); certainly I don't hate Jim Koch, and I'd rather Al Korzonas didn't speak for me.

In reality, Koch's bad odor goes back a lot farther and includes a lot more than his overly-litigious behavior or his ridiculous "lambic" beer. He's a wheeler-dealer, and is guilty of most or all the excesses associated with wheeler-dealers. But the microbrewery business has its share of wheeler-dealers, too; not necessarily as successful(!) as Koch, but they are out there. And, as others have pointed out, Koch -- for all his deceptions -- has succeeded in awakening a mass audience for flavorful, all-malt beers that is much larger than anything the micros could have done alone.

Personally, I'll reserve my hatred and outrage for people who commit far greater crimes than Jim Koch's marketing ploys.

- --Jeff Frane

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Date: Mon, 3 May 93 10:00:21 EDT  
From: Lee Menegoni <necis!lmenegon@transfer.stratus.com>  
Subject: Extraction Rates

Whenever I read the tremendous extraction rates people get it reminds me of the comment one of my golf partners said: " I Always do worse when someone else keeps score"

That aside. Mashing and sparging technique will impact extraction.

A poor crush and poor mash , ie incomplete conversion, will reduce the potential extraction. A poor sparge will leave converted sugars in the grain further reducing extraction.

I get between 28 and 30.

Equipment can also be a factor. I noticed when I reduced the height of the false bottom in my Zappap lauter tun I improved extraction. Over sparging for the sake of better extraction can lead to astringent flavors 'from the extraction of husk tannins.

A usual cause for poor extraction in the beginning phase of all grain brewing. Is sparging. What was the grain bed temp? The PH of the sparge water? Temp of sparge water? Did you stir the contents of the brew pot before taking a sample? Did you temp adjust the samples sg before doing your calculations?

What method was used to calculate the extraction: I use  
(temp adjusted sg of pre boil wort \* vol of preboil wort) / total grain bill

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Date: Mon, 3 May 93 12:51:23 PDT  
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)  
Subject: liberty ale

To my knowledge I have never tasted a beer that has been dry hopped. I have always been happy with the results of steeping the hops at the end of the boil. But this last weekend I was able to taste Anchor's Liberty Ale. Wow! If I closed my eyes I could believe I was drinking a glass of hops. Being from the Pacific Northwest, this is a good thing.

So now I have to try dry hopping. Does anybody know what kind of hops Anchor uses for dry hopping? Does anybody know what kind of yeast they use for their liberty ale? I am assuming that since they call it an ale they do not use the same yeast as they use for their steam beer. Is the yeast in the bottle the yeast that is used for fermentation or do they add a different yeast for conditioning?

Darren

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Date: 03 May 1993 15:42:01 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@Lilly.com>  
Subject: 3 gal kegs revisited

I posted several months ago asking for info on 3 gal. kegs. Slowly, I got replies. In the middle of all that I took a vacation to the Bay Area (where I visited Anchor and some other great places). Needless to say, I have been procrastinating on the keg thing... BUT, in the meanwhile I had a birthday and was given a \*complete\* system including a 3 gal. keg. Of course, we all know that one keg isn't enough. So, here is the information I was given.

1. Brewhaus in Knoxville, TN 1-800-638-2437 3 gal(??fitting) 39.95
2. St.Pat's of Texas Brewer's Supply 1-512-832-9045 3 gal pin 38.00  
3 gal ball 47.00
3. BCI in Brighton, TN 1-800-284-9410 3 gal(pin or ball) 34.50  
they also have 10 gal.kegs.
4. Brewmaster in San Leandro, CA 1-510-351-8920 no longer carry the  
3 gal for 25.00 (BUT, the 5 gal are currently 20.00!)
5. Brewmeister(not sure of location) 1-916-356-5602 3 gal kegs 45.00  
(all new rubber and stainless plugs).

These are posted in the order I received the information. I have since ordered from BCI, but have not yet received my order. Hope this helps someone find a source!

Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Mon, 03 May 1993 17:32:40 -0500 (EST)  
From: "Robert M. Peitzsch" <ROB@Pharm.SOM.sunysb.edu>  
Subject: Need an address

Hi everybody!

Back when i was a lowly grad. student in New Orleans, I used to order all of my stuff from a place called Simplex. If I remember correctly, it is in either Wis. or Minn. Unfortunately, I have lost their address. Does anybody out there have it??

Thanks much,  
Rob

rob@pharm.som.sunysb.edu

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Date: Mon, 3 May 93 16:43 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Evanston Challenge, results

Here are the results of the Evanston First,  
Third Homebrew Challenge.

BEST OF SHOW

First Place: Bill Seliger, Classic Dry Stout  
Runner up: Gary Kramer, American Pale Ale  
2nd Runner up: Daniel Mossell, German Wheat

CATAGORIES

LIGHT LAGER

First Place: Jack Schmidling, Bohemian Pilsener  
2nd Place: Bill Seliger, German Pilsener  
3rd Place: Carle Rollins, American Standard Lager

DARK LAGER

First Dan Kasen, Traditional Bock  
2nd Ray Daniels, Traditional Bock  
3rd Walter Gude, Dopplebock

LIGHT ALE

First Gary Kramer, American Pale Ale  
2nd Scott Brandt, American Wheat  
3rd Jon Fischer, Belgian Strong Ale

DARK ALE

First Bill Seliger, Classic Dry Stout  
2nd Bill Seliger, Robust Porter  
3rd Al Korzonas, Sweet Stout

MIXED

First Andy Badeker, German Kolsch  
2nd Daniel Mossell, German Wheat  
3rd Ray Daniels, German Dunkelweizen

MIXED-SPECIALTY

First Ray Daniels, Sparkling Mead  
2nd Bill Seliger, Herb Beer  
3rd Glen McDavid, Specialty

.....

For the easymasher skeptics, at least two of the winners that I know of  
were made with the system that can't work.

js

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Date: Mon, 3 May 93 14:59:33 -0700  
From: bsolmsted@ucdavis.edu  
Subject: CO2 Tanks

I am interested in the amount of 5 gallon kegs a twenty pound CO2 tank will dispense. I know it has been posted before. If someone could kindly point me in the right direction.

Thanks.

Bret Olmsted  
bsolmsted@ucdavis.edu

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Date: Mon, 3 May 1993 20:56:59 -0400  
From: Alan Christopher Braddock <braddock@wam.umd.edu>  
Subject: Brewpubs in Columbus, Indy, and Chicago

o and Brewpub fanciers,

A while ago I asked about info on good brewpubs in Vermont. The response was so great -- my tankard runneth over!

Now my housemate is planning a trip home to Iowa next week and he'll be passing through Columbus OH, Indianapolis, and Chicago. He knows about Berghoff's in Chicago, and he knows where to go once he's in Iowa, but if anyone could suggest other places, we'd be grateful, especially since I'm from Iowa too, and I make the same trip once in a while.

Thanking you in advance for the brew route info! -- Alan B.

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Date: Mon, 3 May 1993 21:50 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Whitebread Yeast and Brewpubs

Another datapoint in the saga of the "old" Whitbread yeast.

The local brewpub, a fine outfit worthy of many more tourist dollars BTW, has always used a Whitbread yeast. At about the same time that George Fix tells us the production of this yeast was switched to a Canadian plant and the problems began, I and several other fans noticed serious consistency problems in the lovely hand-pumped real ale served at this pub. One week, yummy, the next, yucky. Too much of odd fruit flavours and way overattenuated. Tasted like cheap homebrew, you know the sort of stuff I mean.

Anyhow, of late these problems have tapered off, and recent pints are back to being pretty yummy again. So, I for one think the data fits the proposed history.

BTW, I also would like to get a Maltmill but nobody in this neck of Canada has ever heard of the \*&#\$%\$% thing. Also, the cost of importing just one would bankrupt me. Jack, do you have any suggestions for us? As a political aside, perhaps this is a good example of why IMHO the so-called free trade deal sucks big rocks.

Cheers, P.

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Date: Mon, 03 May 1993 19:28:55 -0700  
From: Bob Devine <devine@postgres.Berkeley.EDU>  
Subject: Biscuit malt

Jim Busch <busch@daacdev1.stx.com> says:  
> The biscuit malt would seem  
> ideal for use in Scotch Ales and other darker ales and even  
> in small quantities in amber ales.

Yes, I tried some in a batch for a basic ale and found that the biscuit malt adds a distinct taste from the usual crystal malt. For the next batch in this style I will probably increase the amount used. Since a common name for Scotch beer is "Wee Heavy" maybe I could call this ale a "Wee Light".

Bob Devine

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End of HOMEBREW Digest #1133, 05/04/93  
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Date: Tue, 4 May 93 8:19:39 EDT  
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>  
Subject: re:brewpubs in Columbus OH

Greetin's

I can supply some info regarding Alan Christopher Braddock's request for brewpubs in Columbus OH. The newest (and I think best place in town) is called Barley's Ale House. It's located on High street just north of downtown across from the convention center in an area called the Short North. They have a nice pale ale, an irish red ale and an excellent porter all of which can be bought in pint or 1/2 yard glasses. The food is quite good too.

Alternatively, check out Hoster's in the Old Brewery district (just south of downtown also on High street). They have a varying array of light and dark lagers and also a very nice menu for dinner.

Enjoy!!  
Mark

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Date: Tue, 4 May 93 07:42 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Correction, PU on Draft

For the record, I referred to an article on nitrogen use in brewing by George Fix and he has been inundated with questions on it.

Unfortunately, the article was not written by Fix. It was sent to me by George and I got so engrossed in the information that I never bothered reeding the authors names.

It is from the MBAA Technical Quarterly, Vol 29 and the authors are David Taylor, Bamber, Brown and Murray, all in the UK.

Sorry George.

.....

My wife and I had dinner at the Edelweiss Inn, 7650 Irving Park in Norridge, IL and stared at a point of sale ad for PU through most of the dinner. We presumed it was the usual skunky, sedimented six pack stuff so we just sampled the Germans wines. When the wine was gone, I started drooling over the PU again and much to our delight, the waitress told us it was on draft. At this point, in the meal, I couldn't really appreciate it but for those in the area, it's there and \$2.50 will get you ten ounces in a genuine PU glass.

Sure be fun to bring the C-P filler and send a few plain brown bottles off to the National. Who me?

Actually, I wouldn't take the chance because real people probably don't like it anyway untill someone tells them it's the world's greatest beer and they must like it.

js

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Date: Tue, 4 May 93 07:51:02 CDT  
From: dspalme@mke.ab.com (Diane Palme x2617)  
Subject: Where's the hops?

Hello all!

I just have a quick question which would serve to dispell any worries I might be having about my newly planted hops. About 2 weeks ago I planted 3 hop roots in the back garden and I have yet to see any progress. Now, the weather up here in Wisconsin has been far from perfect (lots of rain, pretty chilly, temps in the mid-30's to low 60's, usually around 45). I am starting to wonder whether or not my little ones will ever poke their pretty little hoppy heads out above the ground or if they are just shy. Any input from some other hop growers in the upper-midwest would be greatly appreciated.

By the way, should I be fertilizing these guys? If so, what do all of you recommend? I have some ordinary vegetable fertilizer but is there a particular brand which works the best. Ohmigosh(!), they might grow even faster if I start to fertilize them. Hmmm. Maybe I had better bolt the door after I do that (assuming they cooperate and start growing) :-).

Much appreciated in advance...

Diane

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Im Himmel gibts kein Bier |  
drum trinken wir es hier! | dspalme@mke.ab.com

These opinions are mine. Most of the people I work with wouldn't want to hear my opinions, much less assume that they are those of Allen-Bradley.

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Date: Tue, 4 May 1993 08:51:32 +22306512 (CDT)  
From: dhholscl@rs6000.cmp.ilstu.edu (David Holsclaw)  
Subject: RE: Mail-Order Belgian Malt

> Greetings,  
> Does anyone out there in HBD-Land know of Mail-order businesses  
> dealing in Belgian Grains? In particular, I am interested in the  
Belgian  
> (DeWulf-Coysens) "Special B" caramel malt that MPM wrote about for use  
in  
> Scotch Ales in the last issue.

> Thanks  
> Andy A

North Brewing Supplies  
9009 South 29th Street  
Franklin, WI 53132  
(414) 761-1018

Brian North carries the De Wolf-Cosyns malts and a lot of other great  
products.

<standard disclaimer about only being a satisfied customer>

- - - - -  
David Holsclawdhholscl@rs6000.cmp.ilstu.edu

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Date: Tue, 4 May 93 9:55:03 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: extraction & Zapap

About this thread on extract efficiency and in particular the use of a Zapap lauter tun:

<Equipment can also be a factor. I noticed when I reduced the height of  
<the false bottom in my Zappap lauter tun I improved extraction. Over  
<sparging for the sake of better extraction can lead to astringent flavors  
<'from the extraction of husk tannins.

Two comments here: 1) When approaching the end of the lauter, tip the buckets so that they lean forward at an angle. Put something under the back of the buckets to support them. Watch for grain matter coming out & terminate runoff at this time. What this does is clear out the higher SG "trapped" runoff in the false bottom below the outflow.

2) Build the sucker with a BOTTOM outlet. Design it so the spigot is as flush as possible to the inside bottom of the lauter tun. In this arrangement, the amount of false bottom "dead space" is irrelevant. The grain particulate matter will be flushed out early in the recirc process and will run clean until the final runoff carries grain matter to the spigot. Your extraction will improve. This is my current lauter tun design and it works great. you just need to suspend the buckets/pot so that the spigot will clear the support structure.

Good brewing,  
Jim Busch

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Date: Tue, 4 May 93 14:05:39 GMT  
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)  
Subject: More on Cosmic Beer

Another note on beer in space, as a follow-up to my posting on Cosmic Beer on 3 May.

Anyone catch The Tonight Show with Jay Leno the night of 3 May? Apparantly he too heard about the Beck beer experiment, and had a comment or two about the shuttle Columbia's problems and cargo. Went \*something\* like this..

You guys hear about the trouble the space shuttle has been having lately? First the toilet breaks, to conserve energy they have had to shut off most all of their lights, and have got no hot water. Oh yea, they are having a good time on the shuttle. And .... they are making beer up there!

Really, no kidding. Some German company has sent up some stuff to see how it does. Can you imagine, a bunch of guys, weightless, no lights, with free beer and a broken toilet ...

Well, he told it funnier.  
Noch einmal, bitte!! Mark

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Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil  
Information Technology Laboratory (601) 634-2921  
Waterways Experiment Station  
Vicksburg, Mississippi USA

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Date: Tue, 4 May 1993 09:44:34 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: liberty ale notes

Liberty Ale is fairly high in gravity, at 1.060 - 1.062 in starting gravity. Malts are all U.S. pale malt, though I would be inclined to throw in a bit of light crystal. Color is on the light side. Hops are all Cascades. Liberty Ale is fairly bitter, and I think has something like 45 IBUs of bitterness. As a homebrewer, add Cascades several times during the boil, and dryhop with some Cascades. Try 1/2 ounce to 1 ounce of Cascades hops for at least a week in the secondary. Pellets are more convenient. Regarding yeast, I don't know what Anchor uses, but the homebrewer can use Wyeast "American" Ale or culture some Sierra Nevada yeast from a bottle of Sierra Nevada Pale Ale. In the bottle, Liberty Ale sometimes tastes a bit one-dimensional. I had some fresh on draft recently and it was deliciously balanced and perilously drinkable.

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Date: Tue, 4 May 1993 11:03 EDT  
From: HOWED@bcvax1.bc.edu  
Subject: Fear of Clear Beer

I was sitting down with the Boston Globe this morning, when I happened upon a article that caught me totally off guard: "It's Clear, All Right, But Is It Beer?" Featured in the article is a picture and a review, of sorts, of Miller's latest creation, "Miller's Clear."

This may not be news to many of you, but here are some of the things written about this "beer" in the article. 122 calories per bottle, with a "full-flavor" [according to Miller, that is.

The author took this complimentary six pack and wandered around Boston, getting bartenders to try the beer and give their opinion. All but one said basically that they think that "most beer drinkers will try Clear once before quickly returning to their regular brands."

Some of the more colorful quotes were these:

"It tastes like sparkling water with a hint of beer."  
"If you keep filtering and filtering beer, you eventually get back to water."  
"It tastes like Alka Seltzer that's gone flat. It has no grit. I couldn't give it away."

The one bartender who did like the stuff is apparently a bartender in a rather upscale hotel, whose work uniform consists in a black wasitcoat and tie, with a Hawaiian orchid in his lapel...and worked for Miller for 14 years.

Finally, here's the end of the article:

"But I think you should put the color back. I think you should put the flavor back. And especially I think you should do what most of these Boston bar-tenders suggest: Put the beer back.

-Nathan Cobb"

Unclearly Brewing Beer,

Dave Howe

HOWED@BCVMS.BC.EDU

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Date: Tue, 04 May 93 11:28:59 EDT  
From: CW06GST <CW06GST@SJUMUSIC.STJOHNS.EDU>  
Subject: Priming with Honey?

This past weekend I was at a homebrew exposition and one of the guys there was hawking honey for mead and beer. We got to talking (and drinking his fine mead) and I asked about using honey to prime beer with. He told me that in order to prime with honey you need about a pound (standard small jar available in supermarkets) and that it takes about a month to carbonate. Is this information accurate? Has anyone ever done this before?

Any and all responses are appreciated.

Erik Zenhausern  
cw06gst@sjumusic.stjohns.edu

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Date: Tue, 4 May 93 8:42:00 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Re: What is brewing in New York City

I am about to start graduate school in New York City. I wouldn't think of leaving my brewing back in California! Does anybody know of brewpubs or more importantly home brew shops in the city? Thanks in advance  
STEVE BOXER

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Date: Tue, 4 May 1993 11:38:08 -0500 (CDT)  
From: sean@wubios.wustl.edu (Sean Dyer)  
Subject: dmna, sulfur etc

Disclaimer: This is not a flame, I just couldn't pass up the opportunity to get some use from the plant physiology courses I have taken (programming usually doesn't require you to know about plant hormones :) )

>In HBD #1133 Rob Thomas says:  
> .....as to the hormone used in germination, it's gibberellic acid. This  
>is indeed found in nature.....It is what is found in "rooting powder" Actually GA is used to force blooming. The class of compounds that I think you're thinking of is auxins. Auxins stimulate rooting and cause elongation of stems (etiolation). Many commercially used auxins and GAs are in fact completely synthetic. (I vaguely remember that Agent Orange is auxin-like)(Maybe someone with better information can correct me)  
> (A related hormone is acetylene, this stimulates the ripening of fruit. ..)  
I think you're thinking of ethylene. Ethylene does in fact accelerate ripening.

Brewing Question:

I have just dissolved a small business that sold homebrewing kits, so I have ~110 #s of pale Laaglander malt extract to use up. I also have 50 #s of 40L crystal, 50 #s of roasted barley, and a lot of cascade(alpha 5.4%) and galena(alpha 14%). I have found that the malt extract recipes that I have made just aren't as good as the all grain brews I've made. I do a full volume boil, use a wort chiller and Wyeast, but it's still not as good, and its nearly as much trouble as a full mash. Does anyone have any suggestions for improving my extract brews so that I can use up this DME and grain? Also if anyone has any good recipes using just the ingredients I have I would really appreciate it if you could post them or mail them to me.

-Sean Dyer

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Date: Tue, 4 May 1993 10:03:33 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Sammy Adams & Belgian Malts

Sam Adams is not and never has been a microbrewed beer. From its inception it was contract-brewed, originally in Pennsylvania and for the last couple of years here in Portland at the Blitz-Weinhard Brewery. I think they also did some pilot brews in Germany, although this might just be Kochype.

People interested in purchasing Belgian malts ought to contact Tim Norris, who runs a small business out of his home in Chicago. I don't have his address handy, but he can be contacted by e-mail at his CompuServe account: 71650.1020@CompuServe.COM

Tim offers an excellent selection of the malts, excellent prices and his service is impeccable. I recommend him highly. I just received, as a matter of fact, my second order of Belgian malts. Even with shipping costs from Chicago to Portland, the malts cost about 2/3 what they would have cost from my local retailer -- if he carried them.

- --Jeff Frane

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Date: 04 May 1993 14:21:18 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: sparge water volume

I seem to recall that in Fix's article on HSA (at least I believe that is the source) it was mentioned that the volume of sparge water should not exceed 1.5 times the mash volume. I don't quite see how this works if you want to make beers of different gravity. One uses different volumes of mash water with different quantities of grain to make a 1034 bitter or a 1060 bock. For the 1060 beer you may get away with using 1.5 times mash water for sparging, but for the bitter it'll be more like 2.5 times, otherwise you just won't make up the volume of wort to 5 gallons. Did I misremember? Does this make sense?  
ed

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS

ech@ac.dal.ca +-----  
+  
| Remember, God created the world in six days, |  
| and that was without the benefit of power tools! |  
+-----+

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Date: Tue, 4 May 93 14:22:54 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Hunter Air Stat Range Extension ?

Has anyone tried to tinker with their hunter airstat to drop  
the lower limit of the control range down from 40F to 32F or so ?

I'd be willing to sacrafice control from 75 to 90F on the upper end to  
gain  
on the lower end...

I know that my fridge can handle this range, but I'd rather use the  
external  
controller (digital numbers have this 'soothing' effect...) ;-)

Tim

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Date: Tue, 4 May 1993 14:24:51 -0400 (EDT)  
From: bickham@msc.cornell.edu  
Subject: IBU Competition Results

A. Belgian Ales

Brewer Style Club

- 
1. Ken Morton Flanders-style Kriek IBU
  2. Barry Cooper Trippel IBU
  3. William Hitt Chimay Clone UNYHA(Rochester)

B. English Brown/Mild/Strong Scotch Ales

1. Rob Bradley English Brown none
2. Paul Anderson Strong Scotch IBU
3. Andre Pruitt Mild IBU

C. English Style Ales

1. Ken Morton Ordinary Bitter IBU
2. Scott Bickham Ordinary Bitter IBU
3. Kieran O'Connor Pale Ale IBU

D. American Style Ales

1. Ken Morton California Common IBU
2. Kieran O'Connor Pale Ale IBU
3. Mike Lelivelt Pale Ale IBU

E. Porter/Barleywine

1. Lee Turner Barleywine ABCNY(Syracuse)
2. Chris Stamp Robust Porter IBU
3. Ben & Kristin Fox Brown Porter IBU

F. Stout

1. Franklin Moore Imperial Stout IBU
2. Chris Stamp Sweet Stout IBU
3. Bob Talkiewicz Sweet Stout BYI(Binghamton)

G. German Style/Specialty Ales

1. Julian Zelazny Altbier BFOD
2. Andre Pruitt X-Mas Beer IBU
3. Tim Artz Altbier BURP

F. Wheat/Belgian White

1. Scott Bickham Belgian White IBU
2. Mike Lelivelt Belgian White IBU
3. Lew Jansen Weizen IBU

Best of Show - after some serious debating, a tie was declared between Scott Bickham's Belgian White and Ken Morton's Flanders-style Kriek.

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Scott Bickham |  
LASSP and Materials Science Center | bickham@msc.cornell.edu

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Date: Tue, 04 May 93 13:52:13 EST  
From: Daniel Butler-Ehle <DWBUTLER@MTUS5.cts.mtu.edu>  
Subject: momilies

In Homebrew Digest #something-or-other, Tom Romalewski says the following:  
>In the Homebrew Digest #1131, Jack Schmidling uses the term "momilies" in  
>the following message on mash temperatures:

.....  
>  
>I haven't been able to find this word in any dictionary. I have seen this  
>word used before. Could it be that the author really wanted to say  
>"anomaly"? Or is this a slang term used in homebrewing lingo?

Neither is really true. "Momily(tm)" comes from a series of books by someone whose name I can't remember. The books are about things your mother always told you that weren't quite true. The term "momily" is trademarked by the author.

About a year(?) ago, someone on this list started applying the term to all those millions of things that some people think are LAW but really aren't. (Oh my gods! If don't siphon the cooled wort off the trub, your descendants will MUTATE! You're entire batch will be DESTROYED if you don't have your pH adjusted to exactly what Miller recommends!)

I guess that identifying momilies(tm) helps us keep in mind that for every "law" in homebrewing, there is a beer that won awards by breaking it.

Cheers!

-----/K/eweenaw  
/R/eal  
Dan Butler-Ehle /A/le  
Calumet, Michigan /E/nthusiasts  
/U/nited for  
dwbutler@mtus5.cts.mtu.edu /S/erious  
-or- /E/xperimentation in  
DWBUTLER@MTUS5.BITNET /N/aturally-  
/E/ffervescent  
the U.P.'s best homebrew club /R/efreshment  
-----/S/cience  
-----

Date: Tue, 04 May 1993 10:09:37  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Oregon Brewer's Festival

Can anyone provide me with info and a contact number for the Oregon  
Brewer's  
Festival to be held after the AHA Conference?      Thanks

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Date: Tue, 04 May 1993 10:08:15  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Special B Mail Order Source, Anchor Liberty Info

> Andy A asks if there are any mail order suppliers for Special B and other Belgian Malts

St. Pat's of Austin (512) 832-9045 carries Special B and other Belgian malts. Great stuff.

> Darren Aaberge asks about Anchor Liberty Ale:

The hops used are Cascade. In homebrew terms the dry hopping rate is about 2 ozs per 5 gallons for about two weeks at reduced temperature (around 50-55F). At Anchor they are added to the conditioning tank. Also be aware that Liberty also receives a healthy dose of finishing hops. For more information on \*how\* to dry hop, my article on this topic will be out in a few weeks in the next Zymurgy.

As to their yeast, the only thing I know for sure is that it is a different strain from the Steam yeast. Liberty is fermented in deep tanks (as opposed to the shallow tanks for their Steam and Porter) and at a slightly higher temperature (but not much). There is a good chance that Sierra's yeast is related to the Anchor, but this is pure speculation on my part. Anchor did help the SN boys get started. Anyway, you won't go wrong with SN yeast when trying to clone Liberty. Culture from a bottle or use Wyeast "Chico".

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End of HOMEBREW Digest #1134, 05/05/93  
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Date: Wed, 5 May 1993 08:02:18 -0400  
From: Michael D. Galloway <mgx@ornl.gov>  
Subject: Celis Pale Bock

hey ...

I just had my first taste of Celis Pale Bock last night and fell in love. Anybody have a good all grain recipe that even comes close to this beer? I would be interested in cloning other Celis brews also! (You can't get that stuff around here)

Michael D. Galloway  
mgx@ornl.gov

Living in the WasteLand

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Date: Wed, 5 May 93 08:34:54 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: re ethylene and ripening

Ethylene is in fact responsible for only one axis of ripening; for instance, it turns green tomatoes red without changing their consistency (hence the red styrofoam baseballs sold as tomatoes in most supermarkets)

.  
For that matter, can any botanist here tell us whether it has anything to do with barley? I know there are substantial differences between grains and fruiting plants but don't remember any details as it's been 25 years since my last serious botany....

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Date: Wed, 5 May 93 08:30 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Space Beer, Zippos

>From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)

> Experts at the University of Munich will make sample batches after the yeast is returned, said company spokesman Hans-Joachim Allgaier. Beck may know by the end of the year whether it has a commercially viable mutant. "We wouldn't sell it as space beer," Allgaier said. "We're too conservative to market beer like that. Besides, it wouldn't taste like space."

Yah, and I got a bridge for him. I think you may rest assured that, at that cost, they will find a "commercially viable mutant" whether they "find" one or not.

>From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>

>BTW, I also would like to get a Maltmill but nobody in this neck of Canada has ever heard of the \*&#\$%\$% thing. Also, the cost of importing just one would bankrupt me. Jack, do you have any suggestions for us?

Ever thought of taking up smuggling?

If the U. S. treated Toyotas like Canada treats MALTMILLS, Japan would still be trying to build Zippos lighters and Bush would still be president.

js

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Date: 5 May 93 04:46:41 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: The effect of Light on Beer

Message Creation Date was at 5-MAY-1993 09:18:00

Greetings,  
I'm curious about the effect of light on beer. I've always been told that light can cause a "skunky" off-taste, so I've always covered my carboys, bottled at night, bottled in brown bottles, and stored the bottles under cover. Evidently this has worked since I have not been getting any "Skunk" flavors. After considering my brewing/bottling process I've started to wonder if this is over-kill. Am I going to extreme lengths for minimal gain?

Does anyone know the wave-length of the "harmful" light? I mean are we talking UV, visible, IR, or some other wave-length? If visible light is a culprit, are the lights in my house enough to cause problems? How much light, in terms of strength and duration, is required to cause problems? I'd hate to find out that visible light from light-bulbs could potentially cause problems - On a stressful day there's nothing better than sitting on the floor, sipping a home-brew, and staring at all the bubbles of an active fermentation. Ahhh!!

Andy A

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Date: 5 May 93 04:46:21 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Brew-Pubs & Good-Beer Bars in San Diego

Message Creation Date was at 5-MAY-1993 09:12:00

Greetings,

I realize that these personal requests for brew-pub "enlightenment" become tiresome after awhile, but I just love to tap into a good source of knowledge. I will be out in San Diego in a week and I'm interested in finding some good brew-pubs or "good-beer" bars. I will also be making a pilgrimage up to Costa Mesa for The Goat Hill Tavern, so if there are any pubs I should check out along the way - please let me know of them.

I appreciate the help.

Andy A

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Date: Wed, 5 May 93 07:53:10 PST  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Sierra Nevada Brown Ale

I thought it might be appropriate to mention a new beer I had this week. Sierra Nevada's Brown Ale! I thought it was a good example of the style and really liked it. SN, who is know for those big hoppy beers, has used a delicate hand at the hopping here and did a great job (once again). Don't know if they plan to bottle it or not, I just hope it becomes one of their main line of beers. Watch for it!

Bob Jones

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Date: Wed, 5 May 93 09:12:19 PDT  
From: tima@wv.MENTORG.COM (Tim Anderson)  
Subject: Re: Priming with Honey?

Erik Zenhausern inquired:

> talking (and drinking his fine mead) and I asked about using honey  
> to prime beer with. He told me that in order to prime with honey  
> you need about a pound (standard small jar available in supermarkets)  
> and that it takes about a month to carbonate. Is this information  
> accurate? Has anyone ever done this before?

I have primed several batches with honey. In some of these batches, honey also made up a significant portion of the fermentables, in others, the only honey used was for priming. I don't know about the weight, but I found that 1/3 Cup will give a pleasant light carbonation, and anything more than 1/2 Cup will produce soda-pop fizziness. Boil it in water as you would corn sugar, but also skim the scum off as it boils. It will probably contain a bit of wax and pieces of bee armpits.

A month is excessive, but it does take a little longer than, say, corn sugar. At the tiny quantities used for priming, you won't be able to tell the difference between clover, blackberry, or anything else, so use what's available, it's all just bee barf. Some will disagree with that. Those who do are wrong. :-|

Mark Garetz asked:

> Can anyone provide me with info and a contact number for the Oregon  
Brewer's  
> Festival to be held after the AHA Conference? Thanks

All I know is I've only missed one of these, and this year I'm skipping my daughter's wedding in order to attend.

tim

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Date: Wed, 5 May 93 12:07 EDT  
From: hjl@gummo.att.com  
Subject: "Momily"

Suspect it derives from "homily" as an anticlerical comment.

Hank  
.//'

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Date: Wed, 5 May 1993 12:29:39 -0400 (EDT)  
From: roman@tix.timeplex.com (Daniel Roman)  
Subject: Re: Where's the hops?

Diane Palme x2617 writes:

>I just have a quick question which would serve to dispell any worries I  
might  
>be having about my newly planted hops. About 2 weeks ago I planted 3  
hop  
>roots in the back garden and I have yet to see any progress.

I think you're worrying a little too much and too early, give them some  
time. Here in NJ the Cascade have just broke the surface and the  
Willamette are 3 feet long (with other varieties somewhere inbetween).  
These are established plants. You've got quite a bit cooler weather up  
there and you're starting with new plants, give 'em time.

Did the cuttings already have some shoots and were they "crisp" and  
seemingly alive (as opposed to dried out)?

>By the way, should I be fertilizing these guys? If so, what do all of  
you  
>recommend? I have some ordinary vegetable fertilizer but is there a  
particular  
>brand which works the best.

A slow, continuous release fertilizer seems to work best, I use bone  
meal with good results with an occasional overspray (the hops are  
adjaicent to my veggie garden) of Miracle Grow.

-----  
Dan Roman GEnie: D.ROMAN1 Internet: roman@tix.timeplex.com //  
Ascom Timeplex (NJ) Homebrew is better brew! Only AMIGA! /X/

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Date: Wed, 5 May 93 11:12:03 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Sparge Water

Ed Hitchcock asks in HBD#1134 how a bitter with SG = 1.034 can be brewed with the ratio of sparge water to mash water being no more than 1.5. I personally let the mash thickness float, and indeed have found this to be a relatively unimportant variable within a reasonable range. In particular, plots of yield vs. mash thickness tend to be quite flat in the range 25-40 liters/kg.

To cite some examples, suppose we want to brew 50 liters. In my system this would require

$$50 * (4/3) = 66.67 \text{ liters water}$$

(due to 12.5 % of the water used being left in the grains, and a 10% evaporation in the boil). Suppose 33.3 liters of water is used in the mash, and the same amount is used for sparging. If 10 kg. of base malt is used (adjustments are needed if adjunct malts are used), then typically 56 liters of wort would be collected in the brew kettle at a gravity of 1.045. This would boil down to 50 liters at SG = 1.050. A grain bill consisting of say 7 kg. of base malt typically yields 50 liters at 1.035.

In both of the above cases the yield is ~30 pts/lbs/gal. While this number is insensitive to mash thickness, it does depend strongly on the mash to sparge water ratio. In the above examples, about 2% of the extract is left behind in the grains. Had the ratio been increased to 1.5 (26 liters in the mash and 60 liters for sparging), the extract lost will typically drop to 1%. The most extreme case I have brewed had a ratio near 3.5 (20 liters mash to 46 liters sparge), and virtually no extract was left behind in the grains. The resulting beer was not to my taste, although clearly this is a subjective evaluation (as opposed to a scientific one). As I have noted before, I am not a yield aficionado. The major exception to this involves malt which has deteriorated due to excess moisture. I have alas had this happen, and the resulting yields were extremely low. In all other cases, I am indifferent to the yield a particular brewing configuration will give. The real issue is how the brewer feels about the finished beer.

George Fix



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Date: Wed, 5 May 1993 12:33:07 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: clear beer stuff

According to this week's Advertising Age, Miller Clear Beer is being test-marketed in Austin, Texas; Minneapolis; and Richmond, Va. Ad Age conducted a blind tasting in Chicago. Suitably chilled Clear Beer was poured into colored plastic cups along with Budweiser and Coors, and the lights were lowered. Some taster comments (tasters were Ad Age employees -- probably not a bad target group):

"It tastes just like a Bud."

"It seems a little more mellow, almost like flat beer."

"It tastes like watered-down beer."

"If you had a glass of beer and emptied it, then refilled it with water...that's what it tastes like."

One taster thought Clear Beer had more body than the other two brews.

Several tasters commented that Clear Beer had "a mineral water aftertaste."

Several male panelists said they judge a beer's quality and strength by the deepness of its color. "Don't people equate color with flavor? If so, that could be a problem."

Finally, one male panelist said color "makes a beer brand to me. It certainly would be weird to chase tequila with a clear beer."

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Date: Wed, 5 May 93 12:41 CDT  
From: korz@iepubj.att.com  
Subject: B.O.S.S. Challenge `93

Here are the award winners from the  
"1993 Who Died and Made Us B.O.S.S.? Challenge"

1st 2nd 3rd

Wheat Beer: Dick Van Dyke Patrick Delozier Mike Brennan  
IPA/Amer. Pale: Mike Pezan Dick Van Dyke Mike Kenny  
Alt/Kolsch/Cream: Rob Reed Dave Lowe Brian & Linda North  
Pale Ale/Bitter: Stewart Rose Len Bergonia Al Korzonas  
ESB/Scottish Ale: John Walaszek Tony Babinec John Dalton  
Brown Ale: Joe Perillo D & B Hoppe George Fix  
Porter: Dick Van Dyke Rob Reed Dick Van Dyke  
Stout: Dennis Davison Dennis Davison Joe Perillo  
Strong Ale: B & L North Brian Bliss Stewart Rose  
Pilsener: Jules Roeles Jack Schmidling John Dalton  
Export/Helles: Gary Hauser Dave Lowe Dennis Davison  
Amber/Dk Lager: Dennis Davison Patrick Delozier Mike Pezan  
Traditional Bock: Tony McCauley Jim Thommes Al Korzonas  
Misc. Bock: Tony Babinec Dennis Davison Dennis Davison  
Spice Beer: John Walaszek Patrick Delozier Tom Manteufel  
Fruit Beer: B & L North Al Korzonas Joe Perillo  
Belgiarama: Brian Bliss Dave Norton Al Korzonas  
NoCommercialComp: Tom Eskridge Ken Butler George Fix  
Mead/Cider: Tom Manteufel Dave Norton Dick Van Dyke

2nd Best of Show: Rob Reed (Kolsch)

BEST OF SHOW: Brian & Linda North (Barleywine)

Club Total Points: 1st- Brewers of South Suburbia  
2nd- Brewtown Brewmasters  
3rd- Kansas City Biermeisters

The organizer has assured me that the processing of forms has been  
completed  
and the mailing of awards and judging forms will be completed this week.

Al.

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Date: Wed, 5 May 93 15:46:21 EDT  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Little Shop of Hops

SB> I am about to start graduate school in New York City. I  
wouldn't  
SB> think of leaving my brewing back in California! Does anybody know  
SB> of brewpubs or more importantly home brew shops in the city?  
Thanks  
SB> in advance  
SB> STEVE BOXER

First, I'd like to welcome you to the east coast--quite a change from  
SD, but we have our charms.

One of those charms is a relatively new brew shop and homebrew central  
(for things such as judging or tasting classes). It's called, get  
ready for the groans, "Little Shop of Hops." Its address is 15 W. 39th  
St., NY, NY 10018. They have a mailing list for their monthly (?)  
newsletter, and I'm sure they'd be happy to add you to it. I don't  
know a lot about them, since I've only been there once (I live on LI  
and have another supplier out here), but they looked like they were  
going to be pretty good (they had only been open for ~1 month at the  
time).

Lou Casagraande  
casagran@gdstech.grumman.com

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Date: Wed, 5 May 93 15:36 CDT  
From: korz@iepubj.att.com  
Subject: Free Belgian Beer Tasting

A Public Service Announcement:

On May 16th, from 1 to 5 pm, Mainstreet Deli and Liquors in Countryside, Illinois will be holding a FREE Belgian-style Beer Tasting. There will be over 25 Belgian-style Beers including:

Scaldis (in Belgium, Bush)

Saison Dupont (vielle Provision)

Rodenbach Gran Cru

Blanche De Bruges

Affligem Dubbel (and possibly the Trippel)

Grimbergen Dubbel & Trippel

Liefman's Brown, Kriek and Frambozen

Saison Dupont

Castelain Biere de Garde

Duvel

Orval

Westmalle Dubbel

St. Sixtus Abt

Chimay Red, Cinq Cents & Grande Reserve

Celis White and Grand Cru

Brigand

Corsendonk Monk's Brown and Monk's Pale

Lindeman's Kriek

Timmerman's Framboise

Maes Pils

There will be a limited supply of home-brewed pKriek, brewed by a regular contributor to the Homebrew Digest.

There is also a good chance that there will be a special guest beer (not available for sale) that is traditionally brewed by a non-profit brewery in Belgium but is available as yet only in one "state" in the U.S.

MAINSTREET DELI and LIQUORS  
5425 South LaGrange Road  
Countryside, Illinois

708-354-0355

Al.

Disclaimer: I plead insanity.

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Date: Wed, 5 May 93 13:31:00 PDT  
From: davep@cirrus.com (David Pike)  
Subject: Yeast Lab Co. and its Weisen yeast

Fellow HBDer's,  
Does anyone know an address or phone # for the Yeast Lab Co. I'm actually  
looking for the background for their weisen yeast.

Dave

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Date: Wed, 5 May 1993 18:02:00 -0800

From: ulrich@sfu.ca

**Subject: Momilies**

Others have addressed the meaning of the term "momily" (TM). But let me make one conjecture about its etymology: it's a blend of "mom" and "homily", and is not related to "anomaly". A homily is like a sermon. I haven't read the book, so correct me if I'm wrong.

Charles Ulrich

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Date: Thu, 6 May 93 01:54 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: White beer recipe revisited

Some time ago I posted a recipe for a white beer I believe a fair number of people used as a starting point for brews of their own.

While I thought my own batch had turned out pretty well (still do), I also said that there was room for improvement and experimentation. Most of the people I know who are brewing white beer--myself included--are still figuring out how to deal with it, and the idea of the posting was to share my own experience in the hope that other people wouldn't have to start from zero.

In this same vein I'd like to ask those people who used this recipe--or have another one they like--to let us know how things worked out. You can send messages to me if you like, and I'll edit them into a single post. I'd be particularly interested in comments on grist ratios, spicing, and yeast.

If things didn't turn out well you're welcome to call me a scoundrel, too--I'll do my best to leave in any relevant feedback you have that might help someone make better beer, as well as any insults that seem especially witty.

Phil Seitz  
PSEITZ@MCIMAIL.COM

P.S. to Tony Babinec: so what DID the CBS say about this beer--from a brewing standpoint? I've got my bullet-proof vest on (borrowed from Jack), so for the good of the community let's have it.

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Date: Wed, 05 May 93 23:17:48 EDT  
From: drwho2959@aol.com  
Subject: Responses to Queries in HBD#1134

In HBD#1134,

Mark Garetz asks:

>Can anyone provide me with info and a contact number for the Oregon Brewer's

>Festival to be held after the AHA Conference? Thanks

Zymurgy tells us to call Widmer Brewing Company in Portland, Oregon, at (503)281-BIER (Note the GERMAN spelling of beer!). AHA Conference is July 26-30, and Oregon Brewers Festival is July 30-August 1. Both events are to be held in downtown Portland, OR, which is a beautiful city and a beer drinkers paradise!

And Steve Boxer asks:

>Does anybody know of brewpubs or more importantly home brew shops in

>[New York] city? Thanks in advance

Be sure to pick up a copy of The Barleycorn AS SOON AS YOU CAN. It is the

East Coast's equivalent to the Celebrator. I am looking at an old copy from

last December as I type this. There are LOTS of home brew shops listed in

New York state, but unfortunately my knowledge of New York geography is rather sketchy. There is one listed on Staten Island, though:

East Coast Brewing Supply

124 Jacques Ave.

P.O. Box 060904

Staten Island, NY 10306

(718)667-4459

You can subscribe to the Barleycorn by sending \$12.00 check or money order

along with your name and address to:

Barleycorn

P.O. Box 2328

Falls Church, VA 22042

(703)573-8970

\*-----\*  
| Andrew Patrick |  
| SysOp, Houston Correspondent & Distrib. Mgr., |  
| Home Brew Univ. BBS Southwest Brewing News |  
| (713)465-0265, 2400 bpsInternet: andinator@delphi.com |  
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End of HOMEBREW Digest #1135, 05/06/93

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Date: Thu, 6 May 93 9:38:47 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: RE:Yeast Lab Weizen

Dave asks about the yeast lab weizen:

<  
<<Date: Wed, 5 May 93 13:31:00 PDT  
Subject: Yeast Lab Co. and its Weizen yeast

<  
<  
Fellow HBDer's,  
Does anyone know an address or phone # for the Yeast Lab Co. I'm actually  
I too am extremely interested in any info regarding the origins  
of the Weizen strain they sell. I have \*heard\* that it is  
similar to Wyeast Wheat, but I have not tasted it or know of  
a brewer using it. If anyone out there uses this strain (or  
others from them), I would appreciate feedback on the fermentation  
characteristics. IN particular, does the yeast produce distinctive  
banana esters and phenolic character?

Good brewing,  
Jim Busch

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Date: Thu, 6 May 93 09:45:10 EDT  
From: jimf@centerline.com  
Subject: Sam Adams being investigated

Today's Boston Globe reports that Sam Adams is being investigated by the New York City Department of Consumer Affairs for misrepresentation in advertising. The investigation was incited by the Brooklyn Brewery because of the advertisements stating that Sam Adams Lager has "won the Great American Beer Festival four years running."

It seems that they won in '85, '86, '87, '89, and '90 -- never more than three consecutive years. (The article also mentions that they won a gold and silver medal in '92 but they didn't mention that when talking about how many awards they'd won.) They didn't compete at all in '88.

Best quote, from Jim Koch, about why it's ok: "I used to say we won four years in a row. If you go to bat three times, get three hits and a walk, and then a fourth hit, didn't you get four hits in a row?"

Also disputed is the claim that Sam Adams is the only American beer imported into Germany. So are Brooklyn Lager and others.

jim frost  
jimf@centerline.com

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Date: Thu, 6 May 93 09:51:44 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Legal Problems for Sam(tm)Adams(tm)

Boston Globe, Thursday May 6, 1993. Pg. 77 (Business Sect.)  
Quoted without permission.

Barroom Brawl, by Frederic M. Biddle, Globe Staff.

" Beer isn't all that's brewing at Boston Beer Co.  
The Maker of Samuel Adams Boston Lager, described on bottlecaps and  
in  
company advertising as "The Best Beer in America," is barroom-brawling  
with a New York rival.

New York City's Department of Consumer Affairs is investigating  
Boston Beer  
for "possible violations" of the city's consumer protection law. "It's  
smarmy," Jim Koch, Boston Beer's president, said in an emotional  
interview  
yesterday. He said that the Brooklyn Brewery, which in New York  
distributes

Mass. Bay Brewing Co.'s rival Harpoon Ale, incited the investigation.

"That's ridiculous!" says The Brooklyn Brewery's president.

"That's irrelevant!" says a spokeswoman for the New York Department of  
Consumer Affairs.

What is relevant, all agree, is the New York agency's April 19 letter  
to

Koch. "Your current ads claim that Sam Adams Lager 'won the Great  
American

Beer festival four years running," the agency writes. "However, our  
preliminary investigation indicates that while you received awards in  
1985,  
1986, 1987, 1989 and 1990, awards were never received for more than three  
consecutive years."

Exactly what Sam Adams won is also in dispute. In the late 1980s  
Samuel

Adams Boston Lager actually won "consumer preference" polls of attendees  
of

the Association of Brewers' Great American Beer Festival in Denver.  
Plaques

accompanying those awards read: "Best Beer in America."

But in 1990 the poll was replaced by a Professional Panel Blind  
Tasting,  
following sore losers' objections. "It was becoming a popularity  
contest,  
and it didn't really reflect our mission," says association president  
Charles  
Papazian.

Now New York is telling Koch that "there is clear potential for  
consumers  
being misled when you refer in the aggregate to "winning" the Great  
American  
Beer Festival without being specific as to the nature of what you won."

[the articles continues on and on and on...  
highlights....

Meanwhile, Koch has fallen flat with competitors. For example: Brooklyn  
Brewery's president, Steve Hindy, disputes Boston Beer's claim that  
Samuel

Adams is the only American beer imported into Germany. Brooklyn Lager is, among others. "Many people are of the opinion that Jim's advertising is out of bounds," Hindy says.

[and it goes on...talking about the use of GABF awards in advertising and how the policy is changing, and how there are 32 gold medals there... SA got a gold and silver last year, but then again Pabst Brewing Co.'s Olde English 800 Malt Liquor got the gold in the Americal Malt Liquor category...]

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Date: Thu, 06 May 1993 10:47:45 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Re: Sparge water

Thank you George for responding to my question.  
I do, however, have a few questions and commentaries. Firstly, I recognize that the mash thickness can be varied to some extent with little change in the final beer. The question then is which has a greater effect on the quality of the final beer, brewing every batch with about the same mash to sparge volume ratios, or brewing beers with about the same mash thicknesses?

You wrote: "Had the ratio been increased to 1.5 (26 liters in the mash and 60 liters for sparging), the extract lost will typically drop to 1%. The most extreme case I have brewed had a ratio near 3.5 (20 liters mash to 46 liters sparge), and virtually no extract was left behind in the grains."

Perhaps I am missing something, but 26L mash and 60L sparge is a ratio of 2.3, and 10, 20L to 46L is also a ratio of 2.3. You lost me somewhere in there.

Lastly, was the 1.5 ratio solely for extraction rates? If so, I am less concerned than if this figure were for preventing tannin extraction or some other factor.  
ed

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----

+  
| Remember, God created the world in six days, |  
| and that was without the benefit of power tools! |  
+-----+

Eschew Budmillmolcoorbattheadh

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Date: Thu, 6 May 93 11:15:05 CDT  
From: stevie@spss.com  
Subject: Miller Clear -- Less Yucky?

With Miller Clear Beer in test market in Richmond, it was no surprise that last Saturday's Washington Post had a feature on it. Customers at a local tavern were questioned. In general the comments were very much as in Ad Age (mentioned in Tony Babinec's post in the last HBD), with the most positive remarks coming from people who didn't really like beer. One couple, in particular, said that they had been drinking beer since college, but came to realize that they really didn't like it. Miller Clear was "less yucky" than regular beer.

The bar owner said Miller Clear was selling briskly, but it looked mostly like a fad. Most of the customers were trying it once, and then switching back to normal-looking stuff.

I didn't save the article, but I recall that Clear was only slightly lower in alcohol and calories than regular Miller products -- 122 calories per 12 oz. Tim Norris and I (we were in DC to judge at BURP's Spirit of Free Beer homebrew competition) thought briefly about a road trip to pick up a six to bring back to our pals in Chicago, but we opted for "yucky" Belgian stuff instead. We also only got as far south as Manassas, and lucky for us, Hero's didn't carry it.

Perhaps one of our DC colleagues can provide direct quotes from the Post?

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+-----+-----+-----+-----+
-----+
| Steve Hamburg   | Internet: stevie@spss.com | "Life is short, and so
|
| SPSS Inc.      | Phone:   312/329-3445   | are some brewers."   |
| Chicago, IL    | Fax:    312/329-3657   | |
+-----+-----+-----+-----+
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Date: Thu, 6 May 93 09:58:23 PDT  
From: Bob.Clark@Eng.Sun.COM (Bob Clark)  
Subject: Yeast trivia, Zima

I live in east San Jose, CA, just outside the area where there was a problem with the Mediterranean fruit fly (MedFly) last year. There's a fly trap in my front yard, and I talked with the guy who was checking it for fruit flies. It turns out that the bait they use is a mixture of borax and \*yeast\*. This struck a chord with others who have mentioned that their fermentation attracts fruit flies to their airlocks.

A friend brought a six-pack of Zima over last weekend. We split one bottle, and he refused to take the remaining five bottles home. It reminded me of the aftertaste you get with a really bad, cheap champagne. A bartender mentioned, too, that everyone who tried it in the bar had only bad things to say about it.

Bob C.

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Date: Thu, 6 May 93 10:59:54 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Correction

Richard Goldstein asks via private e-mail the following:

>Your mash ratio of 33 liters for 20kg of malt is roughly 1.5 qts/lb  
>(sorry, I'm not entirely comfortable leaving all this stuff in metric  
>units), and several of texts imply that this is at the high end of the  
>mash ratios, ie that this is a rather "thin" mash. I am assuming that  
>you are dispelling this notion by the statement:

>>plots of yield vs. mash thickness tend to be quite flat in  
>>the range 25-40 liters/kg.

>Do you really mean 25-40 liters/kg, or are you missing a decimal point?  
>Or am I missing the point? :)

Ops! What we have here is a tenured Full Professor of Mathematics with a Ph.D. from Harvard who can not do arithmetic! Doctor cure thyself! The correct range is 2.5 to 4.0 liters/kg. Thanks Rich!

The malt charge reported in my post was 10 kg., giving a concentration of 3.3 liters/kg. which is approximately 1.58 qrs/lb.

>I think that many homebrewers believe that a thicker mash is better, so  
>this is very interesting. Are yields vs mash thickness fairly  
>insensitive to mashing procedure? That is does your statement apply  
>equally as well to infusion/step/decoction mashing, or are there some  
>"better" thicknesses for each of these?

These results are for infusion mashing only. The situation for decoction is a good deal more complicated because of the volume reductions during boiling.

Theoretically a thick mash provides more thermal protection for enzymes, and this has been put forward as a point for a thick mash. On the other hand, enzyme activity is inhibited by the concentration of the products produced, and this tends to favor a thin mash.

There appears to be some disagreement about whether the effects cancel, or that they are simply weak effects. Our mathematical models (based on the nonlinear differential equations of enzyme kinetics) suggest it is a combination of both. In any case, it has been my personal experience with my own system that mash thickness is not a major issue.

The issue of over sparging and indeed hot sparging varies with beer style.

IMHO one can ruin many lager styles this way, however as Martin Lohahl correctly has pointed out a few months ago, some of these effects can and have been used to advantage in Belgian styles.

Thanks again Rich. I enjoy your e-mail!

George Fix

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Date: Thu, 6 May 1993 11:27:11 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Skunk beer?

I also have wondered about the incidence of mercaptan "skunkiness". So I propose:

Hey, Chuck! Could JudgeNet do an informal survey and report back on the incidence rate of skunky beer in contests? It seems to me that contest submissions would be the product of "reasonable" anti-skunk precautions.

I have read in literature from John I. Haas (a big hop supplier) that isomerized hop extracts are far more resistant to skunkiness. I've taken this to mean that most of the beer sold in clear bottles (Miller, Newcastle, Sam Smith, Corona, etc.) is hopped with the isomerized extract and doesn't use \*real\* hops. I'm only guessing.....

Paul.

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Date: Thu, 6 May 1993 03:47:30 -0800  
From: scott@fm.gi.alaska.edu (Scott Stihler (USGS analyst))  
Subject: Filtering beer

Greetings,

I've got a question regarding filtering beer. I've been interested in filtering my homebrew for awhile but I'm somewhat confused as to what is the optimum filter size for beer. Does anybody out there happen to know? I'm afraid if I get too small a filter size I may lose body. Anyways, I'd appreciate here what you have to say.

Cheers,

Scott

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Date: 6 May 93 11:28:00 +1300  
From: BELLAGIO\_DAVID@Tandem.COM  
Subject: Sierra Nevada Brown and The Goat Hill

I would just like to second Bob's acclaim of Sierra Nevada's Brown. I really liked it. They told me it was a special one time brew. I will be going back shortly and can't wait to have a pint. I also like their spring special Pale Bock. As for Andy's mention of the Goat Hill Tavern, I was told of this place by the HBD and was glad I went. Great place to hang out. I could go for one of their Black Fog (Anchor Old Foghorn and Watney's Cream Stout) mixtures right now.

Super Dave

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Date: Thu, 06 May 93 15:04:43 CST

From: C05705DA@WUVMD.Wustl.Edu

Subject: recipies for weisen

a while back, month or two roughly, several people posted good recipies for weisen beer; they were fairly simple ones. Unfortunalty, the file that

i saved it in bit the big one, followed by @#%\*!. it seems that one of them had munich malt and one had regular two row malt. also, they included

the name of the yeasts they used; they were of the wheat ale type. could you good people please resend them? thanks.

"The mass of mankind has not been born with saddles on their backs, nor a favored few booted and spurred, ready to ride them legitimately, by the grace of God." Thomas Jefferson

address: c05705da@wuvmd.wustl.edu

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Date: Thu, 6 May 93 16:34:51 CDT  
From: jay marshall <marshall@sweetpea.jsc.nasa.gov>  
Subject: tv ad for hb video

While watching the Discovery channel last night I saw an ad for a homebrewing video. Needless to say I was surprised to see this kind of thing advertised nationally. Has anyone seen the video? If so, would you care to give a brief review?

Jay  
marshall@sweetpea.jsc.nasa.gov

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Date: 06 May 1993 19:52:26 -0400 (EDT)  
From: WESTEMEIER@delphi.com  
Subject: Effect of light on beer

In response to yesterday's request for info on the effect of light on beer:

I've always found this fascinating, so I'll just outline what I understand to be the case, and let the experts fill in the gaps and correct the parts that are shaky.

What actually happens is pretty easy to understand (assuming you have a PhD in organic chemistry). The alpha acids in hops are changed chemically during the boil, becoming isomerized (which means the molecules are formed into long chains). These iso-alpha acids (as they are then called) are much more bitter than the naturally occurring alpha acids, and they are also much more unstable in light. When light hits them, they are changed chemically again, and they tend to react with some of the sulfur compounds present in all beers. That reaction produces a new chemical (to be precise, the loss of CO by the acyl radical forms the 3-methyl-2-butyl radical, which then combines with a thiol radical from sulphur-containing proteins to produce 3-methyl-2-butene-1-thiol, for those of you keeping score) which is familiarly known as a mercaptan. Mercaptans are also the active ingredient in a skunk's defense mechanism, and are easily recognized by the human nose at levels of a few parts per billion. OK, how much light does it take? If it's the right (actually, the wrong) kind of light, the answer is "not much." Any light with a wavelength shorter than 520 nanometers will do the job. Think about how sunlight is broken up by a rainbow or a prism. The longer wavelengths are at the red end of the spectrum and the shorter wavelengths are at the blue end. Red, orange, and yellow won't really cause you a problem. Green is getting dangerous (the yellow-greens are OK, the blue-greens are not). Blue, indigo, and violet are a definite no-no. Ultraviolet is right out. Since normal (white) light contains more or less the whole visible spectrum, you want to use a type of glass that filters out the harmful part. Anyone who has ever done serious photography knows that fluorescent lamps put out light that is more heavily skewed toward the blue end of the spectrum, and incandescent lamps toward the red end. Obviously, fluorescent lights are more harmful to beer than incandescent lights. What kind of lights are used in the beer display case at your favorite retailer? Uh-huh, that's right! Actually, it only takes about 24 hours of exposure to this kind of light to have an effect on beer in a clear bottle (have you had any Corona lately?). Green bottles help, but only a very little, since they just block a little of the red light and a little of the blue. Higher levels of sulfur compounds in some beer produced in green bottles can actually wipe out the advantage, so that

some beer shipped in green bottles is even more easily skunked than beer in clear bottles. Brown bottles help quite a bit, since they block almost all of the harmful wavelengths, but still let some of the harmful green light through. Some of the big guys actually apply a chemical treatment to their beer, so that light has little or no effect. Miller is the first one that comes to mind, and even though it's shipped in clear bottles, you're very unlikely to find a skunked Miller.

But who wants a Miller? We don't always get what we pay for, and it would really be worth your while to ask your retailer for beer that hasn't been exposed to the light. Get a six-pack from a freshly opened case in the back room, rather than a cold one that has been sitting in the display case under fluorescent lights for a week.

Ed Westemeier Cincinnati, OH westemeier@delphi.com

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Date: Thu, 6 May 93 18:39:29 -0600  
From: cbacco@ursa5.cs.utah.edu (Corby Bacco)  
Subject: Methanol (aka wood alcohol)

Hello all,  
First of all let me say that I know that methanol is not produced in homebrewing, at least everything I've read so far says that, and I am not worried about going blind. But, now that I've been brewing for about a year I've heard enough people say "You homebrew!? Watch out you don't go blind!" that now I really would like more ammunition to argue with.

Specifically, WHY isn't methanol produced during homebrewing or I guess the question could be asked as how DO you produce methanol? Thanks for the info in advance.

Cheers,  
Corby Bacco

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End of HOMEBREW Digest #1136, 05/07/93  
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Date: Wed, 5 May 1993 10:32:49 -0700  
From: paul@rational.com (Paul Jasper)  
Subject: Re: Sammy Adams

On 4 May, 10:03, Jeff Frane wrote:  
> Subject: Re: Sammy Adams & Belgian Malts  
>  
> Sam Adams is not and never has been a microbrewed beer. From its  
> inception it was contract-brewed, originally in Pennsylvania and for  
> the  
> last couple of years here in Portland at the Blitz-Weinhard Brewery.  
>  
>-- End of excerpt from Jeff Frane

You mean the claim that Sam Adams Boston Lager(tm) is a microbrewery  
beer is a "momily"(tm)? ;^)

BTW, a sign has appeared on a huge billboard on the way into San  
Francisco from the airport proclaiming Samuel Adams to be America's  
best beer... I think a few of the city's Anchor drinkers might have  
a word or two to say about that (let alone the Celis aficionados,  
local brewpub fanatics, Red Tail Ale swiggers, etc, etc)!

- --  
- -- Paul Jasper  
- -- RATIONAL  
- -- Object-Oriented Products  
- --

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Date: Fri, 7 May 93 09:07:10 EDT  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Re: Help! Overbubbling!

Jay wrote back in HBD1129 (sorry, but I'm just catching up on my reading):

> A friend and I are making our first batch of Irish Stout. He has  
> brewed a lager before, but this is my first batch of beer. We  
> followed the directions that came with the beer kit (Irish Stout  
from  
> Eastern Brewers Supply) but used a liquid yeast instead of the dry  
> yeast supplied (on the suggestion of EBS).  
>  
> We are fermenting in a ~6.5 Gal plastic primary fermenter, but now,  
> two days after we pitched the yeast the wort is bubbling VERY  
> vigorously. It is bubbling so much that it is getting in to the  
> fermentation lock, which was 3-4 inches above the level of the brew  
> when we began.  
>  
> Did we do something wrong, or is a stout supposed to ferment that  
> violently?

I have had the same thing happen with my two previous batches. The first was the Sparrow Hawk Porter from TNCJOHB, which had an OG of 1.054. The second was the Dark Sleep Stout from TNCJOHB, which we perked up a bit by using 3 lbs of the dark DME rather than 1 lb. This had an OG of 1.067. The latter was so vigorous that it actually pushed up the lid on my fermenter (when the air lock became clogged) and spilled about a pint of foam on the floor. The stout is still aging in the bottles, but the porter turned out to be very smooth, so this was probably simply an inadvertent blowoff. By the way, both brews were fairly highly hopped. I didn't use a liquid yeast, but I do rehydrate religiously. That didn't change from previous batches, though, so I'm not sure that that can be the answer.

In any event, just clean up any mess, make sure your fermentation lock stays clear, and let it ferment to completion (which has probably already happened, considering the lateness of my posting wrt Jay's :~0).

Lou Casagrande  
casagran@gdstech.grumman.com

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Date: Fri, 7 May 93 09:29:08 EDT  
From: jkirsch@dolphin.uri.EDU (Jay Kirschenbaum)  
Subject: Re: Help! Overbubbling!

I wrote:  
[Story about a very vigerous fermentation]

Well...Yesterday we bottled--a week ago we transferred the brew to a secondary fermenter, and everything seems fine!! I snuck a taste as we were bottling, and it tastes great!! although perhaps not quite as bitter as it should be, but these things happen. I will report back in two weeks or so and tell how it finally comes out, but thanks to everyone who responded (I don't have all the old messages, sorry that I didn't respond individually)

Thanks,  
Jay Kirschenbaum  
jkirsch@dolphin.uri.edu  
University of Rhode Island

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Date: Fri, 07 May 93 08:01:49 -0600  
From: Steve Dempsey <steved@longs.lance.colostate.edu>  
Subject: Re: Methanol (aka wood alcohol)

In HOMEBREW Digest #1136 you write:

>Specifically, WHY isn't methanol produced during homebrewing  
>or I guess the question could be asked as how DO you produce  
>methanol? Thanks for the info in advance.

Methanol production requires:

- 1) the proper yeast (wild yeasts)
- 2) unique fermentables (cellulose == wood, grain husks)

As a homebrewer, you use a known yeast type that does not yield methyl alcohol as its primary waste product. The homebrewers of days gone by could not keep things clean; wild yeasts would get in and start eating the wooden vats used for fermenting, or in the case of moonshine production, the grain is left in the mash during fermentation and provides enough fiber for methanol production. After distilling the product, the methanol concentration is high enough to do serious damage. Nearly all methanol casualties are caused by consuming distilled spirits produced from an improperly controlled fermentation. Occasionally someone stupid mistakenly procures the cheapest alcohol he can find to spike his drink, not realizing that it's poisonous.

Traditional beer/ale homebrewing has never been a problem so long as the right yeast strains are employed. The wrong yeasts are hard enough to come by that it's not going to be a problem unless you ferment in wooden vats/barrels, or leave lots of grain in your wort during fermentation. Even so, the resulting beer would have lots of other off-flavor byproducts of the unusual yeast and you wouldn't want to drink it.

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===== Engineering Network Services
Steve Dempsey Colorado State University
steved@longs.lance.colostate.edu Fort Collins, CO 80523
===== +1 303 491 0630
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Date: Fri, 7 May 93 10:14:03 -0400  
From: rxh6@po.CWRU.Edu (Randall Holt)  
Subject: Beer Machine Infomercial

I haven't seen the ad mentioned yesterday for a homebrew video, but I did catch the last few minutes of the Beer Machine (tm?) Infomercial. Since I haven't noticed any mention on this letter, I thought I'd bring it to attention.

The device they sell looks like a 2.5 gal. glass keg, laying on it's side, with a support stand, a tap and a screw-cap up on top. They demonstrate pouring in extract, adding water straight from the tap, add the yeast and screw on the cap ( I assume there's some kind of CO2 release). Wait for five days, then refrigerate (presumably after closing the release) and draw your own.

They only want \$34.95 for the kit (oh, times four easy payments, a typical infomercial small-print bullshit trick), so the real cost with shipping is about \$150. The extract they sell is Sun Country, which they will gladly supply for refills for about twice the cost at my local HB shop. But, hey, business is business.

Despite the excessive cost, this may introduce people into real homebrewing. The question I have, has anyone tried this system, or even tried brewing in this fashion, by fermenting and carbonating in the same container? I can imagine how tangy this beer would be, being poured right off the trub. Of course the happy smiling 'real people' are quaffing crystal clear, perfectly carbonated, 1 inch head, beer. I don't recall them ever mentioning the word yeast, which I would guess is a marketing strategy, but they do call their system "All natural". (So is the aboriginal practice of spitting in the mash pot to hasten the conversion of starch).

I also object to the trademarking of MY nickname.  
Randy 'The other Beer Machine' Holt

Bibo Ergo Sum

- - -  
Randall W. Holt rxh6@po.cwru.edu

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Date: Fri, 7 May 93 10:41:13 EDT  
From: sims@pdesds1.atg.trc.scra.org (Jim Sims)  
Subject: another drinkers opinion on Clear Beer

Hans is local to DC...

jim

> Return-Path: <tallis@starbase.mitre.org>  
> Date: Fri, 7 May 1993 10:21:05 -0400  
> From: Hans Tallis <tallis@starbase.mitre.org>  
> In-Reply-To: Jim Sims's message of Fri, 7 May 93 07:46:12 EDT  
> Subject: more Clear Beer silliness  
>  
>  
> I've had a clear beer, down in C'ville. It tasted like dirty, weak  
>vodka. I think I almost threw up. (But it was like the 10th beer for  
>the evening, so maybe that had something to do with it.)  
>  
> - --Hans

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Date: Fri, 7 May 1993 11:26:17 EDT  
From: Ming-chung Lin <MARS@suvvm.acs.syr.EDU>  
Subject: Sam Adams & other "microbrewers"

Last year I visited the F.X. Matt brewery in Utica, NY and was delighted to see a room full of GOOD BEER (not the usual Matt's fare). There were tanks full of Sam Adams, Harpoon Ale Brooklyn Lager, and others that I don't now remember. Matt's contract brews for many microbreweries, although I think the tour guide (whose knowledge I sincerely doubt since he claimed "beer is beer") said that they didn't brew Sam Adams, they just aged and bottled it. The others were brewed there.

For those of you in other parts of the country, Matt's is the nation's 11th largest brewer, far behind the likes of Miller and A.B. It's named after and owned by Frances Xavier Matt and also his brother. They produce a very low budget (and taste) line called Utica Club, a middle of the road line called Matt's (kind of like PBR), and also Saranac Lager which won some best beer of its kind award.

I find it curious that the brewers that are brawling in Boston all send their stuff to Utica.

Lisa St. Hilaire <MARS@SUVVM.ACS.SYR.EDU>

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Date: Fri, 7 May 93 08:57:06 PDT  
From: David Ferguson <davidfer@microsoft.com>  
Subject: RE: Effects of Light on Beer

Ed Westemeie writes:

"Get a six-pack from a freshly opened case in the back room, rather than a cold one that has been sitting in the display case under fluorescent lights for a week."

I'm curious if there is any relation between the protection from light and the better flavor of draft beer. I would imagine that there really are several reasons why draft beer tastes better including freshness and less temperature variance due to higher volume, but is light exposure a significant factor? Would any brewing gurus care to illuminate me (us) on the issue?

Dave Ferguson

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Date: Fri, 7 May 93 11:09:36 CDT  
From: greenbay@vnet.IBM.COM  
Subject: Miller Genuine Draft Mini Kegs

I was at the bar last night and saw something new. Little plastic Miller Genuine Draft kegs with a turnspout. They looked like they would be pretty cool for storing homebrew in. They are made of heavy-duty plastic and the screw on top forms quite a seal (I sprained my thumb opening it.)  
)  
Has anyone ever tried to put homebrew in these things? (Size-wise they are a little larger than the average pitcher.)

So, does anyone know where I can get grass from Lambeau field so that I can brew Green Bay Packer beer?

Later,  
Bob Crowley

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Date: Fri, 7 May 93 11:39:58 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: All grain instructions - how's this look?

Greetings!

I've decided to jump in with both feet, and go for an all-grain batch. I've purchased a lauter tun, and will construct a cooking kettle out of a Stainless Steel 1/2 bbl and a water heater element tonight. I wrote up a checklist, and would like to run it past people here to see what comments you have. Obviously, it's a very basic checklist, but I want to make sure I have things in the right order, haven't missed anything, and so on.

I'm doing Papazian's "Silver Dollar Porter", with an extra pound of Munich malt per the suggestion of the local brewshop. My lauter tun is sort of a Zapap-type, but with a rotating sprinkler for the sparge water (probably fluff, but I'm lazy & impatient, so I didn't buy or build an easy-sparger..... yet)

So, here's my list:

- >Select recipe & obtain ingredients.
- >Start Yeast pack (2-3 days before brewing)
- >Add yeast to quart of starter wort (~12 hours before brewing)
- >Preboil 10 gallons of "brewing water", put in carboys when cool. (night before brewing)
- >Bring 1.33 qt H2O per pound of grist to 130 degrees (f) in mash kettle.
- >Add above water to grist, protein rest for (60?) minutes at 122 deg.
  - >Adjust pH to about 5.3 if needed
- >Start sparge water in cooker kettle, bring to 170(?) degrees. How much?
- >Raise mash temp to 155 deg, hold at this temp until conversion is done. (Can I do this with boiling water? How much do I use?)
  - >Adjust pH if needed
  - >Test for conversion with Tincture of Iodine
- >Raise temp of mash to 175 deg, for (20?) minutes, to mash-out.
- >Pour mash into lauter tun, let it compact, recirculate runoff until clear.
- >Put sparge water into sparging vessel, start the sprinkler. Keep the liquid level right around the top of the grain bed by regulating flow in and out of lauter tun. Collect this wort in the cooker.
- >Plug in cooker, bring to boil, add hops per schedule, boil per recipe.
- >Immersion chill, rack, pitch, shake, ferment, rack, settle, rack, prime,

bottle, keep in kitchen for a week, put it in the basement, wait, wait,  
wait, drink, MMMMMMMMMMMMMMMMMMM.

- - - -

Note that some of the times may be inaccurate, I'm doing this from  
memory,  
30 miles away from my books. Those, obviously, will be adjusted as  
needed.

Please e-mail or post if you can suggest improvements. I can't read R.  
C.B,  
so posts to the HBD would be better.

Thanks for any input,  
Dave Hinz

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Date: 07 May 1993 12:08:17 -0600 (CST)  
From: RBSWEENEY@memstvx1.memst.edu  
Subject: Oatmeal Stout

Does anyone on the HBD have a good all-grain recipe for an oatmeal stout.  
? Last month at the Bluff City Brewers and Connoisseurs awards banquet  
(Memphis, TN) Dave Miller was the guest speaker and brought along a keg of  
his delicious oatmeal stout--my kind of guest. Unfortunately, I was not  
able

to talk to him long enough to get the recipe, but the idea of oatmeal  
stout

will not go away. The hop bouquet on Dave's was heavenly, so I assume he  
must have dry hopped, and he did say the beer had been filtered using a  
DE?

filter. Emails would be appreciated.

As an aside, some of Miller's comments on making the transition from  
homebrewer

to microbrewer (his is in St. Louis) related to the brewers individual  
perspective on brewing. He basically divided the brewing community into  
'Germans' and 'Belgains'. The Germans being those who meticulously brew  
to

style, while the Belgains never want their brews to taste the same way  
twice.

His opinion was that as you make the transition to microbrewer you lose  
some

of your Belgain influence and become more German. He also strongly  
recommended

the filtering of beer, which he claimed brought out entirely new (and  
presumably better) flavor profiles. As I said, if his oatmeal stout is  
any

indication, he must be on to something.

Thanks in advance for the recipes.

Bob Sweeney  
Department of Management Information Systems  
Memphis State University

P.S. Oops, make that 'Germans' and 'Belgians'.

^^

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Date: Fri, 7 May 93 13:45:46 -0400

From: drose@husc.harvard.edu

Subject: Cornelius repeat (oops)

Hello. I recently posted a question about sources for Cornelius kegs.

Thanks

to all who replied with some good input. One person in particular sent a lengthy piece on keg cleaning and reconditioning which was very useful. Unfortunately, I deleted it before I could get it on paper; could the person who sent it (whose name I also deleted) please send it again. I offer my sheepish thanks.

Also, regarding the use of yeast in medfly traps (HBD#1136): yes, fruitflies in fact do not eat fruit, they eat wild yeast that grows on fruit.

In the lab (*Drosophila melanogaster* is a favored organism for studying development) they are grown in little vials with yeast and some food for the yeast to eat. As a yeast geneticist working in a building populated by fly geneticists, this relationship is a particularly painful one. I will probably never recover from the repeated taunts of "my organism EATS your organism".

d.

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Date: Fri, 7 May 93 12:51 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: SPARGE, Skunks, Bidal

>From: gjfix@utamam.uta.edu (George J Fix)  
>Subject: Sparge Water

>I personally let the mash thickness float, and indeed have found this to be a relatively unimportant variable within a reasonable range. In particular, plots of yield vs. mash thickness tend to be quite flat in the range 25-40 liters/kg.

Not sure I can address what youse guys are talking about but I will use the discussion as a segue to what I want to talk about.

I have found that there are far more advantages to using a thin mash than a thick one. In fact, I don't know of any reasons for fighting a thick mash.

1. A thin mash has more mass and makes temp maintenance far easier.
2. A thin mash is far easier to stir and thereby assure thorough mashing and temperature homogeneity.
3. A thin mash requires less sparge water in direct proportion to the amount of mash water used.
4. A thin mash has less tendency to scorch or caramelize when kettlemashing.
5. It takes longer to bring a thin mash to temp but the time is well spent as the mash gets a sample of every recommended "rest" in the book and has the possibility of curing every il and adding a bit of every character possible.

For the record, I use 4 gals of water to mash 12 lbs of grain. I consider this on the thin side but have no qualms about using more water, just haven't tried it.

>From: WESTEMEIER@delphi.com  
>Subject: Effect of light on beer

>OK, how much light does it take? If it's the right (actually, the wrong) kind of light, the answer is "not much."....

I was waiting with baited breath to hear the answer but "not much" is not very satisfying.

All this science is real nice but when I see people putting bags over carboys of fermenting beer in the basement, I can't help but wonder if we haven't got another MOMILY out of control.

As a teenager, we joked about "Skunky Millers", so I am a believer in the principles involved but have serious reservations about the potential damage from occasional fluorescent lights over a period of a few weeks.

Seems easy enough to prove with a few simple experiments but I am so far from believing it, that I have better things to do.

So, I offer a challenge to some incipient MOMILY BUSTER. Split a batch in half and keep half in the dark and expose the other to 8 hrs of fluorescent light per day. Bottle some of both when ready, then do the same every 30 days till you smell a skunk and report back.

My bet is, you will run out of beer first.

.....

Does anyone know anything about the Bidal Society Competition? i.e., can someone post the results?

js

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Date: Fri, 7 May 93 13:36 CDT  
From: korz@iepubj.att.com  
Subject: Dextrins vs temp

While looking for some data for another post, I found the following info, which I think is very interesting. It's from a post by Todd Enders from July 1991:

```
>Subject: Mashing, Dextrins, and American Lager Stats.  
>  
>  
>After the recent discussion about dextrins, mashing, etc. I went and  
>did  
>a little research into just how much the mash temperature effects the  
>fermentability of the wort. I found the following in _Industrial  
>Microbiology_ by Prescott and Dunn, 3rd ed. (used without permission)  
>  
>Effect of the Temperature of Conversion on the Ratio of Sugars to  
>Dextrins  
>  
>Conversion Ratio of Sugar  
>Temp.to Dextrins  
>-----  
>  
> 147.2F 1:0.37  
> 150.8F 1:0.40  
> 154.4F 1:0.48  
> 158.0F 1:0.52  
> 161.6F 1:0.57  
>
```

Very interesting, no?  
Back to my thick vs. thin mash search...  
Al.

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Date: Fri, 7 May 93 13:59 CDT  
From: korz@iepubj.att.com  
Subject: Mash stiffness vs. enzyme activity

George writes:

>These results are for infusion mashing only. The situation for decoction  
>is a good deal more complicated because of the volume reductions during  
>boiling.  
>Theoretically a thick mash provides more thermal protection for enzymes,  
and  
>this has been put forward as a point for a thick mash. On the other  
hand,  
>enzyme activity is inhibited by the concentration of the products  
produced,  
>and this tends to favor a thin mash.  
>  
>There appears to be some disagreement about whether the effects cancel,  
>or that they are simply weak effects. Our mathematical models (based on  
the  
>nonlinear differential equations of enzyme kinetics) suggest it is a  
>combination of both. In any case, it has been my personal experience  
with my  
>own system that mash thickness is not a major issue.

It was Noonan that said: "...thick mash improves enzyme performance. In  
a thin mash, proteolytic and other heat-labile enzymes are destroyed in  
the course of the rest: in a thick mash, they may survive into the  
saccharification range."

Greg brews some great beers, on the other hand, he sometimes goes to  
extremes. Therefore, I'd just take this more as a data point than  
a definitive answer.

On the third hand (?), I've read, but cannot find it again (drat!), that  
a stiff mash favors one of the amylase enzymes and a thin one favors  
the other. Anyone have this data? Was that in Noonan also?

Al.

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Date: Fri, 07 May 1993 10:49:58  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Isomerized Hop Extracts vs. Skunkiness

>Paul dArmand asks about isomerized extracts and whether or not they are immune from ligh-struck or "skunky" effects.

Regular isomerized extracts are no more immune to skunkiness than hops. However, there *is* a treatment one can do to the extract (or presumably, the beer) that makes the beer more immune. Sam Smith's claims to use such a process, but IMHO it doesn't work very well. I have had many of their Nut Brown Ales that were severely light struck.

>Ed Westemeie states that isomerized alpha acids are much more bitter than their non-isomerized "natural" counterparts.

Nothing I have ever read on hops supports this statement. However, the non-isomerized alpha acids don't dissolve very well in water or beer, and so they have a minimal effect on the bitterness. The isomerized AAs are much more soluble. Maybe Ed was actually trying to state this, but simplified it.

Mark Garetz  
HopTech

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Date: Fri, 07 May 93 12:58:08 PDT  
From: florianb@ying.cna.tek.com  
Subject: Re: filtering--Why?

Scott Stihler writes:

=>

I've got a question regarding filtering beer. I've been interested in filtering my homebrew for awhile but I'm somewhat confused as to what is the optimum filter size for beer. Does anybody out there happen to know? I'm afraid if I get too small a filter size I may lose body. Anyways, I'd appreciate here what  
=>

I was interested in this at one time also, due to some haziness I had with my brews. However, I figured out that instead of filtering out the haze along with body, I should fix the problems that caused the haze in the first place. I don't know what all was causing the haze, but I did a combination of things to fix it. These included: going all-grain, using a keg system, and changing how I did the mash.

The old timers on this digest will remember me and my mashing technique. Someday I will get out from under all the piled up duties at work and ship out a description of my mashing technique. Basically, I put all the sparge water in the mash at once, stir, and wait until the whole thing settles. Saves time and hassle, and I get nearly the same extraction as with the old textbook method. I'll detail it someday, I promise.

Florian

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Date: Fri, 7 May 93 14:07:13 PDT  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: Legal Probelms for Sam(tm)Adams(tm)

> From dalton@mtl.mit.edu (Timothy J. Dalton)  
> Boston Globe, Thursday May 6, 1993. Pg. 77 (Business Sect.)  
> and it didn't really reflect our mission," says association president  
Charles  
> Papazian.

Charles? That's the first time I've ever seen that.

> Now New York is telling Koch that "there is clear potential for  
consumers  
> being misled when you refer in the aggregate to "winning" the Great  
American  
> Beer Festival without being specific as to the nature of what you won.  
"

Hmm. I seem to recall exactly that being discussed in the Digest about  
two years ago. I was impressed with the ad claims until I read just  
how the "winner" was chosen.

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Fri, 7 May 93 17:35:27 EDT  
From: rdeaver@tecnet1.jcte.jcs.mil  
Subject: HBD submission

A while back, I recall somebody posting a comment about boiling wort. The post mentioned that if you brought the wort over a certain temperature (I believe it was 153 degrees F), you would convert some of the sugars to a non-fermentable form.

I only have a half-dozen batches under my belt, and most have seemed a bit sweet. The finishing gravities ave been around 1.002, but the brew had a heavy taste to it.

Planning to launch off on another brewing session of Heavy Scottish Ale, I dropped into the local brewshop for a strainer bag. The question raised was that if I did not boil the wort, would I have sterilization problems. I will be using Briess DME, and this time will be using some specialty grains. I always boil water ahead of time, to get rid of chlorine.

What is the general consensus? I have had this "sweet heaviness" with several batches; it is not recipe-specific. The last batch, I went as far as using yeast nutrient.

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Date: 07 May 1993 17:08:21 -0700 (MST)

From: CBOSWELL@CCIT.ARIZONA.EDU

**Subject: membership**

Greetings,

I am a member of the Old Pueblo Homebrewing Club, in Tucson, AZ, and I would

like to expand my horizons by becoming a member of the homebrewing e-mail

digest. My address is: cboswell@ccit.arizona.edu

Thanks. I look forward to absorbing the wisdom of elders (in experience, only, of course) and maybe contributing some of my own, if I ever get any.

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Date: Fri, 7 May 93 19:00:41 CDT  
From: fiero@pnet51.orb.mn.org (Bill Fuhrmann)  
Subject: Miller CLEAR

Just realized that we are a test market, the rest of you haven't had the "honor" of tasting Miller Clear yet.

It looks and tastes like sparkling water. There is a very slight (very, very, very slight) bit of beer taste to it and a little bit more nose.

To a quick sniff, it smells like you didn't quite rinse out your glass completely. You have to swirl it around your mouth to notice any taste.

I expect that this will be popular with very under age drinkers since it does not require acquiring a taste for it, it won't be obvious what they are drinking (maybe also popular for drinking in cars for that reason), and won't be noticeable on their breath.

I bought it once to see what it was like and it appears to have lived down to even lower expectations than most of the people in the beer world expected.

The clerk in the store thought that I was buying an interesting combination of brews; Clear and Cerveza Caliente (cabos style chili beer). The Cerveza is brewed by the Minnesota Brewing Company in St. Paul (home of blonds and blond food).

If you want to brew a clone, just put water in the bottle, add yeast and the priming sugar. You'll probably come pretty close to the taste but not the 4.6 % (by volume according to the label) alcohol. Just think, you can mix this with a low alcohol beer and get a light beer.

Bill Fuhrmann, aka fiero@pnet51.orb.mn.org

"You don't know what you've got till it's gone." - Joni Mitchell

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Date: Sun, 9 May 93 1:51:18 MDT  
From: thomas ciccateri <tciccate@carina.unm.edu>  
Subject: CLEAR BEER

I brought some Miller CLEAR BEER to this month's meeting of the Dukes Of Ale club for tasting. The label claims 4.6% alcohol / volume. Consumers can call 1-800-MILLER6 for more information. Most reviewer's comments reflected the following opinions:  
Aroma - CO2, Taste - Slightly sweet water, Body - like seltzer water, Aftertaste - none, Overall Impression - Good clarity, no hop bitterness or aroma, no malt character and no appreciable flavor outside that attributed to carbonation. And some people thought that it couldn't get any worse than light beer !

Tom Ciccateri -> tciccate@carina.unm.edu  
University of New Mexico  
Training and Learning Technologies Div.

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Date: Sun, 9 May 93 08:54 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Collecting yeast abroad

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 05/09/93 10:54:40  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Collecting yeast abroad

I have the good fortune to be going to Germany (Cologne area) next month. I'd like to collect some yeast while I'm there. I have a few questions for the net:

1. How well does solid agar keep at approx room temp for maybe a week or so?

I'm pretty careful with sanitation.

2. What does the Customs Dept think when you come back with small vials of yeast on slants that are capped and all taped up? I know they get bent out of shape if you bring plants or animal products, so does yeast count?

3. Pierre Rajotte, in the Zymurgy special issue, sez to mail the vials back home, along with a business card from the brewery, mark it yeast sample, etc., and leave it to the postal inspectors to yea or nay it. Does this work?

4. Anybody know of any must see breweries/biergartens in Cologne?

Any responses would be greatly appreciated. If I get enough e-mail (as opposed to HBD posts) I'll collect the ideas and post them at once. Thanks in advance for all the expert advice.

Dennis B. Lewis \* (713) 483-9145 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: 09 May 1993 20:47:26 -0400 (EDT)  
From: KLIGERMAN@herlvx.rtpnc.epa.gov  
Subject: Belgian caramel pils

I hope someone can clarify for me the use of DeWolf-Cosyns Caramel Malt Caramel Pils. I was under the impression that these were crystal malts that did not need to be mashed; with cara-pils being the lightest and special B being the darkest. Today I was making a Pilzen style honey lager and wanted to use a pound a very light crystal (Caramel Malt Caramel Pils). As I usually do with an extract recipe, I crushed the grain, added it to about 3/4 gallon of cold water, and slowly brought the "mash" up to about 180 F. I then sparged with about a gallon of hot water (about 190 F). After this I looked at the grain and it looked like gelatinized starch. I did an iodine test and the result was jet blue-black. I decided to add more water and 1 pound of crushed Klages Pale malt and mashed at about 155 F. I then added this to my honey-malt extract wort. Question: The Belgian malt did not act like typical crystal malt--it gelatinized instead of dissolving. I thought this was supposed to be a crystal malt or if not at least self convert. It seemed to do neither--just form gelatinized soft grain. Can anyone please tell me where my assumptions or processes are wrong, else I will worry without having a homebrew. Will my Pilzen be cloudy from the first sparge of the apparently unconverted starch?  
Thanks,  
Andy Kligerman

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End of HOMEBREW Digest #1137, 05/10/93

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Date: Mon, 10 May 93 10:53:55 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: mash vs. extract table

Hello All,  
Here's table of mash thickness vs. temp vs. extract, taken from  
Malting and Brewing Science, vol 1, D.E.Briggs, J.S.Hough, R.Stevens,  
T.W.Young, Chaman and Hall, 1981.  
Hope it's of some use. Rob Thomas.

Influence of mash temperature and concentration on the composition of  
sweet wort

[Data of HALL quoted by HARRIS (1962) [221]

Mashing temperature 60!C (140!F) 65 6!C (150!F)

Mash thickness (%) (2)67 39 29 67 39 29

Wort analyses(1)

Hexose 12.3 10.1 9.511.9 9.5 8.1

Sucrose 2.8 3.4 3.4 4.1 4.2 3.8

Maltose 43.9 48.3 49.538.8 43.9 42.8

Trisaccharide 14.3 14.3 13.812.6 13.6 15.0

Dextrin 17.5 15.5 14.624.2 21.2 22.3

Fermentability (%) 73.3 76.1 76.267.4 71.2 69.7

Extract ( %) 55-63 76.2 75.673 4 75.3 74.2

Soluble N (% of wort 6.2-6.6 5.34 5.505.58 5.22 5.03

solids)

pH 5.46 5.40 5.505.31 5.33 5.38

(1) carbohydrates expressed as % of wort solids.

(2) Parts of grist/100 parts of water.

Mashing temperature68 3!C (155!F)

Mash thickness (%) (2) 67 39 29

Wort analyses(1)

Hexose 11.0 10.2 8.0

Sucrose 3.7 5.0 4.0

Maltose36.9 37.0 39.0

Trisaccharide 12.8 12.7 14.3

Dextrin27.6 26.2 26.9

Fermentability (%) 64.4 65.0 65.3

Extract ( %)73.3 74.6 74.0

Soluble N (% of wor 4.90 4.77 4.85

solids)

pH5.31 5.35 5.30

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Date: Mon, 10 May 93 8:04:53 EDT  
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>  
Subject: Belgian souvenirs

Hi gang!

I've got a question for all of you worldly travelin' beer lovers out there. My girlfriend is going to be in Europe all of next month and will be spending the last week of her trip in Belgium. So naturally, I have asked her (and she has agreed) to bring me back some local Belgian beers. My questions to you are:

- 1) Whats the duty rate on alcohol over the duty-free limit (and for that matter whats the duty free limit)?
- 2) Is it best just to pack the beer carefully and carry it on the plane as extra luggage or to ship it?
- 3) Does anyone have any particular recomendations about Belgian beers not available here that she might easily find there? She will be spending most of her time in Antwerp.

Any and all assistance can be sent either directly to me at  
mfryling@magnus.acs.ohio-state.edu  
or posted if you think your comments are of general interest. Thanks in advance.

Mark

"Never let your sense of morality prevent you from doing what's right"

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Date: Mon, 10 May 93 08:00 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Musings on Commercial Beer

My C-P bottler is down for re-design so I bought a bunch of commercial stuff to take to a party. Always wanting to turn a beer drink into a learning experience, I bought some things I have wanted to try/compare.

Draft Guinness in the can is not only lousy beer but the nitrogen gizmo is just plain silly. I thought the beer had a metallic taste and was lacking in anything worth mentioning.

Bass ale was about as bland as the Guinness but lacked the metallic taste and just about any other, for that matter.

Take the coloring out of Beck's Dark and you have Beck's regular. It seems a bit more beerish but hardly in line with the color.

The good news (strike me dead) was Miller Reserve Pale Ale. I tried the "all barley" larger a few months ago and it seemed a farce but this stuff is real ale. It's fruity and wonderful. It has a very marvey aroma and the taste that follows is exactly what you expect from the aroma. By far the best beer to come out of the biggies in decades. No doubt they found the right combination of chemicals to do the trick but at least it tastes like beer.

It does not taste like my ales but rather like most of the ales I taste at club meetings and the experts tell me that is what it is supposed to taste like.

Needless to say, I wait with baited breath to hear what others think of it.

js

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Date: Mon, 10 May 93 09:21:37 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: re skunks

> So, I offer a challenge to some incipient MOMILY BUSTER. Split a batch  
in  
> half and keep half in the dark and expose the other to 8 hrs of  
fluorescent  
> light per day. Bottle some of both when ready, then do the same every  
30  
> days till you smell a skunk and report back.  
>  
> My bet is, you will run out of beer first.

I wouldn't suggest that anybody do this with a batch they value.  
Stiv Stroud runs periodic Dr. Beer sessions at which participants can  
sample beers with various off-flavors. At the session I was at a couple  
of  
years ago, the demonstration of light-struck beer involved some Molson's  
which he said had had a total of 6 hours of direct sunlight (well, as  
direct as you can get in February). The stuff was LETHAL; I could smell  
it  
a yard away almost the instant the bottle was opened and wouldn't even  
consider tasting it (I wanted to be able to taste something else that  
day).

I expect this will vary quite a bit according to factors like carboy  
geometry and how dark the beer is; my assessment in private email was  
that  
it wasn't likely to be a problem because most homebrewers don't have  
fluorescents where they ferment. I also don't have any data on typical  
spectra for fluorescent lights, only the datum that they're efficient  
lights only by comparison with incandescents---something like a mere 85%  
(vs ~93%) of energy used comes out as heat, which would suggest that  
fluorescents might have less energy in the high-visible and UV range  
than sunlight. However, there are probably enough carboy-sized places in  
the typical homebrewer's residence without sun or fluorescent lighting  
that  
it would be a silly risk to take.

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Date: Mon, 10 May 93 10:13:12 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Isomerized Hop Extracts vs. Skunkiness

May 1 (National Homebrew Day), the Kalamazoo Brewery had a free homebrew "conference". One of the speakers was a "hop chemist" from Kalsec (I think I got that right), a company in Kalamazoo that does "spice extraction". He talked about the chemistry of hops flavors & aromas. The best part was the box of vials of extracted flavor/aroma components that he passed around (ranging from "cheesy/funky" through "esters" to pure isomerized alpha&beta acids (he said it was 1,000,000 BUs)). Apparently, Kalsec makes the hops extract that "2 of the 3 largest brewers" in the US use (hint: AB is the one that doesn't). They do the light-stabilization thing that lets Miller get away with clear bottles (even though the hops are just about sub-threshold, I imagine the mercaptans wouldn't be).

(The rest of the day was fun, too.)

=S

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Date: 10 May 1993 10:40:45 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: Sam Adams..... a Microbrewery

Far be it from me to take the position of defending Sam Adams, but there appears to be some confusion in the HBD-world about where SA is and isn't brewed.

Jeff Frane sez:

> Sam Adams is not and never has been a microbrewed beer. From its  
> inception it was contract-brewed, originally in Pennsylvania and for  
the  
> last couple of years here in Portland at the Blitz-Weinhard Brewery.

Well, yes and no. Sam Adams LAGER was first brewed as a contract beer in the Pittsburgh Brewing Co. It still is, and in the last few years it has also been contract brewed at Blitz-Weinhard. The other seasonal bottled SA products are also contracted out of Pittsburgh. I don't know whether these are also brewed at B-W.

Sam Adams BOSTON ALE (bottled version and some of the draft) is brewed at Matt's in Utica, NY. Sorry, Lisa St. Hilaire, your tour guide was wrong. Utica does the brewing, not just the storage.

It gets more confusing, however, because Sam Adams (the Boston Beer Company) does indeed have a microbrewery here in Boston where they make numerous draft beers (including Boston Ale) that are available at local taps in the Boston area. Some of these beers are experimental (like the recent "triplebock" and last summer's "dunkelweizen"). The draft beers that SA's takes out to the GABF are also brewed here in Boston. I have been told by the head brewer that they also make occasional batches of Sam Adams Lager (draft) in the Boston brewery.

The heart of Sam Adam's microbrewery is a 10 bbl mashtun which was acquired from the now defunct Newman's Brewery in Albany.

So to say that Sam Adams is not and never has been a microbrewed beer is not true. While it is predominantly a contracted beer, at least here in Boston, some of the product is microbrewed.

Steve Stroud

Oh, BTW, the Sam Adams that is sold in Germany is supposed to be contract-brewed IN Germany. I don't know the name of the brewery.

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Date: Mon, 10 May 93 10:39:43 -0400  
From: "John D. McCalpin" <mccalpin@perelandra.cms.udel.edu>  
Subject: Re: Beer Machine Infomercial

I did not see the commercial for this beer machine, but in the May 10 digest, Randall Holt (rxh6@po.CWRU.Edu) asks:

>The question I have, has anyone tried this system, or  
>even tried brewing in this fashion, by fermenting and carbonating  
>in the same container? I can imagine how tangy this beer would be,  
>being poured right off the trub. Of course the happy smiling 'real  
>people' are quaffing crystal clear, perfectly carbonated, 1 inch head,  
>beer.

I have done this with a "Brew Sack" (tm). Instead of using a glass or plastic keg, they use a woven plastic bag with a plastic liner.

The "Brew Sack" comes pre-loaded with hopped malt syrup in one of three varieties (Porter, Stout, Pilsner). Just add hot (~150 degree) water to dissolve the syrup, then add more water (20 pints total) to cool down to ~95 degrees and add the yeast. The bag is equipped with a pressure relief valve in the screw-on cap and with a tap near the bottom.

I kept mine for about 7-10 days at a reasonable room temperature, then moved it downstairs to a room at about ~55 degrees for 4 weeks.

It was pretty lively when I opened it, but the carbonation seemed external, somehow -- the beer never had much head by itself. I guess this is not surprising, since a plastic bag is not going to stand up to a lot of pressure.

The beer (a Porter) was very rich and quite tasty. It was \*not\* clear (even for a Porter), but I was not bothered by any sediments. I did choose to pass on the last 2 inches of brew left in the bottom, though I suppose it would be a good vitamin B-12 supplement?

This weekend I plan to start a Brown Ale that I will split between a standard single-stage fermentation technique and the "Brew Sack". Then in 6 weeks or so I will have an official comparison taste test --- provided that I can get the !@#%^&\* screw cap off of the Brew Sack....

- - -  
John D. McCalpin     mccalpin@perelandra.cms.udel.edu  
Assistant Professor   mccalpin@brahms.udel.edu  
College of Marine Studies, U. Del.   John.McCalpin@mvs.udel.edu

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Date: Mon, 10 May 93 09:04:08 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Pierre Rajotte

Does anyone have an address for Pierre?

Thanks, WAK

| - William A Kitch (512) 471-4929 -|  
| - Geotechnical Engineering -|  
| - ECJ 9.227 -|  
| - Univ of Texas at Austin, TX 78712-1076 -|

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Date: Mon, 10 May 1993 09:55:01 -0500 (CDT)  
From: dspalme@mke.ab.com (Diane Palme x2617)  
Subject: Re: Where's the Hops?

Hi all!

Thanks ever so very much for the words of encouragement and wisdom. My mailbox overfloweth! :-)

Anyway, I stopped out by the garden yesterday and lo and behold! The kids are here! The Hallertau and the Cascade have poked their heads up and the Tattenanger is still being shy. I swear they looked different between 12:00 and 4:30! Yikes! I haven't thrown any fertilizer on them (I am scared to!).

Again, I will keep all of you up to date. There were too many respondents to thank each and every one individually. Let it suffice that your good thoughts and kind words have stopped my worrying.

Happy Hopping!

Diane  
- - -

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Date: Mon, 10 May 93 10:58:36 -0400  
From: Ron Natalie <ron@topaz.bds.com>  
Subject: Draft Beer (was effects of light)

How about the fact that the beer isn't near-boiled after it's been fermented?

-Ron

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Date: Mon, 10 May 93 14:57:21 GMT  
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)  
Subject: Nepalese and Tibetan Chan(g)

I have a question for you beer scholars out there. This past weekend my father-in-law and I were quaffing a couple, and he asked me if anyone on the network had ever mentioned "Chang". He told me a story of when he went to Nepal and began a climb of Mt. Everest (real story, fully documented etc, etc. he never intended to go to the summit or anything, just wanted to 'climb' it, and he went and climbed to one of the traditional base camps).

At any rate, he said it is a brewed beverage, consumed during social and sometimes at ceremonial gatherings (sometimes spelled as "Chan" by those in Tibet). Said it was quite strong, and (given the altitude) would really 'do a number on you'. He wants to know if anyone out there in HBD Land knows a full history and recipe.

I've seen a couple of posts lately from some student(s) doing research on brewing, so come on guys and gals, here is your chance to show us what you've got.  
Noch einmal, bitte!! Mark

---

Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil  
Information Technology Laboratory (601) 634-2921  
Waterways Experiment Station  
Vicksburg, Mississippi USA

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Date: Mon, 10 May 93 10:14:26 CDT

From: greenbay@vnet.IBM.COM

**Subject: Hops/2 Liter Bottles**

I have two questions that I hope someone could answer for me.

- 1) On average, what does a single hops flower weigh? (A range would also be OK if that is easier.)
- 2) I heard a customer at a homebrew store saying that homebrew could safely bottled in 2 liter bottles. Does anybody have any information on this?

Thanks,  
Bob Crowley

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Date: Mon, 10 May 93 10:32:41 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Isomerization

Two issues ago my eye was struck by the statement regarding the processes involved in brewing and skunking "... isomerization is the process by which longer chain molecules are made." Well, I don't have a PhD in Organic chemistry, yet. Isomerization is simply a change in structure or connectivity in a molecule. I believe that in the alpha acids, the isomerization involves the shifting of double bonds to form a conjugated system (alternating double and single bonds in a chain) that would indeed be more photoreactive. I have been looking for a book that explains the chemistry of brewing in more detail from beginning (pH of Water, mineral effects) to end (the effects of light on beer, etc.) Does anyone know of any sources or titles that would have this sort of info?

Thanks

Anthony Johnston  
Homebrewer, Chemist  
anthony@chemsun.chem.umn.edu

"Better living through Chemistry"  
"Zymurgy is Chemistry"  
"Better living through Zymurgy"

A

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Date: Mon, 10 May 93 10:01:37 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Sugars

I decided the hot Texas summer months were a good time to brew stong Belgian ales. I figured I'd better read up on the subject first; I started with Pierre Rajotte's Belgian Ale (Classic Beer Style Series #6). A very interesting book w/a lot of info, but less than clear in a number of places. One of the unclear area is the subject of sugars. Rajotte devotes 6 pages to description of sugars used in brewing but left me confused. So I re-read Miller's (Complete Handbook of Home Brewing) section on sugars. Some of what Miller says seem to contradict Rajotte--more confusion.

Here's what I think I know about various sugars.

Corn sugar--aka glucose or dextrose. A single sugar 100% fermentable. Adds no flavor to beer.

Cane sugar--aka sucrose. A double sugar made up of glucose and fructose. Must first be broken into glucose and fructose before it can be fermented. Fructose is apparently responsible for the cidery flavor in beers using a large amount of sucrose.

Invert sugar--Sucrose that has already been split into glucose and fructose by acid reduction. Has pH of 4 to 6.

Brown sugar--Partially refined sucrose. Produces rum like flavor in beer.

Molasses-- I don't really know what the composition of molasses is.

Demerara-- ?

Treacle-- ?

Candi--Sucrose that has been refined by slow crystalization. May be light or dark or camelized?

Honey-- I don't know what sugars are in honey.

Malto-dextrin--Long sugars produced it mashing malt. Not fermentable and tasteless. Common homebrew lore it this adds body to beer but Miller (pg 61) says this is not so!

The questions are:

Can you fill the question marks above?

Any errors above?

If sucrose must be inverted before being fermented, how does this happen in the brewing process? Is there an advantage to using invert sugar?

Do you have sources for demerara, treacle, or candi?

What sugars have you used for strong ales and with what results?

Does malto-dextrin add body or not?

Any suggested reading?

Looking forward to your responses, WAK

| - William A Kitch (512) 471-4929 -|  
| - Geotechnical Engineering -|  
| - ECJ 9.227 -|  
| - Univ of Texas at Austin, TX 78712-1076 -|

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Date: Mon, 10 May 1993 09:16:14 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: thin mashes & not mashes

Into the discussion about thin vs thick mashes, I would interject another source. Unfortunately, I don't have my copies of the old Amateur Brewer (under Fred Eckhardt's editorship) in front of me to check numbers, but there was an issue focusing on the production of wheat beers. These were specifically Swiss weizens, which aren't necessarily remarkable (and in fact have an extremely complex mash cycle as I recall), but it was in that article that I first heard that thin mashes were proteolytic. I believe the article gave specifics on malt to water ratios.

I don't know the answer. My own experiences have been all over the map on thickness and I've yet to discover any real difference in the resulting beer.

Rdeaver is a bit confused:

>  
> A while back, I recall somebody posting a comment about boiling wort.  
> The post mentioned that if you brought the wort over a certain  
> temperature (I believe it was 153 degrees F), you would convert some of  
> the sugars to a non-fermentable form.  
>  
> I only have a half-dozen batches under my belt, and most have seemed a  
> bit sweet. The finishing gravities ave been around 1.002, but the brew  
> had a heavy taste to it.  
>  
> Planning to launch off on another brewing session of Heavy Scottish  
Ale,  
> I dropped into the local brewshop for a strainer bag. The question  
> raised was that if I did not boil the wort, would I have sterilization  
> problems. I will be using Briess DME, and this time will be using some  
> specialty grains. I always boil water ahead of time, to get rid of  
> chlorine.  
>  
> What is the general consensus? I have had this "sweet heaviness" with  
> several batches; it is not recipe-specific. The last batch, I went as  
> far as using yeast nutrient.  
>  
Once the stuff is wort, all the conversions have taken place and no amount of tinkering with the DME itself will change the relative thickness of your beer. If you are really getting a finishing gravity of 1.002, it's pretty clear that the beer isn't finishing too high -- it's more likely that you are under-hopping (your bittering hops). Could it be that you're not adding hops at all but relying on a hopped extract?

Another possibility is that you're misreading the hydrometer. Could it possibly be 1.020? If so, then the problem is probably something involving your yeast: you're not using enough, or you're not aerating the wort at pitching time so that the yeast have insufficient oxygen and poop out without ever finishing their fermentation.

BOIL the wort! Make your best effort not to boil the grains you're adding, however, regardless of what certain books might advise. Better you should steep the cracked grains at about 150F for 1/2 - 1 hour, strain and rinse them with hot water and add your extract to the resulting liquid.

Keep plugging away.

- --Jeff

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Date: Mon, 10 May 1993 10:16:32 -0600 (CST)  
From: Robert Schultz <Robert.Schultz@usask.ca>  
Subject: Chill Haze Remover

I saw some "Chill Haze Remover" - Cordon Bleu is the name (I think) made in Burton-On-Trent, U.K. in my lolcal brewstore the other day. The liquid is to be used 5 ml to 5 gal (U.K.) to remove Chill Haze.

Has anyone tried it? Does it work? I have a Plisner (lagering as I speak) that appears to have some chill haze. I am likely to use it on half of the batch unless I hear glowing reports....

Thanks.

Robert.

~~~~~  
~~~~~  
"I'm going off half-cocked? I'm going off half-cocked? ...  
Well, Mother was right - You can't argue with a shotgun." - Gary Larson  
~~~~~  
~~~~~

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Date: Mon, 10 May 93 12:04 CDT  
From: korz@iepubj.att.com  
Subject: Mash Stiffness

In personal email, Rich Goldstein pointed me to the passage I was thinking of (in fact, he saved me the trouble of typing it in -- Thanks, Rich!):

Miller writes, in "The Complete Handbook of Homebrewing":

Another factor influencing enzyme activity is stiffness (thickness) of the mash. A thin mash -- say 2.5 quarts of water per pound of grain -- ultimately favors a more complete breakdown of carbohydrates in the kettle. However, because the enzymes are more diluted, breakdown takes longer to achieve. On the other hand, a stiff mash -- around 1.33 quarts per pound, as I recommend -- initially favors starch breakdown; however, as amylolysis proceeds, the increasing concentration of sugars in the mash inhibits further enzyme activity. A stiff mash favors breakdown of proteins in the mash kettle, and it provides one other benefit: it protects the enzymes better. At any temperature, the thinner the mash, the faster the enzymes will be deactivated [p. 128]

Also, Brian Smithey wrote to me mentioning that he begins his stovetop mashing with a stiff mash and then thins it out later, I assume when going from the protein rest up to the saccharification rest. In a insulated cooler step infusion mash, where the temperature is raised simply by adding boiling water, this is inevitable, but in a stovetop mash, this is optional.

This would be an interesting area for experimentation... no?

Al.

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Date: Mon, 10 May 1993 13:34:10 -0400 (EDT)  
From: TAYLOR@sbchml1.chem.sunysb.edu  
Subject: Soda Keg relief valve replacements

I have a 5 gal keg with a screw-in, springed, relief valve which does not seal properly. Does anyone have an idea where I can get a replacement?  
Thanks.

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Date: Mon, 10 May 93 14:27:15 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject: Micro and Brewpubs equipment requirements

Greetings,

Once upon a time I saw a document somewhere that listed what equipment would be needed to start up a microbrewery or a brewpub. Does anyone have that document or know where to find it? If anyone has some info they could send me that would be great.

Thanks,

Bruce Kiley

Please reply to [brucek@sig.sni-usa.com](mailto:brucek@sig.sni-usa.com)

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Date: Mon, 10 May 93 15:37:46 EDT  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: IBU's for Weissbierxxx zen

While reading the recipies in Warner's book on German Wheat Beer it seemed to me that the suggested amount of hops (2.6 HBU's for a 5 gallon batch) seemed too small to attain 15 IBU's of bitterness. Especially, since he recommends boiling 1/2 of the hops for 60 minutes, 1/4 for 30 minutes and the remaining 1/4 for the last 10 minutes. Using the formula from Rager's article in the Zymurgy Hops Special Issue

$$W(\text{oz}) \times \%A \times \%U \times 7462 \quad \text{HBU} \times \%U \times 74.62 \\ \text{IBU} = \frac{\quad}{V(\text{gal}) \quad 5} \quad = \text{HBU} \times \%U \times 14.9$$

we get

$$\begin{aligned} \text{IBU} &= 1.3 \times 0.30 \times 14.9 \quad (1.3 \text{ HBU's } 30\% \text{ utilization for } 60 \text{ min}) \\ &+ 0.65 \times 0.153 \times 14.9 \quad (0.65 \text{ HBU's } 15.3\% \text{ utilization for } 30 \text{ min}) \\ &+ 0.65 \times 0.06 \times 14.9 \quad (0.65 \text{ HBU's } 6\% \text{ utilization for } 10 \text{ min}) \\ &= 5.81 + 1.48 + 0.58 \\ &= 7.87 \quad (7.9 \text{ with rounding}) \end{aligned}$$

This seems significant since it is only a little more than half the target of 15 IBU's that Warner claims! Even if you assume the full 30% utilization figure for all the hops added the value is 11.6.

Checking the Glossary in Warner's book he uses the formula (bottom of p 139)  
for IBU as

$$\text{IBU} = H \times (a\% + b\%/9) / 0.3$$

(actually Warner has a typo and his formula for IBU reads HBU =...)

where

H is the weight of hops in grams per liter

a% is the alpha acid per cent

b% is the beta acid per cent

9 is a factor indicating that the flavoring power of alpha acids is about nine times greater than beta acids.

0.3 represents an approximate 30% efficiency rate in hop extraction caused by vaporization or precipitation.

It seems to me that since Warner is dividing by 0.3 he is in effect assuming a utilization rate of 33.3%. With this formula (I'll omit the details) you get 13 IBU's (neglecting the beta acid per cent).

Can anyone out there explain this discrepancy? I don't think that Eric Warner has a Ph.D in mathematics from Harvard so he shouldn't be making arithmetic errors (sorrly George).

The only other exlanation I could think of is that Warner is assuming a 33.3% utilization rate independent of the time of boil and that the beta acid content is always about 1.4 times the alpha acid content.

By the way, I think that Warner did a great job on his research for the book, and have found it otherwise well written and full of very useful information.

Bill Szymczak

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Date: 10 May 93 15:51:05 EST  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: Book recommendation

From: Matthew Mitchell

At the ASBMB last year, I picked up a copy of "The Biotechnology of Malting and Brewing" by J.S. Hough (Cambridge U. Press: 1985 :their address is 40 W 20th, NY NY 10011-4211!) which is now out in paperback.

I cannot recommend this book enough to those of you who have an interest in all-grain brewing, yeast culture, and any of the more technical aspects of brewing. It covers the entire process from barley to barrel, with descriptions of how commercial breweries produce their swill.

All aspects are clearly explained in terms understandable by someone who has taken freshman chem and bio in college. There are plenty of diagrams which serious homebrewers might try as a starting point for their experiments with equipment and technique. There's even some economic analysis and discussion of commercial aspects.

Howzat!?!  
Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

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Date: 10 May 1993 16:54:30 -0400 (EDT)  
From: POLLARD%FRMNVAX1.BITNET@uga.cc.uga.edu  
Subject: re ethylene and ripening

Did somebody call for a botanist?? Effects of ethylene on barley have been studied. It stimulates the release of gibberellin-induced alpha-amylase from the aleurone cells into the endosperm. In English, that means it triggers another hormone (gibberelin) to induce the formation of an enzyme that will convert starches into sugars. So I guess there's some potential here ... (?)  
Joe Pollard

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Date: Mon, 10 May 1993 17:23:30 -1100  
From: Kirk\_Anderson@wheatonma.edu (Kirk Anderson)  
Subject: FX Matt Brewery

I was glad to see Lisa St Hilaire's posting in HBD #1137 regarding the FX Matt Brewery. There aren't a lot of things I miss about living in Utica, but that's one of them. I always bought Saranac when I was a local, but when I went back for a visit, even the draft Matt's tasted pretty decent.

I always sniggered during that part of the tour where you see the famous 'Brooklyn' beer, the 'Philadelphia' beer, the 'Boston' beer, and lord knows what others being created right there, two blocks from my house.

More important, my letter to the president, FX Matt III (I'd suggested he not charge for tours, and promote Saranac more vigorously), received a response that was warm, polite and personal. I was impressed.

In the same HBD, Randall Holt asks if any homebrewers have tried fermenting and carbonation in the same container. I was puzzled when I saw this is exactly what they do at Matt's (and the other big breweries, I assume). Is there a pressure control that guarantees the desired carbonation? Does their 'air lock' become a 'cork' at some point in the process? I don't think there was any mention of priming during the tour at all. How do dey do dat?

prosit! to all and to all a good night  
Kirk

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Date: Mon, 10 May 93 17:40:32 EDT  
From: Joe Rolfe <jdr@wang.com>  
Subject: out on my own

hi all, just to inform some of you waiting for pierre rajottes feedback -  
it  
is comming. but recently i was laid off :) from wang to pursue other  
more  
intresting venture (see sig file). as a result i dont get much of chance  
to  
read the list or mail for that matter. i will assure those who sent  
questions to me for pierre and his book will get a response ASAP...

happy brewing to all and support the small breweries nation wide!

- - -  
joe rolfe - President/Brewer - Ould Newbury Brewing Company  
jdr@wang.com - X Wang Employee, but still have an account  
508-462-1980 - the brewery

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End of HOMEBREW Digest #1138, 05/11/93  
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Date: Tue, 11 May 93 08:54:19 EDT  
From: envkas@sn370.utica.ge.com (Karl A. Sweitzer)  
Subject: FX Matts

The FX Matt Brewing Co is now supporting the homebrew community too. They have been the gracious sponsor of the Mohawk Valley Friends of Beer for about two years now. They converted a room in the back of their "Brewery Shop" into a test kitchen where we have taught homebrew classes and where we hold our meetings. They now also sell homebrew supplies.

Their Associate Brew Master, Jim Kuhr, is also a homebrewer. He has made 5 gal batches right in their lab! He and the Senior Brew Master Norm Grisewood are also studying for the BJCP exam. Pam Kuhr runs the homebrew shop. All of the people at the brewery have been very open about information and techniques, but don't try to ask about recipes.

Our homebrew club has had the luxury of going on private tours with the brew masters. Other homebrew clubs have also arranged tours with the brewery. Their address is 811 Edward St, Utica, NY 13502

To answer Kirk Anderson's questions, they do use high krausen wort to prime their lager beers. They also recycle the CO2 that is produced in fermentation for use later for purging empty storage vessels, etc..

Karl Sweitzer  
envkas@sn370.utica.ge.com

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Date: Tue, 11 May 93 08:04 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Going Blind, Egg Drop Soup, Worms

>From: Steve Dempsey <steved@longs.lance.colostate.edu>  
>Subject: Re: Methanol (aka wood alcohol)

>Methanol production requires:

- 1) the proper yeast (wild yeasts)
- 2) unique fermentables (cellulose == wood, grain husks)

The "going blind" momily has nothing to do with making beer or even with distilling white lightn'n.

It has to do with the fact that, in the good old days, unscrupulous producers, middlemen and even a well meaning friend would add commercial alcohol to booz to stretch his fermented/distilled mash. If he used the wrong kind of alcohol, either methanol or denatured ethanol, the result was poison and one of the symptoms could be blindness. There is no way you can make anything that will cause blindness by mashing, fermenting and distilling the kind of stuff normally used in beer and whiskey.

.....

While on momilies, let's talk about the rolling boil and "great hot-break" momily.

I have always been a bit disappointed with the sleazy little bits of coagulated protein in my brew kettle. I boil on my aluminum melting furnace for at least 90 minutes in a 16 gal kettle. I can bring 10 gal to a furious boil in about 15 minutes.

Several weeks ago, I did a batch on my kitchen stove with an EASYMASHER installed in an 8 gal kettle just to prove that it can be done without any fancy burners.

The result was a "boil" that I would describe more as a circulation and I do not recall seeing a single bubble break the surface.

In spite of this, I evaporated the six gallons down to 5 and had coagulated protein floating around that I could have made lasagna with.

So it would seem that if one wants "great hot-break", ease up on the heat.

I also made believe I didn't own a wort chiller and let it cool naturally to pitching temp and, after cleaning and sterilizing the kettle, did the primary ferment in it.

It is now clearing nicely in a carboy and last night's sample would indicate that it is not significantly different from any other ale I have made with the same ingredients and far more bother.

I wait with BATED\* breath.

\* It has been pointed out to me that "baited breath" results from having a mouth full of worms.

js

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Date: Tue, 11 May 1993 09:54:58 EDT  
From: "Marlene Spears" <hopfen!marlene@uunet.UU.NET>  
Subject: Koch, GABF, and Ancient History

Being a senior citizen of the Kochpeace foundation, I thought I'd recollect for the young whippersnappers on HBD and flame a little to warm the hearts of the gray haired set.

For you reference hounds, Summer 1987 issue of American Brewer magazine, page 15, Vince Cottone's article: "Beer & Loathing in Denver: The Great American Beer Festival 1986"; and Fall 1987 issue AB, page 26, Vince Cottone continues: "Movement in the Right Direction: The Great American Beer Festival".

Koch introduced the "sex even sells contract beers" slant at the 1985 GABF. Until he came along, the popularity contest actually had something to do with the taste of the beer. But he added freebies (baseball caps and tee shirts?) and had solicitous servers working the crowd. He won that year. The next year, he had some competition (Pennsylvania Pils had a nice Blonde urging you to try "the beer with body"), but his freebies turned the Trick again.

In 1987, however, Koch had some strong competition in the ballot stuffing category. He almost lost to Boulder Brewing, but he managed to pass out hundreds of free GABF tickets through his "assistants", with the only string being "vote for my beer". So he won again. BTW, it was Lightship that year, not the Boston Lager, which never won three years in a row. His advertising is kinda like saying George Bush won the Presidential election three times in a row (1980/1984/1988).

Get the picture? No? Well, in 1988 Koch wasn't ALLOWED to compete in the GABF "Best Beer in America" contest. So the GABF organizers belatedly got the picture. By then, though, they'd lost a lot of support from the sensible Northwest folk who had set up their own Oregon Brewers' Festival and didn't invite Smadams, even though it was indeed being produced under contract by H. Weinhard's.

But enough of history. Get back to your brew kettles!

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marlene@hopfen.rsi.com

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Date: Tue, 11 May 93 09:07:19 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Fast fermentation - is this a problem?

<Insert standard greeting of your choice here>

I've done about a half-dozen batches, including my first all-grainer last weekend, and each of them have something in common - they all ferment out quicker than Papazian says they will. I don't know if this is a problem, a good sign, or what, so here's the details.....

For my last batch ("Silver Dollar Porter", all-grain) I used Wyeast "British Ale" (1098????), pitched into a quart of starter wort a day ahead of time. There was a bit of foam on the surface of the starter but no krausen to speak of. (foam was maybe 1/8" thick). I pitched it anyway because the wort was ready for it. I chilled the wort to 75(F).

The next morning, I got up, the wort was fermenting wildly, I needed to use a blow-off tube in a 6.5 gallon carboy. That's another thing Papazian says you'll never need to do, but I've done it on two batches. The strange thing is the temperature of the wort was up to 82(F), even though it was cool in the house that night.

I started the batch on Saturday, and this morning the bubble rate was down to once every 30 seconds or so, which to me means time for the secondary, and/or wait until saturday or sunday and bottle. It seems that that is the pattern, I brew one saturday and bottle the next. From what I've read, however, it's usually several to many weeks between cooking & bottling.

I can see a couple of possibilities here. 1> I'm just getting a good start with my yeast, and I'm worrying, 2> I'm not letting it finish (probably not the case, I bottle when the gravity stops moving for a couple of days and the bubbles are once/90 seconds), or 3> I should pitch at a lower temperature.

So, what's the deal? or is it 4> (insert reason here)?

Thanks for any info you can help with.

Dave Hinz

P.S. The many responses I got about going all-grain were fantastic, thanks to anyone who I might not have written to personally. The advice, hints, and "Don't forget"s were quite helpful!

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Date: 11 May 93 05:05:11 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Honey & Contests

Message Creation Date was at 11-MAY-1993 09:35:00

Greetings,  
I've a couple of questions I'd like to raise:

1. I just bottled a honey-beer. Honey contributed approximately 40% of the fermentable sugars. The OG was 1.060 and the FG was 1.007. I used Wyeast 1056, so I expected from 70 to 75% attenuation and an FG of around 1.016. I also had the beer spend 2 weeks in primary and 2 weeks in secondary.
  - a. Does honey ferment to a greater attenuation?
  - b. Did the long time in the fermenters combined with the use of honey cause it to ferment to so low an FG?
  - c. When I sampled a small portion during bottling the beer seemed to be full bodied. Am I worrying about nothing?
  
2. I just received the results from the two beers I entered in the "Nations Capital Spirit of Free Beer Competition". I'm not complaining about the results, but rather I'm not certain as to the purpose. I was told that I would be able to get helpful feed-back on my entries. In some cases I did, in other cases there would be no comments and just a number (lower than the maximum score). For feed-back purposes that sucks. However, if the purpose of the competition is simply to pick the best beer in each category, then I guess that is acceptable. Please inform me - just what is the purpose of these competitions?

Thanks  
Andy Anderson

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Date: Tue, 11 May 1993 10:12:00 EST  
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill  
Ridgely/"@mr.cber.fda.gov  
Subject: Chang

In HBD #1138, Mark Elliott writes:

>I have a question for you beer scholars out there. This past weekend my father-in-law and I were quaffing a couple, and he asked me if anyone on the network had ever mentioned "Chang".

>At any rate, he said it is a brewed beverage, consumed during social and sometimes at ceremonial gatherings (sometimes spelled as "Chan" by those in Tibet). Said it was quite strong, and (given the altitude) would really 'do a number on you'. He wants to know if anyone out there in HBD Land knows a full history and recipe.

Well, since my colleague Wendy Aaronson and I will be giving a presentation on chang at this year's AHA Conference, I suppose this puts us in good position to help with your question.

Chang is one of many names given to the indigenous grain beers brewed throughout the Indian subcontinent and the Himalayas. The Indians call the beer pachwai and brew it mostly from rice. Nepali chang is brewed from rice, millet, barley, and occasionally corn. In Tibet, the beer (usually spelled "chung") is brewed almost exclusively from barley.

The key ingredient, however, is not the grain but the yeast cake known variously as bakhar (India), marcha (Nepal), or phap (Tibet). Preparation of yeast cake is a cottage industry throughout the region, and there is considerable pride taken in the quality of the various cakes produced regionally. Consensus among the Tibetans in our area is that yeast cakes from Darjeeling make the finest chang.

The yeast cakes contain a combination of *Saccharomyces* and other fungi, primarily *Aspergillus* and *Mucor*. The various microflora work in combination to convert the starch in the unmalted grains to sugars and then ferment them. The resulting beer is fairly low in alcohol initially but has potential to become quite strong if left to ferment for an extended period.

Preparation of chang is fairly simple. The grains (approximately 1/4 kilo per liter or roughly 2 lbs per gallon of finished chang) are washed, boiled until soft, then drained and spread out on a nampo or shallow basket. The yeast cake is crushed, mixed with a little flour or tsampa (Tibetan barley malt powder), then worked thoroughly into the cooled grain. The whole mass is then covered (traditionally with banana leaves) and left to ferment. After several days, much of the mass is liquified and converted to young chang. At this stage, it can be consumed as a thick gruel, or the remaining grain can be strained out, making a true beverage chang. As mentioned earlier, the beer can be left to ferment further and will become stronger over time.

Chang is consumed regularly in the home as well as at weddings, funerals, and other ceremonial occasions. A large body of tradition (and music) has been built over the centuries to accompany the ceremonial consumption of both young and old chang.

Anyone interested in these indigenous beers may want to attend our presentation at this year's conference. Wendy and I will be serving our own interpretations of chang as well as chicha (the ancient corn beer

of the Andes). It should be a lot of fun, and we look forward to meeting many of the regular HBD contributors.

Nemaste!  
Bill Ridgely  
ridgely@cber.cber.fda.gov

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Date: Tue, 11 May 1993 09:47:58 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: sugars/belgian beer brewing

William Kitch had some comments on sugars in the last hbd. Here are some comments on his comments.

Brown sugar (in USA) is refined white sugar with added molasses.

Molasses is any of various thick syrups produced in refining sugars. There are two or three distillations, of which the thickest is blackstrap molasses. As blackstrap molasses is strongly flavored, look for mild molasses.

Treacle is found in England, and is similar to molasses.

Whether or not there are any differences in process or end result, what I can find as demerara or turbinado sugar appears to be the same thing. It is rocky and light amber in color, and is only partly refined. Various forms of this sugar are widely available. Turbinado sugar can be found in health food and natural food stores. I recently saw a 5 pound bag at GNC for about \$6. Raw Sugar and Sugar in the Raw are available at commercial grocery stores. Sucanat(tm) can be found in 1 pound cans.

Does anyone have any domestic sources for candi sugar? I recently got my hands on some from Belgium. The sugar is either light -- kind of frosty white, not glassy clear like rock candy -- or dark (brownish or dark amber). It also comes in two sizes -- small and large. I think Rajotte says somewhere that the simple sugar mix in candi sugar is desirable. Also, he says that sugars are used for coloring. A pound of the dark candi sugar added to a beer made with only pale malts would result in an amber-to-brown beer. The other reason to add sugar is to produce a high-gravity beer that is not all malt, because at high gravities an all-malt beer can be quite weighty and palate-satiating. In a similar vein, homemade brown malt (say oven-toast pale malt for 40 minutes at 400 degrees F) or Special-B (200 - 220L) malt used in small amounts will provide coloring without adding much of a flavor contribution. Note that Rajotte's recipes avoid highly-roasted grains (chocolate malt, black malt, roasted barley) and also avoid large additions of crystal malt.

Honeys should be experimented with in brewing. Light honeys, such as clover honey, alfalfa honey, thistle honey, or even orange blossom honey, could be used in light-colored beers, while darker honey, such as buckwheat or autumn wildflower honey, could be used in amber to dark beers. One of the Mad Brewer's beers -- is it Oerbier? -- uses some honey.

Finally, isn't invert sugar directly assimilable by the yeast? Other sugars must first be inverted or otherwise broken down by the yeast.

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Date: 11 May 1993 11:44:28 -0400 (EDT)  
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>  
Subject: beer color in Fix&Fix VMO

All right, the semester's finally over, and I've got time to catch up on my digests. I've got quite a few questions and tidbits that have been accumulating, and now that activity on the digest has slowed somewhat, coupled with my new found time, it's time to post.

First, let's start with Vienna, Marzen, Oktoberfest by George and Laurie Fix. I just recently purchased this book and it's dynamite, although, as usual, Brewers Publications has done a sloppy job of printing. One of the first things I did was dig up the errata sheet posted by Laurie Fix way back in HBD 859. I seem to have the first printing, and I don't know if a second printing is yet out, but I did catch an error not listed on the correction sheet. In particular, on pg. 88 they are discussing the calculation of beer color. The example they are using has 7.5 lbs of 1.8L malt and 9/16 lbs of 20L malt, which gives a Lovibond rating of  $7.5(1.8) + (9/16)(20) = 13.5 + 11.25 = 24.75$ . But when they normalize to 5 gallons, they calculate  $25.75/5 = 5.15$ , which is a mathematically true statement, but has the wrong numerator (25.75, instead of 24.75). I believe the correct equation should be  $24.75/5 = 4.95$ .

Relatedly, concerning the nifty graph on p. 91 showing Lovibond as a function of dilution water added to a 20ml sample of 17L Michelob dark: I fit an exponential decay model to the data in the graph, and thought those of you who program or otherwise need the equation would be interested. The model is:

$$y = a + b \cdot \exp(-c \cdot x)$$

where y is the Lovibond to be calculated, x is the dilution in ml, and the constants are

a = 1.6545419  
b = 15.354601  
c = 1/65.709196.

The fit of the model is excellent ( $R^2 = .999996$ ), but only use it in the range 17L to 2L. The reason is because, as Darryl Richman points out in HBD 854, the curve flattens past 17L. The exponential decay, of course, does not, so extrapolating beyond 17L will give you major bad numbers.

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Date: 11 May 1993 11:44:53 -0400 (EDT)  
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>  
Subject: review of THREAD v2.1

Those of you who search back digests with Tom Kaltenbach's THREAD program for the IBM PC will be happy to know that Tom has released a new version, THREAD 2.1, which introduces a few improvements over version 1.2. (See Tom's announcement in HBD 1127 and HBD 1131 for archive info, etc.) For those of you who have never used it, THREAD allows the user to input one or more search strings which the program then searches for in specified HomeBrew Digests. Because it is tailor made for the HBD, THREAD is much faster than generic text-search programs, and easily allows the user to follow a discussion thread, locate a specific article, or gather all articles on any subject of interest.

#### NEW FEATURES

The enhancements of version 2.1 that I particularly like are:

1. Overwrite protection. When the user specifies an existing file for output, THREAD 2.1 gives the user the choice of overwriting, appending, or aborting.
2. Numerical-order searches. Version 1.2 searched the digests in the order in which they appeared, whereas 2.1 searches them in numerical order. This is convenient if you want to interrupt the search midway through, so that when you return you can easily pick up the search where it left off.
3. Keyword highlighting. When an article is displayed on the screen, all occurrences of the keyword(s) are highlighted, making it easier to discern the context within which the keyword is used.
4. Improved cursor movement. The user can use the up and down arrow keys and PageUp and PageDown to move through the found article.
5. Naive multitasking. In version 1.2, THREAD would search for a message, display it, and then continue the search after the user had read the message and decided whether or not to keep it. In version 2.1, the program continues searching \*while\* the user is reading the previously found message, thus greatly decreasing the apparent search time.
6. Search statistics. When in automatic mode, THREAD displays a count of the number of files and messages searched, the number of matches found, and the number of matches written to the output file. The file count, in

particular, is useful inasmuch as it gives you an idea of how much progress has been made if you are searching a really huge number of digests.

#### PERFORMANCE

Being the geek that I am, I decided to do some comparative speed tests between the old and new versions. I happened to have 82 digests in a directory, so I used these to compare version 1.2 to 2.1. The machine I used is a very old 8086, so we're talking sloooow. I began by conducting a very broad search. I simply searched for "beer" in the 82 digests, and put the programs into automatic search mode (in the interactive mode, there really \*is\* no comparison--because of the naive multitasking, THREAD 2.1 wins hands down). THREAD 1.2 completed the search in 6 minutes and 20 seconds. THREAD 2.1 took 6 minutes and 58 seconds--slightly slower. I don't know why--maybe because of the search statistics. Next, I wanted to do a search that required a lot of gyrating because of a complicated boolean search, so I had the programs search for "malt and mill or maltmill but not miller". After I input this search criterion, I realized what a doofus I was since if the program found "malt" and "mill" it would also find "maltmill"--still, since the program evaluates the string anyway, the search criterion still meets my standard of being a (needlessly) complicated search. Anyway, THREAD 1.2 took 12 minutes and 17 seconds, whereas THREAD 2.1 finished in 12 minutes flat. Finally, I wanted to see how the programs would fare on a faster machine, so I copied the 82 digests to my 80486 (33 MHz) and reran the the above "malt ... not miller" search. THREAD 1.2 finished in 1 minute and 2 seconds, and THREAD 2.1 completed in a mere 43 seconds.

#### WHAT I WOULD LIKE TO SEE IN FUTURE VERSIONS

Only two things. The first is rather picky: When in automatic mode, while the program is updating the search statistics, the cursor jumps around the screen in an annoying fashion. This wasn't a problem in the previous version, because there weren't any search statistics. A list of files searched scrolled up the screen, so the cursor wasn't a problem. In the new version, although I \*like\* the search stats, I just wish the cursor didn't jump around. (I told you it was picky.)

The second enhancement I would like to see, though, is more substantive. Currently, when input strings are connected with logical operators, the program parses the input by simply resolving the operations left to right. I would like the ability to use parentheses to control the parsing. For

example, someone wanting to read articles about the beer color in Vienna, Marzen, Oktoberfest (sound familiar?) might reasonably want to conduct a search for (George or Laurie or Fix) and (SRM or Lovibond). Currently, the only way to do so would be to conduct \*two\* searches. One for "George or Laurie or Fix and SRM" and another for "George or Laurie or Fix and Lovibond". This works, but a single search would be nicer.

Unfortunately, my guess is that it would take quite a substantial revision of the logic of the program to allow parenthetical input. Even as it is, however, Tom's THREAD program is a gem. Before I got it, I would use Magellan or WordPerfect or something, and it took \*hours\* to search my HBD collection. Now I can finish it in minutes. Thanks, Tom!

- --frank

p.s. In addition to being a good programmer, Tom must be a pretty fair brewer, too. He took first place in the porter category at the recent Upstate NY Homebrewers Assoc. annual competition. Congratulations.

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Date: 11 May 1993 11:45:28 -0400 (EDT)  
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>  
Subject: Anchor Steam practices: a compilation

Now that I mash, I thought I would try again to mimic Anchor Steam. My extract version was pretty decent, but it missed in a few key respects that I thought I might be able to rectify by mashing. In anticipation of brewing an Anchor Steam clone, I went through all my back digests as well as other materials I had lying around, and collected every scrap of information I could find. I have compiled it in a collection of notes, which I have printed below.

My purpose is two-fold. First, discussions of Anchor Steam come up every so often, but always in little bits and pieces. I thought it would be a good idea to have everything in one place. Second, of course, I want to \*brew\* this beer, so I thought by publishing this in the digest you could tell me what I've got right, what I've got wrong, and what I've got missing.

I cite my references by number in square brackets. A lot of the things I say below I say as though they are undisputed facts, when, in reality, they are opinions and guesses (we are back-engineering, after all). So, when I say something like "Anchor Steam is brewed with an upward infusion mash [1]" what I really mean is: "ACCORDING TO REFERENCE 1, Anchor Steam is brewed with an upward infusion mash." \*I\* don't have any first hand knowledge of the material below. Of all the references, number 1 is the most trustworthy (it's Fritz Maytag's article in the Beer Styles issue of Zymurgy).

Finally, I want to express my thanks to everyone on the digest who contributed the information I am summarizing, and also to Tom Kaltenbach for THREAD version 2.1, without which I would not have been able to compile these comments.

Ok, here we go:

#### GRAIN BILL

Anchor Steam is all-malt [1,5] made from 2-row pale malt [1,3,5,6,7] and crystal (caramel) malt [1,3,7]. No one has reported the proportion of pale to crystal, but this ratio will be in large part influenced (but not completely determined) by the gravity of the wort and color of the finished beer. See SPECS below.

#### MASH AND SPARGE

Anchor Steam is brewed with an upward infusion mash [1] that varies according to the particular malt varieties [1]. A typical (common?) mash schedule consists of 3 different temperatures [3], with a mash out of 160F [2] and, I believe, a protein rest of 125-126F. My evidence for the protein rest is an inference on my part from reference [6]. My copy of reference [6] is actually a reprint from BREWERS DIGEST, and on the cover of the reprint is a great big color photograph of Fritz Maytag standing next to what is very clearly the mash tun. An easy-to-read temperature dial on the tun reads 52C, which is 125.6F (unless I've miscalculated). I suppose it's possible that they were actually heating or cooling the tun at the time of the photograph, and the temperature was on the way up or down, with the photo being snapped at the moment that it was 52C. I find it easier to believe, however, that they were at a \*rest\* point, which says "protein rest" to me.

In any event, they conduct a 2-hour sparge [3] with 160F water [2].

#### BOILING AND HOPPING

Anchor boils for one and a half hours [3] with whole hops [5,6] added throughout the boil [3]. They use "a significant amount" of Northern Brewer hops [1], and bitter at a level of 33 IBUs [1], although others have claimed the rate is 40 IBUs [4]. I am inclined to believe the lower figure since it comes from Fritz himself. The quantity of hops used is approximately 1 pound per barrel [6], which (if I am correct that a barrel is about 31 US gallons), amounts to a shade over 2 and 1/2 ounces per 5-gallon batch.

Although most agree that Anchor uses only Northern Brewer hops in its steam beer [e.g., 7], one occasionally sees other hops mentioned, for example, Hersbrucker [4] or Galena [7].

With regard to dry hopping, the common wisdom is that Liberty Ale is the only regular Anchor product to be dry hopped, although there is indirect evidence to the contrary. In particular, reference [5] is promotional material that I received from the Anchor reps at the 1992 Buffalo Beer Fest. (Actually, they were probably representatives of the local distributor of Anchor Steam). Although the section on Anchor's steam beer does not \*explicitly\* state that it is dry hopped, the Liberty Ale entry says: "Hops are added [to Liberty Ale] during aging (a process called dry-hopping) [to] further heighten the aroma. This is one of the secrets behind the notable bouquets of \*all\* Anchor

Brewing's beers." Parentheses are theirs, brackets are mine, and the emphasis on \*all\* is mine. This sentence would seem to imply that Anchor Steam is dry-hopped. I asked one of the Anchor reps if my understanding of the sentence was correct. He was clue free, and I commented (jokingly and good-naturedly), "Gee they sent the wrong guy down here." A while later (when I went back for seconds), the rep had obviously checked it out, because he made a point of dragging me over to the side to tell me that, "Yes, they do double-hop it." Double-hop?!? Well, I figured he meant dry hop.

In any event, take this dry-hopping information with a grain of salt. It is based on inference and the remarks of a local distributor, rather than someone who actually worked in the brewery. Just from taste, I personally believe Anchor Steam is \*not\* dry-hopped.

#### FERMENTATION

A bottom-fermenting yeast is pitched at 60F [1]. Most everyone suggests using Wyeast California Lager, but I have also had good success with Wyeast American Lager. The fermentation is conducted at 60F [3], and the peak temperature is limited "very carefully" [1]. The fermenters are shallow copper pans. Anchor typically conducts a 3-day primary and a 3-week secondary [7]. The beer is lagered at 50F [3].

#### CONDITIONING

Anchor Steam is kraeusened [1,7] to give 2.8 volumes of CO2 [1]. It is conditioned in the low 50s (degrees F) [1], and the carbonation takes place in sealed stainless-steel containers over several weeks time [6]. It is flash-pasteurized at 170F and bottled so as to have extremely low levels of oxygen, with only CO2 in the headspace [7].

#### SPECS

O.G. = 1.049 - 1.050 [1]  
F.G. = approx. 1.013 [1]  
IBU= 33 [1]  
SRM= 11-13 [1]  
Alcohol = 3.9% (weight) [7]  
4.7% (volume) [1]

#### REFERENCES

1. Maytag, Fritz (1991). California common beer. ZYMURGY, 14, 50-52. [This is Fritz's article on Anchor Steam look alikes for the Traditional Beer Styles special issue.]



2. Fix, George J. (Jan. 15, 1992). Sparge temperatures. HomeBrew Digest #1068. [George is citing Mark Carpenter of Anchor Brewing.]
3. Sassen, Tim. (April 13, 1993). Tips gleaned from Anchor brewing tour. HomeBrew Digest #1132.
4. Dipalma, Jim. (Dec. 1, 1992). Re: Wyeast 2112, counter pressure bottling. HomeBrew Digest #1028. [Jim is recalling a tour report posted "some time ago" in the Digest. He says his IBU figure is from Eckhardt.]
5. No author. (Aug. 1984). Going against the grain. TWA AMBASSADOR, pp. 36-38. [This is promotional material I received from Anchor at the Buffalo Beer Fest.]
6. Kellett, Ann H. (June 1988). The first little national brewery. BREWERS DIGEST, reprint. [Again, promotional material. I don't know if the photograph of Fritz appears in the actual journal, or just on the reprint.]
7. Dunn, Dick. (Dec. 5, 1991). Notes from a tour of Anchor. HomeBrew Digest #777.

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Date: Tue, 11 May 93 11:58:08 -0400

From: esonn1@cc.swarthmore.edu

Subject: Sam Adams

As Steve Stroud says, some of Sam Adams is brewed in the Jamaica Plain section of Boston (which actually used to be the center of brewing in Boston because of its better than average water quality) but when I went on

a tour there, they said 5% of their beer is brewed there. The rest is contract brewed all over the country and at a place in Germany. The reason

they cited should sit well with all of you HBDers: freshness. Just as Anchor's beer is either unavailable or scarce on the east coast, because Sam Adams says it's concerned about its beer traveling over long distances and thus delivering a less fresh product to the consumer. I guess the way

they justify calling it a micro-brewer is that it brews in smaller batches

than AB or Miller and each brewery serves a specific area. Decide for yourself.

One other interesting note on SA is that even though they say they are so concerned with freshness, they pasteurize all their bottled beer because "we're worried a distributor will not take care of it properly and the consumer will blame us for a lousy product." So if you want to judge SA you should find it on tap.

Eugene Sonn

esonn1@cc.swarthmore.edu

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Date: Tue, 11 May 93 12:47:03 EDT  
From: richer@desi.HQ.Ileaf.COM (Al Richer)  
Subject: Possible problems with Wyeast 1028

I don't know if anybody else is going to be there, but I am going to be in Atlanta in early June for the DECUS Symposium. If anybody else is there, feel like getting together to talk a little homebrewing, and drink a little beer?

But now on to brewing stuff...

Recently I made a generic stout using Wyeast London Ale yeast, rather than my usual Irish Ale yeast. The recipe is (from memory) as follows:

9 pounds klages  
1/2 pound chocolate malt  
1/2 pound roast barley  
1 pound 80L crystal  
3/4 stick brewers licorice  
2 ozs. fuggles (hazy on this...)  
1 pound brown sugar

I used my standard infusion mash @ 152F, boiled for 90 min. with 3 hops additions, force-chilled and pitched. The yeast (a 1-qt starter) took 36 hours to take off, then pumped up to a nice krauesen. This is all well and good. Now comes the funny bit...

It fermented for 4 weeks...

I have never had a situation like this happen with any of my beers. It seemed like the yeast went super-attenuative, as the FG stopped at around 1.008. The stuff it produced is drinkable, but hellaciously alcoholic and with a pronounced particulate haze that seems to be yeast.

There are two possibilities here. The first is that I am just not used to using domestic malts (I've used British malts up till now). The second is that the 1028 did something wierd.

I consider the second a possibility, as I split the pack and made slants when I brewed this batch. The slants look really wierd in comparison to the slants of 1084 that I usually have. Anybody think it'd be worth the effort to send one of these to the Lodgsons at Wyeast?

\* When I say the cultures looked odd, I mean that, instead of forming a white layer on the surface of the agar, they formed a slimy white layer, replete with bubbles from the CO2 they were everting. It looked lie yeast, but really odd. I don't think it was a contamination problem, either, as all 12 of the slants came out exactly the same, with no other wilds or bacteria.

Yours,

Al Richer

- - -

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Date: Tue, 11 May 93 09:19:46 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: All grain instructions - how's this look?

- > >Select recipe & obtain ingredients.
- >
- > >Start Yeast pack (2-3 days before brewing)

In practice, the Wyeast package is usually swollen nearly to bursting in one day. Give it two or three only if it is several months old.

- > >Add yeast to quart of starter wort (~12 hours before brewing)

Good idea.

- > >Preboil 10 gallons of "brewing water", put in carboys when cool.  
(night  
> before brewing)

You only need to do this for extract brewing. All the water you use for all grain will end up being boiled in the brewkettle.

- > >Bring 1.33 qt H2O per pound of grist to 130 degrees (f) in mash kettle.
- >
- > >Add above water to grist, protein rest for (60?) minutes at 122 deg.
- >>Adjust pH to about 5.3 if needed

A protein rest is only necessary for undermodified malted barley. If you still wish to do a protein rest, about 20 minutes is sufficient.

- > >Start sparge water in cooker kettle, bring to 170(?) degrees. How  
> >much?
- I usually sparge with 5-7 gallons 170-180F water.

- > >Raise mash temp to 155 deg, hold at this temp until conversion is done.
- > (Can I do this with boiling water? How much do I use?)
- >>Adjust pH if needed
- >>Test for conversion with Tincture of Iodine

If you skip the protein rest, adding 171F water to room temperature grain will usually net you about 155F with about 1+ qt per lb of grain. The rule of thumb (for the temperature range desired) is that 1 lb of room temp grain will drop the temp of 1 qt of water 16-18 degrees. I heat some extra, as the mash tun will usually absorb some heat. For 1 10lb mash, I heat 12-14qts water to 173 for my desired 155 mash temp. When you are off a couple of degrees, add a \*LITTLE\* hot or cold water, stir, and check temp.

- > >Raise temp of mash to 175 deg, for (20?) minutes, to mash-out.

I don't think you need to hold the mash out temp at this stage, as it will be at this temp all during sparge.

- > >Pour mash into lauter tun, let it compact, recirculate runoff
- > >until clear.

Avoid compaction. It seriously slows sparge rate.



Date: Tue, 11 May 93 15:04:06 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re:canned Guinness & other beers

In the last digest Jack comments on several beers:

<Date: Mon, 10 May 93 08:00 CDT  
<From: arf@genesis.mcs.com (Jack Schmidling)  
<Subject: Musings on Commercial Beer

< My C-P bottler is down for re-design so I bought a bunch of commercial stuff  
< to take to a party. Always wanting to turn a beer drink into a learning  
< experience, I bought some things I have wanted to try/compare.

And I thought you could just pull the tap and decarbonate the beer into a bottle! Wait a minute, didnt you follow the "how to build a CP filler" that  
I sent you :-)

< Draft Guinness in the can is not only lousy beer but the nitrogen gizzmo is  
< just plain silly. I thought the beer had a metallic taste and was lacking in  
< anything worth mentioning.

Utter nonsense! I live in the Washington DC area where the canned Guinness was  
test marketed, and I can attest to absolutely GREAT canned Guinness. There  
is nothing silly about a device that works, and works well. The nitrogen has  
nowhere to go until the can is opened, then it gradually rises through the beer  
much the way a good draught version does. I have always enjoyed extra stout,  
even in my \*shudder\* Bud days. The differences in the draught vs extra are  
well documented. I have always loved draught stout and this device actually  
results in a very good version of canned draught beer. I do believe it is the  
best canned beer I have ever had.

< Bass ale was about as bland as the Guinness but lacked the metallic taste and  
< just about any other, for that matter.

No comment on Bass.

< Take the coloring out of Beck's Dark and you have Beck's regular. It seems a  
< bit more beerish but hardly in line with the color.

This is a bit harsh, no? There are dark malt notes in Becks, albeit not like a  
Munchner Dunkles. In defense of Becks, it is an all malt beer now, even if it

was not in the past. It often manifests the metallic flavor that can occur in many beers, especially some German beers made with Tettang hops.

< The good news (strike me dead) was Miller Reserve Pale Ale. I tried the "all  
< barley" larger a few months ago and it seemed a farce but this stuff is real  
< ale. It's fruity and wonderful. It has a very marvey aroma and the taste  
< that follows is exactly what you expect from the aroma. By far the best beer  
< to come out of the biggies in decades. No doubt they found the right  
< combination of chemicals to do the trick but at least it tastes like beer.  
< It does not taste like my ales but rather like most of the ales I taste at  
< club meetings and the experts tell me that is what it is supposed to taste  
< like.  
<  
Havnt had it. Good report from a quality local brewmaster, though. Still gotta wonder about "all barley". Sure doesnt sound like "all malt" to me.

< Needless to say, I wait with baited breath to hear what others think of it.

I bit. Probably lots of others too.

Good brewing,  
Jim Busch

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Date: Tue, 11 May 93 16:00 EDT  
From: mgg@usl.com  
Subject: Hefe Weissbier advice

I've been fortunate enough to experience a variety of true bavarian Weissbiers (mit Hefe) in Bavaria and now I want to make the real McCoy. I'm using the Papazian "lovebite weizenbier" recipe. I brewed on Sunday and the fermentation is going well. My question is that earlier in the book (pg 147) he described the general weizenbier method as "Traditionally, the special top-fermenting yeast is filtered out before bottling or kegging, at which time a more flocculant (better settling) lager yeast is added for natural bottle conditioning." The recipe doesn't call for this. This is my first attempt at Weissbier and would like to know if the addition of lager yeast is recommended. I don't do any filtering when racking the beer (other than leaving the sediment in the fermenting pail), so I believe some yeast would end up in the bottling pail. A response to HBD or email will be greatly appreciated. I'll summarize email if thats what I recieve.

By the way, southern Germany makes for a great vacation as well as beer tour. (I suspect you're not suprised by this. :-)) I say this since the major and minor tourist towns all had at least one local brewery which always had several great beers. (The only mediocre beer I had was an export beer I had at the airport on the way home.) Prague Czech. also falls into this category.

In response to:  
From: greenbay@vnet.IBM.COM  
Subject: Hops/2 Liter Bottles

- 2) I heard a customer at a homebrew store saying that homebrew could safely bottled in 2 liter bottles. Does anybody have any information on this?

Bob Crowley

While bottling my first batch I ran out of beer bottles. In desperation I began using anything vaguely resembling a beer bottle (various juice bottles and one 2 liter soda bottle). I was making a porter which prescribed 5 weeks aging in the bottle. In general I don't recommend these bottles since it didn't seem like I was getting a good seal. Thanks to tolerance from the beer gods all turned out pretty well. I did add plastic wrap between the bottle and cap to increase the seal. The juice bottled beer had limited carbonation/head. However the beer in the 2 liter soda bottle had almost the same amount of carbonation as true beer bottles. So if you're ever in a desperate situation, don't look a gift bottle in the mouth. :-)

Mark Gintner  
mgg@usl.com

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End of HOMEBREW Digest #1139, 05/12/93  
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Date: Tue, 11 May 93 17:10:06 EDT  
From: asmith <ST101163@BROWNVN.BROWN.EDU>  
Subject: chang

I spent last semester in Nepal, and for about a month I stayed monastery in Solu Khumbu, sort of on the way to Everest. The monks don't drink chang, but they don't mind if their guests do. The folks who live in that part of Nepal are Sherpas who are descendants of Tibetans, but I'm not sure what the exact history of chang is. It was made out of corn, rice, millet or wheat. I saw them make rice chang, and they did this by cooking up a big pot of rice, letting it cool, mixing in special chang yeast (marga) which was in powder form. They let it go there for about four days, then they transferred it to a big plastic jug for the secondary fermentation (I think I read somewhere that they used clay pots traditionally). From what folks told me, they didn't use sugar unless they wanted a particularly potent batch, and they didn't add much in the way of water. It was served warm, and was sometimes pretty chunky. I've tried to make it here, but the results haven't been so good. Maybe my standards have changed. The interesting drink to make would be thomba-- after millet is fermented it is put into a special thomba mug complete with filtering bamboo straw, and hot water is poured over it. It wasn't so alcoholic, but tasted great. The monk I live with also made a type of apple wine, in which he followed more or less the same process as with chang with dried apples. He didn't consider it alcohol as such, but it had a bit of a kick to it. In retrospect, the surprising thing to me was the utter lack of care about oxidation and also how the plastic jugs didn't blow up. I imagine they had slight leaks, maybe. I don't know if this helps. ps. about the recipe, I don't think they followed one, so if you want to recreate the effect start with rice & champ. yeast. see ya,  
A. Smith ps: i would be interested in any more technical information folks have about using starches in beer & wine making.

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Date: Tue, 11 May 1993 17:26:27 -1100  
From: Kirk\_Anderson@wheatonma.edu (Kirk Anderson)  
Subject: beer in thailand

I'll be in Thailand for June and most of July and would welcome any advice or suggestions in the 'enjoying world beers' department. Thanks in advance, and please don't post anything interesting in the digest while I'm gone. Kirk

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Date: Tue, 11 May 93 16:15:34 PDT  
From: lawson@acuson.com (Drew Lawson)  
Subject: Re: Sam Adams..... a Microbrewery

> From STROUD%GAIA@leia.polaroid.com ()

> Oh, BTW, the Sam Adams that is sold in Germany is supposed to be  
> contract-brewed IN Germany. I don't know the name of the brewery.

Another ping against the ad campaigns. I guess that they imported the  
\_name\_. (Sort of like claiming that Big Macs are imported into  
France).

Drew Lawson If you're not part of the solution,  
lawson@acuson.com you're part of the precipitate

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Date: Tue, 11 May 1993 18:46 PST  
From: PETTEWAY@UCLAC1.Chem.UCLA.EDU  
Subject: Bay Area Beer

Some time ago an absolutly fantastic guide to brewpubs in the San Francisco Bay Area was posted. It was unique in that it included detailed public transportation directions to each place.

If anyone has this, could you please mail it to me. I'll be there in two weeks and have to start planning!

Thanks alot

Jason Petteway  
petteway@ucla1.chem.ucla.edu

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Date: Tue, 11 May 93 22:12 CDT  
From: fjdobner@ihlpb.att.com  
Subject: Campden Tablets

I had a reputable homebrewer once tell me that should I be interested in adding fruit to the secondary, I would be advised to ensure that I take sanitary precautions against bacteria and wild yeast. Agreeing I asked what might be a logical means of doing that. One of the answers I received was to use Campden tablets to treat the fruit before addition to the fermenting beer.

Questions are:

1. Is the above advisable?
2. If so, I have purchased Campden tablets from Crosby and Baker and would like to know how one might proceed. On the label it says "16 tablets per quart water = 1% solution."
3. Will there be any side affects (taste, aroma) that may result using the Campden tablets?

E-mail directly or general post (if of wide enough interest) would be greatly appreciated.

Regards,

Frank Dobner

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Date: Tue, 11 May 1993 21:16:42 -0800  
From: ulrich@sfu.ca  
Subject: Treacle

William A Kitch asks:

> Do you have sources for demerara, treacle, or candi?

Isn't treacle just the British name for molasses?

Charles Ulrich

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Date: Wed, 12 May 93 10:49:26 +0200

From: rzy@eel.sunet.se

Subject: Epic Brew Tour!

Dear Brewfolk,

After working for two years in Sweden as molecular biologists, my girlfriend and I feel its time to further our search for the ultimate beer. We plan somehow to travel east-west thru the U.S. of A. for several months. We would love to attain some information on micro breweries and brew pubs to visit along the way. We would also be especially interested in corresponding with anyone knowledgeable on great places for white water kayaking, rock climbing and mountain biking.

Please email me at the above address.  
Thanks in advance

Rick Zydenbos and Sue Francis

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Date: Wed, 12 May 93 09:48:47 -0400  
From: Ron Natalie <ron@topaz.bds.com>  
Subject: Re: Sam Adams

> contract brewed all over the country and at a place in Germany. The  
reason  
> they cited should sit well with all of you HBDers: freshness.

No the real reason: cheapness. For a beer that's got a expiration date  
post dated five months in advance, I doubt the week to truck the stuff  
around the country is going to make much difference.

A more correct reason is probably the same reason the Megabreweries as  
well as Coke has regional plants. They SAVE money by not trucking it.  
And frankly, most of it comes from Pittsburg which is no closer to  
Northern New Jersey than Boston is.

Does any of the 5% they brew go into bottles anyway?

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Date: Wed, 12 May 93 10:55:14 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Re: All grain instructions - how's this look?

Drew Lynch writes:

> > >Preboil 10 gallons of "brewing water", put in carboys when cool.  
(night  
> > before brewing)  
>  
> You only need to do this for extract brewing. All the water you use  
> for all grain will end up being boiled in the brewkettle.

Unless you're trying to precipitate carbonates, and/or get rid of  
chlorine.

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Date: Wed, 12 May 93 10:04:34 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Malt Aroma - Chilling - Boiling

The recent discussion of mash thickness, temp and sugars production leads me to the following question. What component of the mash produces the "malty aroma" and "malty flavor" found in German Octoberfests . Is this a function of the type of malt. Since decoction mashers claim these features are enhanced in that process. What happens in a decoction that doesn't happen in an infusion that produces these characteristics.

Chilling and Boiling: JS recently posted about a weak boil and no chiller brew with regards to hot and cold break. Isn't another reason for a strong rolling boil and a rapid chill the minimization of DimethylSulfide DMS production. The rolling boil drives off the DMS precursors and the rapid chill minimizes the time in the optimum production range? or is this another momily?

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Date: Wed, 12 May 93 11:29:25 EDT  
From: LORD OF THE DEEP <S018%NMUMUS.bitnet@vmd.cso.uiuc.edu>  
Subject: some questions and a request

Hullo! I am going to be moving to the Chapel Hill, North Carolina area at the end of the summer or a little before. My first question is, does any one know of the typical in the above area? brew pubs, homebrew supply shopsso on so forth. Anything about the area would be helpfull.

Next up is a Dutch lager style import extract that i just made, by following the directions for this extract i have created a very nasty tasting 18-20 proof beer I forgot to write down the name befor i came to the lab today so i cannot tell you the brand but if this sounds firmilliar to anyone please let me know how yours turned out.

Thanks

Ther Richardson  
S018@nmumus.bitnet

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Date: Wed, 12 May 93 8:54:16 PDT  
From: davep@cirrus.com (David Pike)  
Subject: 2 liter PET bottles

We (a loose knit group of computer-type homebrewers) have been using the 1 and 2 liter PET (read COKE, Pepsi, and Talking Rain) bottles for almost two years now with no problems. if...

1. Use only plastic caps, not the metal ones.
2. Because most of them are clear, you need to keep them in the darkness during storage.

Dave

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Date: 12 May 1993 10:58:42 -0600 (MDT)  
From: Mark Taratoot <SLNDW@CC.USU.EDU>  
Subject: Beer Bread

Greetings.

A couple of weeks ago I posted a method of making bread and pretzels from the yeast cake at the bottom of secondary fermenters. Well, I have something to add.

Last week I made two beautiful loaves of bread from some dregs from a beer that I had dry-hopped. At first I was a bit apprehensive about doing this as I didn't know how the hop bits would affect the taste. I did it anyhow. The advice:

DO NOT DO THIS!!!

The resulting bread was too bitter to eat, even when smothered in honey. It may have made an ok garlic bread, but we were kind of put off.

One interesting note: We left the loaves sitting around until the weather got nice enough (and we had the time) to go "feed the ducks." Well, it was over a week before we finally got out. The thing that surprised me was that the bread had no mold on it. Then I realized that this was because of the hops!! Now if I could find some hops that I could add to the bread that would not make it so bitter I could increase the shelf life from several days to more than a week (but the bread usually does not stay around that long.)

-toot

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Date: Wed, 12 May 93 11:40:13 -0500  
From: gjfix@utam.uta.edu (George J Fix)  
Subject: Yeast

Seth Schneider of Crosby and Baker has informed me that I might have in a recent HBD post reversed the package sizes of the Whitbread yeast available today. To make sure there is no confusion, note the following:

12 gram pck. = Whitbread from old plant that is distributed by C+B  
14 gram pck. = Whitbread that was produced at the Lallemand plant in Canada

The strain I tested for C+B came from the lab at Whitbread's new facility.

Tests on yeast from full production runs will be done in the near future. The tests on the Whitbread available today was not done as a part of my contract with C+B. I did these strictly for my own edification. The lactic

counts on both were acceptable as was the viability of the C+B version. The viability test (using Rhodamine B as a stain) showed % viable cells as low as 17% in the Lallemand version, which is completely unacceptable.

The recent work for C+B dealing with dry yeast has been quite an experience.

It been 15 years since I last used this type of yeast. Two practical points have come up using dry yeast that I have not seen in homebrewing books. They are the following:

1. It is useful to refrigerate dry yeast during storage. They will not lose viability as fast as liquid yeast at room temperatures, nevertheless they will lose viability with age and this process is accelerated at temperatures above 60F.

2. Very rigorous sterilization is needed for everything used in the hydration process. I now do this with a pressure cooker, using 10 mins. at 15 psi. I screwed up a perfectly good beer by being casual about this in one batch. The finished beer had a measured diacetyl level of .175 mg/l, which is above the threshold of .1 mg/l. Subsequent brews have indicated the error was mine and it occurred during hydration.

Al Richter in HBD#1139 asks about possible problems about Wyeast's London Ale strain (1028). Two micros in the Southwest had similar problems in the

past. This was the major reason I avoided talking about this yeast at the microbrewer's conference in New Orleans. However, the Great Lakes Brewing

Co. brought some of their Best Bitter to NO which was fermented with this yeast. It was IMHO one of the finest examples of this style I have ever tasted. The brewer kept apologizing that it was merely a "session beer", but what I was tasting was a very clean ale whose malt/hop balance was dead

on. The finish was soft, but marvelously complex. I have the feeling we are

going to be hearing a lot more from Cleveland (home of GLB Co.) in the future. I also tasted at the recent Beer Fest in Temecula, Calif. an outstanding Brown Ale brewed by Martin Lodahl using this yeast. Clearly the

time has come to do a few brews myself with this yeast to see what is

going on here.

George Fix

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Date: 12 May 93 07:57:03 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navy.mil>  
Subject: Pre-boiling Water

Message Creation Date was at 12-MAY-1993 12:51:00

Greetings,

(I am writing this question on behalf of a friend whose address is too long to be accepted by the HBD computer.)

In yesterday's HBD, Drew Lynch, writing in response to a request for feed-back for a first all grain beer, wrote:

>> You only need to do this for extract brewing. All the  
>>water you use for all grain will end up being boiled in  
>>the brewkettle.

This was written in response to the statement:

>>> Preboil 10 gallons of "brewing water", put in carboys  
>>> when cool. (night before brewing)

My question:

I thought the reason for pre-boiling the water was so that the chlorine would be boiled away. The chlorine, being basic, could adversely affect the ph of the mash. Is this correct, or am I once again looped in the head?

2nd Item:

Yesterday I asked what was the purpose behind Home Brew competitions. Well, today I was informed. A friend who was taking a brewery tour while the judging was going on stated that based upon the number of times the judges staggered into the restrooms, the only real purpose of these contests is for the judges to get free beer.

(Oooh! I can already feel the flames!)

Cheers  
Andy Anderson

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Date: Wed, 12 May 93 14:12:10 EDT  
From: Hal Laurent <laurent@tamdno.UNET.dec.com>  
Subject: Step culturing of yeast

I see a lot of references to "step-culturing" yeast to increase the population of yeast cells. Why is it desirable or necessary to do this in steps? Is it bad to give the yeast too much food at one time? I've been pitching my yeast into one quart of sterile wort for a starter, but it still seems to have a 1 1/2 to 2 day lag time before the primary fermenter's airlock starts to bubble. I've been considering using two quarts of starter instead of one to get a larger population. Is it better for me to feed the yeast one quart first and then step up to two quarts? Can I just pitch the WYeast package into two quarts to begin with? Do I ask too many questions? :-)

-Hal Laurent  
Baltimore MD

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Date: Wed, 12 May 1993 10:54:05  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Anchor comments and clarifications

Frank Tutzauer writes about Anchor products:

>evidence for the protein rest...is a picture of the temperature dial...  
etc.

You are also making the assumption that they were making steam beer when the picture was taken. They could also have been making Liberty, Porter, Wheat, or any of their specialty ales. They all have different mash schedules and temperatures. Also, if it's the picture I'm thinking of and the temp dial is the one attached to the copper pipe where the water and grain are mixed as they flow into the tun, then this dial is measuring the temperature of the incoming water/grain mixture. The real "dial" (actually a digital readout) is on the programmed temperature controller, located in another room.

>mash out is at 160F

That's correct.

>Although most agree that Anchor uses only Northern Brewer hop in its steam beer, one occasionally sees other hops mentioned, for example, Hersbrucker or Galena

I was in Anchor's hop room. Only two varieties were there: Northern Brewer and Cascade. The NB is for the steam and Cascade is for Liberty. I don't know what they use for the Porter or others. Northern Brewer is added to the boil in three additions, and in about equal proportions. One at the beginning, one about half-way through and one near the end. I understand that Liberty is made with 100% Cascade (also in three boil additions plus dry hopping).

>General discussion about which Anchor products are dry hopped...

I was fortunate enough to interview Fritz for my article on Dry Hopping (due out shortly in the summer Zymurgy) so I think I can speak with some authority (is that a pun?) on the subject. Only three Anchor products are dry hopped: Liberty, Foghorn (barley wine) and the Christmas Ale. The rest are not. Anchor's dry hop rate for Liberty is "approximately" 2 ounces per five gallons and the hops are added in the conditioning tank and left for about two weeks.

>General discussion about fermentation...fermenters are shallow copper

pans..

The shallow fermenters are made of stainless steel. They are used for both the steam beer and the porter. I was told that fermentation temperature was 55F. The same yeast is used for the steam and porter. All other beers are fermented in deep, open top ale tanks with a "traditional" ale yeast, also at 55F.

One other important note: Just as we know to adjust bitter hop rates based on the alpha acid ratings, Anchor also adjusts the late and dry hop additions according to the oil content. I'm proud to announce that my company (HopTech) will be rating all its aroma hops with oil content in addition to alpha acid. Hops will be available in mid-June. If you want to get our catalog when printed (currently in process), then send a postcard to: HopTech, POB 2172, Danville, CA, 94526 or you can call 1-800-DRY-HOPS and leave a message. You could also fax to (510) 736-7950. Don't expect to get anything till the first week of June.

Mark Garetz  
HopTech

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Date: Wed, 12 May 93 13:34:35 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Is this Stainless Steel any good?

I recently found an old industrial-size coffee brewer for sale for \$50. It has a 14 gallon stainless steel pot, with lid, enclosed in a SS case. It includes a bunch of auxilliary gear; such as heater, temp controller, timer, valving, thermometer, etc. which I figure might be useful in my brewing endeavours, especially if I decide to build a RIMS. (Note that all of these parts are of questionable operating condition.)

The problem is, this unit has been sitting outside in the rain for quite some time. The SS pot (the component I'm really after) has quite a few rust spots. This is not too surprising; I've seen other stainless items which rusted after exposure to severe conditions. The pot is a non-magnetic grade of stainless (and no, its not aluminum).

My question is, is this pot worth the money? I've no doubt that I could remove the spots with a steel wool pad and some elbow grease, however, does the fact that it is spotted indicate that the SS steel may be an inferior grade, unsuitable for wort boiling? Are there types of SS which one would not want to use for brewing?

What is the group wisdom on this? Any metallurgists out there who can comment on "rusted stainless"?

Thanks,

Kelly <k-jones@ee.utah.edu>

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Date: Wed, 12 May 1993 15:58:00 +0000  
From: "Bill (W.R.) Crick" <heybc@bnr.ca>  
Subject: Removing labels?

Why would you want to remove the labels? I'm not sure. Most of my old stubbies still have the labels on them, although after 10 years, some are getting unreadable;-)

Just a hint on how to label homebrew so you know what is what. Condense name down to a TLA (two, or three letters) Write this on to of cap with indelible magic marker. This takes about 2 seconds per bottle. It requires caps with no cutesy logos or anything on them. Some letter combos are real fast like Mohawk Mild -> MM which is just four connected squiggles.

Bill Crick Brewius, Ergo Sum

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Date: Wed, 12 May 93 20:28:39 GMT  
From: Martin Wilde <martin@gamma.intel.com>  
Subject: Usage of hops in Anchor Steam

In Digest #1139, Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu> writes:

>BOILING AND HOPPING

>Anchor boils for one and a half hours [3] with whole hops [5,6] added  
>throughout the boil [3]. They use "a significant amount" of Northern  
Brewer  
>hops [1], and bitter at a level of 33 IBUs [1], although others have  
claimed  
>the rate is 40 IBUs [4]. I am inclined to believe the lower figure  
since it  
>comes from Fritz himself. The quantity of hops used is approximately 1  
pound  
>per barrel [6], which (if I am correct that a barrel is about 31 US  
gallons),  
>amounts to a shade over 2 and 1/2 ounces per 5-gallon batch.

If you use this amount of hops, you will definitely get a hoppy beer. You  
have to remember hop utilization increases with batch size. Most brewers  
I  
have talked to when they brew a 15 gallon pilot batch and then scale up  
to  
20-60 barrels will cut back on the hops by 10% to allow for the increased  
utilization.

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Date: Wed, 12 May 1993 16:43:39 -0400 (EDT)  
From: Donovan Bodishbaugh <dfb@acpub.duke.edu>  
Subject: Hop Isomerization

In the May 7 HBD, Ed Westemeier wrote:  
" alpha acids in hops are... isomerized (which means the molecules are  
formed into long chains)."

This was a good expose on light-struck beer. Isomerization,  
however, is not the formation of long chains of molecules. That's  
polymerization. Isomerization is the rearrangement of the structural  
configuration of a molecule, without changing the general molecular  
formula. The simple sugars fructose and glucose are isomers, both having  
the formula C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>. The enzyme which interconverts these forms during  
cellular metabolism is called isomerase. I think hop alpha-acid  
isomerization refers to the conversion of the straight-chain form to the  
iso (branched) form. I think Miller's book has a good discussion of  
this.

Anally Yours from the Wonderful World of Biochemistry,  
DFB

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Date: Wed, 12 May 1993 23:13:31  
From: Gary.Cote@leotech.MV.COM (Gary Cote)  
Subject: recipes

Hi All

I am looking for recipes about a few styles of beer mentioned in a book first printed in 1932. The name of the book is The Homemade Beer Book. The four styles are as follows.

"Chica" A south american beer made fermented malt of indian corn.

"Purl" A verity of amber beer formerly in demand in London but now obsolete.

"Quarf" A Russin beer made from rye.

"Twopenny" An amber beer containing licorice and capsicum, used as a stimulant in cold weather.

Any help with these would be great!!!

Thanks Gary Cote  
gcote@leotech.mv.com

- - -  
gcote@leotech.mv.com

\* Origin: Leo Technology (603)432-2517/432-0922 (HST/V32)  
(1:132/189)

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Date: Wed, 12 May 93 22:41 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Slow Learner

>From: Jim Busch <busch@daacdev1.stx.com>

< My C-P bottler is down for re-design so I bought a bunch of commercial stuff to take to a party...

>And I thought you could just pull the tap and decarbonate the beer into a bottle!

I admit to being a slow learner (must be struck by lightning 3 times) but when I get it, I not only admit my errors but usually become a crusader.

> Wait a minute, didnt you follow the "how to build a CP filler" that I sent you :-)

Don't recall but I bumbled around and made (and re-made) one that works like a champ.

In all fairness, you can fill a bottle from a tap, if the beer is cold, the bottle is colder and retain good drinking carbonation but not enough to produce much of a head.

>Utter nonsense! I live in the Washington DC area where the canned Guinness was test marketed, and I can attest to absolutely GREAT canned Guinness. There is nothing silly about a device that works, and works well..... I do believe it is the best canned beer I have ever had.

We can simply agree to disagree on this one. I chose not to squander my daily beer ration by finishing the glass.

< Take the coloring out of Beck's Dark and you have Beck's regular. It seems a bit more beerish but hardly in line with the color.

>This is a bit harsh, no? There are dark malt notes in Becks, albeit not like a Munchner Dunkles.

Perhaps a bit harsh but I humbly propose that "a bit more beerish but hardly in line with the color" translates nicely into, "There are dark malt notes in Becks, albeit not like a Munchner Dunkles".

I think we said the same thing.

< The good news (strike me dead) was Miller Reserve Pale Ale....

>Still gotta wonder about "all barley". Sure doesnt sound like "all malt" to me.

I think one can make a case for the interpretation being NO RICE or  
CORN, i.e  
the only grain used being barley. One can claim to make an all barley/  
malt  
beer and still keep cost down by using sugar to get the gravity up  
enough to  
produce the proper amount of alcohol. The body and character of the all  
malt  
lager would suggest this approach.

js

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End of HOMEBREW Digest #1140, 05/13/93  
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Date: Wed, 12 May 93 14:48 CDT  
From: korz@iepubj.att.com  
Subject: Re: Blindness/Hot Break/Wyeast 1028

Jack writes:

>The "going blind" momily has nothing to do with making beer or even with  
>distilling white lightn'n.

>It has to do with the fact that, in the good old days, unscrupulous  
>producers, middlemen and even a well meaning friend would add commercial  
>alcohol to booz to stretch his fermented/distilled mash. If he used  
the  
>wrong kind of alcohol, either methanol or denatured ethanol, the result  
was  
>poison and one of the symptoms could be blindness. There is no way  
you can  
>make anything that will cause blindness by mashing, fermenting and  
>distilling the kind of stuff normally used in beer and whiskey.

Well, I doubt the well-meaning friend part because what's the point in stretching your inexpensive, home-made shine with expensive, whiskey -- no, I believe the unscrupulous producers adding cheap methanol, but it may also be from trying to ferment something other than mashed grain. I recently heard about many people in India going blind or dying from some cheap alcoholic beverage a \*commercial\* producer was making -- it appears that in the interest of increased profits, the manufacturer was fermenting garbage! Yes, that's right, city-dump-type garbage!

I agree that we're safe as long as we stick to sugars for fermentables.

>I have always been a bit disappointed with the sleazy little bits of  
>coagulated protein in my brew kettle. I boil on my aluminum melting  
furnace  
>for at least 90 minutes in a 16 gal kettle. I can bring 10 gal to a  
furious  
>boil in about 15 minutes.

>The result was a "boil" that I would describe more as a circulation and  
I do  
>not recall seeing a single bubble break the surface.

>In spite of this, I evaporated the six gallons down to 5 and had  
coagulated  
>protein floating around that I could have made lasagna with.

>So it would seem that if one wants "great hot-break", ease up on the  
heat.

I suggest that the quality of the break may not necessarily be measured by the size of the break particles. The amount of break is probably the same, but your vigorous boil causes the larger pieces to break up into smaller pieces of coagulated protein. Therefore, I feel that you probably get no worse a hot break from a rolling boil than from a simmer.

On the other hand, a rolling boil is important for two other reasons:

1. Better hop utilization -- I've noticed a much better hop utilization from my rolling boils on my new, 12,000 BTU gas cooktop than with my old, under-powered electric cooktop.



2. When your wort is above 140F, S-methyl-methionine (SMM) is being hydrolyzed to Dimethyl Sulfide (DMS). DMS smells like cooked corn -- if you can get a hold of G. Heileman's Old Style, you can smell DMS for yourself. You can also smell it by boiling a few tablespoons of malt extract in a cup of water and letting that cool overnight (I made this mistake when I recently switched-over to Erlenmyer flasks for my starters).

If you have a vigorous boil, you either boil-off or oxidize to Dimethyl Sulfoxide (DMSO) any DMS that gets produced. A weak boil or if you boil with the cover completely on the kettle will increase the amount of DMS that remains in your wort. Much of this will be scrubbed out of your beer

with a vigorous ferment, but if you create too much of it, enough will remain in your beer to be detectable.

>I also made believe I didn't own a wort chiller and let it cool naturally to  
>pitching temp and, after cleaning and sterilizing the kettle, did the primary  
>ferment in it.

I suspect this batch will have some serious DMS problems. As I said before, when the wort is above 140F, DMS is being created. This is true also as the wort cools from boiling down to below 140F. A chiller decreases this lag period and reduces the opportunity for wort-spoiling bacteria to give your beer vegetive aromas.

Al Richer writes:

>and good. Now comes the funny bit...

>

> It fermented for 4 weeks...

>

> I have never had a situation like this happen with any of my beers. It  
>seemed like the yeast went super-attenuative, as the FG stopped at around

>1.008. The stuff it produced is drinkable, but hellaciously alcoholic and

>with a pronounced particulate haze that seems to be yeast.

>

> There are two possibilities here. The first is that I am just not used to

>using domestic malts (I've used British malts up till now). The second is

>that the 1028 did something wierd.

Respectfully, I would like to suggest that perhaps you left out a possibility,

namely that a wild yeast or a bacteria from your brewery got into the batch.

You did not mention the temperatures of the starter and wort at pitching time -- I've found that lag times can be significantly increased when there

is a 10 or 15 degree difference between the starter and the wort. 36 hours

is not too bad, but I've had (and others have reported) lag times less than

12 hours using Wyeast with a starter.

Insufficient aeration and a temperature shock are possible culprits for the long ferment. I had a really long ferment once (Wyeast 1056) when I accidentally dropped the temperature quite suddenly down to around 60F from 72F. The brew took 5 weeks to ferment out and was not too high

an original gravity (1051).

I've brewed two batches recently with Wyeast 1028 and had no problems in either of them -- everything seemed normal and the resulting beer tasted as expected. One of them was a super-heavy Imperial Stout -- started at 1120 and finished at 1050. Granted, this is not what I had hoped for and in retrospect, I realize that I should have pitched some more-alcohol-tolerant yeast when the 1028 pooped-out from the alcohol, but my point for mentioning this is that it is just the opposite of Al Richer's super-attenuated, high-alcohol batch. The other batch was a more-conventional gravitied IPA, which came out as expected. Just two more data points.

Al.

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Date: Thu, 13 May 93 11:31:22 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: micro equipment?

hello all, I tried emailing Bruce Kiley directly to ask him if he got the list of microbrewery equipment he asked for in hbd 1138, but the note bounced. So, Bruce what's the scoop? (direct email would be nice if you got anything). Also, I remember seeing a book on starting your own microbrewery while I was in the States. Does anyone have the info (author, title, publisher) on this?  
Rob Thomas.

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Date: Thu, 13 May 93 09:11:00 -0400  
From: djt2@po.CWRU.Edu (Dennis J. Templeton)  
Subject: Campden tablets and fruit

Frank asks about experience with Campden tablets...

I made a nice Raspberry ale last fall and for similar reasons used Campden tablets to disinfect the crushed berries. As I reported here then, I was aghast to watch the beautiful ruby color of the fruit fade to a piss yellow, which never really returned.

About side tastes, etc... there was a definite sulfur odor that came out of the airlock, and I let it sit in secondary for 2 months before bottling. The finished product has no discernable sulfur taste or smell, but it is a trace acid.

Others have suggested steeping the fruit in the hot wort, just as it begins to cool. Raspberries have so little pectin to begin with that extraction of pectin into the hot wort should be little problem. This is less true for many other fruits though.

good luck,

dennis

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Date: Thu, 13 May 93 09:50:49 EDT  
From: Elaine Boris <EBORIS@UGA.CC.UGA.EDU>  
Subject: Acronyms

In HBD1137 May 10, Lou Casagrane ins his reply to Jay refers to recipes from TNCJOHB. Please what does that stand for? Can I get these recipes? I am new to the list and the acronyms are not making sense. Is there a list of acronyms and their meanings someone can send me or post to the list? TIA (there is at least one I know), Elaine

Elaine Boris Student Information Systems  
Computer Services Specialist University of Georgia  
706 542-0484 Athens Georgia

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Date: Thu, 13 May 93 09:06:25 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Stainless Steel kettles & coffee pots & half-barrels

Kelly Jones asks:

- - - -  
My question is, is this <coffee> pot worth the money? I've no doubt that I could remove the spots with a steel wool pad and some elbow grease, however, does the fact that it is spotted indicate that the SS steel may be an inferior grade, unsuitable for wort boiling? Are there types of SS which one would not want to use for brewing?  
- - - -

I just made myself a 15 gallon, heated kettle, for about \$20.00. I found a half-barrel (grade 304 SS, I beleive) from the early 60's, with Miller Brewing stamped in the top. This is the keg-shaped type. It also has the nifty feature of the "Diamond" type tapping system, where you would put the CO2 in the top & draw the beer off the bottom. So, it has TWO valves, one on top, one on the side of the bottom. (would that be bottom of the side? Whatever....) Deposit on the 1/2bbl was \$10.00.

Anyway, I used a Sawzall and about 7 blades to cut the top off of the keg, but I'm going to use an abrasive saw blade next time in my circle saw. The valves are held in with a threaded ring, that comes out easily, and with a bit of lathe work I turned one of the valves into a couple of washers. I used a 2500 watt water heater element through the bottom hole in the half-barrel, used one of the washers to seal between that and the barrel's rubber seal, and clamped it in there with the threaded retaining ring.  
(Water heater element was about another \$10.00)

The whole thing cleaned up very nicely, inside and out, with Soft Scrub <TM> with bleach, and a washcloth. It will be pretty easy to add a spigot to the thing for my future (near future) tower system, and possibly a RIMS.

I guess my point here is that I would rather mess around for a few hours and cobble something useful together than to spend real money to buy something already made up. The fact that you're a homebrewer indicates you like the "do it yourself" type of stuff, and it's really not too much work.

Does anyone know if modern "keg" type 1/2bbls have the bottom hole in them, or did I find something unusual here?

Dave Hinz

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Date: Thu, 13 May 93 07:07:21 PDT  
From: cole%nevis.hepnet@Lbl.Gov  
Subject: Wyeast London Ale Yeast

Regarding Alan's experience with the Wyeast London Ale yeast:

>  
> Recently I made a generic stout using Wyeast London Ale yeast, rather  
> than my usual Irish Ale yeast. The recipe is (from memory) as follows:  
> [stuff deleted]  
> It fermented for 4 weeks...  
> I have never had a situation like this happen with any of my beers. It  
> seemed like the yeast went super-attenuative, as the FG stopped at  
> around  
> 1.008. The stuff it produced is drinkable, but hellaciously alcoholic  
> and  
> with a pronounced particulate haze that seems to be yeast.  
>

I have a Scottish Ale (OG 1.040) that I bottled 3 weeks ago that was made  
using the Wyeast London Ale Yeast. I don't have my notes handy but the  
grain  
bill was something like:

8# British Pale Malt  
1# British Crystal (~30 L)  
1/8# Chocolate Malt

I used a single-step infusion mash for everything except the chocolate  
malt which I added just before mash-out.

Hops: 12 IBU's (mostly fuggles) boil  
I also added 1/4# succanat during the boil.

I pitched at a temp of 68 degrees from a starter I had made the day  
before.  
The lag time was ~ 10-14 hours which is what I have come to expect using  
Wyeast ale yeasts with my starter preparation procedures. I would guess  
that over the whole fermentation period the average temperature was ~58  
degree.

This batch fermented the fastest of my last 5-10 batches finishing in 10  
days. It spent 1 week in the primary, 1 week in the secondary, but had  
completely cleared after 3 days in the secondary. The FG was 1.010. I am  
pretty happy with the result. This was my first attempt at a Scottish Ale  
and since I have little experience with the real thing, I'm not sure how  
true to style it is. In spite of the crystal and the succanat it is not  
especially sweet (as the FG would suggest). It has a rather complex  
flavor  
with the succanat providing a detectable but not overpowering molasses-  
type undertone. I was surprised that even with the low hopping rate, the  
hop bitterness really comes through. I don't know if this is a  
characteristic of the London Ale yeast or not.

I looked up the characteristics of this yeast in the Zymurgy yeast issue  
last night. The description was something like: produces a complex,  
woody,  
characteristic, medium attenuation and flocculation (from memory). I  
agree  
100% with the complex/woody description. I found the attenuation to be  
rather normal given the OG of 1.040. I disagree with the flocculation



description though. Having watched other batches clear very slowly (> 1 week) with several stages of yeast precipitation, I was surprised to see this beer clear in 2 days. When I bottled, I found that the yeast cake was basically glued to the bottom of the carboy, and when I had finished racking, I was able to pour out the last 1/2 cup of beer without disturbing the yeast at all. The last 1/2 cup was nearly as clear as the beer that had been racked. This behavior may be partially attributed to the cool fermentation temperatures and is reminiscent of the three lager batches that I have done.

In summary: I found the attenuation of the London ale yeast to be reasonable and the flocculation to be extremely good at the temperatures I used. I am pretty happy with the results I obtained using this yeast.

Brian Cole

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Date: Thu, 13 May 93 08:45 EST  
From: LYONS@adc1.adc.ray.com  
Subject: Question on PET bottling.

Question for those how have experience using PET bottles.

What is the procedure at bottling. For glass bottles I fill to approx. 1/2 to 1 inch of the rim and then cap. With PET bottles I imagine there would be some expansion during carbonation. Do you fill the PET bottles less, partially squeeze the PET bottles before capping, or treat the PET bottles the same as glass bottles?

Thanks,  
Chris  
LYONS@ADC3.ADC.RAY.COM

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Date: Thu, 13 May 93 09:01 EST  
From: LYONS@adcl.adc.ray.com  
Subject: Lallemand Nottingham & Windsor?

In George Fix's HBD #1140 post he mentioned that the Whitbread yeast manufactured by Lallemand was "completely unacceptable" due to low viable cell count. Since Lallemand also produces Nottingham and Windsor dry yeasts, is there any reason to expect that these yeasts are acceptable? From my own experience, and also from comments of many others from this HBD, both Nottingham and Windsor have rather long lag times. On my last batch with Nottingham I used to packages of yeast and the lag time was 48 hours. Could this be due to a low percentage of viable yeast cells?

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Date: Thu, 13 May 1993 07:55 PDT  
From: shane <DEICHMAN@perch.nosc.mil>  
Subject: American Beers in Germany

>  
> From: lawson@acuson.com (Drew Lawson)  
>  
> > From STROUD%GAIA@leia.polaroid.com ()  
>  
> > Oh, BTW, the Sam Adams that is sold in Germany is supposed to be  
> > contract-brewed IN Germany. I don't know the name of the brewery.  
>  
> Another ping against the ad campaigns. I guess they imported the  
> \_name\_. (Sort of like claiming that Big Macs are imported into  
> France).  
>

I know for a fact that Sam Adams is NOT the only American beer imported into the Bundesrepublik der Deutschland. While in Bonn last October, after visiting the Beethovenhaus in the old town, I noticed a restaurant across the street called (I kid you not) "The Chicago Pizza Pie Factory." On their menu, I was appalled to not only find that scourge of American zymurgy, Budweiser, but to also discover that it was more than TWICE the price of fine local brews like Bitburger (it was DM6.90 a glass, about \$4.00!) My friend Eberhard explained that the locals sometimes like to pretend they're Americans...

-shane  
<deichman@perch.nosc.mil>

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Date: Thu, 13 May 1993 07:57 PDT  
From: shane <DEICHMAN@perch.nosc.mil>  
Subject: Adding fruit to the secondary

There has been some traffic regarding adding fruit to the secondary. Aside from concerns over bacteria and wild yeasts, I would caution against adding anything acidic (like the citrus fruits), because it will kill your yeast and give you a flat brew. In one of my earlier batches, I added a bit of orange peel to "liven up" the end product. Complete failure...

-shane  
<deichman@perch.nosc.mil>

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Date: Thu, 13 May 1993 07:47:24 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Quasi-Turbinado

I just found some C & H "Washed Raw Sugar" at the grocery store. The package describes it as "turbinado-style". It is formed as very regular short cylinders (i.e. not crystalized). I brewed several batches of light and dark ales with 1/2 to 1# in the various batches. It adds to the alcohol level, doesn't give a cidery taste, and at the 1# level leaves a yummy sweet \*aftertaste\* if the hop level is not too high. This sugar seems very similar to the "Sugar in the Raw" that I sometimes find in restaurants.

I'm really tickled by the lingering sweetness. My guess is that there are significant amounts of unfermentable sugars that cause this. The batch with 1# in it had a OG of 1.072 and a FG of 1.034! Carbonation level is normal, no gushers, so I don't think the fermentation stuck, but haven't had a chance to try to reproduce it. This may be a good sugar for Belgian/Trappist makers.

Paul.

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Date: Thu, 13 May 1993 07:56:10 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Echoes of COPS

Yesterday a friend told me that I should be very careful about my homebrewed beer, since she had seen a TV program that described the dangers of homebrew made by desperate criminals who were poisoning people with it. I asked her the name of the show and she said, "COPS"....

When I finished my tantrum....

It seems that those bozos are now into the rerun cycle. They ran the same piece of trash without any attempt to correct the misinformation. As the Situationalists point out, "It may still be possible to take advantage of the fact that TV stations are not yet guarded by troops." Destroy your TV today, it may not be too late to save Western Civilization (an oxymoron if I ever heard of one)...

in disgust---- Paul.

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Date: Thu, 13 May 93 08:40:41 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Yeast

> 2. Very rigorous sterilization is needed for everything used in the  
> hydration process. I now do this with a pressure cooker, using 10  
mins.  
> at 15 psi. I screwed up a perfectly good beer by being casual about  
this  
> in one batch. The finished beer had a measured diacetyl level of .175  
mg/l,  
> which is above the threshold of .1 mg/l. Subsequent brews have  
indicated  
> the error was mine and it occurred during hydration.

George,

How does one measure the level of Diacetyl? I have had undesirable levels (judging by taste alone) in several batches. I had always assumed that the diacetyl production was a product of fermenting the yeast outside of its preferred temperature zone. My brew closet stays around 65-72F this time of year. Is it possible that my methodology for using liquid yeast or yeast from slants is actually to blame for the level of diacetyl, or is your observation only pertinent to dried yeast users?

I use two sources of yeast:

1) Wyeast packages: Usually, I will pitch the contents of the swollen package into a 500ml starter of 1.040 bitter wort that I have canned.

2) Yeast stored on a slant: I use a flame sterilized nichrome wire loop to pick up a pinhead of yeast from the slant, and then wash this into ~50ml of 1.040 canned bitter wort. This is then stepped to 500ml just after high krausen.

Note: The slants I used are bitter wort/agar slants produced at home, and the yeast usually originates from a Wyeast package.

With either method, I pitch the 500ml starter into 5.5-6.0 gallons of 80F bitter wort. I usually see activity in 12-24 hours.

I use ehrlenmeyer flasks, plastic airlocks, and rubber stoppers for my starter vessels, and sanitize in ~1/8 cup household bleach in 2-3 gallons of water for 5-10 minutes.

Thanks very much for your time and postings to the digest.

Drew

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Date: Thu, 13 May 1993 11:50:26 CDT  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: step culturing

Hal writes:

>I see a lot of references to "step-culturing" yeast to increase the  
>population of yeast cells. Why is it desirable or necessary to do this  
>in steps?

>I've been pitching my yeast into one quart of sterile wort for a  
starter, but  
>it still seems to have a 1 1/2 to 2 day lag time before the primary  
>fermenter's airlock starts to bubble.

The lag time is the reason for step culturing. The longer it takes for  
the  
yeast to take over the better the chances of infection. If you \*really\*  
trust  
your technique, I wouldnt be too concerned about stretching the volumes.  
My  
big pressure cooker can hold one gallon glass jugs with a glass airlocks,  
and  
I've done wyeast packet to 2 quart starters in those with no problem. I  
do my  
transfers (via sterile syringe) in a hood, and I'm pretty sure theres  
nobody  
(bug wise) around to get into the wort.

-john

The Hop Devil and (recently) National Beer Judge!  
home: john@hopduvel.UUCP  
work: isenhour@lambic.fnal.gov

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Date: Thu, 13 May 93 9:02:51 PDT  
From: davep@cirrus.com (David Pike)  
Subject: Put the label on the cap

Where it is easy to read while in a case or 6pack.

Try this: Being computer geeks, get access to a lase printer(not too hard).  
Then, go down to the local label or paper store, and get 3/4 inch stick on labels mounted on 8.5 x 11 inch paper. Then, get your favorite postscript, drawing, or text layout program and print onto these labels with the lase printer.

We print the batch #, the name(up to 3 lines, approx. 6 words) and the bottling date on each label. They are easy to stick on, and even easier to remove(they come off with the cap).

Get creaiive. Even though we havent done it yet, We've envisioned even printing the data in a spiral format to get more info on the label.

Cheers!

Dave

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Date: Thu, 13 May 93 11:01:41 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Re: brown sugar and bitter

I am trying to put together a bitter that reminds me of the delightful brews I drank last year in England. I want to get that fruity, sweet taste that works so well under the Kent Goldings. I have thought about using some brown sugar. /i know that yeast will have much to say about the the final qualities of the brew so I am going to use wyeast British ale. So, I would appreciate it if the bitter experts could share their secrets.

P.S. has anybody tried oak chips in the secondary to capture the "cask matured" taste???

Thanks in advance  
Steve Boxer at UCSD

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Date: Thu, 13 May 93 14:35:58 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Variuos

In the last diget, George Fix makes some comments about the Bitter from Great Lakes Brewing:

<However, the Great Lakes Brewing  
<Co. brought some of their Best Bitter to NO which was fermented with  
this  
<yeast. It was IMHO one of the finest examples of this style I have ever  
<tasted. The brewer kept apologizing that it was merely a "session beer",  
<but what I was tasting was a very clean ale whose malt/hop balance was  
dead  
<on. The finish was soft, but marvelously complex. I have the feeling we  
are  
<going to be hearing a lot more from Cleveland (home of GLB Co.) in the  
<future.

I cant agree more! Every time I get a chance to sample the beers from  
GLB,  
it is a worthwhile experience. I was at the brewery in March and I can  
imagine the brewer apologizing about a session beer. If this is the Moon  
Dog Bitter I had (won in the GABF) it is truely a fine example. This  
"session" beer is 12P (1.048) from a brewery that makes every other beer  
at least 14P! This is a brewery that likes a big beer. The Stout was  
19P! The Dort is also over 14P. They like hops and malt and it shows.

On another topic: Andy Anderson asks about removing Chlorine by boiling.  
I say take the simple an effective approach and use a carbon filter. The  
pH will be reduced by normal acidification of the mash which is helped by  
the presence of CA+ ions ( a bit of Gypsum will do).

Andy continues:

2nd Item:

Yesterday I asked what was the purpose behind Home Brew  
competitions. Well, today I was informed. A friend who was  
taking a brewery tour while the judging was going on stated  
that based upon the number of times the judges staggered  
into the restrooms, the only real purpose of these contests  
is for the judges to get free beer.  
(Oooh! I can already feel the flames!)

This is not a flame. I was a judge at this competition. I do not  
condone  
the concept of free beer. If a brewer chooses to reward one with beer it  
is the brewers choice, not responsibility. Those of us who think  
otherwise  
are not being serious about the buisness side of brewing. My friends at  
the  
Old Dominion Brewing Co did not provide free beer, our club bought a keg  
of  
Helles which was not even consumed completely. Judging beer is not a  
easy  
undertaking. I judged 18 "Belgium style" ales and I can tell you I did  
not  
do it for "free beer". In fact, there were many instances where the  
judge  
attempts to be constructive when it is far easier to point to poor  
brewers

technique. I am disappointed that the judge who sampled your beer was not more constructive with comments, but I can see it occurring.

One more thing: Mark Garetz writes about Anchor,

<all these beers are  
<fermented in deep, open top ale tanks with a "traditional" ale yeast, also  
<at 55F.

I believe these are "closed" Unitanks/Mueller Conditioning tanks. I do not remember any indication as to open fermentation when I was there.

Good brewing,  
Jim Busch

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Date: Thu, 13 May 1993 09:26 EDT  
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>  
Subject: Yet more Sam Adams junk

I've been doing research on Breweries and Brewing in the US. Some of you have sent me info and hleped me, thanks!

Now--according to the standard text on Brewing: Brewed IN AmrericA, by Stalney Baron, Sam Adams was never a brewer--only a maltster. I really cant find any references in any primary sources about Sam Adams being a brewer--I have found it in Boston Beer Propaganda and some secondary sources, but have not been able to find any other confirmation. Anyone with a primary source?

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva.bitnet  
Internet: oconnor@snycorva.cortland.edu

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Date: Thu, 13 May 1993 18:21:10  
From: dwright@hammerhead.win.net (David Wright)  
Subject: Belgian Malts

I remember seeing some information on Belgian malts (I think here). Of course, I didn't pay attention because my local homebrew shop did not carry them. Luckily, they now stock them. Does anyone have information concerning the various Belgian malts available? Color rating and potential use in recipes would be helpful.

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Date: 13 May 1993 20:33:01 -0400 (EDT)  
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>  
Subject: that pesky Anchor temperature dial

Thanks to everyone for helping me get my facts straight about Anchor Steam. I will collect all the corrections and alter my previous post so that we have an updated version. After I revise, I'll post it so that all the information is in one place. It's kind of long, though, so I won't post it until the next slow period on the digest (Memorial Day, maybe?), although if anyone wants it sooner, let me know.

I particularly want to thank Mark Garetz for his very knowledgeable comments yesterday. My one question concerns the temperature dial on the mash tun. Mark writes:

>You are also making the assumption that they were making steam beer when the picture was taken. They could also have been making Liberty, Porter, Wheat, or any of their specialty ales. They all have different mash schedules and temperatures.

Duh... (hand slap to head as obvious fact finally makes its way into dense interior). I was so fixated on their steam beer that this very obvious possibility simply didn't occur to me. You are absolutely correct. Still, let us suppose that it is their steam beer they're making. Then:

>Also, if it's the picture I'm thinking of and the temp dial is the one attached to the copper pipe where the water and grain are mixed as they flow into the tun, then this dial is measuring the temperature of the incoming water/grain mixture. The real "dial" (actually a digital readout) is on the programmed temperature controller, located in another room.

You are correct about what dial I was reading: the one on the pipe where the water and grain are mixed. Is it therefore reasonable to assume that this puts a maximum on the actual rest temperature?

Thanks,  
- --frank

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Date: Fri, 14 May 93 01:45:02 CDT  
From: Sean C. Lamb 335-6669 Loral <slamb@milp.jsc.nasa.gov>  
Subject: Invitation to Speak at 1993 Dixie Cup

You heard it here first!

This year's Dixie Cup (Houston Foam Rangers AHA/HWBTA/SPCA sanctioned competition and homebrew gathering of the tribes) will be October 15 and 16. We've got a new site (they figured us out at the last place), and we're actually working on the thing now.

To the point:

Anyone who is anticipating, planning to, or in general thinking about attending this year's only Galactic homebrew weekend, and who may have something to say on brewing-related topic(s) for about 45-50 minutes, and actually feels like getting up on Saturday morning (after the first round judging and Fredfest the night before) to relate this knowledge to a roomful of smelly (oh, sorry, that's just me!), groggy, and dazed people, is requested to contact me. Of course, an abstract of your presentation will be required, in triplicate, by next tuesday, with the full text, including color slides, graphs and photos two weeks hence.

Just in case I'm deluged by submissions, we've got 4 or 5 slots for speakers, and I'll be the judge of who is IMPORTANT enough (don't forget, it's not what you brew, it's who you know that brews) to speak.

Actually, in all seriousness, the conference is an enjoyable part of the whole Dixie Cup experience, and I would appreciate it if anyone who is coming and would like to share their knowledge would take the time to speak. Please extend this invitation to anyone you meet or know who is planning on coming.

Sean Lamb Dixie Cup 1993 Milli-conference Coordinator  
slamb@milp.jsc.nasa.gov (713) 992-5661

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End of HOMEBREW Digest #1141, 05/14/93  
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Date: Fri, 14 May 93 08:02 CDT  
From: othon@ial7.jsc.nasa.gov (Bill Othon.LinCom)  
Subject: secondary/half-batch/Texas brewpubs

I have a couple of questions for the group:

1) How long is too long in the secondary fermenter? I have been reading that some people leave it for only a week, using SG as a guide apparently. Recently I dry-hopped in the primary (based on a Cat's Meow recipe) and after a week in the secondary, there was at least an inch of "mung" at the bottom of the carboy (I assume hops and yeastees). I decided to leave the beer in for the usual 3-4 weeks. Could this have been bad? I haven't tasted the final product yet to be sure, but i am pleased with the clarity of my beer to date.

2) Does anyone have a good half-batch all-grain recipe? I tried an all-grain last year with two brewkettles over a gas stove, and while it came out alright, it was a hassle. I'd like to get my feet wet with some small scale stuff (which also allows for easier experimentation if desired). For this type of batch, i guess i use half the dried yeast package, or half the wyeast starter.

On another note:

The battle for Texas rages on! After some strange schmanigans, the bill with the amendment to allow brewpubs in Texas has passed the house, and it's on to the senate. Someday an HBDer will have a business meeting in Houston and ask if there are brewpubs, and we'll be able to say "Hell, yes!".

Hoping for a Seattle-like beer culture in Houston  
-Bill

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Date: Fri, 14 May 93 9:03:23 EDT  
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>  
Subject: Darker with age...

Is discoloration (darkening) a typical result from "light exposure"??? I brewed a batch which when originally bottled was much lighter in color than it is now. The beer is in "Mason" jars, with double gaskets/liners to better the seal. (It worked). I had a problem with the initial conditioning of the beer, (very little carbonation), but when I removed the jars from the fridge for a couple of weeks and then re-refridgerated them, the bubbles were finally there (I'd brewed the batch 1.5 yrs ago, thought I was a victim of novice errors, hate to throw things out, and only recently read about re-conditioning carbonation-less beer to bring the bubbles back.) Anyway, back to the color inquiry, would the darkening be the result of light exposure, age, and is incandescent light a threat???

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Date: Fri, 14 May 93 8:49:37 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: PET and GC

In regards to the recent discussion of the use of PET (2 litre soda) bottles and the proper filling thereof, I would think that one should fill them the normal amount (0.5" headspace). You would not want to compress the bottle before filling because then the CO2 formed would go towards reforming the bottle to its normal volume, not carbonation (flat beer). Also, at the pressures involved with naturally carbonated beverages, the expansion of the PET would be miniscule. As a side note, I would mention that a homebrew kit sold by Price Club in California last winter (I don't remember the brand, but it came with Cooper's extract) came with plastic caps for PET bottles. I do not know where one would buy these, as my local homebrew shop (Brew and Grow) doesn't carry them, but I would think that one of the larger mail order supply houses would carry them. I'm not sure if one would want to reuse them or not (you can't boil them, because they will probably deform, and the seal inside may be porous enough to absorb some of your sanitizing solution. Also, the clarity of the material is worrisome if you do not store your beer in the dark.

Do any of you scientists out there know about measuring components in beer by gas chromatography? I am wondering about the following:  
Will the unfermented sugars in the beer crap out my column? If so, after how many injections?  
What kind of column should I use? Polar or non-polar? (My guess is polar, like a PEG column?)  
Has anyone determined the proper settings for temperature and flow? Ramping? What are the probable RT's for common components (EtOH, DMS, DMSO, diacetyl, etc?)

I could put the effort into determining the above, but right now time is at a premium and I would hate to reinvent the wheel if someone else has done the work. If there isn't anyone who has done this before and I do invest the effort, how many of you would be interested in my results? Private e-mail please.

Tony Johnston  
Chemist, Homebrewer, Lazyman

anthony@chemsun.chem.umn.edu

done the work

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Date: 14 May 1993 08:31:16 U  
From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
Subject: Blindness again

There has been enough comment about blindness being caused by improper distillation of alcohol recently, without any definitive answers, that I'm beginning to suspect we're dealing with an urban legend.

So, FWIW, here's my "data" point:

My grandfather had several friends who produced and sold a considerable quantity of distilled spirits during Prohibition. He once told me that the conventional wisdom of the time was that the blindness often mentioned was caused by improper chilling procedure.

Specifically, many amateur distillers used automobile radiators as heat exchangers. As the wort (or whatever, I'm not an expert) went through the coils of the radiator, it picked up contamination from the lead solder used in its construction. Lead is the cause of so many other health problems related to lead poisoning in the blood that I'm inclined to believe this may be the actual source of the story.

Now, if you'll excuse me, I have to dry off my cat in the microwave.

Ed Westemeier -- Cincinnati, OH -- westemeier@delphi.com

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Date: Fri, 14 May 93 10:45:48 EDT  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Re: Acronyms

Elaine,

You wrote,

> In HBD1137 May 10, Lou Casagrande in his reply to Jay refers to  
> recipes from TNCJOHB. Please what does that stand for? Can I get  
> these recipes? I am new to the list and the acronyms are not making  
> sense. Is there a list of acronyms and their meanings someone can  
> send me or post to the list? TIA (there is at least one I know),  
> Elaine

TNCJOHB is The New Complete Joy of Home Brewing, by Charlie Papazian, which many of us (especially we neo-brewers) find helpful, although evidently there are quite a few texts out there. Although TNCJOHB does have ~some~ recipes, a larger source is The Cat's Meow on sierra.stanford.edu in the homebrew directory. I haven't made any of them yet, though, so I can't vouch for them. I have been happy with all the recipes I've made from TNCJOHB (in addition to the Dark Sleep Stout and the Sparrowhawk Porter, last year I made the Palilalia India Pale Ale), and I would make any or all of them again.

As for a list of acronyms, I think there's a general list of internet acronyms somewhere at Info-mac (sumex-aim.stanford.edu), but that won't include specialized HBD acronyms. BTW, what ~does~ TIA mean?

Yours in Brewing,  
Lou Casagrande  
casagran@gdstech.grumman.com

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Date: Fri, 14 May 93 9:36:58 MDT  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: Adding fruit to the secondary

> I would caution against adding anything acidic (like the  
> citrus fruits), because it will kill your yeast and give you  
> a flat brew. In one of my earlier batches, I added a bit of  
> orange peel to "liven up" the end product. Complete failure...

I suspect that something else was wrong with that batch. I've made a number of spiced beers using the zest of up to 4 or 5 oranges and never had any trouble. There's even one classic beer style, Belgian Wit (or White), that's traditionally spiced with coriander and orange.

I've also made raspberry, blueberry, and cherry beers, and I'm sure other folks can recount experience with even more adventurous ingredients. I usually just weed out any truly fuzzy fruits, rinse them in a bisulfite solution, then puree and add to the secondary (and watch the yeast go bonkers with all that sugar!). I've never had an infection problem this way. As long as the rest of your sanitation technique is good, you should have no problems.

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Fri, 14 May 93 12:23:21 -0400  
From: jpgareri@acs.bu.edu (Joseph Gareri)  
Subject: All About Beer

I have a question I hope to get some help with. I have been subscribing to All About Beer for a couple of years. For Christmas, I decided to give a gift subscription to a friend and to augment my subscription to include Suds and Stuff. The problem is despite repeated calls to Mike Bozak, none of my subscriptions have started coming. I even spoke to a representative at the Boston Brewers Festival, and still nothing.

Since I have not been charged for the issues, I suspect they have not received my order, but each time I call, I am assured that they have it in the records and all is well.

Questions:

- 1) Does anyone out there think either of these magazines are worth the trouble?
- 2) I subscribe to American Brewer too, and like it a lot. I just wish it came out more than once a quarter. Does anyone recommend other magazines to use in place of AAB?
- 3) Are there any beer related magazines that are more east coast?
- 4) Are the newspapers like Yankee Brew News worth the subscription?

Thanks for your help,

Joe Gareri

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Date: Fri, 14 May 1993 12:39:12 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: Re: Musings on Commercial Beer

Another comercial beer surprise is J.J. Wainright's which is produced by the Pittsburgh Brewing Company (Iron City & \*ha\* Sam Adams). I wasn't expecting much, given IC and IC light etc. But... Surprise! It's damn good beer! I can't vouch for how it is going to taste after it sits in the trucks for a few weeks getting to the stores in your city, but here in its home town it is quite nice.

Steve Peters = sp2q@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Fri, 14 May 1993 10:28:12 -0800  
From: ulrich@sfu.ca  
Subject: "Quarf"

Gary Cote asked about:

> "Quarf" A Russin beer made from rye.

Someone was confusing kvas (also spelled kvass), a Russian beer made from rye or barley, with quaff, an English verb meaning to drink heartily. I suspect you'll have no trouble getting info under the correct spelling. I learned the word in high school Russian class (and remembered it twenty years later!). It's even in my English dictionary.

--Charles Ulrich

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Date: Fri, 14 May 93 10:32:56 -0700  
From: kensiski@nas.nasa.gov (David L. Kensiski)  
Subject: where have all my fermentables gone???

Last week my brew partner and I made a batch of Winky Dink Marzen, as described by Pappazian in TCJOHB (page 164 in the first edition). Everything seemed to be going fine. It had a starting gravity of 1.043 and fermented happily away at room temperature, peaking at about a burble every two seconds.

At least everything was OK until last night when we racked to the secondary for lagering. When we opened the fermenter, the beer smelled funny. I might describe it as a skunky smell, but I've not got a terribly keen nose for these things. I thought it tasted alright, though my parner claimed he could "taste" the smell in his mouth.

Another oddity was that the specific gravity had dropped to 1.004! There is no sugar left in this stuff! Those yeast must have sure had a good time in that brew!

So that leaves me with a couple of questions. First, what could have caused the smell? Will it go away over time, or are we going to be stuck drinking this batch with our noses plugged? Second, what about the lack of sugar? Is it worth lagering the beer if there's nothing left for the yeasties to eat? Should we just go ahead and bottle it?

Our current strategy is to lager the beer at about 48 degrees for a couple or three weeks and see what we have then. Any other ideas?

- --Dave

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David L. Kensiski [KB6HCN] Numerical Aerodynamic Simulation  
kensiski@nas.nasa.gov NASA Ames Research Center, M/S 258-6  
(415)604-4417 Moffett Field, California 94035-1000

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Date: 14 May 1993 11:33:13 -0600 (MDT)  
From: Mark Taratoot <SLNDW@CC.USU.EDU>  
Subject: Molassas help

Howdy Ho!

I threw together a kind of strange brew last night and need a suggestion.  
The beer so far is:

1/2 pound 40 L crystal  
1/2 pound 110 L crystal  
1/4 pound Black Patent Malt  
1/4 pound Roasted Barley  
1/4 pound Chocolate Malt  
1 pound Dark spraymalt (William's)  
6 pounds Oatmeal Dark extract (William's)  
1 cup Dark Brown Sugar  
1 tsp Cyanne pepper  
1/2 tsp Ground Ginger  
1/2 tsp Corriander  
2.5 oz Northern Brewer pellets  
No finishing hops  
Ale yeast

I was going to add some blackstrap molassas, but I think the jar  
of molassas I have has "gone off" so I did not add any. I would  
like to use molassas to prime this (I will buy some new stuff) but  
I do NOT know how much to use.

Anybody out there primed with molassas before? How much did you use?  
How was the carbonation level? How long did bottle conditioning take?

One additional note: After I had cooled the wort, I opened the  
kettle to put the wort in the fermenter. Inside the kettle,  
floating on top of the wort was....

\*\*\*\*A TUFT OF CAT HAIR\*\*\*\*

So now it is a battle between yeast and cat hair bugs. By this morning  
the beer had gone out of lag and smells fine. Of course I am NOT  
worrying. I only worry about important things, like what kind of  
beer to have next!

Any comments appreciated.

-toot

-----

Date: Fri, 14 May 1993 10:39:33  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: More Anchor

Jim Busch says he doesn't recall any open fermentation at Anchor.

All of the primary fermentation is done in open tanks. The steam/porter tanks are shallow (approx 2.5 ft deep) and maybe 8x20 feet (just an estimate). The ale tanks are square (about 12x12) and maybe 10-12 feet deep. The secondary fermentation and conditioning is done in closed stainless tanks. This may be what Jim remembers seeing. I have pictures of all three (and a shot of the copper mash tun and boiler in the morning light hung on my office wall!).

Frank responds to my response:

>You are correct about what dial I was reading: the one on the pipe where the water and grain are mixed. Is it therefore reasonable to assume that this puts a maximum on the actual rest temperature?

I don't know if it's reasonable to assume anything. The tun is heated (by steam I believe) and controlled by a programmable temperature controller in the back room. Don't forget that they do upward infusion mashes. I assume that the reading on the dial would only be accurate if there was a grain/water mixture flowing through it at the time the picture was taken (odds are against it).

Mark Garetz  
HopTech

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Date: Fri, 14 May 93 21:03:41 GMT  
From: weissborn@dfwdsr.SINet.SLB.COM  
Subject: 1st batch problem(?)

Tuesday evening I cooked up my first batch and am having a problem that I hope someone can help with.

First, the recipe:

6lbs of light dry malt extract  
1.5lbs of Wildflower honey  
1oz Northern Brewer hops  
4oz of fresh ginger  
2.5 cups of 20l Crystal Malt

Method:

Boiled 2 gals of water. Cooled and poured into 5gal carboy.

Put 3 gals of water into pot, Added crystal malt and brought to a boil. Boiled for five minutes (as per the local brewstore instructions) then strained out the crystal malt.

Brought the liquid to boil again, added the DME, stirring to make sure it didn't stick, added the ginger and the hops. Boiled for about 45minutes. Cooled to about 90dg farenheit.

Poured this into the carboy via a funnel in order to add O2.

Added 1oz of EDME dry yeast. Added a blow-off tube and placed in bathroom('cause it is dark and cooler than anywhere in the house).

Got some bubbling in about an hour and through out the night but no real foaming or high activity as I have heard others get using EDME. By Wednesday, afternoon, no more bubbling. Went back to the brew store and they suggested that I re-pitch. This time I used Nottingham dry ale yeast. Pitched this Thursday afternoon but no noticeable activity by Friday Morning.

So, my question is: "What happened?" and can I salvage this first batch?

BTW, for what it's worth. A Coleman campstove makes a pretty good cooker. I can bring 3 gals to a boil in about 20mins and if it boils over, all I have to do is hose it down to clean it up. My wife was glad I didn't use the stove in the house 8-)

Anyway, any help will be greatly appreciated.

Bill Weissborn

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Date: Fri, 14 May 1993 14:31:53 -0800 (PDT)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: another question on sugars

In what I've seen so far there has been no mention made of Golden Syrup,  
a  
type of sugar common in the UK, Australia and New Zealand. Has anyone  
tried  
this in brewing?

Peter

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Date: Fri, 14 May 93 22:02:19 GMT  
From: ccicpg!al!brian@uunet.UU.NET (Brian Davis)  
Subject: Re: Belgian souvenirs

Mark asks:

>1) Whats the duty rate on alcohol over the duty-free limit (and for  
that  
> matter whats the duty free limit)?

I got a lot of different replies when I asked this question last year.  
I brought back 12.5 liters of beer with no problems.

>2) Is it best just to pack the beer carefully and carry it on the plane  
> as extra luggage or to ship it?

I boxed the beer up with my dirty laundry as padding. Most of the  
bottles  
were wrapped in newspaper and then shoved into the legs of levis. The  
box  
went as checked luggage and arrived undamaged. A friend of mine did have  
some homebrew leak in his luggage once, so you may want to consider  
lining  
the box with a plastic bag.

>3) Does anyone have any particular recomendations about Belgian beers  
not  
> available here that she might easily find there? She will be  
spending  
> most of her time in Antwerp.

If someone offers her some Delerium Tremmens, have her buy the neat T-  
shirt  
with the pink elephant logo, but skip the beer.

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Date: Fri, 14 May 93 15:04 CDT  
From: korz@iepubj.att.com  
Subject: Re: Lallemand/Adding fruit

LYONS writes:

>In George Fix's HBD #1140 post he mentioned that the Whitbread yeast  
>manufactured by Lallemand was "completely unacceptable" due to low  
>viable cell count. Since Lallemand also produces Nottingham and  
>Windsor dry yeasts, is there any reason to expect that these yeasts  
>are acceptable? From my own experience, and also from comments of  
>many others from this HBD, both Nottingham and Windsor have rather  
>long lag times. On my last batch with Nottingham I used to packages  
>of yeast and the lag time was 48 hours. Could this be due to a low  
>percentage of viable yeast cells?

I've used these two yeasts on quite a few batches and have found that rehydration at around 104-110F is very important to get a short lag time. Also, storage is a big factor in viability. I store my dry yeast in the fridge along with the liquid yeast. Even if you store your dry yeast in the fridge, does your retailer? Do they have a week's worth of yeast on the shelf with the rest in the fridge or do they have a year's supply on the shelf? Dried yeast is still alive and has (I believe) about 8% moisture. The Yeast Special Issue of Zymurgy has an article that reports 10% viable dry yeast after 12 months at 68F and 0% viable after 12 months at 100F. Compare this to 80% viable after 12 months at 38F.

Shane writes:

> There has been some traffic regarding adding fruit to the  
>secondary. Aside from concerns over bacteria and wild yeasts,  
>I would caution against adding anything acidic (like the  
>citrus fruits), because it will kill your yeast and give you  
>a flat brew. In one of my earlier batches, I added a bit of  
>orange peel to "liven up" the end product. Complete failure...

I disagree. I've not only made nearly 100 gallons of perfectly carbonated fruit beers, but also a very sour pseudo-lambik which was well carbonated. No, something may indeed have killed your yeast, but I doubt it was acidity. Did you use campden tablets to sanitize your fruit? Did you let all the SO2 evaporate before adding the fruit to the beer? The SO2 released by the campden tablets not only kills wild yeasts and bacteria, but can also kill your cultured yeast.

Al.

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Date: 15 May 1993 12:40:44 -0400 (EDT)

From: WESTEMEIER@delphi.com

**Subject: Cleveland competition mystery**

The SNOBS Sampling, a sanctioned competition held at the Great Lakes Brewing Co. in Cleveland back in February, was a lot of fun.

Unfortunately, things seem to have collapsed after the judging. We have a number of unhappy brewers in this area who have never received their score sheets (I haven't found anyone who DID receive a score sheet).

Moreover, when I talked to the AHA yesterday, I found that they have apparently never received an organizer's report, so those of us who judged in this comp haven't received any credit for it.

I know that there is a lot of work involved, and I don't know the state of volunteer help in Cleveland, but if anyone has any information as to what happened, it would sure be appreciated.

Ed Westemeier -- Cincinnati, Ohio -- westemeier@delphi.com

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Date: Sat, 15 May 93 16:39:26 PDT  
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)  
Subject: Draught packaging; hop growth

In HBD 1139, Jim Busch comments on the effect of the new draught packaging on Guinness:

[stuff cut]

>I can attest to absolutely GREAT canned Guinness.

I can, too. I have had it in the bottle and the old can and thought it was utter trash. When I finally got to taste it on tap, I really liked it. I was very surprised when I tried the draught packaging to find that the new canned version was about as good as on tap. I got my first taste of this a couple of years ago when a friend brought some back from the UK. It is just now showing up here in the USA. Of course, if one does not like draft Guinness from the tap, then this can won't change ones mind.

Recently, I got to try another brand packaged this same way. This new batch is called Flowers Draught. It is one of the best UK ales I have tried, including many available on tap. I doubt, though, that this packaging would do anything for Bud.

It might, however, do a treat for Baderbrau, which is already great from the bottle!

HOPS

For those people growing hops for the first time, here is another "hop report:"

The hops are doing fine. Nugget is still the fastest of Willamette and Cascade. The Cascade took a long while to get going, is slow-growing by comparison and has a more delicate growth in general (smaller leaves). No bug problems so far. I am fertilizing with general-purpose organic fertilizer, and they seem to like it fine. My highest vine is about six feet up the twine (this is the first year.)

By the way, the Cascade took a long while to come up out of the ground.

gdh

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Date: Sun, 16 May 93 8:20:49 PDT  
From: steve\_kenshulo@csufresno.edu (Steve Kenshulo)  
Subject: Hershey's chocolate syrup in beer

I have been thinks about dumping a can of Hershey's chocolate syrup to my next batch of porter. Has anyone ever tried anything like this? I am hoping the chocolate will have enough unfermentables in it to leave a slight chocolate taste in the beer, without riseing the alcohol content too high. I was thinking about adding a pint or so in with the malt extract, then boiling the whole mess.

The only thing that I think might go wrong is the cocoa will be to bitter after all the suger ferments out. Any ideas out there?

Steve Kenshalo  
skenshul@mondrian.csufresno.edu

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End of HOMEBREW Digest #1142, 05/17/93  
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Date: Sun, 16 May 93 10:10:07 EDT  
From: Brett Charbeneau <BWCHAR%WMVM1.BITNET@VTVM2.CC.VT.EDU>  
Subject: Raspberries in beer

Gang,  
Having seen the recent queries on fruit additives to wort I would like to pose a question of my own. I was exposed to a lambic framboise about a month ago and have been experiencing pipe dreams of making my own ever since.  
I am still an extract brewer, but I am interested in giving this style of beer a go.  
If anyone has had any experience with this sort of lambic or successes getting lighter ales "take" the fruit I would love to hear about it. Does one need to make the all-grain "jump" to be able to play on this level of exotic beers?

Brett Charbeneau

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Date: 17 May 93 09:09:26 EST  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: ISBN for brewing biotechnology book

From: Matthew Mitchell

I lost the mail requesting the number, so apologies in advance for  
posting  
to the net.

The ISBN for "The Biotechnology of Malting and Brewing" by JS Hough is  
0-521-395533-4, published by Cambridge University Press.

Howzat!?!

Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

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Date: Mon, 17 May 1993 08:12:19 -0500 (CDT)  
From: dspalme@mke.ab.com (Diane Palme x2617)  
Subject: Chocolate beer and The Hop Report

Howdy all!

(clack. clack, clackety clack: imagine a teletype here) :)

In response to all the the questions about chocolate beer of late, I just thought I would throw in my \$0.02. I made a chocolate porter recently ala TNCJoHB's Goat Scrotum Ale and tossed a full 6 oz. of baking chocolate into the vat. Some molasses went in as well and the results were wonderful! The beer has a \*very\* noticeable chocolate flavor that coats the mouth but is not bitter. Definately something interesting. Some important words of warning for those wishing to replicate this beer:

1. DO NOT SAMPLE THE BEER WHEN TAKING S.G. READINGS!!!!!!  
I am \*totally\* serious about this. I made the mistake of doing exactly this because (to be perfectly honest), we were worrying about the beer. It was the vilest, most horrible, foul, disgusting ilk ever to pass these lips. Worse than liver!!!! :-) The first time it was even remotely close to beer was when I put the stuff in the bottle. This was about 3 weeks after brew day. Ok. I'm better now. Whew.

2. Be sure you are not operating heavy machinery when drinking this beer. It is \*very\* potent. Time for more honesty here, I don't know what the initial or final S.G readings were because we were \*sure\* this beer was a gonner. :( Little did we know this was going to be the best beer we have ever brewed! Go figure.

Now that I have imparted what little wisdom I have...on to page 2

(clack, clack, clackety clack clack... RRRRRRRRIIIIIIPPPP)

Now for the hop report. Thanks again to all of you who wrote to me telling me not to worry about the little guys. They are all above the ground now and doing great. The Hallertau was the first up, followed closely by the Cascade and bringing up the rear, the Tett. I am very pleased with their progress and plan to do some fertilizing now that they are visible. Is it harvest time yet???? :)

Diane  
dspalme@mke.ab.com

- - -

" God does not play dice "  
- Albert Einstein

" Nor is it our business to proscribe to God  
How he should run the world. "

- Neils Bohr

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Date: Mon, 17 May 93 9:22:26 EDT  
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>  
Subject: Hops growth in the N.E.

Well, I don't know why my hops are doing so well, but I'm not complaining. My Nugget vines are at 16', Cascade at 15', Hallertauer at 12' and Mt. Hood at 8'. The first three have reached the tops of the cages they're in so they're going no higher, but the Hood is climbing a string I hung diagonal to the top of my chimney, a hypotenuse of approx. 25'. I'm surprised and pleased with the growth so far. Not bad for a second year in the NY/NJ border area of the country, I'd say. The Hood only gets half the sun the others do, the higher it grows though, the more it'll get. None are with cones, yet.

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Date: Mon, 17 May 93 8:36:40 CDT  
From: ptw@Texaco.COM (Paul T. Williamson)  
Subject: How long in secondary ?

In HBD 1142 Bill writes:

>1) How long is too long in the secondary fermenter? ..... (stuff  
deleted)

In regards to that I have a couple of questions for the group :

I would also like to know how long is too long and what happens to the  
beer ?

Would it change the taste, color, or the ability to carbonate in some way  
?

I have just started my first homebrew and though the instructions I  
received  
from the brew shop say 1 to 2 weeks the stuff in my carboy seems to have  
pretty much settled out after 3 or 4 days. I plan to bottle it in the  
next  
day or so but I wondered if my delay in putting it in the bottle would  
effect  
it in some way.

Paul Williamson  
PTW@Texaco.com

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Date: Mon, 17 May 1993 10:29:02 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Back from the dead. 1.020 starters.

Greetings to all my homebrewing netbuddies!

First post in about 9 months. Wow!! It's been difficult to even keep up with reading the HBD, much less post, even when you guys have been talking about me.

School's out. Hallelujah!

The big news as far as this forum goes, though, is...every homebrewer's dream came true for me back in November when I became head brewer/consultant at what is probably the World's Smallest Microbrewery--The Tumbleweed Grille and Microbrewery here in Boone, NC. (Cheers!! Clapping!! Thank you. Thank you.)

And how much do we brew? A whopping 60 gallons at a time!! Most of you would get a hoot from seeing the brewhouse. It's nothing more than an upscaled homebrewing operation. We built everything ourselves. Conditions are a little rustic but the beer is pretty good. I'm happy with about 75% of the beers that go out the door. And the other 25% is well-received anyway.

The interesting part of this enterprise is the fact that I've had a chance to put together the numbers for running a microbrewery/brewpub of this size and the results are rather surprising. Even at this scale, the enterprise is commercially viable and we haven't sunk tens of thousands of dollars into the operation.

If there's any interest, I may post my reflections/observations/calculations for this little project. Who knows? I might be able to inspire some of you to give it a shot.

Before closing, let me try to make a worthwhile contribution to a thread I barely followed from couple of weeks ago. (And I apologize if this has already been said. Last time I made a comment about a two week old thread, I got flamed into eternity so be kind...) Didn't see this mentioned so...

RE: why 1.020 wort for starters?

I asked Dave Logsdon this a few weeks ago because we were having trouble with long ferments at Tumbleweed. Dave says 1.020 wort is necessary only from the point of view of efficiency of reproduction of the yeast. Sure you can use 1.030 or even 1.040 wort but the yeast will not reproduce as fast at that gravity.

Good to be back. Hope to be contributing more often this summer now that my schedule is back to normal human proportions.

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| Kinney Baughman |  
| baughmankr@conrad.appstate.edu |  
| / / / / |  
| "Beer is my business and I'm late for work" |

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Date: 17 May 1993 08:14:47 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.edu>  
Subject: Anchor Porter Change

Subject: Anchor Porter Change Time:8:04 AMDate:5/17/93  
While busily unpacking entries to the 93 NHC the other night I paused for a moment to watch the open primary fermenter in the Ale Room fill. It occurred to me that the wort was pretty dark for any of the ale which they make so I asked the brewer on duty what I was watching. "Porter," was his reply, "we went to ale yeast in the porter about 3 months ago. So now the Steam is the only lager product and it is the only one put into the shallow primaries." I quickly retired to the tap room to sample this new version. I must confess that I had already had my tastebuds cascaded with Liberty so my palate was not in top form, still the porter seemed to be a little less robust than in the past. I'll try it again tonight.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300, 61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Mon, 17 May 93 10:36:41 -0500  
From: gilling@quaver.urbana.mcd.mot.com (Harry Gilling)  
Subject: soda pop

With summer coming soon, I'd like to make some root beer or ginger ale suitable for kids to drink. I've seen the extracts in the stores which contain all sorts of additives including food coloring. I'd much prefer to make something from scratch if I could find some recipes. Does anyone know of a source for recipes?

I understand the the soda made from the extracts results in a drink with about .25% alcohol. Is the reason why this is so low compared to beer is because you bottle it immediately and the yeast stops working before it has time to convert much of the sugar?

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Date: Mon, 17 May 93 10:09:25 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: re: Sugars

One thing I find amazing about HBD is how adamantly one's opinions are presented as fact! Perhaps this has to do with the relative anonymity of e-mail. Any psychologists (pseudo or real) care to comment?

Anyway to the matter at hand. The e-mail I received after my last "sugar" posting has left me with, yes, \*more\* questions.

Piloncillo (sp?) -- some sort of mexican brown sugar. Anybody heard of and/or tried brewing with this?

re US Brown sugar -- several people said they thought by FDA requirements sugar had to be fully refined. Therefore brown sugar is actually refined sucrose with molasses added back after refining. Can any of you FDA types confirm this? If so is there any reason to use brown sugar. Why not just a smaller amount of molasses?

re Inverted -vs- non-inverted sucrose: Can anyone move the following statements from my opinion list into my fact list:

- a) Sucrose must be broken into glucose and fructose before it can be assimilated by yeast.
- b) Yeast have the ability to break sucrose into fructose and glucose.

If b is true why is inverted sucrose "preferred by brewers" (Rajotte\_Belgian Ales\_).

Caramel -- How does the process of caramelizing change sugar? Can glucose, sucrose, fructose, and maltose all be caramelized? Is molasses caramelized to some extent or does all its flavor come from other stuff in sugar cane and/or sugar beets used to make sucrose?

Maltose -- Is this a simple sugar?

Just trying to learn, WAK

| - William A Kitch (512) 471-4929 - |  
| - Geotechnical Engineering - |  
| - ECJ 9.227 - |  
| - Univ of Texas at Austin, TX 78712-1076 - |

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Date: Mon, 17 May 1993 12:09:51 -1100  
From: Kirk\_Anderson@wheatonma.edu (Kirk Anderson)  
Subject: Bud, Wyeast, clear beer, Miller ale

In HBD #1141, Shane writes:

While in Bonn last October... I noticed a restaurant across the street called (I kid you not) "The Chicago Pizza Pie Factory." On their menu, I was appalled to not only find that scourge of American zymurgy, Budweiser, but to also discover that it was more than TWICE the price of fine local brews like Bitburger (it was DM6.90 a glass, about \$4.00!) My friend Eberhard explained that the locals sometimes like to pretend they're Americans...

Purely a novelty item. There's a "Chicago Pizza Pie Factory" in Paris too I believe. What worries me a lot more is AB's effort to acquire the real Budweiser in Bohemia. Does anyone have recent info on this? Is there any reason to hope that the whole world won't be eating and drinking the same multinational swill before our time on earth is up? They said the French would never buy fast food. Ha! Prediction: all of Europe will be drinking Bud in a very few years.

A couple months ago, I asked HBD readers to tell me why I should go from dry to liquid yeast and got some kind and intelligent answers. Well, my first experience with Wyeast was an attempt at a Belgian ale. When I bottled two weeks ago, I thought the stuff tasted very ordinary. But wait! after only 12 days in the bottle, I snuck a taste, expecting it to be fairly green still. WOW! This is my best batch ever and it's only getting better. There's no way I could have got that characteristic flavor without the right yeast.

All you who predict the fast demise of clear beer because it tastes lousy, I hope you're right, obviously. But what did you say when lite beer hit the market? It hasn't gone away, has it? Remember what HL Mencken said about the taste of the American public?

Finally, where and when can I get that new Miller ale (sic) that js was raving about the other day?

Kirk

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Date: Mon, 17 May 93 10:27:45 -0600  
From: coronell@cademl3.eng.utah.edu (Charles Coronella)  
Subject: bisulfite solution

In today's HBD, Jeff Benjamin says he rinses fruit in "bisulfite solution" before adding the puree to the secondary. I've made a few cherry beers, and I've always wondered about a way to kill bacteria et al living on the fruit before adding them to the wort/beer (without boiling). So, how/where/why/why not? I'd like to hear from others about this or other easily available treatments for fruits.

Thanks in advance, (TIA)  
Chuck

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Date: Mon, 17 May 93 12:31:27 EDT  
From: Sean.Smith@LUNCH.TRUST.CS.CMU.EDU  
Subject: West Virginia Brewpub

Thought I'd let you know about a little discovery I made this weekend:

Sometime since last summer, a microbrewery has opened up in Morgantown, West Virginia (home of West Virginia University). The ONE ONION BREWERY AND BISTRO---allegedly ``West Virginia's First Brewpub'---is located in the downtown section, down by the river. The menu didn't look too exciting, but my wife and I had a couple of pints and thoroughly enjoyed them. The Scottish Stout had an especially nice flavor. Talking with the young bartender (who was reading Papazian when things were slow) revealed that the owner is apparently an avid homebrewer who decided to go big-time. They do their own mashing, but apparently don't use a secondary...

For those keeping track of this sort of thing:

WEST VIRGINIA, Morgantown. The One Onion Brewery and Bistro.  
1291 University Ave. (304) 296-BREW

Cheers!

--Sean

sean.smith@cs.cmu.edu school of computer science  
carnegie mellon university 5000 forbespittsburgh, pa 15213 3891

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Date: Mon, 17 May 93 12:34:21 EDT  
From: Sean.Smith@THEORY.CS.CMU.EDU  
Subject: 1993 Stoudt's Festival

Last summer, the Stoudt Microbrewery held a beer festival featuring microbrewers from all over the East Coast. (In fact, I first heard about it here.) A relative who went to it (and had a great time) reports receiving information about this year's festival. Since I haven't seen it announced yet, here goes:

Stoudt Microbrewery Beer Festival  
Two sittings: Friday June 12, 6PM-10PM or Saturday June 13, 2PM-6PM  
At Stoudt's Black Angus Brewery Hall, Adamstown PA  
(This is just off the Pennsylvania Turnpike)  
\$15/person  
215 484 4385

Enjoy!

- --Sean

smith+@cmu.edu school of computer science  
carnegie mellon university 5000 forbes avenuepittsburgh, pa 15213 3890

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Date: Mon, 17 May 93 12:41:30 EDT  
From: drose@husc.harvard.edu  
Subject: Bittering hops, alternative fuels

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Date: Mon, 17 May 1993 10:56:45 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: Growing hops

I was interested in possibly growing my own hops, and would like any information on the types of climates they like. I live on the Northern California coast, so the weather is usually chilly and damp. Do they like this kind of thing?

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Everything you know is wrong.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: Mon, 17 May 1993 11:01:05 -0700 (PDT)  
From: Eric Wade <ericwade@CLASS.ORG>  
Subject: PET bottles, sankey kegs, Brewing Techniques, etc.

Finally caught up with my HBD reading after two weeks vacation and thought I'd add my \$0.02 plus ask a few questions.

Re: PET bottles. Some time ago I mentioned that my brother was trying to mail some Hook Norton beer that he brought back from England. Well, it arrived safely and in addition to the pint (glass) bottle of Old Hookey, he also sent me a 2 litre PET bottle of Hook Norton Bitter. The bottle, BTW, was the same brown color as the glass.

Stainless is good, aluminum is bad . . . Can anyone fill me in on the use of the "new" sankey kegs, the type with only one tap hole in the top center and the handles. I've heard that they are aluminum with a stainless coating. Is this correct? How durable is the stainless layer?

What's happening with Brewing Techniques? I understand it is due this month so I shouldn't get too impatient. Just wondering if anyone has any news on its progress.

Cooler mashing and step infusion. Does anyone have instructions on step infusion and picnic cooler mashing? I've been successfully doing single step infusion in my cooler tun but was wondering what the numbers might be for attempting step infusions (i.e., Step 1: x gal H2O @ y deg. F/lb grist, Step 2 add x gal H2O (boiling?), etc.)

Finally, its easy enough to get kegs of beer at most liquor stores here in the U.S. Can the same be said for England. I'm at the early stages of planning a birthday party for my father two years from now. We'll be staying in a private house in southwest England. I'd like to be able to get ahold of a keg of cask conditioned ale. Anybody have any knowledge of what I might have to go through? How long in advance would I have to get it for it to be in serving condition? Would I need to do anything to it? What about a tap?

Many thanks,

Eric Wade <ericwade@class.org>

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Date: Mon, 17 May 93 11:31:17 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Thanks for all of the help with my bitter

Last week I posted a request for help with my next batch, a bitter. I was very pleased with the numerous responses that I got, all of them very helpful. I really appreciate the help, and the information that I get from this board. I feel that the quality of brewing advice is outstanding. In any event, I want to share my latest creation from the basement of Pirate ALE:

8 # British 2-row  
.5 # British crystal malt  
.5 # Wheat Malt  
.5 # Golden Brown sugar  
.75 oz Willamette (60 mins)  
.50 oz EKG (60) ----I had to use up some hops  
1 oz EKG leaf hops (60)  
1 oz EKG leaf hops (30)  
1 oz EKG leaf hops (5)  
Irish Moss  
Wyeat #1098 (British Ale) started two days before in a starter

My O.G. was 1.046

There are a few questions I wanted to ask.  
This is my second All-grain brew. Is a starting gravity of 1.046 sound about right for 9.5 pounds of grains/sugar? I was reading Fred Miller's book and he seems to get these amazing o.g.'s with 6 pounds of grain. Also, I mashed at a slightly higher temp (154-155). I was told that I would get more body in the brew by elevating the mash temp. What are the drawbacks of the extra few degrees? Is it a good idea to use .5# of Wheat malt to help with head retention? I got suggestions for Wheat malt and cara-pils. Lastly, one suggestion was to dry hop in my keg. I like the idea of that, but will whole leaf hops (EKG of course) clog my cornelius keg??  
Once again, thanks for all of the help. I'll give you a taste test report in a few weeks.  
STEVE BOXER

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Date: 17 May 1993 13:48:13 GMT  
From: WAUTS@CWEMAIL.ceco.com  
Subject: Cranberry Beer???:Decoction mash

To: Homebrew Publications      HOME BREW - CWEMAIL  
Subject: Cranberry Beer???:Decoction mash

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Hello all,

While cleaning out the freezer the other day I uncovered four pounds of cranberries. Since Thanksgiving is way off I thought maybe I could use them in a brew. Does anyone have any recipes that use cranberries, if so would you care to enlighten me?? Thanks.

I was reading Eric Warners Wheat book the other day, specifically the section on single decoction mashing. Since I haven't done a decoction yet I have two questions, is it OK to boil the grains for 30min?? And how much liquid do you put in the pot with the grains. Any info would be helpful.

Tom Stolfi  
Wauts@cwemail.ceco.com

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Date: Mon, 17 May 93 16:52:11 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject: ReUsing Kegs

I've heard that there are kits available that allows you to use standard 1/4 and 1/2 kegs. Does anyone know any information about this ?

Please reply to brucek@sig.sni-usa.com

Cheers,

Bruce

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Date: Mon, 17 May 93 16:55:53 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject: Brewing Cookbook

I currently use a brewing cookbook that I made using a database program. It is full functional cookbook type of program. It offers customized printing, IE: ingredients or brewing process or complete recipe or any combination, detailed recipe instructions, brew ingredients via table choices of free form entry, sorting, and many more features.

There are many types of these programs available, like SUDS. My question is, is there a need for another program like this? Would you be interested? I'd like your comments.

Please reply to brucek@isg.sni-usa.com

Cheers,

Bruce

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Date: Mon, 17 May 93 17:38:01 CDT  
From: jay marshall <marshall@pat.mdc.com>  
Subject: fruit beers

In HBD #1142 Jeff Benjamin and Al Korz mention their experiences with fruit beers. Would you guys briefly describe your process - i.e. when you add the fruit (boil, primary, or secondary), whether or not you use a sanitizing procedure such as campden tablets or (as Jeff mentions) a bisulphite rinse, and how much fruit it takes to get a noticeable flavor. Also, I would be interested in knowing what kind of hopping rates are good to use with these beers.

I have tried one beer in which I added 2 qts of pure black cherry juice to the secondary and, while it was very tasty, it didn't have as much cherry flavor as I had hoped it would. It seemed that most of the stuff that makes cherries taste so good fermented away in the secondary.

thanks,

Jay  
marshall@sweetpea.jsc.nasa.gov  
(soon...marshall@pat.mdc.com)

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Date: Mon, 17 May 93 18:35:34 -0500  
From: spangle@abacus.mwsu.edu (Robert Spangle)  
Subject: Mail Order Supplies

I need to ask a favor:

- 1) Since I have moved, and now I have the digest again, I need information. In this city they do not have any homebrewing supplies. I need some address of your favorite mail orders places. You can send it to directly or just post an answer here.
- 2) I want to start growing hops. Where do I get the flowers?

Thanks,

Robert Spangl  
e  
Dept of Computer Science  
MSU  
Wichita Falls, Texas 76308  
Spangle@abacus.mwsu.edu

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Date: 17 May 93 19:43:11 EDT  
From: Jim Kirk II <70403.3157@compuserve.com>  
Subject: Beer Video

BREW VIDEO ANNOUNCEMENT:

Starkirk Productions has just released a video training video giving information on opening your own micro-brewery or brewpub. We traveled to: Boulevard Brewery (Kansas City MO), Walnut Brewery (Boulder CO), Breckenridge Brewery (Breckenridge CO), Salt Lake Brewing (Salt Lake UT)

,  
Sierra Nevada (Chico CA), Grant's Brewpub/Brewery (Yakima WA), Capital Brewing (Middleton WI), Broad Ripple Brewing (Indianapolis IN). We interviewed the owners and/or brewmasters of these successful operations. They gave us tons of info on opening and operation of brewing establishments. The video comes on two tapes and runs approx 2:45. It sells

for \$24.95 plus \$5 P.H. For info contact me Jim Kirk 70403,3157 on CompuServe or send to: Starkirk Productions, Inc.

3848 S. Sherman Dr.  
Indianapolis, IN 46237  
(317)786-1274

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Date: 17 May 1993 21:26:52 -0400 (EDT)  
From: ksalomon@BIX.com  
Subject: England Pubs

I am taking a business/pleasure trip to England next week. Does anyone have any good suggestions for special pubs to check out? I will be in Manchester and London for 3 days each.

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Date: Mon, 17 May 93 21:48 EDT  
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)  
Subject: Light-struck beer again

I have an addition to the recent discussion on light-struck beer. Andy Hoffmann, a friend of mine who reads the digest off-line, brought an article to my attention last week. For those interested in the chemistry of light-struck beer, look up the following:

Vogler, A. and Kunkely, H. "Photochemistry and Beer",  
Journal of Chemical  
Education, vol 59, no. 1, Jan 1982, pp. 25-27.

The article is written by a couple of German chemists, and describes the chemical reactions that occur when beer is exposed to various wavelengths of light. It also discusses the effects of brown and green bottles on the light-struck flavor, and gives absorption spectra for brown and green glass.

It also provides 27 references for those brewers interested in more detail.

Hope this helps.

Tom Kaltenbach Upstate New York Homebrewers Association  
tom@kalten.bach1.sai.com Rochester, New York, USA

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Date: Mon, 17 May 1993 22:22:15 -0400 (EDT)  
From: SMUCKER@UTKVVX.UTCC.UTK.EDU  
Subject: BREWING TECHNIQUES

I had the good luck the other day to see a new magazine at my local homebrew store, BREWING TECHNIQUES. All I can say is WOW! this leaves Zymurgy in the dust. This new magazine is designed to bring technical information to the small scale brewer. As I read it it is intended for both the homebrew and the brewpub / microbrewer. The first issue (volume 1, number 1, May / June 1993) has articles by Fix, Schiller, Haunold, and Nickerson. I especially like the article by George Fix on Belgian Malts. It has a column on trouble shooting by Dave Miller and another on beer styles by Roger Bergen. The content is great and each article includes references if you want to follow up on more information (although I am impressed with the depth of the articles). The presentation is very professional and well done. With luck this magazine may do for brewing what Fine Woodworking did for that hobby, take it beyond the amateur world in to a expanding advanced amateur / small profession world. With good solid technical information this magazine can build the growth of both the users / suppliers just as Fine Woodworking did.

BREWING TECHNIQUES is published 6 times a year for \$ 30.00. But a charter subscription is available for \$ 24.00. Their address is BREWING TECHNIQUES, P.O. Box 3222, Eugene, Oregon 97403, Tel. 503 / 683-1916, Fax 503 / 687-8534.

One of the things I like best about this magazine was not once did it tell me to not worry, since most of us type A, technical types worry one hell of a lot and that why we make damn good beer. Just for the record I have no connection what so ever with BREWING TECHNIQUES, I was just very impressed and it was very much worth the \$ 5.00 I paid for it. (The copy I got was likely a free one that my homebrew supplier got as a sample, but so what it was worth the money.) The only two things I found wrong with this magazine was that it was too short and didn't yet have as many advertisers as I would like to see, but I bet these both change with time.

Dave Smucker

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Date: Tue, 18 May 93 00:09:22 EDT  
From: <geotex@engin.umich.edu>  
Subject: Beer Disaster <PLEASE HELP!!!>

AAAAAAHHHHHHH!

Yesterday, I followed Charlie Papazian's recipe (The New Joy of HBing) for so imperial stout. Call me a beginner, but, it was my first intermediate brewing attempt. i.e. I used grains to add color etc, to a malt extract, boiled the whole mess (after sparging the grains out) and ending up with some nice looking wort. BUT! The recipe called for 1-2 packages of ale yeast, and I added 2. Today it began to ferment about 12 hours after pitching the yeast. When I got home about 8 hours after fermentation began, the thing was going nutty. I mean it is all bubbling out through the fermentation lock on onto the floor. I am talking a lot of the mixture is gushing out. What went wrong? Too much yeast? Too warm (its about 75)? So is the beer which cost me about \$30 to make ruined? What is a novice to do? I poured some out (gasp), and I am thinking of moving the fermenter outside where it will do minimal damage. I am hoping the cool weather may slow down this out of control process.

Any suggestions are greatly appreciated. If at all possible, e-mail me at geotex@engin.umich.edu. I would like to know ASAP what to do!

Thanks  
Alex

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Date: Tue, 18 May 93 02:27:28 EDT  
From: drwho2959@aol.com  
Subject: Homebrewing in the Far East

(The following was captured from my BBS. We are interested in comments and advice from any and all HBDers who have experience with homebrewing in the Far East.)

Msg #: 329 Security: 5 MAIN  
From: SYSOP Sent: 05-17-93 20:35  
To: HOWARD MORELAND Rcvd: 05-17-93 21:17  
Re: (R)HOMEBREWING-JAPAN & KOREA

> Does anyone have info on homebrewing in either Japan or Korea? A work  
> assignment will take me to one of those locations this Fall, to stay  
> for about a year. The fine folks at DeFalco's referred me to a notice  
> on clubs in Japan in Zymurgy, and I wrote them. I still need a source  
> of info for Korea, and more on Japan would be welcome. For instance,  
> (1) is homebrewing legal, illegal but tolerated, or ranked with  
> assassinating the head of state? (2) Are homebrew ingredients and  
> equipment available locally, by mail order, or not at all? (3) Is it  
> possible to take yeast slants through Customs without risking arrest?  
> (4) Any particular items I should try to ship in when I move?  
> Thanks.

Latest Zymurgy has a very interesting (and amusing) story about this:  
(I am plagiarizing, go ahead and sue me, Charlie.... MAKE MY DAY!!!)

"LOW ALCOHOL OR NO HOMEBREW.....

According to All About Beer magazine, to get a license to brew beer in Japan you must make a minimum of 2 million liters annually. Obviously, this makes homebrewing illegal. Mr. Yamanaka, head of the Japan Association for the Promotion of Homebrewing, is Japan's only importer of homebrew kits. How does he get around the law? In Japan, beverages containing 1 percent or less alcohol are exempt from the law. So Mr. Yamanaka went to Edme Ltd. in England and asked them to make a beer kit with instructions to make a 1 percent alcohol beer. The instructions say to use 40 liters of water and no [additional] sugar, and brewers are warned that deviating from the recipe is illegal. When the tax collectors started asking questions, Mr. Yamanaka told them to find someone else to harass. He hasn't heard from them since."

I wonder HOW MANY poor, unsuspecting Japanese homebrewers actually FOLLOW the directions?! YUCK!!

Msg #: 330 Security: 5 MAIN  
From: DENNIS LEWIS Sent: 05-17-93 21:58  
To: HOWARD MORELAND Rcvd: -NO-  
Re: (R)HOMEBREWING-JAPAN&KOREA

A couple of thoughts about Far East Brewing... I suppose that homebrew ingredients are available at least from mail order (probably just extracts, because grains might be too similar to agricultural stuff, and be prohibited. The Japanese are extremely anal about importing agricultural stuff). Yeast slants are a toss-up. If you wrap them well to eliminate the smell, then they should go unnoticed. If you think you can down grade, you may just want to switch back to dry (gasp!!!).

If I were going to go, I'd make a care package to send to myself. Pack

two 6.5 gal buckets w/ lids, and in them put: a bunch of tubing, a couple airlocks, all the homebrew chemicals, stoppers, a well-wrapped hydrometer, etc. Essentially send a basic homebrew kit. Wrap up another box with many cans/bags of malt extract, etc. Get friends and family to mail you new stuff for birthdays, Christmas, etc.

If all else fails, the Japanese make some pretty damn good brew. They copied the Germans in this just as they copy us in everything else. Michael Jackson was fairly impressed.

\*-----\*

|                                                       |
|-------------------------------------------------------|
| Andrew Patrick                                        |
| SysOp, Houston Correspondent & Distrib. Mgr.,         |
| Home Brew Univ. BBS Southwest Brewing News            |
| (713)465-0265, 2400 bpsInternet: andinator@delphi.com |

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Date: Tue, 18 May 93 09:51:15 +0300  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
Subject: Microbreweries in the London Area

I'll be in London from June 6th on. Can anyone recomend any Micro or just  
small  
and worth-a-visit brewery in and around London? How about you favorite  
Pub?  
I already have the Publist.Z from the archive. Please reply directly to  
my box  
LCNAVOT@WEIZMANN.WEIZMANN.AC.IL

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End of HOMEBREW Digest #1143, 05/18/93  
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Date: 18 May 1993 08:21:28 -0400 (EDT)  
From: JUKNALIS@arserrc.gov  
Subject: Hops differences?

Hello out there! Can anyone tell me if it is possible to tell  
the difference between different varieties of hops by their growth form  
, scents, or flower structures?? Thanks in advance. Joe

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Date: Mon, 17 May 93 15:44:39 CDT  
From: Mark S. Hart <hart@hvhp1>  
**Subject: Did you BEER Bread?**  
Full-Name: Mark S. Hart

Salutations all,

I tried to e-mail my request directly to Mark Taratoot. but this \*&^^&%\$ system isnt cooperating. I'll try it this way and then settle for vend-o-matic pretzels. The original request follows:

Hi Mark,

I just read your post in HBD 1140 about not making bread when the beer had been dry hopped. Being new to HBD I missed your posting of how to make the beer bread and pretzels from the yeast cake at the bottom of the secondary fermenter.

My request is: Would you please inform me as to how you are making these treats with this crud I usually throw away. I can't think of a better combination than hot bread and fresh brew. By the way, how are you getting the yeast out of the carboy with out turning it into a gallon of soup.

I am about to bottle my rocky raccoon's crystal honey lager and would love to give your receipe a try. Please e-mail me at "hart@hvhp1.mdc.com"

Thanks for the info!

Mark S. Hart

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Date:Tue, 18 May 93 9:08:37 EDT  
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>  
Subject: Non-alcohol producing yeast

I have a good friend who has given up alcohol, but still drinks a lot of Non-alcoholic beer. He's very interested in my home brews, and would like me to brew a Non-alcoholic batch for him. Is there a source for yeast that can be used to do the same things except not produce the alcohol???? What is the sugar turned into if not alcohol??? I've checked the various mail order catalogs I have, no mention of any special N.A. yeasts.

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Date: Tue, 18 May 93 09:42:22 EDT

From: gorman@aol.com

**Subject: Cooling alternatives**

I've got a 65F basement now. I fear it will get much warmer in July.

I've read about alternative (to refrigeration) cooling techniques like air circulation towers, wet towel, etc.

Anyone have any real experience with this they could pass along?

Thanks in advance.

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Date: Tue, 18 May 93 09:30 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Commercials

>From: Jim Kirk II  
>Subject: Beer Video

I can't wait to read all the flames this one generates. Considering the fact that it is far more commercial than my video announcement several years ago one would expect Jim to be trashed till at least the turn of the Century.

Hopefully, we and the Digest have all matured a little since then and will be a bit more accommodating this time.

New product announcements are one of the most useful aspects of this forum and should not be discouraged. However, they (as all of mine have been, in spite of the thrashing I have received) should be announcements and not advertisements as this one clearly is.

I suggest the following guidelines for NPA's:

1. Details limited to the name and function of the product.
2. Pricing and ordering information should NOT be included.
3. Readers should be directed to private mail for additional info.

I think if we follow these guidelines on the Digest, NPA's will be looked forward to and well received.

BTW, "Brew It At Home", a JSP video on home brewing basics is selling briskly. It has been particularly well received by the public library community. I regularly get calls from people all over the country who have checked it out on a whim and now, can't wait to get into homebrewing.

I would be happy to send additional info on this video to anyone who emails for same.

js

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Date: 18 May 1993 09:43:09 GMT  
From: WAUTS@CWEMAIL.ceco.com  
Subject: NOTE 05/18/93 09:43:07

Subject: Brewpubs/Micros in Indianapolis, IN

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Hello all,

I will be taking a short business trip to Indianapolis, IN in June. I seem to recall someone mentioning a new Brewpub/Micro down there but cannot find th information. If anyone knows of any Brewpub/Micros in Indianapolis please send the info via private email. Thanks in advance.

Tom Stolfi  
wauts@cwemail.ceco.com

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Date: Tue, 18 May 93 11:03:16 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: RE:Stoudts Festival

In the last digest, Sean remarks about the fabulous Stoudts fest:

<Stoudt Microbrewery Beer Festival  
<Two sittings: Friday June 12, 6PM-10PM or Saturday June 13, 2PM-6PM  
<At Stoudt's Black Angus Brewery Hall, Adamstown PA  
<(This is just off the Pennsylvania Turnpike)  
<\$15/person  
<215 484 4385

The above sessions are SOLD OUT. A seating was added for Sat night. It too may be sold out, I do not know.

I will be beer hunting in Europe until June 7 and I am returning to pour beers for the Baltimore Brewing Co at the festival. I will be at the first two sessions and if anyone in HBD land attends come by and say hi at the BBC table, it is always nice to meet digesters in person and I am quite sure some of my "Worlds Hoppiest Pale Ale" will be in attendance.

Good brewing,  
Jim "Too hoppy for style" Busch.

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Date: Tue, 18 May 93 09:55:27 CDT

From: greenbay@vnet.IBM.COM

Subject: Half and Half

I've seen a 'trick' where you have a liter of beer half being Harp and the other half being Guinness stout. The bottom of the liter is Harp, the top of the liter, Guinness stout.

I was reading The New World Guide To Beer yesterday and saw a bottle of my stout and one of my light ales standing side by side and thought "Hey, I know what I should try!" Well, it didn't work for me, didn't matter which I poured in first, or how slow I poured. It all mixed together, black as night. Does anybody know how to do this correctly.

Also, after reading all these happy hop reports, I've a sad one. My hops fell victim to Scott's Weed and Feed. They put up a good fight for five or six days, but on Sunday they just started withering away. The culprit has given themselves the name "Hop Killer."

Bob (funeral arrangements pending . . . )

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Date: Tue, 18 May 93 09:54 EST  
From: LYONS@adc1.adc.ray.com  
Subject: Temperature for Whitbread Ale Yeast?

Question for those who have used Whitbread Dry Ale Yeast.

My basement is currently at 60F with virtually no temperature variation during the day. Is this temperature too low for Whitbread ale yeast? Any comments would be appreciated.

Thank you,  
Chris  
LYONS@ADC3.ADC.RAY.COM

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Date: Tue, 18 May 1993 08:43:33 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: BeBop and Brew

An annual event is taking place this Saturday in northern Humboldt County called BeBop and Brew. As the name implies, it is a day-long festival of jazz and beer!

It will be featuring microbrewies from all over California and Oregon: over 26 different breweries will be represented! Oh yeah, there will also be some very tasty jazz being served up.

It runs from noon to six at Redwood Park in Arcata, California. Tickets are \$13 and a can of food.

P.S. I went to this fest last year and it was great!

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Everything you know is wrong.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: Tue, 18 May 93 10:26:40 MDT  
From: haney@soul.ampex.com (Kenneth Haney)  
Subject: supply shops

Hi all,

I've noticed a few posts lately about starting a brewpub and or microbrewery. Does anyone have any ideas or experience starting a homebrew supply shop?

Thanks  
Ken  
haney@ampex.com

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Date: Tue, 18 May 93 12:44:47 EDT  
From: drose@husc.harvard.edu  
Subject: Let's try this again...

Hello:

I tried to post this yesterday but something happened.

First: I have a question about bittering hops. My understanding has always been that with long boils (60' or more), the only character imparted to the wort is bitterness; volatile oils are boiled off, and so other flavors/aromas are lost. If this is the case, then why do I see recipes (e.g. some Winner's Circle recipes) that use combinations of hops for 60 minute boiling? If nothing survives but bitterness, why not just buy the bitterest hops you can get, use an appropriate amount, and save your Cascades for flavoring/finishing/dry hopping? Is there actually a subtle (but detectable) flavor/aroma contribution from hops boiled for 60 minutes?

Second: There has been much discussion about alternative sugars, such as golden syrup, treacle, etc. I do a lot of Indian cooking and use an unrefined cane sugar called jaggery. It has a molasses-like flavor but is milder and, I think, more complex. It comes as a rather wet brick. Has anyone heard of its being used for brewing? Similarly, I brewed a cream ale this weekend and used 1# or Pakistani Basmati rice. Basmati has a very different flavor from conventional rice, so I thought it might be interesting, besides it was all I had. Anyone tried this one? Keep pushing back the frontiers....

d.

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Date: Tue, 18 May 93 12:44:10 EDT  
From: gkushmer@Jade.Tufts.EDU  
Subject: cranberry beer!

I made a cranberry beer last year with just about that amount of cranberries (~4 lbs.)

I took a recipe in the Cat's Meow II and pretty much followed that with the lesser amount of cranberries. In a nutshell, it's an extract with

5 lbs. Light Malt Extract  
1 lb. Sugar (Don't worry about cidery flavors with this one)

I don't remember the hops, and for this one I actually used dry yeast for my first time.

The way I used the cranberries was this way: keep them frozen and then puree them in a blender. Make the wort as you normally would and at the very end, just before you'd add a wort chiller and immediately after you turn off the heat, dump the whole lot in.

The frozen berries bring the temp right down, and you get it in the wort with some bouquet and flavor.

Good luck and let me know if you try something different. I gave them away for X-mas presents and the demand couldn't have been higher for next year!

- --gk

Greg Kushmerek "They [Australians] don't spell 'beer'  
Sr. Researcher/Development with four X's out of ignorance. . .And  
Tufts University light beer is a creation of the Prince  
Medford, MA of Darkness."  
gkushmer@jade.tufts.edu -Morse, Thames Valley C.I.D.-

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Date: Tue, 18 May 1993 10:25:43 -0700 (PDT)

From: Eric Wade <ericwade@CLASS.ORG>

**Subject: sankey kegs (again)**

Well just read my posting and realized that one of my questions was incomplete. What I really wanted to ask was about the use of sankey kegs as brew kettles, mash tuns etc. Are they aluminum, stainless, a combination, etc.? If they are coated, how thick is the stainless coating and how durable is this over time? Will it withstand repeated boiling and scrubbing?

Thanks,

Eric <ericwade@class.org>

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Date: Tue, 18 May 93 06:48:00 PDT  
From: Kegging 18-May-1993 0942 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Kegging

Sorry for the barrage of postings here, I've been busy and I'm just catching up now.

I just kegged for the first time - a weissbeir made from an extract recipe. No problems getting the brew in the keg, etc. However, yesturday I poured a brew and it came out w/ a head, but nothing too big. When I tasted the brew, it was kind of flat - that is, after it settled for about 2 mins, no more bubbles were floating to the head of the brew. So, I checked the pressure in the keg and it was around 5 PSI or so. Thinking that was the problem, I cranked it up to 15 PSI and poured another. Bigger head after the pour, but the same sort of flatish brew once it settled. So, I pumped the keg up to 20 PSI (w/ C02) and decided to let it sit (it is in my fridge; it has been in the keg 1 wk - I primed w/ 2/3c DME).

What am I doing incorrectly?  
Or, is this just the way it works in a keg?

regards,  
jc ferguson

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Date: Tue, 18 May 93 06:13:38 PDT  
From: Chapel Hill 18-May-1993 0910 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Chapel Hill Brewpub

My brother lives in Chapel Hill NC. Nice place, but, you'll find quickly that the south has a big appetite for 'American' beers - bud, miller, etc. Some places will sell decent brews, but, they are not all that common, at least compared to Boston.

They do have one Brew Pub - the name is escaping my mind at this time. It has sort of French-ish sounding name... It is near the biggest CD (compact disc) store in the Durham area - they boast 30k titles. I had to ask around (strangers on the street) and I did find it. They were closed, but we did get in to check things out (the doors were open). Sort of an evening place.

Good luck,  
JC ferguson

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Date: Tue, 18 May 93 06:30:40 PDT  
From: Brew 18-May-1993 0926 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Molasses as primer

>Date: 14 May 1993 11:33:13 -0600 (MDT)  
>From: Mark Taratoot <SLNDW@CC.USU.EDU>  
>Subject: Molassas help

[...]

>Anybody out there primed with molassas before? How much did you use?  
>How was the carbonation level? How long did bottle conditioning take?

I have. Charlie Papazian's book makes a reference to using molasses as primer. Basically, you prime at the rate of about 1/2 of what you would use using DME (dried malt extract). Typically, for 5gal, I use about 1 1/3c of DME, so, for molasses, that would be 2/3c, dissolved in about 1 1/2c of H2O.

I actually screwed up when I did this and used too much molasses. I ended up dealing with some over carbonation and I had to trash a few bottles of my stout.

Give it 2 weeks to condition.

regards,  
jc ferguson  
DEC

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Date: Tue, 18 May 93 06:22:53 PDT  
From: RICH CATENA DTN 321-5170 <catena@arrcee.enet.dec.com>  
Subject: source for hop plants?

Hi all,  
anyone have a good source for hop plants that might do well in central n.  
j.?

thanks,

rich catena  
digital equip. corp.  
princeton, nj

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Date: Tue, 18 May 93 06:22:21 PDT  
From: Bleach and stainless 18-May-1993 0920 -0400 <ferguson@zendia.  
enet.dec.com>  
**Subject: Bleach and stainless don't go together well.**

>Date: Thu, 13 May 93 09:06:25 CDT  
>From: hinz@memphis.med.ge.com (David Hinz)  
>Subject: Stainless Steel kettles & coffee pots & half-barrels

[...]

>I just made myself a 15 gallon, heated kettle, for about \$20.00. I  
found a  
>half-barrel (grade 304 SS, I beleive) from the early 60's, with Miller

[...]

>The whole thing cleaned up very nicely, inside and out, with Soft Scrub  
<TM>  
>with bleach, and a washcloth. It will be pretty easy to add a spigot to  
the

I'd caution everyone against using bleach to clean stainless steel  
vessels.  
I'm under the impression that bleach will pit stainless steel.

JC Ferguson  
DEC

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Date: Tue, 18 May 93 13:32:33 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: bad beer

This is a followup to a posting I made several weeks ago regarding some peculiar looking bubble "colonies" that I noticed in my secondary fermenter with a particular batch of ale. It's been in the bottle several weeks now (I followed the advice of several of you out there who advised against its summary dispatch into the Mississippi) and can now say that... It's definitely awful and undrinkable. There is a flavor that I can only describe as "soapy" :( I do not know if this is merely coincidental to the appearance of the strange bubbles or not, but I am wondering if any of you out there have experienced such a taste and if it from an infection. The only other sources that I can blame would be a) soap residue from the primary, but I have always washed it in the same way ( a little bit of Joy and fastidiously rinsing it with hot water no less than 3 times) and have never had this taste before. Also the intensity of the flavor seems to me as if it would take at least a 1/4 fluid oz for the 5 gallon batch for it to be this bad. Another possibility (other than infection) is b) the use of a different malt extract, hopped Northwestern Golden, but I usually use NW malts and have always thought them to be of excellent quality. I really wonder about the possibility of infection.....

Anthony Johnston  
Puzzled Homebrewer, Confused Chemist

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Date: 18 May 93 09:22:00 +1100  
From: KRUSE\_NEIL@Tandem.COM  
Subject: Bad smelling primary fermentation

Hi,  
I've made about 8 extract batches, and each time the beer in the primary smelled, well, like beer. A nice sweet smell. However, my last batch, (which kept fermenting for 2 weeks) smelled terrible. kinda like a mens bathroom afer a keg party. Anyway, is this what you call "infected beer"? Would the smell/taste have changed after bottle conditioning? The beer was still cloudy in the carboy at two weeks. I ended up dumping the stuff down the drain.  
KRUSE\_NEIL@tandem.com

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Date: Tue, 18 May 93 15:12:54 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: sour mash, yeast propagation questions

Greetings,

I'd like to hear from anyone with experience making sour mashes. I read Papazian's appendix on sour mashing yesterday, thinking I might try to make a Guinness-style stout that way.

It seems to me, however, that I wouldn't want to use the whole batch of sour mash (Papazian says to boil up 5 or 6 lbs. of malt extract in 1-1/2 gallons) in a stout - I seem to remember that Guinness adds a \*small\* amount of sour mash to their otherwise "regular" wort.

My question: what proportion of sour to "regular" is advisable in this case? And, if I were to brew up the whole sour mash as Papazian suggests, and just use some of it in a brew, how should I store the rest of it and how long will it keep?

Another question: Charlie says to brew it up in a food-grade bucket with an aluminum foil seal inside its lid. If I have an extra plastic or glass fermenter sitting around, shouldn't I just use that and seal it with an airlock?

On to yeast propagation: I am going to try the parallel-propagation method. After I make my gallon of master starter and split it up into six sealed beer bottles as has been described in previous HBD's, I recall that it will keep well under refrigeration for a considerable time. Is this right? If I do this now, can I count on healthy, hungry yeast in September when I resume brewing?

Brew on,

Jonathan Knight  
Grinnell, Iowa

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Date: Tue, 18 May 93 16:03 CDT  
From: othon@ial7.jsc.nasa.gov (Bill Othon.LinCom)  
Subject: Mail Order in Texas

I managed to lose the original and a reply from the person wanting info on mail ordering home brew supplies. here's the address for St. Patrick's in Austin.

St. Patrick's of Texas Brewers Supply  
12911 Staton Drive  
Austin, Tx 78727  
(512) 832-9045

Lynne O'Connor - proprietress

I've heard only good things, and they have an interesting catalog you should ask for. I am completely unassociated with their operation. Hope this helps.

-Bill

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Date: Tue, 18 May 93 17:04:08 EDT  
From: cimssm@consl670uc.utica.ge.com (Steve McCormic)  
Subject: Proper amount of spices?

Hi all,

Can anybody give me an idea as to how much cinnamon to add to a 5 gallon batch?? Any good guesses or tips from experience would be appreciated.. Also, any related tips that might be useful before I brew my first batch of "creative" beer would be appreciated.

Thanks,

Steve McCormick  
mccormick@vaxms2.dnet.ge.com

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Date: Tue, 18 May 93 16:20:10 MDT  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: bisulfite solution, fruit beers

A couple of folks had questions about making fruit beers. Here's the procedure I've used successfully in the past:

1. Brew a low gravity, lightly hopped beer as a base. I like to use a wheat beer for a base, OG about 1.040 with maybe 1 oz of mid-alpha hops. Goldings and Hallertau work well. Remember that the fruit will add a lot more sugar, so you'll end up with a stronger beer, and that a lot of bitterness will probably detract from the fruit flavor.
2. Let the beer run its primary ferment as normal (I usually go 5-7 days), then rack. Leave in the secondary for another 4-5 days before adding fruit. This allows time for the yeast to get established and for some alcohol to get produced, possibly preventing nasties from the fruit from infecting your beer. Allowing the base beer to ferment out also lessens the CO2 production, so the fruit aroma won't be scrubbed out as much by the fermentation.
3. Sanitize fruit however you wish, puree, and add to the secondary. I just use a sulfite rinse on the whole fruit and don't worry too much about it. Boiling is not recommended as it sets the pectins in the fruit. I don't have any experience with campden tablets.
4. When the renewed fermentation has completed (airlock glugs maybe once or twice a minute), rack off the fruit for a couple of days before bottling. This will allow the beer to clear, and for any residual sugars to get eaten up, preventing gushers. Prime and bottle as usual.

Plan on using a lot of fruit. I typically use 1 or more pounds of fresh fruit per gallon of base beer to get a good flavor and aroma. You could economize by using pure fruit juice; I'd suggest trying about 1 qt per gallon of base beer.

Expect the ferment to go bonkers when you add the fruit. The yeast tend to go nuts with the addition of all that new sugar. Keep an eye on your blowoff tube to make sure it doesn't clog.

Now that it's spring, fruit will start arriving in stores before too long. Making a fruit beer isn't really that difficult, just a little more time consuming (and expensive, if you use store-bought raspberries :- ( ).

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Tue, 18 May 93 15:50:20 PDT  
From: slag@physics.Berkeley.EDU (Brad Asztalos)  
Subject: The other us...

Apropos Andrew Patrick's:

"They copied the Germans in this just as they copy us in everything else.  
"

Do "we" know who the "us" is.

But of course everything  
done in good America,  
by us good Americans  
is immediately our own.

I had the finest Sake the other day...

BA

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Date: Tue, 18 May 93 15:51:47 PDT  
From: "Tom Childers" <TCHILD@us.oracle.com>  
Subject: Raspberries in beer

In HBD 1143, Brett Charbeneau asks about raspberry beers...

I've been playing with raspberry wheat beers for a few months now, and am drinking my third batch. You don't need to go all-grain, but you do need to  
sanitize the fruit somehow. There are two main choices:

- Add the fruit to the hot wort after the boil, when the temp has cooled to

perhaps 170F, and keep the fruit/wort at 160-190F for at least 15 minutes

to sanitize the fruit. If you let the temp get too high, or boil the fruit, then you will set the pectin in the fruit and get very hazy beer.

This method works well for frozen fruit, which has generally been turned

to mush by ice crystal formation.

- Sanitize the whole fruit with a food-grade sanitizing solution (perhaps

by soaking in Everclear or 100-proof cheap vodka?), then add the fruit to

the secondary and strain out during the priming/bottling process.

I use the first option, which has the advantage of being easy and pretty bullet-proof. The disadvantage is that you lose some of the aromatic qualities of the fruit by heating it.

Here is my current wheat-raspberry recipe (many thanks to Kathy Henley of Austin, TX for getting me going in the right direction). Sorry, but I don't take specific gravity measurements.

#### Wheat Berry

5-1/2 lbs light dried wheat malt extract  
1-1/2 oz Hallertauer or Northern Brewer (boiling), 7 HBU  
1/2 oz Hallertauer Hersbrucker (finishing), 2-3 HBU  
24 to 36 oz frozen raspberries  
16 oz frozen blackberries  
1 tsp vanilla extract  
Belgian ale yeast (Wyeast 1214)

Boil 2-1/2 gallons of water, add malt extract and boiling hops, and boil for 55-60 minutes. Turn off heat, add finishing hops, cool to 190 F and add the frozen fruit and vanilla. Let sit covered for 20 minutes, maintaining temperature at about 170 F and stirring occasionally. Cool to below 100F, add to carboy pre-filled with 2-1/2 gallons of water, straining out and pressing the fruit to extract most of the juice. Pitch the yeast, ferment at 70-72F, transfer to secondary after two days, then ferment completely out (about another 7 days). Prime with 3/4 cup corn sugar and bottle.

24 oz of raspberries gives a fairly subtle beer, with a mild tart raspberry underpinning that all of my friends loved. 36 oz of berries give a more assertive, but not overwhelming, raspberry flavor. Note that Belgian ale yeast will give stronger "clove" overtones when

fermented at temperatures of 75-78F, and milder flavors at 70-72F.

Tom Childers  
Mill Valley, CA

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Date: Tue, 18 May 93 14:06 CDT

From: korz@iepubj.att.com

Subject: Re: secondary/half-batch/lightstruck?/off-aroma/1st-batch/GoldenSyrup

Bill writes:

>1) How long is too long in the secondary fermenter? I have  
>been reading that some people leave it for only a week, using  
>SG as a guide apparently. Recently I dry-hopped in the primary  
>(based on a Cat's Meow recipe) and after a week in the  
>secondary, there was at least an inch of "mung" at the bottom  
>of the carboy (I assume hops and yeastees). I decided to leave  
>the beer in for the usual 3-4 weeks. Could this have been bad?  
>I haven't tasted the final product yet to be sure, but i am  
>pleased with the clarity of my beer to date.

I recommend dryhopping only for the last 7 days before bottling. Anything longer and you'll begin to lose more aromatics to the atmosphere than you are gaining from the hops into the beer. I've had beers spend 6 months in the secondary, but these were pseudo-lambiks, so not a good datapoint. I've had one beer (an Orval clone) spend two months in the secondary and it won a few awards. The Orval yeast is very slow-going -- the current batch has been in the primary for about a month and is still doing a bubble every 15 seconds.

>2) Does anyone have a good half-batch all-grain recipe? I tried  
>an all-grain last year with two brewkettles over a gas stove, and  
>while it came out alright, it was a hassle. I'd like to get my  
>feet wet with some small scale stuff (which also allows for  
>easier experimentation if desired). For this type of batch, i  
>guess i use half the dried yeast package, or half the wyeast  
>starter.

Just take a regular recipe and cut all but the yeast in half. You can pitch a half-gallon starter into a 5 gallon batch and still not overpitch.

\*\*\*\*\*

Darren writes:

> Is discoloration (darkening) a typical result from "light  
>exposure"??? I brewed a batch which when originally bottled was  
>much lighter in color than it is now. The beer is in "Mason" jars,  
>with double gaskets/liners to better the seal. (It worked). I  
>had a problem with the initial conditioning of the beer, (very  
>little carbonation), but when I removed the jars from the fridge  
>for a couple of weeks and then re-refridgerated them, the bubbles  
>were finally there (I'd brewed the batch 1.5 yrs ago, thought I  
>was a victim of novice errors, hate to throw things out, and only  
>recently read about re-conditioning carbonation-less beer to bring  
>the bubbles back.) Anyway, back to the color inquiry, would the  
>darkening be the result of light exposure, age, and is  
>incandescent light a threat???

I don't believe that light exposure will darken a beer, but oxidation will. I suspect that it was oxidation that caused the darkening. Incandescent light is much less of a threat than sunlight (because sunlight is considerably more intense) and less of a threat than fluorescent because there's a lot less violet-UV in incandescents). However, light-struck beer has a skunky smell, so use your nose to decide if it's had too much light.

\*\*\*\*\*

David --

>Last week my brew partner and I made a batch of Winky Dink Marzen, as  
>described by Pappazian in TCJOHB (page 164 in the first edition).  
>Everything seemed to be going fine. It had a starting gravity of  
>1.043 and fermented happily away at room temperature, peaking at about  
>a burble every two seconds.

>

>At least everything was OK until last night when we racked to the  
>secondary for lagering. When we opened the fermenter, the beer  
>smelled funny. I might describe it as a skunky smell, but I've not  
>got a terribly keen nose for these things. I thought it tasted  
>alright, though my parner claimed he could "taste" the smell in his  
>mouth.

Sounds like a wild yeast or bacteria got in there.

>Another oddity was that the specific gravity had dropped to 1.004!  
>There is no sugar left in this stuff! Those yeast must have sure had  
>a good time in that brew!

Reconfirms my previous assertion.

>So that leaves me with a couple of questions. First, what could have  
>caused the smell? Will it go away over time, or are we going to be  
>stuck drinking this batch with our noses plugged? Second, what about  
>the lack of sugar? Is it worth lagering the beer if there's nothing  
>left for the yeasties to eat? Should we just go ahead and bottle it?

It may go away with time -- I would go ahead an bottle -- worst case  
you've wasted 3 hours and 48 bottlecaps.

\*\*\*\*\*

Bill writes:

>6lbs of light dry malt extract  
>1.5lbs of Wildflower honey  
>1oz Northern Brewer hops  
>4oz of fresh ginger  
>2.5 cups of 20l Crystal Malt

>

>Method:

>Boiled 2 gals of water. Cooled and poured into 5gal carboy.

>

>Put 3 gals of water into pot, Added crystal malt and brought  
>to a boil. Boiled for five minutes (as per the local brewstore  
>instructions) then strained out the crystal malt.

The brewstore is giving bad advice -- boiling the crystal malt (or  
any grain for that matter) will extract tannins from the husks. In  
addition to giving you astringent flavors in your beer (like chewing  
on a grape skin) but you may also have some chill haze (the beer will  
get cloudy when you chill it) which is the reaction of the tannins  
with proteins in your beer.

>Brought the liquid to boil again, added the DME, stirring to  
>make sure it didn't stick, added the ginger and the hops.  
>Boiled for about 45minutes. Cooled to about 90dg farenheit.

>

>Poured this into the carboy via a funnel in order to add O2.

>

>Added 1oz of EDME dry yeast. Added a blow-off tube and placed  
>in bathroom('cause it is dark and cooler than anywhere in the  
>house).

>



>Got some bubbling in about an hour and through out the night  
>but no real foaming or high activity as I have heard others get  
>using EDME. By Wednesday, afternoon, no more bubbling. Went  
>back to the brew store and they suggested that I re-pitch. This  
>time I used Nottingham dry ale yeast. Pitched this Thursday  
>afternoon but no noticeable activity by Friday Morning.

You didn't tell us the temperature at which you were fermenting.  
If the temperature was 75F, then there's a good chance that the  
Edme did indeed finish fermenting all the fermentables and the  
beer was done. If it was 65F, then I'd say it should not have  
taken such a short time. One thing that can make yeast prematurely  
stop fermenting is a sudden drop in temperature (say, 20 degrees).  
I believe that Edme is quite a bit more fermentable than Nottingham  
and the Edme would have used up all the oxygen, so I'm not surprised  
that the Nottingham did nothing -- there was no O2 or sugar left  
for it to eat.

>So, my question is: "What happened?" and can I salvage this first  
>batch?

If you have a hydrometer, check the gravity. If it's below about  
1010, I'd say it's done -- bottle it. If it's above 1010 -- give  
it some more time. If you don't have a hydrometer, just let it sit  
for a week and see if it starts to ferment again.

\*\*\*\*\*

Peter writes:

>In what I've seen so far there has been no mention made of Golden Syrup,  
a  
>type of sugar common in the UK, Australia and New Zealand. Has anyone  
tried  
>this in brewing?

This was mentioned a few years ago, but not recently. Dave Line mentions  
Tate & Lyle's Golden Syrup in some of his recipes. Alas, neither the  
Golden Syrup nor the Treacle is being imported any more -- it appears  
that

US customs wanted proof that Cuban sugar was not being used in the  
production of these two items and that no such proof was available or  
something like that.

Al.

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Date: Tue, 18 May 93 14:59 CDT  
From: korz@iepubj.att.com  
Subject: fruit in beer

Brett writes:

>Having seen the recent queries on fruit additives to wort I would like  
>to pose a question of my own. I was exposed to a lambic framboise about  
a  
>month ago and have been experiencing pipe dreams of making my own ever  
since.  
>I am still an extract brewer, but I am interested in giving this style  
of  
>beer a go.  
>If anyone has had any experience with this sort of lambic or successes  
>getting lighter ales "take" the fruit I would love to hear about it.  
Does  
>one need to make the all-grain "jump" to be able to play on this level  
of  
>exotic beers?

Not at all! All the beers that I've brewed in the last year have been  
extract + specialty grain (my new business has be too busy to set aside  
even 8 consecutive hours). If it's Lindeman's or Timmerman's Framboise  
that you tasted, you'll have trouble duplicating the intensity -- I  
suspect that they use syrups and pasteurize to keep them sweet. However,  
you can make some very tasty beers with fruit. You need a lot, though..

read on. [By the way, with a name like Brett, Lambiks should be right  
up your alley... you see, one important contributor to the flavor of  
lambiks are the yeasts Brettanomyces Lambicus and Brettanomyces  
Bruxellensis,  
which we pseudoLambik brewers affectionately call, "Brett."]

\*\*\*\*\*

Chuck writes:

>In today's HBD, Jeff Benjamin says he rinses fruit in "bisulfite  
solution"  
>before adding the puree to the secondary. I've made a few cherry beers,  
and  
>I've always wondered about a way to kill bacteria et al living on the  
fruit  
>before adding them to the wort/beer (without boiling). So, how/where/  
why/  
>why not? I'd like to hear from others about this or other easily  
available  
>treatments for fruits.

\*\*\*\*\*

Jay writes:

>In HBD #1142 Jeff Benjamin and Al Korz mention their experiences with  
>fruit beers. Would you guys briefly describe your process - i.e. when  
>you add the fruit (boil, primary, or secondary), whether or not you  
>use a sanitizing procedure such as campden tablets or (as Jeff mentions)  
>a bisulphite rinse, and how much fruit it takes to get a noticeable  
>flavor. Also, I would be interested in knowing what kind of hopping  
>rates are good to use with these beers.

The two best fruit beers I've made have been my 1992 pseudoKriek made  
with 13lbs of cherries and 3.5 gallons of homemade pseudo-lambik and  
my nuptial ale which was made with 10 gallons of 15 IBU light ale  
which was put on top of 15 pounds of cherries and 15 pounds of

raspberries in the secondaries. To sanitize the fruits in both batches, I froze the fruit and then blanched it in boiling water for 1 to 2 minutes.

The raspberries completely disintegrated, so I had to add the 1 gallon of water along with them in to the fermenter. The cherries held together.

It's *\*VERY\** important to use a large blowoff tube (I use a 1.25" plastic hose right in the neck of the carboy) and to only add the fruit when the primary fermentation is done -- otherwise the delicate aromatics will be scrubbed out by the CO2 being generated by the primary ferment. A lot of CO2 will still be created, but it's best to minimize the scrubbing action.

By the way, the 13 lbs of cherries was very good but not great -- I think that about 16 or 18 pounds would have been better (and is what I'll use this year).

Al.

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Date: Tue, 18 May 93 12:30:19 MDT  
From: "Steve Kurka - BMC West, Boise, ID" <kurka@bmcw.com>  
Subject: Bock and/or Ale ...

Ale and/or Bock recipe request:

Recently, I had the pleasure to enjoy a "Pacific Rim Ale" from Washington State (Kalama??). This beer tasted very close to my favorite beer from Wisconsin (Huber Bock) only with a slightly lighter texture. If anyone has a close recipe for the Bock or the Ale, Please E-mail them.

(The only problem with the Ale was that it was 24\$/case as opposed to 6\$/case for the Bock - too bad Huber doesn't ship to Idaho)

Thanks Steve

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- Women love cats. Men say they love cats,-  
- but when women aren't looking, men kick cats. KURKA@BMCW.COM Boise,  
ID-  
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Date: 18 May 1993 22:22:37 -0600 (CST)

From: RBSWEENEY@msuvx2.memst.edu

**Subject: cold plate**

Taking the advice of several HBDers, I bought a cold plate from Superior Products (of my own free will). The cold plate does an adequate job of chilling beer from room temp (~75 degrees) to about 55, which is about right for the ales (bitters and stouts mostly) that I've brewed up to now. The only problem is a tendency for the hose connections to leak, which is not too big a problem since everything is inside a small cooler. However, I would like to be able to leave all my connections hooked up, without having to disconnect between quaffing to slow down the wastage (sic). I currently using 3/8ths inch OD tubing to connect to both sides of the cold plate with hose clamps on both connections. Is there anything else I could use or be doing to stop these blasted leaks?

Thanks for the help

Bob Sweeney  
Memphis State University  
Department of Management Information Systems

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Date: Tue, 18 May 93 16:40:43 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: Fruit/Cooler step mash

Re: Raspberries in beer

My experience with making extract beers with fruit has been good. I am an all-grain brewer who occasionally brews an extract beer with fruit. These have turned out to my liking and have consistently done well in contests. My experience suggests that the yeast culture has a marked effect on the product.

On May 1 BURP, the Washington, DC homebrew club, sponsored the "Spirit of Free Beer" homebrew contest. I was the judge organizer for this contest with 189 entries. As a BOS judge along with Steve Hamburg of CBS, Randy Paul of BURP, and Bill Manger of NYC we selected a Peach Lambic as BOS. Now, I am prejudiced against strange beers for BOS. BOS should be judged on a beers stylistic merits: Which beer best epitomizes its style? Compared to commercial examples this Peach Lambic, made by George Griffith of Hay Market VA, was much better! This beer was made using 100% extract, 5.5 lbs peaches per 5 gallons, and the culture from a bottle of Cantillon Lambic. This beer was better than any of the Cantillon products I have had.

So, fruit beers using extract? You bet!

Re: bisulfite solution

When making fruit beers I rinse the fruit lightly and put it into the secondary. I do not feel that it is really possible to sanitize/sterilize fruit without irreparably damaging the characters that you are looking for. I have had a few beers get a bit "Belgian" on me. But, that's ~fun.

Re: Cooler mashing and step infusion.

The problem with step mashing and coolers is that it is very hard (impossible?) to have the appropriate malt/water ratio and the appropriate temperature steps.

What do I do? For ales I do a protein rest at 122F for 30 minutes with 1 qt H2O/lb of malt. I then take 1/3 of the mash and bring it to 175F. I then add up to 1/3 qt boiling H2O /lb of malt to bring the temperature up to the chosen starch conversion temperature. For lagers I do a double decoction with a strike at 122F, and steps to 144F-155F and 168F.

Cheers, Rick (rgarvin@btg.com)

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End of HOMEBREW Digest #1144, 05/19/93  
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Date: Wed, 19 May 1993 7:45:39 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: foreign american brews

Hi all

I just read Shane's post about finding Bud while in Germany. It reminded me of a funny situation while I was in London a few weeks back.

I was in a pub somewhere in London (don't remember which one, there were so many its all a blur now). Who should walk up next to me at the bar but a couple of southern American boys (since I too am southern, I can talk about southern boys without fear of reprisal). Apparently, they had just come from McDonalds (with their Hard Rock Cafe bags in hand), and were suprised at the number of foreigners in that place. They were parched, and just had to get them a nice cold one. So, they just had that bartender bring them up a Bud (it cost them about \$3 each) to quench that thirst. With horror on their faces, they realized this wasn't the nice cold one they wanted, by gawd, it was HOT!. Well, lots of moaning and groaning went on, until the barkeep gave them some ice to pour their Buds over. I could hardly contain myself. Well, it was funny at the time. I guess you had to be there.

scott

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Date: Wed, 19 May 1993 09:15:00 +0000  
From: "Rick (R.) Cavaasin" <cav@bnr.ca>  
Subject: sour mash, yeast propagation questions

Jonathan Knight asks how long the bottled cultures are expected to last in the parallel yeast propagation method:

I can't say anything definite about what will happen when the cultures are refridgerated since I always kept them at cellar temp. Although this may not hold for ALL the Wyeast strains, I've had no problem with the Irish, German, and British strains keeping for a number of months. Refridgeration may help them keep even longer. What I do is I always decant a starter when I bottle up the cultures so that even if all the bottles were to prove unviable, I will have at least got one batch of beer out of the Wyeast package. This way, you risk nothing by propagating.

As the bottled cultures age and their viability decreases, you can always use two bottles to make up a new starter. In any case, the process can't be any worse than making up a starter from the dregs from Chimay or SNPA as some posters do. There's alot more sediment than in a bottle conditioned beer, and you've had control over the storage conditions from day 1.  
Cheers,  
Rick C.

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Date: Wed, 19 May 93 10:23:57 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Proper amount of spices?

According to Randy Mosher, who has a lot of experience making strangely spiced brews, the best way to add cinnamon is to make a "potion". Soak some cinnamon in vodka for a week or two, then add the potion gradually to the finished (but not yet bottled) beer until it tastes right.

=S

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Date: Wed, 19 May 93 07:27:00 -0600  
From: phil.brushaber@u2u.lonestar.org (Phil Brushaber)  
Subject: Racking after Pitching

I have read many Homebrew texts but only recently got Dave Miller's Complete Handbook of Home Brewing. Some of what Miller suggests is contrary to my current practices of all-grain brewing. One area is racking the wort off the trub after the cold break.

After the wort chill Miller suggests... "At this point you have two choices, depending on how cold your wort is. If it is down to fermentation temperature (48 to 55 F for lagers) you should pitch your yeast immediately.... Close the fermenter and move it to your fermentation area. The wort should be racked off into a secondary fermenter about 8 to 12 hours later, to separate it from most of the hot and cold break material which will settle to the bottom of the vessel. Also remember that, before pitching, the wort must be aerated."

I find this interesting. The advantage Miller suggests is that after the proper hot and cold break that you don't have to syphon off the clear wort from the boiler, just strain it into the fermenter. But my concern lies in the area of racking (and aerating) the beer again after it has been sitting for several hours, but before fermentation begins. Also there is the inference that the yeast starter should be at the same cold (50 degree F) temperature as the chilled wort. Is anyone else doing this for lagers? I have been pitching my room temp starter into about 70 degree wort, then putting the fermenter into the refrigerator and bringing the temp down to 50 degrees.

Any thoughts?

phil.brushaber@u2u.lonestar.org (Phil Brushaber)

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Date: Wed, 19 May 93 10:50:43 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: re beer bread

My landlady did this with the dregs of most of my batches. The crud in the bottom of the carboy is pure yeast if you've racked off the trub or if it comes from the secondary (modulo dryhopping), and a slurry of this will work well (doesn't matter if it turns into soup--you need some liquid to make bread anyway). But her preferred technique was to take whatever was left over from bottling (e.g., incomplete bottle which could otherwise oxidize) and mix it with enough flour to make a sponge. Unless you've lost all your yeast (which you'll find out when your beer doesn't carbonate) the sponge will start rising in a small number of hours and can be filled with flour to the proper consistency for bread dough.

This isn't quite like medieval recipes which call for taking a volume of working beer, foam and all (probably even more effective with true top-fermenting yeasts), but it does give a good flavor to the bread--  
--  
enough that you can taste it even with whole-wheat flour.

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Date: Wed, 19 May 93 10:57:16 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: Re: Half and Half

> I've seen a 'trick' where you have a liter of beer half being Harp and the other half being Guinness stout. The bottom of the liter is Harp, the top of the liter, Guinness stout.

I've never seen this done this way. Around Boston, a lot of bars serve Black&Tan, but that's Guinness on the bottom. (It's the only Black&Tan the hypernationalist Irish-Americans around here approve of.) Since this doesn't mix when swirled gently, I suspect the available Guinness (very different from what you'd get in Dublin) is denser than Harp, which isn't surprising. I never watched closely when they were poured, so I can't give direct tips, but in generally you can layer a thinner liquid on top of a heavier by pouring gently (especially at the start) down the side of the glass.

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Date: Wed, 19 May 93 11:23:37 EDT  
From: <geotex@engin.umich.edu>  
Subject: Sencondary Fermentation

I am unsure of the purpose of racking to a secondar fermentation container.

Could someone please clear this up for me. It seems my books don't clearly explain this.

I realize this maybe common knowledge for most seasoned brewers, so you can e-mail me if you like.

Alex  
geotex@engin.umich.edu

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Date: Wed, 19 May 93 10:55:41 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: Jaggery

In HBD 1144 drose@husc.harvard.edu writes:

> Second: There has been much discussion about alternative sugars,  
> such as golden syrup, treacle, etc. I do a lot of Indian cooking and  
use  
> an unrefined cane sugar called jaggery. It has a molasses-like flavor  
but  
> is milder and, I think, more complex. It comes as a rather wet brick.  
> Has anyone heard of its being used for brewing?

Jaggery is unrefined date sugar. It has some light molasses notes. I have  
used  
it in yogurt and some candies, but never in beer. I would use it like  
brown  
sugar.

Cheers, Rick (rgarvin@btg.com)

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Date: Wed, 19 May 93 12:04:04 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: sour mash guinness

>I'd like to hear from anyone with experience making sour mashes. I read  
>Papazian's appendix on sour mashing yesterday, thinking I might try to  
>make a  
>Guinness-style stout that way.  
>  
>It seems to me, however, that I wouldn't want to use the whole batch of  
>sour  
>mash (Papazian says to boil up 5 or 6 lbs. of malt extract in 1-1/2  
>gallons)  
>in a stout - I seem to remember that Guinness adds a \*small\* amount of  
>sour  
>mash to their otherwise "regular" wort.

I've tried making sour-mashed p-guinness before and also making it  
by adding sour beer to the boil, and the latter works much better.  
The sour mash leaves somewhat of a raunchy flavor to the brew, whereas  
simply adding to the boil a bottle or two of beer from a previous batch  
that has acquired a lactic infection produces a crisper, cleaner  
sourness.

How much to add is always subjective. To get you in the ballpark - if  
you can smell the soured beer a mile away, add 1-12 oz bottles in 5 gal.  
If you can actually drink it w/o throwing up, add 3 or 4 bottles.  
If you got lucky and the soured beer actually tastes funky-lambic-like  
sour, add a gallon.

The boil will kill anything in the sour beer, but make sure you clean  
the bottle up and anything outside the kettle that you may have splashed  
with the sour beer well before the boil ends.

P-Guinness

8 lbs PILSNER malt  
1 lb roasted barley  
1 lb barley flakes  
4 oz. black patent  
1.75 oz GOLDINGS ~5% AA hop plugs  
1-6 bottles of soured beer

The whole idea is to keep the protein in the beer, so you start with  
Pilsner malt & don't do a protein rest. Mash using you favorite  
technique,  
but keep it short - 1hr or so. Sparge w 170 F water (acidified). Do not  
recirculate excessively. The short mash and the pilsner malt will help  
avoid a stuck runoff. Bring the wort to a boil as quickly as possible.  
Normally I boil 30 min to coagulate the protein before I add hops, but i  
in this case, add the hops right at the start of the boil, or even  
before.

Use Goldings.\* Add the soured beer - preferably soured from a lactic  
infection.

Boil 1 hour, or 45 min if you used hop pellets instead of plugs. Cool &  
pitch Wyeast 1084 Irish ale yeast starter. SG should be 1.045-1.050 or  
so,  
unless you get spectacular extraction rates (I don't). Ferment 60-65F.

Now if you bottle, use 3-4 oz corn sugar and let condition. If you keg,

you've got an added element in how you imitate guinness: Chill the beer to 50F, & turn the pressure up to 10-15 PSI & Serve.\*\* Do not agitate the keg.  
The beer will have a head, but very little carbonation in the beer itself,  
just like guinness.

bb

\* Cascades will give that funky american hop taste, if you desire, but taste unlike guinness. Any German hop is right out. Fuggles don't give that sharp bitterness. Maybe N. Brewer...

\*\* Normally, to get carbonation in the beer itself, you would chill to < 40F, turn up the pressure to 20-25 PSI, then agitate or else let sit 1 week at that temp/pressure. This means not disconnecting the CO2 supply, since the beer will slowly absorb the CO2 in the headspace and more CO2 is needed to keep the pressure high.

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Date: Wed, 19 May 93 12:14:17 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: correction

Ignore the comment about N. Brewer in my previous note - It is a relative to Hallertau, which does not work in stouts (I've tried it). But then I seem to remember Jackson saying that Guinness used N. Brewer. I haven't used much N. Brewer. Hmm. The recipe works great with Goldings.

bb

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Date: Wed, 19 May 93 12:19:45 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: treacle

Al Korzonas writes:

>This was mentioned a few years ago, but not recently. Dave Line  
mentions

>Tate & Lyle's Golden Syrup in some of his recipes. Alas, neither the  
>Golden Syrup nor the Treacle is being imported any more --

I found black traecle at alternative garden supply in streamwood, IL,  
just a few months ago (not too far from you). unfortunately, I have  
not had the chance to use it in a brew yet.

bb

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Date: Wed, 19 May 1993 10:20 PST  
From: BELLAKC@axe.humboldt.edu  
Subject: Beebop and Brew

In HBD#1144, Mark Nelson wrote:

>An annual event is taking place this Saturday in northern  
>Humboldt County called BeBop and Brew. As the name implies,  
>it is a day-long festival of jazz and beer!  
>It will be featuring microbrewies from all over California and  
>Oregon: over 26 different breweries will be represented! Oh  
>yeah, there will also be some very tasty jazz being served up.  
>It runs from noon to six at Redwood Park in Arcata, California.  
>Tickets are \$13 and a can of food.

>P.S. I went to this fest last year and it was great!

I would like to make a correction. Beebop and Brew will be on SUNDAY, May 23rd not Saturday. Arcata is located on the coast approximately 300 miles north of San Francisco. Tuck and Patti will be the headlining group.

The following breweries will be in attendance:

Oregon:

Deschutes Brewing Co. - Bend  
Full Sail Brewing Co. - Hood River  
Pizza Deli and Brewery - Cave Junction  
Portland Brewing Co. - Portland  
Rogue Brewery - Ashland  
Umpqua Brewing Co. - Roseberg

Northern California:

Anderson Valley Brewing Co. - Boonville  
Etna Brewery - Etna  
Humboldt Brewery - Arcata  
Lost Coast Brewery - Eureka  
Mad River Brewing Co. - Blue Lake  
Marin Brewing Co. - Larkspur  
Nevada City Brewing Co. - Nevada City  
North Coast Brewing Co. - Fort Bragg  
Sierra Nevada Brewing Co. - Chico

Central/Southern California:

Anchor Brewing Co. - San Francisco  
Bison Brewing Co. - Berkeley  
Butterfield Brewing Co. - Fresno  
Devil Mountain Brewery - Benicia  
Golden Pacific Brewing Co. - Emeryville  
Monterey Brewing Co. - Monterey  
Pete's Brewing Co. - Palo Alto  
St. Stan's Brewing Co. - Modesto  
Tied House Cafe and Brewery - Alameda

Any questions, directions, etc? Contact me via private email:  
Bellakc@axe.humboldt.edu

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Date: 19 May 93 12:10:25 EDT  
From: CHUCKM@PBN73.Prime.COM  
Subject: image files on sierra.stamford

I was browsing on sierra.stamford the other day under /pub/homebrew/  
images  
and noticed a bunch of what I guess are image files, mostly with a .  
jpg  
and .gif file name suffix. Does anyone know what format these files  
are  
and what software I need to display these? Will any MS Windows  
applications  
work?

Thanks in advance  
chuckm@pbn73.prime.com  
chuckm@pbn73.cv.com

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Date: Wed, 19 May 93 11:43:26 PDT  
From: troy@scubed.scubed.com (Troy Howard)  
Subject: Re: bad beer

"Anthony Johnston" <anthony@chemsun.chem.umn.edu> says:

>This is a followup to a posting I made several weeks ago regarding some  
>peculiar looking bubble "colonies" that I noticed in my secondary  
>fermenter with a particular batch of ale. It's been in the bottle  
>several weeks now (I followed the advice of several of you out there who  
>advised against its summary dispatch into the Mississippi) and can now  
>say that... It's definitely awful and undrinkable. There is a flavor  
>that I can only describe as "soapy" :( I do not know if this is merely  
>coincidental to the appearance of the strange bubbles or not, but I am  
>wondering if any of you out there have experienced such a taste and if  
>it from an infection.

I had this discussion with another fellow a few months ago. I believe  
that  
our consensus was that it was correlated with Whitbred Ale yeast. Now,  
the soapy flavor may be due to an infection of the yeast, or perhaps to  
strange and "unique" esters from the yeast themselves. Who knows.

Can you contribute another data point and let us know what yeast you  
used?

Troy

ps. Personally, I don't believe your malt is at fault. (hey! That's  
somewhat  
poetic)

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Date: Wed, 19 May 1993 12:34:08 -0700 (PDT)  
From: Stewart Evans <stewart@sco.COM>  
Subject: cherry ale destroys carboy!

Last weekend I bottled a cherry ale. I started with a basic ale, very lightly hopped. I bought 6 24-oz. jars of sour Morello cherries from Trader Joe's; they were packed in light syrup, most of which I poured off, so the total was something less than 9 lbs of pitted cherries. I put the cherries in the secondary and racked the beer over them, and left them for about 3 weeks until all the cherries had sunk to the bottom. When I took a sample off the top of the carboy, I noted some tartness but very little cherry aroma/flavor. I decided to bottle anyway. When I tasted the leftovers in the bottom of my bottling bucket, I was surprised to find a distinct cherry taste! I wonder if somehow the flavor was not evenly dispersed through the beer initially, but got mixed in by the racking process. Anyway, it looks like it's going to be a very nice summer beer.

After bottling, I rinsed out my carboy and stuck in my bottle-brush to scrub out the krauesen ring. Suddenly I heard a CRACK! like a rock hitting a windshield. The carboy had fractured almost all the way around the base. There was no pressure on the carboy at that point. Weird! Perhaps earlier handling had produced some kind of stress in the glass? It's a pain to lose a \$12 carboy, but at least it happened AFTER I got the beer out of it!

- -- Stewart

"We need a good bar and a whiteboard. In that order."  
-- Chris Stuart (cs10@cornell.edu)

/\* stewart@sco.com is Stewart Evans in Santa Cruz, CA \*/

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Date: Wed, 19 May 1993 13:11:41 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: BeBop and Brew Correction

When I posted the announcement for BeBop and Brew, I made a mistake on the date. It is actually Sunday, May 23. Sorry about that.

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Everything you know is wrong.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: Wed, 19 May 93 16:49:42 CDT  
From: greenbay@vnet.IBM.COM  
Subject: RE: Half and Half

Thanks to all for the many many responses to my question. I appreciate the help. I was informed that I was thinking of a Black and Tan that is made with Guinness and Bass and I recall seeing that, but I also think that they serve a Guinness/Harp combo here also.

Anyway, I'll be trying out the ideas tonight!

Bob

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Date: Wed, 19 May 93 17:18 CDT

From: korz@iepubj.att.com

Subject: hops/supply shops/boil hops/bleach+SS/Bad smell/correction

JUKNALIS writes:

> Hello out there! Can anyone tell me if it is possible to tell  
>the difference between different varieties of hops by their growth form  
>, scents, or flower structures?? Thanks in advance. Joe

Yes. I suggest you get the Hops special issue of Zymurgy. With  
experience,  
you can tell the difference between hops by aroma, although some are  
quite  
close. Unfortunately, I can't explain how to do this in words -- you  
have  
to just practice. The one aroma that is quite recognizable and  
definable,  
is grapefruit -- Cascades and Centennial (CFJ90) have the most of this  
grapefruit aroma, but I've noted it in Willamette to a lesser extent.

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Ken writes:

> I've noticed a few posts lately about starting a brewpub and or  
>microbrewery. Does anyone have any ideas or experience starting a  
>homebrew supply shop?

Yes. DON'T DO IT! YOU'LL NEVER SEE YOUR FAMILY AGAIN! YOUR PERSONAL  
LIFE WILL END... YOU WILL BECOME A VERY BORING PERSON TO ANYONE WHO  
DOESN'T BREW BECAUSE BREWING IS ALL YOU WILL BE ABLE TO TALK ABOUT!  
YOU WILL HAVE NIGHTMARES ABOUT LATE DELIVERIES AND THAT PESKY \$1.32  
ERROR THAT YOU CAN'T FIND IN THE CHECKBOOK! APRIL 15TH WILL TAKE ON  
AN ENTIRELY NEW MEANING AND QUARTERLY, YOU WILL GO FOR A WEEK WITHOUT  
SLEEP AS YOU TRY TO FILL OUT THE STATE SALES TAX FORMS...

That said, if you are still fool enough to try it, send email or call  
me at 708-430-HOPS and I'll help you get started.

\*\*\*\*\*

d writes:

> First: I have a question about bittering hops. My understanding  
>has always been that with long boils (60' or more), the only character  
>imparted to the wort is bitterness; volatile oils are boiled off, and so  
>other flavors/aromas are lost. If this is the case, then why do I see  
>recipes (e.g. some Winner's Circle recipes) that use combinations of  
hops  
>for 60 minute boiling? If nothing survives but bitterness, why not just  
>buy the bitterest hops you can get, use an appropriate amount, and save  
>your Cascades for flavoring/finishing/dry hopping? Is there actually a  
>subtle (but detectable) flavor/aroma contribution from hops boiled for  
60  
>minutes?

Yes there is, I feel. Among the more subtle, lower-alpha hops, there is  
less difference, but the harsher, high-alpha hops, I feel that there is  
a difference. For lack of a better word, "harshness" is a component that  
is added to the bitterness -- in the back of the throat, not just on the  
back of the tongue, as in smooth bitterness -- when you use high-alpha  
hops. All I can really say is to try some small, pilot batches and see  
if you feel the difference is important enough for you.

\*\*\*\*\*

JC writes:

>I'd caution everyone against using bleach to clean stainless steel vessels.  
>I'm under the impression that bleach will pit stainless steel.

I agree. Iodine-based sanitizers are recommended for sanitizing stainless steel.

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NEIL writes:

>I've made about 8 extract batches, and each time the beer in the >primary smelled, well, like beer. A nice sweet smell. However, >my last batch, (which kept fermenting for 2 weeks) smelled terrible. >kinda like a mens bathroom afer a keg party. Anyway, is this what >you call "infected beer"? Would the smell/taste have changed after >bottle conditioning? The beer was still cloudy in the carboy at two >weeks. I ended up dumping the stuff down the drain.

That smell you describe is indeed a bacterial infection. It's unlikely that it would have righted itself in the bottle. The cloudiness is another indication that there was an infection. I suspect that more and more reports of infected batches will be cropping up now that the warmer weather is here. It is still possible to brew in the summer, but you must be extra, extra, extra careful about your sanitation -- what worked in the cold of winter may not work in the summer. Open windows, damp basements, warmer tapwater (for wort chillers) and active, airbourne microflora are some of the reasons that summer requires much more stringent sanitation techniques.

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I wrote:

>I believe that Edme is quite a bit more fermentable than Nottingham  
^  
>and the Edme would have used up all the oxygen, so I'm not surprised  
>that the Nottingham did nothing -- there was no O2 or sugar left  
>for it to eat.

Sorry... what I meant was "attenuative." Rush, rush, rush, duh!

Al.

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Date: Wed, 19 May 93 19:39:07 EDT  
From: Pierre Jelenc <rcpj@Panix.Com>  
Subject: fruit, sugar,

Several people have asked recently about sanitizing fruit for fruit beers. I recommend using a solution of potassium permanganate. It has been used traditionally in countries where vegetables, salads, etc are a bit dodgy. Make a frankly purple solution of permanganate in water, and soak the whole fruit for 5-10 min. If the purple color fades (the stuff found things to chew up), add a couple of drops of concentrate and let soak a while more. Drain and rinse with boiled water.

About sugar, again from several posts:

Sucrose is broken readily by yeast into fructose and glucose. The yeast must do that before using it for food. While it can do it, yeast is lazy and will not balk if the job is done for it, hence the use of invert sugar.

Caramel: all simple sugars caramelize upon heating. The reaction is a complex set of thermal dehydrations that produce short polymers and cyclic compounds.

Maltose: it is a disaccharide like sucrose, except that it is made of two glucoses.

Golden Syrup: my local supermarket in NYC at Broadway and 115th has it routinely on the shelves, as well as several other Tate & Lyle specialty sugar products. I saw treacle downtown a while ago, maybe at the South Street Seaport mall.

Jaggery: It is partly refined sucrose from the sap of a palm tree.

Pierre

Pierre Jelenc  
rcpj@panix.com

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Date: Wed, 19 May 93 7:21 EDT  
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)  
Subject: Results of UNYHA Annual Contest

Contest Winners of the AHA-sanctioned 15th Annual Empire State Open,  
sponsored on April 25 by the Upstate New York Homebrewers Association,  
Rochester, New York:

Light Lager 1st Place Kurt Jensen  
2nd Place George Fix  
3rd Place Dave Chapus

Amber Lager 1st Place Bill Heller  
2nd Place Andrew Jones  
3rd Place James E. Lee

Dark Lager 1st Place Glenn Van Graafeiland  
2nd Place Dave Chapus  
3rd Place Art Allen

Porter 1st Place Tom Kaltenbach  
2nd Place Bill Hitt  
3rd Place John D. Sullivan

Stout 1st Place Chris Stamp  
2nd Place Andrew Jones  
3rd Place Terry O'Conner

North Amer Ale 1st Place Mark Dux  
2nd Place Mark Dux  
3rd Place Dave Schlosser

Looks Like 1st Place Dave Schlosser  
Saranac 2nd Place Andrew Jones  
3rd Place Steve Gallagher

British Ale 1st Place Kurt Jensen  
2nd Place Peter Schuyler  
3rd Place Randy Blandford

Brown Ale 1st Place Scott Abrahamson  
2nd Place Tom Thompson/Allen Ricket  
3rd Place Jeff Tonges

Belgian 1st Place Scott Bickham (wit)  
2nd Place Bill Hitt (Trappist)  
3rd Place Bill Hitt (Trappist)

Specialty 1st Place Andrew Jones (spice beer)  
2nd Place Bill Hitt (chocolate porter)  
3rd Place Kurt Jensen (wheat)

Best of Show 1st Place Scott Abrahamson (Brown Ale)  
2nd Place Kurt Jensen (Light Lager)  
3rd Place Scott Bickham (Belgian Wit, or "white", beer)

Tom Kaltenbach Upstate New York Homebrewers Association  
tom@kalten.bach1.sai.com Rochester, New York, USA

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Date: 19 May 1993 22:11:21 -0500 (CDT)  
From: ROB WILSON <WILSONRS@VAX1.Winona.MSUS.EDU>  
Subject: Equipment?

Hello All

I'm very new to homebrewing, only four extract batches. I'm looking for some basic equipment at low prices (Since I'm a college student). I need a couple of glass carboy's and bottles. I have seen bottles with there own tops, look like a little porcelain stopper with a rubber washer on it. I don't know what they are called but look like they would work well.

Could some of you out there help me to find a mail order shop or anybody willing to sell there equipment. The local pseudo homebrew shop wants \$35 for a glass 5 gal. carboy, this seams high to me. Also what are those bottles called and do they work?? Any other helpful hints on any brewing subject welcome.

Please email me at wilsonrs@vax2.winona.msus.edu  
Rob Wilson

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End of HOMEBREW Digest #1145, 05/20/93  
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Date: Thu, 20 May 93 09:39 EDT  
From: tmr1@hotmailg.att.com  
Subject: Re: Equipment?

Rob Wilson asks:

> ..... I  
> need  
> a couple of glass carboy's and bottles. I have seen bottles with there  
> own  
> tops, look like a little porcelain stopper with a rubber washer on it.  
> I  
> don't know what they are called but look like they would work well.  
  
> ..... Also what are those  
> bottles called and do they work??

The bottles Rob is referring to are Grolsch bottles, a beer made in Holland.  
I was lucky enough to obtain about 400 of these once and it was one of the reasons I began homebrewing. I never liked the beer and I got the bottles empty, but they are excellent for bottling homebrew. They hold 16 ounces, are dark brown to keep out light, are very thick and sturdy (I haven't broken one yet) and are a joy to cap. Just a flip of the thumb and they are capped. No need for a special capper. Most of the original rubber gaskets are still in good shape and the few that were dried out or covered with crud and/or beer mold were replaced. Several homebrew supply stores and mail order catalogs have them both in white and red. I boil the gaskets for 5 minutes to sterilize them before bottling.

The 16 oz. size is nice since I can pour 2 mugs of beer with a good head from 1 Grolsch bottle and still leave the yeast sediment in the bottle. An interesting thing I have noticed while soaking off the original labels is that the older bottles were marked as 16 oz. on the label and as time went on, the labels changed to 15.8 oz. and 15.2 oz. Probably at the same price, but at a savings to the brewery. I'm in the process of measuring the volume of each of the 3 differently marked bottles, but I'll bet that they are all the same. They just put less beer in them when they were bottled.

A typical 5 gallon batch will yield between 35 and 40 Grolsch bottles. I place a removable 3/4" round Avery label on the cap and write the batch number on it using a yellow label for lager and brown for ale. I make my own front and back labels for each batch on a laser printer and glue them on to the bottle with Elmer's white glue. I have no idea where to get more of these bottles. Try a bar that serves Grolsch in these bottles.

Tom Romalewski

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Date: Thu, 20 May 93 08:50:05 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: sanitizing Stainless Steel

Al Korzonas writes:

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JC writes:

>I'd caution everyone against using bleach to clean stainless steel vessels.

>I'm under the impression that bleach will pit stainless steel.

I agree. Iodine-based sanitizers are recommended for sanitizing stainless steel.

- - - -

OK, here's a silly question. I'm using my stainless keg as a cooker, so it'll be sterilized by the boil, right? So, as long as I get it CLEAN, and rinse it good, that should be clean enough, right?

I never bothered sterilizing my wort chiller, because I just put it in the wort when I'm boiling it, so the kettle shouldn't be any different, should it?

How about the ladle? I just leave it hanging inside the keg, during the boil, so I can stir the wort without worrying about putting a non-sterile instrument in it. Is having it sit in/just above the boiling wort enough to keep it from contracting nasties?

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Hint of the day...I've been pitching my yeast into a quart of starter wort, and I get much quicker starts this way. I just took 1lb. of dry malt extract in a gallon of water, boiled for about an hour, and canned it. Now, when I want to brew on saturday, I pop my wyeast pack on thursday, pitch it into a gallon cider jug when it's ready, add the quart of starter wort, shake the heck out of it, and let it go. By saturday or sunday, it's ready to go (nice 1/4" of froth on the surface), I make my batch, shake up the starter, and pitch. Starts have been within 12 hours regularly, I was getting 24 hour+ starts by just dumping the wyeast pack into the fermenter.

It's definately worth the minimal effort it takes, in my opinion. If you aren't making a yeast starter, I'd say it's not a bad idea to do. The higher cell count you start with, the quicker it'll get fermenting, and crowd out any infections that happen to be there.

Any suggestions on refinement of this technique?

Dave Hinz  
hinz@memphis.med.ge.com

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Date: Thu, 20 May 93 06:46:53 PDT  
From: JC 20-May-1993 0943 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Secondary Fermentation

>Date: Wed, 19 May 93 11:23:37 EDT  
>From: <geotex@engin.umich.edu>  
>Subject: Sencondary Fermentation

writes:

>I am unsure of the purpose of racking to a secondar fermentation  
>container.

>

>Could someone please clear this up for me. It seems my books  
>don't clearly explain this.

I can think of two reasons for doing this (note: my reasons are more geared for extract brewers):

1) xfr'ing the brew to the 2ndary helps separate the sludge from the brew, and hence, if done right, will produce beers that are more clear.

2) buys you time. bottling is time-consuming; once you have the brew in the 2ndary (carboy), you can let it sit in there for a while (months) until you find a good time to bottle.

JC

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Date: Thu, 20 May 1993 09:19:31 -0500 (CDT)

From: MEHTA01@swmed.edu

Subject: Local beer made in Philadelphia??

Hi.

i have a friend who is in Philadelphia and he volunteered to bring some NorthEastern beer. When i was up in NJ, i remember drinking a Phil. beer

made by 'Dock St. Brewing Co.' called Anchor beer. i am not sure of the names

so would some one please verify these, before i send my kind friend off on a

widget-hunt.. :-) Thank You.

Shreefal Mehta

Mehta01@utsw.swmed.utexas.edu

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Date: Thu, 20 May 93 09:22:59 CDT  
From: greenbay@vnet.IBM.COM  
Subject: RE: Half and Half , NA Beer

It worked! Pouring the Guinness into a spoon resting on the top of the bottom beer effectively separated the two. Actually, I only got it to work with Old Milwaukee on the bottom and my stout on top (Old Mil cold, stout warm.) I tried it with one of my lighter colored beers, but the stout mixed in. Maybe in that case the stout should have been on the bottom.

I'm also interested in producing an NA beer. One idea I had would be to just use crystal malt or some other malt for the flavor and body of the beer but not use anything that would contribute fermentable sugars. Then you could boil in the hops cool it down, add yeast and priming sugar and bottle it. This would be restrictive on flavor, style, and whatnot, but would it work?

Thanks for all of the help,  
Bob

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Date: Thu, 20 May 93 07:27 PDT  
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: A new half-n-half

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 05/20/93 09:28:17  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: A new half-n-half

Since we have fresh, tasty Celis White available locally on tap, we make  
a  
concoction called "Cream of Wheat." It is a bottom layer of Celis White  
and a  
top layer of draught Guinness. Whenever you take a drink the whole  
boundary  
layer sloshes from one side to the other, but there is surprisingly  
little  
mixing. Very fun to watch and equally fun to drink. The Celis White adds  
an  
interesting spicy-fruitiness to the drink, while the Guinness is  
roasty-creamy. I highly recommend it to those who are brave enough to  
try.

A note about pouring: I believe that the bartender pours the Guinness on  
a  
large spoon held just above the Celis or the rising layer of Guinness.

Dennis B. Lewis \* (713) 483-9145 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Thu, 20 May 93 07:50 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAMail.nasa.gov  
Subject: Lyle's Golden Syrup and Black Treacle

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 05/20/93 09:51:10  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Lyle's Golden Syrup and Black Treacle

I have access to both Lyle's Golden Syrup and Black Treacle. A one pound  
can runs about \$2.50 for the Golden and \$2.25 for the Treacle. As far as I  
can tell, the Golden Syrup adds a small amount of flavor (slight caramel  
taste) and not much in the way of fermentables (maybe 25-30 ppg). The Black  
Treacle, used in sparing amounts of 2-5% provides an "Old Peculiar" taste to your  
brew according the All-Grain Zymurgy special issue. I haven't used it yet,  
but I tasted it and Theakton's Old Peculiar is right on the money. It is  
similar to molasses, but the taste is noticable different.

Is it really true that Lyle's Golden Syrup and Black Treacle are no  
longer imported? If so, then I'll run out and clean out the store of their  
stock.

Dennis B. Lewis \* (713) 483-9145 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Thu, 20 May 93 11:03:44 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: Racking after Pitching

Hi All,

In HBD#1145, STOREY@fender.msfc.nasa.gov posted a funny story about beer culture shock in London.

Reading it reminded me of the last time I was at O'Hare in Chicago. I had a couple of hours to kill waiting for my flight, when I spotted an airport bar that served Guinness Extra Stout. The bar was lined with people drinking the Budmilloors swill, appropriately served ice-cold in order to numb the palate. When I ordered a Guinness, a few people looked up. The bartender apologized, explaining that he couldn't serve me one as he didn't have any cold. \*Everyone\* looked up when I told him that was OK, I liked it warm. I spent the next two hours blissfully sipping room temperature Guinness, to the utter revulsion of the Budmilloors crowd seated around me. I could not have been more pleased :-).

\*\*\*\*\*

Brian Bliss posted a recipe for sour mash Guinness:

>\* Cascades will give that funky american hop taste, if you desire, but  
>taste unlike guinness. Any German hop is right out. Fuggles don't give  
>that sharp bitterness. Maybe N. Brewer...

>Ignore the comment about N. Brewer in my previous note - It is  
>a relative to Hallertau, which does not work in stouts (I've tried  
>it).

I've used Bullion in my stouts with good results. Give them a try.

\*\*\*\*\*

Phil Brushaber writes:

>I find this interesting. The advantage Miller suggests is  
>that after the proper hot and cold break that you don't have  
>to syphon off the clear wort from the boiler, just strain it  
>into the fermenter. But my concern lies in the area of  
>racking (and aerating) the beer again after it has been  
>sitting for several hours, but before fermentation begins.

One of my brewing buddies, who is a firm believer in the gospel according to Miller, racks his wort from the boiler, then allows it to chill to 45F overnight. Next morning, he racks off the settled cold break into a second carboy and pitches. His lagers come out great. However, I'm not sure he re-aerates during the second racking, I think he treats it like a racking to secondary, i.e., minimal splashing. Lee, care to comment?

I also chill my wort to about 48F before pitching, but I don't bother racking off the cold break. My understanding is that the yeast won't bother with the trub while they have other food available, so off flavors from fusel alcohol production is not a problem during primary fermentation.

My lagers come out well, too. Comments??

>Also there is the inference that the yeast starter should be

>at the same cold (50 degree F) temperature as the chilled  
>wort. Is anyone else doing this for lagers? I have been  
>pitching my room temp starter into about 70 degree wort, then  
>putting the fermenter into the refrigerator and bringing the  
>temp down to 50 degrees.

>Any thoughts?

It is important that the starter and the wort be about the same temperature at pitching time. I read somewhere (Miller? Noonan?) that sudden, severe temperature shock will kill a large percentage of the yeast.

In your case Phil, I'd say temperature shock shouldn't be a problem, as your starter and wort are about the same temperature. However, pitching lager yeast at 70F will cause elevated levels of diacetyl in the finished product. Pitching when the wort is 45F-50F will sufficiently reduce the amount of diacetyl produced during primary fermentation, so that a 1-2 day diacetyl rest after primary will reduce the diacetyl below threshold level.

Of course, a side effect of pitching into chilled wort is increased lag time. I've had some success compensating for this effect by growing large yeast populations in a 1/2 gallon jug. I start 7-10 days in advance of brew day, let the starter ferment out, pour off most of the liquid leaving just the yeast sediment, and re-feed with fresh sterile wort. After two feedings, I typically have about a 1 inch thick layer of yeast sediment. When the wort is properly chilled, I again pour off most of the liquid, and pitch the slurry. Using this method, fermentation starts in 12-18 hours, even at the reduced temperatures.

Cheers,  
Jim

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Date: Thu, 20 May 1993 11:02:32 -0400 (EDT)  
From: Bryan Kornreich <bkornrei@pennsy.med.jhu.edu>  
Subject: secondary fermentations and fruit

Hey there,  
geotex@engin.umich.edu wrote that he was unsure about the purpose of racking to a secondary fermentation container. If anyone knows, please tell us all. I've been wondering about it for years and have never, ever gotten a straight answer. I've heard all sorts of reasons ranging from:  
-It helps clear the beer  
-It makes the yeast happier to work in a cleaner environment, so they take the fermentation further  
and -"What do you mean 'why'? You have to do it! Everyone does it"

Me personally, I've done it and I see no real benefit--maybe a bit of clearing, that's all; but then, I don't particularly care too much about the color of my beer--taste and aroma mean everything to me.

-----  
I have some questions for all you fruit beer brewers out there:  
1. How on Earth do you press your fruity wort (to get the juice out of the pulp) with any hint of sterility. I've always wanted to do a fruit brew, but I am most afraid of this messy procedure.  
2. In yesterday's Wheat Berry beer recipe, would it be a good idea to puree the raspberries and blackberries before adding them in order to avoid the pressing step? And would skipping the pressing be OK, or would too much juice be left in the cellulose matrix of the fruit?  
3. Does anyone out there have a good recipe for a banana beer? And do you have to sterilize a banana before use? (I'm guessing no!)  
4. What sorts of yeast leaves a nice banana taste in a beer (a regular beer, not a fruit beer)? Sort of like the Austrian EidelWeiss (is that the right beer I'm thinking of?)  
thanks,  
Bryan

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Date: Thu, 20 May 93 11:13:30 -0400  
From: Ron Natalie <ron@topaz.bds.com>  
Subject: foreign american brews

Yes, I came across the same thing when I first went to Japan. First, the Japanese were amazed that I even knew of a handful of the Japanese megabrands (Asahi, Kirin, Suntory, ...) but also the restaurant menus would almost always list "Budweiser" as the first thing in the list of Imported beers.

-Ron

I still find the name "POCARI SWEAT" amusing.

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Date: Thu, 20 May 1993 09:19:37 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: 1/2 & 1/2; racking, the Secret Meaning of ..

Phil Brushaber asks:

>  
>  
> I have read many Homebrew texts but only recently got Dave  
> Miller's Complete Handbook of Home Brewing. Some of what  
> Miller suggests is contrary to my current practices of all-  
> grain brewing. One area is racking the wort off the trub  
> after the cold break.  
>  
> After the wort chill Miller suggests... "At this point you  
> have two choices, depending on how cold your wort is. If it is  
> down to fermentation temperature (48 to 55 F for lagers) you  
> should pitch your yeast immediately.... Close the fermenter  
> and move it to your fermentation area. The wort should be  
> racked off into a secondary fermenter about 8 to 12 hours  
> later, to separate it from most of the hot and cold break  
> material which will settle to the bottom of the vessel. Also  
> remember that, before pitching, the wort must be aerated."  
>

Far be it from lowly me to say that Dave Miller is wrong... but the research I did last year for a presentation at the AHA national conference proved to my satisfaction (and my own experience has backed it up), that racking wort off the cold break was entirely a waste of time. Somewhere back a few months I posted some direct quotations from DeClerq and from George Fix, but in essence the point is that once the cold break has been created properly (by adequate chilling) it will NOT be reabsorbed into the wort unless the temperature of the wort is raised considerably above any conceivable in a brewery fermentation area.

It is important to get the wort off the hot break material, but this is a relatively simple thing to achieve when drawing the wort out of the kettle.

When I made the presentation (3 times! best believe the AHA gets their money's worth out of you), I said that I had never seen a brewery that worried about racking wort off the cold break -- one fellow from (I think) Chicago said that I was wrong! (oooooooooooh!) and that such and such brewery there did so. Well, that's one. And I suspect Dave Miller's brewpub is another.

> I find this interesting. The advantage Miller suggests is  
> that after the proper hot and cold break that you don't have  
> to syphon off the clear wort from the boiler, just strain it  
> into the fermenter. But my concern lies in the area of  
> racking (and aerating) the beer again after it has been  
> sitting for several hours, but before fermentation begins.  
> Also there is the inference that the yeast starter should be  
> at the same cold (50 degree F) temperature as the chilled  
> wort. Is anyone else doing this for lagers? I have been  
> pitching my room temp starter into about 70 degree wort, then  
> putting the fermenter into the refrigerator and bringing the  
> temp down to 50 degrees.  
>



I ain't no lager expert, by a long shot, but the procedure you're following is the same recommended to me by Dave Logsdon of WYeast Labs and he does make great lagers. So...

=====

On 1/2 and 1/2 (or, more properly "arf 'n arf")

I was taught to make these while tending bar at the Horse Brass, Portland's "authentic" British pub. I think it's pretty tricky from the bottle, and haven't a clue how to start. But with the proper taps, it's pretty easy. If you'll notice, Guinness is dispensed from a unique faucet that comes down to a small tip, and has a little knob on the side to control the flow. If you put the ale (not Harp, yuck!) in the bottom of the glass and then sloooooooooowly run the Guinness in on top (you have to open the knob up just at the very end to allow a rush of nitrogen/carbondioxide in for the head) you will end up with the heavy Guinness on top of the thinner ale. Naturally, this is an unstable condition and the two beers will quickly mix -- but it does make a nice presentation.

In general, I refused to do any other mixed beers, being a hard-core traditionalist. Arf n arfs I could live with, but some of the waitresses spent a lot of time coming up with cute names for mixes of various microbrewed ales -- they had to find another bartender to do them (whoops! "find another bartender to mix them").

Incidentally, the most beautifully presented drink I ever saw was a Tequila Sunrise at Henry Africa's in San Francisco. The bartender would put the grenadine on the bottom, then the assorted other goodies on top, and finally put a swizzle stick all the way to the bottom and quickly pull it up: the Grenadine would follow up the center of the glass. It was the only time the drink's name ever made sense to me.

=====

> From: <geotex@engin.umich.edu>  
> Subject: Sencondary Fermentation

>

>

> I am unsure of the purpose of racking to a secondar fermentation  
> container.

>

> Could someone please clear this up for me. It seems my books  
> don't clearly explain this.

>

There are a number of good reasons for it. One of the simplest is that it leaves the cold break (trub, etc.) on the bottom of the first carboy. This means that (a) you can harvest pure yeast from the 2ndary and (b) that you will end up with much less garp(TM) in your bottles.

>

> From: CHUCKM@PBN73.Prime.COM  
> Subject: image files on sierra.stamford

>

> I was browsing on sierra.stamford the other day under /pub/homebrew/  
images  
> and noticed a bunch of what I guess are image files, mostly with a .  
jpg  
> and .gif file name suffix. Does anyone know what format these files  
are  
> and what software I need to display these? Will any MS Windows  
applications  
> work?

>

There are decoders around that will allow you to read .gif or .jpg files. I'm using Aldus PhotoStyler, which is supposed to be able to read .gif files, but frankly it doesn't work worth a ... Anyway, I've recently received some updates (which won't fit on the damn drive ...) that supposedly will deal with .gif and .jpg (a compression format) -- but I haven't much faith.

I also have some shareware called Graphic Workshop which reads these files (and many others) and converts back and forth. It isn't a Windows program but does run under Windows.

- --Jeff Frane

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Date: Thu, 20 May 93 12:28:28 -0400  
From: djt2@po.CWRU.Edu (Dennis J. Templeton)  
Subject: Brewing Techniques... a great new journal

I just received the inaugural copy of "Brewing Techniques" in the mail.  
It is a beautiful, intelligent, and sure to be successful magazine.

I'm writing to offer my congratulations to the editors and writers, many  
of  
whom appear here on the Digest. Keep up the good work.

I got my inaugural subscription by sending \$24 (for 6 issues, one year)  
to:  
Brewing Techniques  
P. O. Box 3076  
Eugene, OR 97403

And, no, this is not a paid solicitation. Sheesh!

dennis

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Date: Thu, 20 May 93 9:31:40 PDT  
From: tinsethg@ucs.orst.edu (Glenn Tinseth)  
Subject: Bitterness

In this Wednesday's HBD drose@husc.harvard.edu asked about bittering hops, specifically whether there was any reason to be picky about what variety we use for >60 min. boils. I mean bitterness is bitterness, right?

>From the back of the room comes a resounding \*NO\*

While it is true that boiling hops for greater than an hour or so gets rid of the volatile essential oils (for the most part), these oils are not the only compounds that give a hop its unique character. The quantity and proportions of the various alpha and beta acids are different for each hop variety. High alpha varieties typically have an alpha/beta ratio of 2-4 while noble hops' alpha/beta commonly is below 1. In addition the cohumulone/humulone ratio also varies widely, hops with high cohumulone levels are thought to contribute a harsher bitterness to beer and negatively impact head retention.

The big brewers, under the assumption that bitterness was bitterness, funded most of the development of high alpha varieties in the last 20 years. They found that their taste panels were able to distinguish between beers bittered with noble varieties and high alphas and preferred the former in most cases. Today a lot of their research money is being spent developing higher yielding noble-type aroma hops (like Mt. Hood and Liberty and soon to arrive Tettnanger and Saaz triploid varieties).

The best way to demonstrate this is via test brews. Add the same amount of alpha acids to each beer but make one Chinook (~12% alpha) and make the other Saaz (~3-4% alpha) for example. Make sure you boil the hops for >60 min. and don't add flavor/aroma hops. Then ferment, finish, and taste the difference.

Email me with your snail mail address for my catalog which discusses hop varieties, hop chemistry, bitterness calculations, and of course, where to get fresh, whole hops. (Sorry for the commercial, but Jack said it was OK:-)

Glenn

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Date: Thu, 20 May 93 09:10:59 MDT  
From: "Steve Kurka - BMC West, Boise, ID" <kurka@bmcw.com>  
Subject: The Sanitation subject again - Recent studies on water nasties

Sanitation and the homebrewer:

Recently, I have noticed more comments on sanitation due to summer's return.  
As a backcountry camper and a homebrewer, I have many concerns about what is "growing" in the water. Some of the water treatment practices of camping be applied to the disinfecting process of brewing:  
For those that read the REC.BACKCOUNTRY postings, you will know what affect Chlorine and Iodine have on microflora, bacteria and the like. If you are interested and do not read RB, I can forward a summary on water treatment.  
It contains reviews on water filters and chemical effectiveness from recent scientific studies and research. (Or look under REC.BACKCOUNTRY for a 1400 line posting on Sunday May 9.)

Now for a few quotes:

1.  
>Without getting too technical, one can gain some appreciation of the  
>problem by understanding a few of the variables that influence the  
>efficacy of chlorine as a disinfectant.  
>  
>1) Water pH: at pH values above 7.5, the disinfectant capability of  
> chlorine is greatly reduced.  
>2) Water temperature: the warmer the water, the higher the efficacy.  
> Thus, chlorine does not work well in ice-cold water from mountain  
> streams.  
>3) Organic content of the water: mud, decayed vegetation, or other  
> suspended organic debris in water chemically combines with chlorine  
> making it unavailable as a disinfectant.  
>4) Chlorine contact time: the longer Giardia cysts are exposed to  
> chlorine, the more likely it is that the chemical will kill them.  
>5) Chlorine concentration: the higher the chlorine concentration, the  
> more likely chlorine will kill Giardia cysts. Most water treatment  
> facilities try to add enough chlorine to give a free (unbound)  
> chlorine residual at the customer tap of 0.5 mg per liter of water.  
...
2.  
>Boiling  
>  
>Boiling water is one of the simplest and most effective ways to purify  
>water. Boiling for 1 minute is adequate to kill Giardia as well as most  
>other bacterial or viral pathogens likely to be acquired from drinking  
>polluted water.  
>  
>Chemical Disinfection  
>  
>Disinfection of water with chlorine or iodine is considered less  
>reliable  
>than boiling for killing Giardia. However, it is recognized that  
>boiling  
>drinking water is not practical under many circumstances. Therefore,  
>when  
>one cannot boil drinking water, chemical disinfectants such as iodine or

>chlorine should be used. This will provide some protection against  
>Giardia  
>and will destroy most bacteria and viruses that cause illness. Iodine or  
>chlorine concentrations of 8 mg/liter (8ppm) with a minimum contact time  
>of 30 minutes are recommended. If the water is cold (less than 10 deg C  
>or  
>50 deg F) we suggest a minimum contact time of 60 minutes. If you have a  
>choice of disinfectants, use iodine. Iodine's disinfectant activity is  
>less  
>likely to be reduced by unfavorable water conditions, such as dissolved  
>organic material in water or by water with a high pH, than chlorine.

...

The post on water treatment is very extensive. Recommended reading for  
anyone who is Paranoid about infections, and the like. Boiling (Heat)  
still looks like the Safest way to disinfect things.

We as brewers do have the advantage of Alcohol production to kill  
nasties.

Isn't this why most countries brew, and say "Don't drink the Water"?  
The brewing process normally will render the water drinkable with  
and excellent flavor ;-) Steve

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-----  
- Women love cats. Men say they love cats,-  
- but when women aren't looking, men kick cats. KURKA@BMCW.COM Boise,  
ID-  
-----  
-----  
-----

Date: Thu, 20 May 93 10:47:28 PDT  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Images from listserv@sierra.stanford.edu

Not having ftp access, I must resort to using e-mail to get files from the listserv system. I'm having difficulty getting the "images" subdirectory; I can't even get a simple listing of the .gif files. Would some kind HBDer lend assistance, or e-mail me a list of uuencoded .gifs?

ObHB: First Belgian-style witbier smells wonderful, coriander and orange notes in the air, can't wait to keg it up and enjoy!

- - -

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  / / / / | | Don Scheidt | / / / /
 / / / / | Boeing IASL, 777 Cab Development | / / / /
 / / / / | dgs1300@aw101.iasl.ca.boeing.com | / / / /
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Date: Thu, 20 May 1993 13:01:14 -0500 (CDT)  
From: brewmstr@genesis.mcs.com (Jim Bayer)  
Subject: Half & Half

Bob at greenbay@vnet.IBM.COM asks how to pour a half and half:

First you pour a half glass of Harps and then you pour the Guinness slowly over a tablespoon on top of the Harps. You may get a little mix but it will stay seperated for a long time.

Jim

```
| Remember: Brewing is not a matter of life and death. |  
| It is much more important than that! |  
|=====|  
| Jim Bayer -> Chicago, my kind of town! The windy city |  
| brewmstr@genesis.mcs.com72416.1044@compuserve.com |
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Date: Thu, 20 May 93 13:37:19 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: sour mash

Thanks to Brian Bliss for his interesting response to my question about making sour mash for Guinness clones.

Pardon my ignorance: what is meant by "P-Guinness"?

Also, Brian, how do you introduce the lactic infection into the bottled beers?

Jonathan

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Date: 20 May 1993 12:40:46 -0600 (MDT)  
From: Mark Taratoot <SLNDW@CC.USU.EDU>  
Subject: Beer Bread

Greetings.

Mark S. Hart mailed me and requested my beer and pretzel method. I tried to email him directly (several times) but it kept bouncing. So, I will give a brief summary here. The original post can be found in the HBD archives by anonymous FTP from SIERRA.STANFORD.EDU.

Bread making can be time consuming, as can beer making. But if you make bread on a day that you will be around the house for several hours doing other things, it really is not much of a time drain, nor is it difficult. And the result is oh so yummy. Here is how:

NOTE: Do not use the yeast cake from primary fermentation unless you rack before fermentation gets underway (ie if you get the wort off the trub). Use the cake from a secondary fermenter.

Do NOT use the yeast cake from a beer that has been dry hopped. The beer will not spoil, but it will not taste good.

After you bottle/keg/spill-all-over-the-floor your beer, swish the carboy around to get the yeast cake into a slurry. Pour this slurry into a jar (or bowl if you want to get started right away). Pour some more liquid into the carboy and swish again (you can use dregs from the bottoms of recently emptied bottles, bottles that did not get completely filled, water, vegetable stock, whatever). You can close the jar LOOSELY and keep it in the refrigerator for a week or so. When you get ready to go, you can either decant off most of the liquid or pour it in (I pour it in).

To the slurry, add 2 cups flour (whole wheat preferably) and just a bit of sugar or honey. This is the sponge. Let it sit for 30-60 minutes. If the yeast slurry has been in the refrigerator, it will take longer to rise, so keep this in mind. If you prefer, you can stick the sponge in the fridge and use it as a "sourdough starter."

When the sponge has risen, add:

1/4 cup oil or melted butter (I like butter)

1/4 cup honey or sugar (mmmmmm. Honey.)

1 tsp salt

1 beaten egg (optional. Will help rise and increase protien).

"STUFF" (some, all, or none of the following)

Bulgar wheat (1 part bulgar and 1 part boiling water pre mixed)

sunflower seeds, crushed nuts, wheat berries, rasins, dates,

oats, millet, rye, spent grains from brewing, etc...

AND... more flour, 1/2 cup at a time until the dough has reached the proper consistency. NOTE: if you use a lot of "STUFF" then you may need to add some high gluten flour.

Knead for 15 minutes. Put in oiled bowl and allow to rise until doubled in bulk.

Knead for 15 minutes. Make loaves (I like braids and round loaves, but loaf pans will work too). For ronds and braids, put on

trays that have been sprinkled with corn meal or sesame seeds. Allow to rise until doubled in bulk. Brush top of crust (or all of crust for round loaves and braids) with one of the following for desired results:

Butter (yum) for a soft crust (if you use butter, put some more on right after the bread comes out of the oven)  
Beaten egg for a shiny crust (nice for braids)  
Milk for a nice brown crispy crust  
Nothing (simplicity)

Bake at 350 for 45 minutes or until bread sounds hollow when thumped. If you are using pyrex loaf pans, bake at 325.

Let the bread cool 20-30 minutes, slice, and enjoy with a nice glass of your favorite homebrew!

\*\*\*\*\*PRETZELS\*\*\*\*\*

Pretzels are easy too.

Take the yeast slurry or sponge, 1 tsp salt, a tiny bit of oil, egg if you like, and enough flour to get the dough a nice consistency. Knead for 15 minutes. Put in oiled bowl and allow to rise until doubled in bulk. Knead again. Roll into snakes and shape the snakes into pretzels.

\_\_At this point, I have been told you can increase the final "chewyness" of the pretzels by dropping them one by one into boiling soda water (1/4 to 1/3 cup baking soda in a pot of water). Supposedly they will sink, then rise back to the top when they should be removed\_\_

Put the pretzels on greased trays. Brush with beaten egg (or not, it makes a mess of the trays) and sprinkle with salt (optional) if you need to increase your blood pressure. Bake for ??15 minutes?? at 400?? degrees (take them out as soon as they start to get brown, each oven cooks differently, and when I have made pretzels in different ovens, the times and temp can vary.

As soon as they come out of the oven, spread fine mustard on one and devour it with a glass of fresh homebrew. Pretzels don't save very well, so make them when you have friends over.

Actually, it is easy as pie. (Hmmm. Beer pie... Nah.)

Have fun with these. If anyone has comments or suggestions about these, please contact me SLNDW@cc.usu.edu. I always love to get new cooking tips.

-toot

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Date: Thu, 20 May 93 13:50 CDT  
From: korz@iepubj.att.com  
Subject: Spices/Protein rest/Tate&Lyle's

Spencer writes:

>According to Randy Mosher, who has a lot of experience making  
>strangely spiced brews, the best way to add cinnamon is to make a  
>"potion". Soak some cinnamon in vodka for a week or two, then add the  
>potion gradually to the finished (but not yet bottled) beer until it  
>tastes right.

I concur. I believe, also, that Randy recommends filtering the potion through a coffee filter. I did this on a few beers and it worked quite well (however, the judges liked my Curry Beer much more than I did!).

For those of you that haven't had the opportunity to try Randy Mosher's odd beers, they are some of the most creative and interesting liquids I've had the pleasure to taste. My favorite is probably still the Chantrelle (sp?) Mushroom beer. Wow!

\*\*\*\*\*

Brian writes:

>P-Guinness

>

>8 lbs PILSNER malt

>1 lb roasted barley

>1 lb barley flakes

>4 oz. black patent

>1.75 oz GOLDINGS ~5% AA hop plugs

>1-6 bottles of soured beer

>

>The whole idea is to keep the protein in the beer, so you start with

>Pilsner malt & don't do a protein rest.

Yes, but there are big proteins and small proteins. The protein rest will break the big proteins into smaller proteins and amino acids. I'm pretty sure that any really big proteins that are left by the time you are boiling will turn into hot break and do your beer no good anyway, so I don't think that skipping the protein rest will actually significantly increase your protein levels in the final beer. Comments?

\*\*\*\*\*

Brian also writes that he found some Black Treacle a few months ago.

Yes, but I spoke with (as far as I know) sole wholesaler of the stuff and he said that their current stocks had run out and that was it for a while.

Al.

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Date: 20 May 1993 14:48:25 -0500 (CDT)  
From: Tim LaBerge <LABERGE@kuhub.cc.ukans.edu>  
Subject: brewkettles and carboys

Hi all,

I've been on an equipment binge lately, but I've run into some good prices that I'd like to pass along. I found 5 gallon glass carboys for \$9.00 at a factory outlet store that sells cookware, etc. I also found a 9.5-10 gallon stainless steel brewkettle(used) at a restaurant supply store for \$40.00. Moral of the story: shop around and you can find some bargains. (The brewkettle was dented and covered with baked on grease, but it all came off with elbowgrease.)

Tim LaBerge  
Department of Mathematics  
University of Kansas

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Date: Thu, 20 May 93 15:58:15 EDT  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Competition for Kock

Fellow Brewers,

Just thought you'd all like to hear about an ad I heard on the radio today. New Amsterdam is advertising its amber using something akin to "It's not just 'great,' it's exceptional!" We all know which beer is merely "great" now, don't we ;^).

Yours in brewing,  
Lou Casagrande  
casagran@gdstech.grumman.com

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Date: Thu, 20 May 93 16:25:03 EDT  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Re: Competition for Kock

Oops! Make that "Koch"!

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Date: Thu, 20 May 1993 11:38:08  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Hops, Fruits

Brett Charbeneau asks about Raspberry and extract brewing:

HopTech sells a line of 100% natural fruit extracts that make brewing fruit beers easy. No pectins, sugars or preservatives to compensate for, and no problems obtaining fruit out of season or sterilizing it. Flavors available are raspberry, blueberry, peach, pear and cherry. They are added just prior to bottling or kegging so all the fruit flavors stay in the beer. For a light fruit ale, we recommend 30% wheat. Since the extracts contain no sugar or much "sweetness" associated with the fruit, we also recommend using malt extract high in dextrins or adjusting your mash accordingly to get a sweeter brew. For more info, leave a message at 1-800-DRY-HOPS (379-4677) or fax 1-510-736-7950. Catalogs mail 1st week of June.

Steve Boxer asks about leaf hops clogging the keg lines:

You want to put the hops in a "hop bag" and add some weight (Leaf hops tend to float). We also sell hop bags and weights, but these kind of bags are readily available from most homebrew shops. For weights, ours is made of teflon so it won't scratch and is inert to beer, but you can also use clean copper pennies, marbles etc. Hint: "Wet" the bag and hops before adding. It helps make sure the beer gets to the hops (learned this trick from Anchor). By the way, our bags are 100% cotton and even work with pellets!

"Joe" asks if you can tell the difference between hop varieties by flower, scent or growth habits:

Yes to all. However, it ain't easy. The oil components and their ratios can be used to identify a species, but it takes an HPLC to do it! The combination of the cone shape and the leaf style can be used (with practice). But I don't know why it matters. The easiest way to tell is to read the label on the package :-).

"drose" asks why it matters what hop variety is used for long boils, since the aromatics will be lost:

True. The aromatics are lost. But it is wrong to assume that there is only one bittering source. There are many alpha acids, beta acids and oxidation products that make up the overall bitter "character" of a certain hop variety. Each hop variety has all of these in varying proportions, hence the differing bitter characters. The number on the hop package is a total alpha acids number - the ratios of the various alpha acids is variety specific. (Did I mention I'm writing a book about hops?)



Anthony Johnston asks about a "soapy taste" in his beer:

I wonder if that beer was dry hopped? Sometimes this can cause a "soapy" flavor. Some palates are more sensitive to it than others. It is caused (my theory) by the fatty acids in the hops. It is also my theory that this is a "stage" of the oil on it's way to another compound because the flavor will go away in another week or two. (Same beer given to neighbor in week 1

- "YUCHH! Undrinkable. Tastes like soap!" in week 3 - "Hey this is great!

Got any more?" Recently had another brewer friend ask me about an astringent taste after dry hopping with some Tettnang. Same deal (not a fatty acid, but some other hop compound on it's way to something else). I told him to wait a few weeks. Now the beer is "Fantastic" according to him.

Mark Garetz  
HopTech

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Date: Thu, 20 May 1993 15:48:54 -0500 (EST)  
From: Karl Desch <kcdesch@stupid.ucs.indiana.edu>  
Subject: Half and Half Method

Hey,

As I recall the way to make one of those silly half and half things is quite simple. To avoid creating a current in your glass, invert a spoon (round side up) over your harp and slowly pour the guinness over it. This spreads the flow over the surface of da beer, maintaining the layers.

Have fun. -Karlos

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End of HOMEBREW Digest #1146, 05/21/93  
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Date: 20 May 93 18:05:49 EST  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: bottles, caps, and kegs

From: Matthew Mitchell

Bottles: I recall drinking Watney's Red from a 2 liter brown PET bottle I bought at a packy in Nantucket. they also were kind enough to sell me a six of Ballantine's IPA for the price of regular Ballantine Ale.

.. "Uh...I think I'd better get three more six-packs..." 8^) !

Bottles: Who said they were lucky enough to have stubbies| I wish I had kept the Ortlieb's stubbies I used ten years ago. We used a different bottle for each of our brands: pounders for the lager, kings for the malt liquor, green for the stout, clear for brown ale, and stubbies for special brews. We also used A-Treat soda quart returnables "Party size": wonderfully convenient when the biggest pain is cleaning and capping bottles. (We get 12 oz painted A-Treats here too)

Caps: Rather than putting labels or initials on caps, you may find it smarter to put a batch serial number. (e.g. The batch 13 stout didn't carbonate as well as the batch 16) You can compare brew to brew, and note at a glance through the hole in the top of the case how long a case full have been aging.

Another good idea is to take a handful of caps, place them on a newspaper, and spray-paint them, color-coding by brand or recipe again. This also has the benefit of covering the previous stuff on the caps. (Cheaper to buy the overrun caps than plain ones)

and Kegs:

David's keg with two valves is called the "Golden Gate" keg, which has not been in common use for a decade. I think they're pretty good though.

I remember drinking gravity-fed Bud one evening after a softball game when the pump of our tap failed| You may have a hard time finding a tap to fit.

and BTW: I noted that McGillin's Old Ale House in Philadelphia advertises "Real Ale" Is this REAL ALE as the CAMRA think of it (cask-conditioned and hand-pumped) or is it just real ale instead of faux ale like Molson Golden?

Howzat!?!

Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

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Date: 20 May 93 18:25:32 EST  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: Adamstown PA microbrewery fest: June 11-12

From: Matthew Mitchell

Stoudt's Black Angus will present the Second Great Eastern Invitational Microbrewery Festival, June 11 and 12 in Adamstown, PA (between Lancaster and Reading)

Dates: Fri. June 11 6-10pm and Sat June 12, 2-6 pm  
Tickets: (they suggest you purchase in advance: last year sold out)  
\$15.00 per day (specify day) check or MO payable to  
Black Angus Ltd., PO Box ???, Adamstown, PA 19501

Phone: 215-484-4385

Breweries expected:

Dock Street, Philadelphia  
Arrowhead, Chambersburg  
British, Lithicum MD  
Wild Goose, Cambridge MD  
Oldenberg, Ft. Mitchell KY  
New England, Norwalk CT  
Old Dominion, Ashburn VA  
Buffalo  
Pennsylvania (Penn Pilsner), Pittsburgh  
Otter Creek, Middlebury VT  
Sam Adams Brew House, \*Philadelphia\*  
Vermont, Burlington  
Boston Beer Co (C)(R)TM and all those other reserved rights  
Hope they don't sue me for using their name in the post|  
New Haven  
and of course, Stoudt's

Price of admission includes souvenir tasting glass and food  
They say there will be fifty tasting tables and that all the breweries  
will have at least two beers available.  
This is not a competition, so expect a relaxed atmosphere, with the aroma  
of malt, hops, and brots, and probably German music, too.

If you're bringing along someone to drive, she or he may be interested in  
spending time among all the antique dealers on the Route 252 corridor  
while you drink beer.

Prosit|||

and

Howzat!?!

Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

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Date: Thu, 20 May 93 19:02:29 EDT

From: perreaul@egr.msu.edu

**Subject: The Brews Paper**

I have been subscribed to HB for several months and have learned much and now it is time for me to share with you. Recently, I received as a gift

The Brews Paper which is a new paper recently published since I recieved Vol.1.1.NO.2.. This paper is informative and also on the lighter side or also comical since it is , The Official Bathroom Reading Material of Homebrewers. I know some of you are real serious, it seems buy what I have read but for those who like humor or as the heading says, "We Ain't Too Serious". I found it to be a good break....

The Brews Paper, 1105 N. Front St., Suite 28, Niles, Mi 49120

12 issues for \$15.00

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Date: Thu, 20 May 93 22:49:16 CDT  
From: wayne\_clark@SEMATECH.ORG  
Subject: source for bottles...

From: NAME: Wayne Clark  
FUNC: 230  
TEL: 512-356-3994 <CLARK.WAYNE@A1@VAXEN>  
To: "homebrew@hpfcmi.fc.hp.com"@INTERNET

=>I'm very new to homebrewing, only four extract batches. I'm looking for some basic equipment at low prices (Since I'm a college student). I need a couple of glass carboy's and bottles.<=

Rob,

Like you, I am a homebrew novice. I also had to find an inexpensive way stock up on bottles. One of the best places I have found to get bottles is the local recycling center. Occasionally, I find that somebody has dropped off a whole case or three of empties. All that is required is a little elbow grease to clean them up.

Cheers,

Wayne  
wayne\_clark@sematech.org

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Date: Fri, 21 May 93 12:59:31 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: purl recipe

Hello All,  
Someone asked for a recipe for Purl a while ago. Well, after rooting around in my note books I found one copied by a book on brewing in London, by Thomas Thrale (aka Thrale) ca. 1800. He was at the time one of the biggest London brewers, with an annual output a little more than Whitbread, so presumably he knew his stuff. I found the book on microfische at the Management Library of UCLA. But that's all I noted down. Anyway, here it is:

Thos Thrale's Purl (ca. 1800)

Take Roman Wormwood, two dozen,  
Gentian root, 6 lb,  
Sweetflag root, 2 lb,  
Galanga root (galingale?), 1-2 lb,  
horseradish, 1 bunch,  
Dried orange peel from the Indies (Curacao?), 2 lb,  
Juniper berries, 2 lb,  
Seville orange seeds, dried, 2 lb,  
Cut and bruise all the ingredients, put in a butt,  
(capacity 126 US gallons) and top up with pale or mild ale. Store for one season.

Notes:

Gentians are protected flowers in Europe;  
Sweetflag is a type of Sedge;  
Galanga, to the best of my knowledge is galingale,  
for which I have as yet to find a source;  
The orange peel is almost certainly the Curacao  
peel, still used by some Belgian brewers;  
The ales appear to be normal in all respects;  
I have no idea what 2 dozen of Wormwood refers  
to (bunches, roots?).

Happy experimenting!  
Rob Thomas.

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Date: Fri, 21 May 93 13:07:08 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: sparging

Hello all,  
I've just been reading a two volume book on brewing by  
Hough, Stevens and a couple of others, in which they say  
that in Europe (mainland) decoction mashing is often  
followed by batch sparging. That is instead of sparging with a continuous  
spray of water, the sparge water is dumped on in batches, the whole  
lot stirred, and the washings run off completely before repeating.  
For a 1055 beer they say that 3 such washes will give >99percent  
extraction. As the gravity goes up, so do the number of washes required.  
Any views? I noted in the equipment summary at Sierra.Stanford.Edu that  
some of you out there are also doing this. Has anyone done direct  
comparisons between the two methods?

Intrigued, Rob Thomas.

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Date: Fri, 21 May 93 10:18:27 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: why secondary?

Some more reasons:

1. If you're going to do a long fermentation, or you can't bottle until next month, then it gets the yeast off the trub. Left on the trub too long, the yeast will start to produce nasty tasting stuff.

Umm..... Well, I think that's the main reason, anyway.

=S

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Date: Fri, 21 May 93 10:26:51 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Jim Koch (oh no! not again!)

I finally heard a Sam Adams ad on the radio last night (midnight on the local "classic rock" station -- who do they think is listening then? Brewers on their way home from a homebrew club meeting, is who.) Anyway, I notice he's moderated his claim about the GABF to "won 3 times in a row". Maybe those counter-suits are having some effect...

By the way, Jim Koch (pronounced "cook"?) sounds kind of whiny.

=S

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Date: Fri, 21 May 93 10:34:42 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Hops, Fruits

Mark Garetz writes:

> "Joe" asks if you can tell the difference between hop varieties by  
flower,  
> scent or growth habits:  
>  
> Yes to all. However, it ain't easy.

I'm not a botanist, but I play one on the net:-) But seriously, my understanding is that each hops "variety" (cultivar) is genetically a single individual that has been propagated vegetatively. (As are apples.) If you have a random hop plant that came up from seed, then the odds are about 99 billion to 1 that it is NOT a recognized variety. So trying to identify it is a lost cause. However, if you know that the plant is a known variety, but not which one, then you have some hope.

> I wonder if that beer was dry hopped? Sometimes this can cause a  
"soapy"  
> flavor.

I've noticed that dry-hopping often results in a "grassy" or "herbal" taste that diminishes quickly with time. Sort of like chewing on raw hops.

=S

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Date: Fri, 21 May 1993 10:39:11 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: chlorine

Steve posted about using chlorine as a preventative against Giardia. It is my understanding that chlorine has no effect on Giardia cysts. Iodine, on the other hand, will kill the cysts, especially with extended contact periods (like overnight) and with warm water. I know this has nothing to do with homebrewing, but as someone who contracted Giariasis \*twice\* last year (you don't want it, trust me), I don't want any misinformation getting out.

'arf 'n arf: Also known as a "black and tan". I once ordered one and the waitress laughed in my face, turned to the bartender and said "E'll 'ave a blaaak 'n taaaan". He just looked dumfounded. Then she said "A block 'n tawn", and he said "Oh" and poured the pint. :-)

I've got a bottle of Anchor Liberty Ale with much sediment in it. Could it be live yeast?

Russell Gelinias  
esp/opal  
unh

---

Date: Fri, 21 May 1993 14:57:49 GMT  
From: jdecarlo@mitre.org (John DeCarlo)  
Subject: Re: Secondary and Fruit

Why use a Secondary fermenter?

The reasons have already been mentioned, but I usually add a little explanation:

- 1) It gives the beer some time and a place to settle a little. If you aren't real careful about how much trub gets in your primary, you may have some trouble leaving it all behind (especially when there is more than an inch or so). When I rack to the secondary, I am real careful, but don't care *\*that\** much if some cloudy beer gets through. When I am ready to bottle, there is usually very little sediment left, which means that my beer in the bottling bucket is very clear and there is little noticeable sediment in the bottles.
- 2) Adding extra ingredients. Any subtle ingredients, such as hops or spices or fruit, will lose more aroma during a vigorous primary fermentation than later on. Adding them to a secondary is a good way to increase the amount of aroma that remains.
- 3) Time. If you travel, or have children, or any other demands on your time, you may not be able to bottle the week or month your beer is ready. In that case, leaving the beer on very little sediment in the secondary is *\*much\** preferable to leaving it on the trub in the primary for that extra week or month. Even without any of the other reasons, this reason alone is enough for me.

In summary, if you don't need the extra clarity or time or whatever, you don't need to use a secondary. There is no magic. Plus, you can go wrong with a secondary if you aren't careful about sanitizing or air-free racking.

Fruit:

I always put my fruit in the freezer overnight, supposedly to break down cell walls. I find this much preferable to pureeing or the like. I always get good aroma and flavor using this method.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own  
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Fri, 21 May 93 16:16:20 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re: sour mash guinness

Brian writes:

"Ignore the comment about N. Brewer in my previous note - It is a relative to Hallertau, which does not work in stouts (I've tried it). But then I seem to remember Jackson saying that Guinness used N. Brewer. I haven't used much N. Brewer. Hmm. The recipe works great with Goldings."

I find (British) N. Brewer works great in stouts; it definitely provides flavour as well as bitterness when boiled an hour, unlike Hallertauer. Better, if you are partial to fruit stouts, consider some Bullion for their blackcurrant character. Unfortunately, these are being phased out here, and I don't know of a suitable replacement. I actually find that if I use enough of our cruddy, local Goldings, I also get blackcurrant. Conclusion? I am either being sold mislabelled Bullion (unlikely, as they have Goldings aroma), or the two varieties have something in common.

"The whole idea is to keep the protein in the beer, so you start with Pilsner malt & don't do a protein rest. Mash using you favorite technique, but keep it short - 1hr or so. Sparge w 170 F water (acidified). Do not recirculate excessively. The short mash and the pilsner malt will help avoid a stuck runoff."

Hmmm. Our anonymous lager malt (which admittedly isn't the same as pilsener malt) shows more tendency to set the mash than ale malt. I'd also be interested to hear more about the effects of mash duration on viscosity; mine seem to get more fluid with time. Unfortunately, I can detect lager malt in even the most aggressive stout (sulphur?), which is why I don't follow Miller's advice. Some wheat malt is well worth considering, however.

- - -

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Date: Tue, 21 May 91 09:45 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: My Brown Ale

Last night, I tasted the brown ale that I bottled just last Sunday. Wow!  
!  
I'm in love! It's not clear yet, but it's already carbonated, and  
delicious!  
Maybe y'all can comment on the authenticity of the recipe:

CHUCK'S BROWN ALE  
Ingredients for 4.5 US gallons

4 lb Alexanders Malt Extract  
0.5 lb Chocolate Malt  
0.8 lb Turbinado  
~2 fluid oz. Honey  
2.2 oz. Cascade Pellets (5.5% AA) 45 min  
1 oz Cascade Pellets, dry hop in secondary  
0.5 t. Irish Moss  
Yeast  
OG ~1.042  
FG 1.010

The choc. malt was steeped in 65'C water for 20 min and then sparged (and removed). The yeast was made from the dregs of 10 bottles of beer (that got dumped due to excessive aluminum leaching) that had been in a starter for 3 days before hand. The yeast for that batch came from the dregs of several bottles of stout, which was made with WYeast Irish Ale. (I think I could make beer from the dregs of the brown ale, but that might be one to many generations!) Temperature of fermentation was 60 - 70'F, 6 days in primary, 9 days in secondary (with dry hops).

I can't describe the taste so well, but it certainly is one of the best that I've ever made. The hop nose is wonderful! I ran across the tubinado in a health food store, and thought why not? I believe that is added some residual sweetness to the beer. I hope that I can duplicate this one some day.

Chuck

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Date: Fri, 21 May 93 08:30:32 PST  
From: Tim Murray <MURRAYT@WSUVM1.CSC.WSU.EDU>  
Subject: Imported Beer in Ireland

Reading the thread about Bud in Germany and England reminded me of an experience I had in Ireland last year. While traveling out to the countryside by train one Sunday morn, we stopped at a station across from a train of Irish football fans coming into Dublin. Having been in the country for about a week, I had already fallen in love with draught Guinness, Smithwick's, and Harp, so I was shocked to see the tables of the adjacent train littered, not just a few - piles, of Bud empties. The Irish natives told me that AB had put-on quite an advertising blitz and that Bud was becoming more popular. How anyone with ready access can choose Bud over the other wonderful beers is still beyond me.

Incidentally, the Irish natives also told me that the best Guinness is draught (no surprise there), and that the next best thing is Guinness in the can. They also firmly believe that the way a pint is "pulled" has alot to do with how it tastes.

Looking forward to another Irish foray, I am! tm

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Date: 21 May 93 11:23:11-0400  
From: JOHN.L.HALE@sprint.sprint.com  
Subject: Sources of Cornelius Kegs

I'm sure this has been discussed many times before, but does anyone have any good general sources for soda kegs? Does the retailer who uses these pay a deposit on them? If so I might be able to talk some user out of some empties. My local homebrew store has them for \$20 each, but I thought I would try the low cost route first. Any suggestions would be appreciated.

BTW: has anyone tried the closed system pressurized fermentation method that Teri Fahrendorf wrote about in the 1992 special issue of Zymurgy?

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Date: Fri, 21 May 93 11:05:28 CDT  
From: greenbay@vnet.IBM.COM  
Subject: RE: Equipment/Grolsch Bottles/Labels

Two comments regarding Tom's note (tmr1@hotmailg.att.com).

Grolsch bottles are great, another good similiar bottle is from Fischer D'Alsace. I like their bitter, but most importantly, they use 22 oz 'Grolsch' bottles. They are very handy, heavy, and have the dark brown bottles. And that reminds me, I've never seen dark brown Grolsch bottles, all of mine are green.

Secondly, Tom mentions that he uses Elmer's glue to affix his labels. I don't know how good/bad that works, but I do know that Glue Sticks work great. I just put about a half inch strip on each side of the label and it sticks great. Then, when you clean the bottle, a couple hours of soaking and the label falls right off. It great.

Anyway, got to run,  
Bob

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Date: Fri, 21 May 93 12:25:07 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Evaporative Cooling

Recently read some threads on using evaporative cooling for summertime brewing. The consensus seemed to be it was worthless in humid areas like Austin (where I live). Since none of the posts had any data I decided to get some. Here's the first data point.

Setup: 7 gal glass carboy w/5 gal of beer placed in shallow (4" deep) pan. Cotton towel wrapped around carboy and secured w/diaper pin (my son helps out around the brewery). Towel is soaked w/water every other day or so. About 1/2" water is kept in pan; capillary action keeps the lower 2/3 of the towel wet but the top 1/3 will dry out if it isn't rewet every other day or so. No fan or force ventilation around carboy.

Data: House is airconditioned. Average temperatures in brewery (aka den). Dry-bulb, 75 F  
Wet-bulb, 66 F (measured w/old fashioned sling psychrometer)  
Which from standard psychrometric tables yields a relative humidity of 62%.  
Beer in carboy, 69 F

So w/a passive evaporative system (no fan or force air around carboy) I got about 2/3 of the wet-bulb temperature depression. If a fan is used to blow air around the carboy I don't see any reason one could not reach the wet bulb temp in the carboy (my next step).

For those who think you have to live in Albuquerque to have effective evaporative cooling, take a look at the following truncated psychrometric table.

Dry-Bulb

| Temp F | Wet-Bulb Depression, F |    |    |    |    |    |
|--------|------------------------|----|----|----|----|----|
| //     | 5                      | 6  | 7  | 8  | 9  | 10 |
| 60     | 73                     | 68 | 63 | 58 | 53 | 48 |
| 65     | 75                     | 70 | 66 | 61 | 56 | 52 |
| 70     | 77                     | 72 | 68 | 64 | 59 | 55 |
| 75     | 78                     | 74 | 70 | 66 | 62 | 58 |
| 80     | 79                     | 75 | 72 | 68 | 64 | 61 |

<- Relative Humidity (RH)

Note that for ambient temps of 70 - 80 F:  
RH of 70 to 80% allows wet-bulb temps 6 to 8 F below dry-bulb  
RH of 60 to 70% allows wet-bulb temps 8 to 10 F below dry-bulb  
Or if your basement is at 60 F w/73% RH you should be able to reach 55 F--getting down to lager temps!

So let's quit guessing and get some more data points!

WAK  
- William A Kitch (512) 471-4929 -|  
- Geotechnical Engineering -|  
- ECJ 9.227 -|  
- Univ of Texas at Austin, TX 78712-1076 -|

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Date: Fri, 21 May 93 13:00:45 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Racking off the trub

Jim DiPlama recently posted and asked about the process I used when racking off the trub with particular regard to aeration.

Short answer: I airate as I rack off the trub , which has settled from 4-12 hours, into primary.  
I also pitch a large yeast population as starter.  
Remember starter size will be determined by the amount of fermentables used not simply the volume.

WARNING\*\*\*\*\*CAUTION\*\*\*\*\*WARNING\*\*\*\*\*CAUTION\*\*\*\*\*WARNING\*\*\*\*\*CAUTION\*\*\*\*\*  
I only use this process in the fall, winter and early spring when the outside temp is below 55 and the pollen count is extremely low.  
I do all my brewing except for the mashing outside.  
I also pay careful attention to sanitation.  
WARNING\*\*\*\*\*CAUTION\*\*\*\*\*WARNING\*\*\*\*\*CAUTION\*\*\*\*\*WARNING\*\*\*\*\*CAUTION\*\*\*\*\*

DISCLAIMER\*\*\*\*\*DISCLAIMER\*\*\*\*\*DISCLAIMER\*\*\*\*\*DISCLAIMER\*\*\*\*\*DISCLAIMER\*  
\*\*\*\*\*

This process works for me.  
If you don't like this please constructively flame me on the HBD.  
If your normal process yields an occasional contaminated batch do not do this.  
DISCLAIMER\*\*\*\*\*DISCLAIMER\*\*\*\*\*DISCLAIMER\*\*\*\*\*DISCLAIMER\*\*\*\*\*DISCLAIMER\*  
\*\*\*\*\*

I chill the wort to about 45-50F with my immersion chiller.  
I then use a sanitized stainless steel frying basket to scoop out hops and what ever break material it picks up.  
I then pour the wort into a sanitized glass carboy, which is on a table taller than the primary fermenter the wort will be later racked into, and cap.  
For ales I move the carboy to my 65 degree basement.  
Depending on weather (outside temp) and time of day/night I let the trub settle for as little as 4 hours or overnite. The longer I wait the more compact the trub layer gets and the less wort I "waste".  
After the settling period I rack into the primary and airate and pitch.

I then pour the "waste" trub layer into a 2 gallon carboy like bottle which I topoff with cold tap water. I have an in line charcoal filter on the tap.  
I let this settle for a few hours and rack off the 1/2 gravity starter wort which I boil and bottle.

When I brew I target 6-6.5 gallons out of the brew pot and plan on losing a gallon to trub. My goal is to get 5 gallons into a keg.

For lagers I use the 4 hour or so settle period since I do not want to raise the wort temp. For ales I go overnite since I want the wort temp to rise closer to pitching temp.

Using this method requires strict sanitation.  
If your normal process yields an occasional contaminated batch do not do this.

When I began brewing 3 or 4 years ago I found the Miller book a better resource than Papazian. I was really turned off by "don't worry", Ostrich don't worry. Through subscription on HBD I have modified my process over time and no longer consider myself a " Miller Dividian".

This rack off the trub thing may be a "momily". During recent brew pub tours the brewers mentioned that they would chill, settle for 15 - 30 minutes, centrifuge and transfer to fermenter. This would represent some degree of wort trub separation particularly when they chill into the 30's or low 40's.

My current understanding of racking off the trub is that one should pitch into the chilled wort and rack a few hours later. This gives the yeast the opportunity to use some component of the trub which it needs in the beginning stage of fermentation and not provide the materials that the yeast uses later in fermentation to produce fusel alcohols. I tried this but was not pleased with the lag time, this from a guy who leaves unpitched wort overnight. I think I left a lot of yeast behind when I racked so I went back to my old method.

What do other brewers think and do about trub and why. Please post to the HBD.

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Date: Fri, 21 May 93 14:29:45 cdt  
From: "Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU>  
Subject: bittering hops

Re: the thread on flavor contributions of different varieties of bittering hops, I stumbled onto a combination I really like a couple of years ago and repeated it again this year also with yummy results. Namely, in a pale ale type brew, I use BULLION for bittering and CASCADES for aroma. Keep the bittering level around 10-12 HBU, use a full-bodied light extract (or whatever that translates to in all-grainese) and dump in maybe 3/4 lb. of amber crystal. This last time I used about 1/2 oz of cascades for finishing (I'm doing this from memory) and Wyeast "American" ale yeast. This brew was great after just a week or two of bottle conditioning, and provides a "big" flavor with a bracing hop bitterness and aroma. Yum!

Point is, I haven't gotten quite the same results with other, similar brews that used Cascades for finishing (or dry-hopping) and a bittering hop other than Bullion. And, since by general agreement/conventional wisdom/whatever, Bullion hops are often referred to as "coarse," it might not spring to mind as first choice for a pale ale in the 1042 S.G. range. However, I like the results I've gotten and I plan to try the same thing at some point with an I.P.A. where the S.G. is high forties to low fifties.

Bottoms up!

Jonathan Knight  
Grinnell, Iowa

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Date: Fri, 21 May 93 14:28 CDT  
From: korz@iepubj.att.com  
Subject: Re: SScleaning/sanitation/NA/warmPitch/2ndaries/fruit/p-beer/ads

Dave writes:

>OK, here's a silly question. I'm using my stainless keg as a cooker, so  
>it'll  
>be sterilized by the boil, right? So, as long as I get it CLEAN, and  
>rinse it  
>good, that should be clean enough, right?

Right. I don't even use soap on mine -- just a non-stick-safe scrubbing  
pad (more gentle than a scouring pad) and elbow grease. The only things  
in there are a little scortched malt and some Beerstone -- if it gets  
really  
bad, maybe I'll use a bit of cola (for the acid) or if one of my batches  
of  
pseudo-lambik goes super acetic on me, I'll use it for scrubbing the  
kettle  
(that's what the lambik brewers do!).

>How about the ladle? I just leave it hanging inside the keg, during the  
boil,  
>so I can stir the wort without worrying about putting a non-sterile  
instrument  
>in it. Is having it sit in/just above the boiling wort enough to keep  
it  
>from contracting nasties?

Anything that's mechanically clean and spends more than 5 minutes in the  
boiling wort or water is going to be sanitary. However, I still would  
not  
use a wooden spoon on cooled wort even though you used it to stir the  
boil.

\*\*\*\*\*

Bob writes:

>I'm also interested in producing an NA beer. One idea I had would be  
>to just use crystal malt or some other malt for the flavor and body of  
>the beer but not use anything that would contribute fermentable sugars.  
>Then you could boil in the hops cool it down, add yeast and priming  
sugar  
>and bottle it. This would be restrictive on flavor, style, and whatnot,  
>but would it work?

Nope. Crystal malt has fermentables in it. Email to Jack for his NA  
beer made by heating regular beer. I've tasted it and it wasn't too  
bad -- not a prize-winner, but not bad.

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Jim writes:

> It is important that the starter and the wort be about the same  
>temperature at pitching time. I read somewhere (Miller? Noonan?) that  
>sudden, severe temperature shock will kill a large percentage of the  
yeast.

You read it here... in the HBD!

> In your case Phil, I'd say temperature shock shouldn't be a problem,  
as  
>your starter and wort are about the same temperature. However, pitching

>lager yeast at 70F will cause elevated levels of diacetyl in the finished product. Pitching when the wort is 45F-50F will sufficiently reduce the amount of diacetyl produced during primary fermentation, so that a 1-2 day diacetyl rest after primary will reduce the diacetyl below threshold level.

I agree that the elevated temperature may cause a bit more diacetyl to be produced, but a bigger problem is with esters. Remember, this is supposed to be a lager. I pitched Wyeast 2308 at 65F and let it sit in a 57F crawl for 12 hours, then in a 50F cooler for 3-4 days then down to 45 for a few months (primary and secondary). The resulting beer was deemed "too fruity for a bock" by judges I respect highly. I can't bring myself to entering as a Porter, although I've been told it's a potential prize-winner. Only four bottles left -- think I'll keep them for myself.

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Bryan writes:

>geotex@engin.umich.edu wrote that he was unsure about the purpose of racking to a secondary fermentation container. If anyone knows, please tell us all. I've been wondering about it for years and have never, ever gotten a straight answer.

The reason for it is to get your beer off the trub (hot break, cold break and dead yeast). However, I only use 2ndaries for lagers (which will spend a long time on the trub) and fruit beers (because I need to make more room for the fruit and because the 2ndary ferment will mean that the beer will spend longer on the trub than in my standard one-week ale).

>  
>I have some questions for all you fruit beer brewers out there:  
>1. How on Earth do you press your fruity wort (to get the juice out of the pulp) with any hint of sterility. I've always wanted to do a fruit brew, but I am most afraid of this messy procedure.

Freezing breaks open the fruit juice "sacks" in the fruit. I only mash the cherries -- not the raspberries -- freezing turns them to mush anyway.

I use a stainless bowl, sanitized with boiling water and a sanitized potato masher, bought just for this purpose, sanitized with boiling water and never washed with soap.

>2. In yesterday's Wheat Berry beer recipe, would it be a good idea to puree the raspberries and blackberries before adding them in order to avoid the pressing step? And would skipping the pressing be OK, or would too much juice be left in the cellulose matrix of the fruit?

I theorize that freezing will make enough room for the yeast to get in - the raspberries that I put in my psuedo-lambik were not mashed and they have grown very pale in the last 6 months.

>3. Does anyone out there have a good recipe for a banana beer? And do you have to sterilize a banana before use? (I'm guessing no!)

Unless it's damaged, I think not. However, bananas are the wrong consistency for fermenting -- too pulpy -- I suspect you'll have a very cloudy beer.

>4. What sorts of yeast leaves a nice banana taste in a beer (a regular beer, not a fruit beer)? Sort of like the Austrian EidelWeiss (is that the right beer I'm thinking of?)

Well, Red Star Ale yeast is notorious for making banana esters, but in the past, has had problems with wild yeast and bacterial contamination. I've heard, from a very reputable source, that Red Star has some new products coming and that they seem to be a big improvement over past products. Some Weizens are bottled with the primary culture (most are filtered and then bottled with a lager yeast which tend to be more stable) -- if you can find out which ones are which, you can culture yeast from the Weizens that have that ester you like.

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Jonathan writes:

>Pardon my ignorance: what is meant by "P-Guinness"?

I think this evolved from the Lambik digest. It stands for Pseudo-Guinness.

It has been used mostly with pLambik or pKriek or pFramboise in respect for the appellations (names). True lambiks are made via spontaneous fermentation

in a small region of Belgium called the Zenne (Senne in French) valley. We

respect this fact and therefore use p-<name> to distinguish our versions made with various cultured yeasts and cultured bacterias.

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There has been a proliferation of advertisements on the HBD lately. Could we please try to keep this forum non-commercial? I wouldn't mind some free advertisement too, but I have been resisting the temptation.

Al.

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Date: Fri, 21 May 93 18:06:56 PDT  
From: bill@oilsystems.com (Bill Vaughan)  
Subject: Sour mash

Jonathan Knight asks about sour mashing--

I have done numerous batches of sour mash stout; I seem to be hooked on the stuff. I'll give you the recipe and procedure I've settled down to over the last three years, but note that this brew isn't to everyone's taste.

SOURDOUGH STOUT -- mash/extract, makes 10 gallons

MASH: 7# pale malt  
2# barley flakes  
1# rolled oats  
2# wheat flakes  
1.5# roasted barley  
0.5# black patent malt

Mashing procedure: upward infusion with acid rest and protein rest, saccharify at 155 deg F. The acid and protein rests are really feeble attempts to break down all the gums in the flaked barley and oats. Maybe next time I'll try a decoction. Mash-out at 170 deg F for 5 min or so.

Do not sparge the mash, instead cool it to 95 deg F.

Now add your lactobacillus. There are several ways to get lacto but the one I like best is to use good old L. Sanfrancisco, AKA Sourdough starter. I make a starter a week in advance by mashing a pound of pale malt in a quart of water and adding the packaged dry sourdough starter.

Add the starter to the mash at 95 F and stir. Keep it at that temp until it begins to ferment. I do this by putting the mash back in the insulated box; it holds the heat just fine. It will take quite a while to begin to ferment. When the grain starts to float to the surface and you can begin to smell it, you can start checking pH. I like to ferment the mash down to pH 3.9 for a relatively tart beer or 4.3 for a sweeter brew. Watch out - the pH drops FAST at the end of the fermentation. (This whole thing takes about 12 hours, give or take a lot. If it gets too cool it will slow down and take forever. Put a heating pad under your mash kettle in that case.)

When the pH is right, raise the mash to 170 and sparge it out. That will take a long time because it is so damn viscous. One of these days I will lick the viscosity problem, sooner if anyone has any suggestions.

Since the mash is so acid, I can sparge out as much wort as I want without ever getting any husk astringency, so I just sparge until I have 12 gallons of wort.

Now add: 12# amber extract  
14 HBU hops (I like Eroica for this).

Boil down to OG 1.072, cool to pitching temp, pitch Wyeast Irish Ale yeast.

I think it is #1084, but won't swear to it. (I am playing back this recipe from memory; I am at work and my notebook is at home.)

I like to let this brew sit on the yeast for about a month at cool temp. When it is done it should have FG around 1.020, so it is quite strong. The acid, alcohol, hops and malt play well against each other. This is NOT a session beer but I am quite attached to it.

- --Bill Vaughan

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Date: 21 May 1993 21:20:01 -0400 (EDT)

From: NULL0TROOPER@delphi.com

Subject: fruit, brewing, a sidenote

My apologies for poor routing, but I understand that there has been a question about sterilizing fruit before adding it to beer. I've made a few batches of citrus wines and fruit-based liquors and would add the following suggestions:

1. blanching the fruit may be sufficient to knock down most bacteria, and is used in some home canning/freezing methods.
2. for larger fruit, combine hot water and scrubbing before pitching to a hot wort. With wine, I use bisulfite after adding sugar to the must, the day before adding the yeast. (with oranges aging in your living room and an allergy to penicillin this is NOT optional :(

I've found that fermentation often lowers the acidity of a wine must, though this should be less pronounced with beers and ales (I haven't tried it, yet). Flavor extraction from fruit can proceed slowly even at 80 proof - so producing an extract beforehand might not be a bad idea if you want a pronounced flavor.

Bruce

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Date: Sat, 22 May 1993 00:06:09 -0400 (EDT)  
From: "Andrew M. Vota" <avota@liberty.uc.wlu.edu>  
Subject: please cancel me for the summe

please cancel my subscription as I will be away from my terminal for the  
msummer months...

Thank you

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Date: Fri, 21 May 93 23:42 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Dupage County homebrew mtg

This is another call for all homebrewers in the western suburbs of Chicago, in and around Dupage County.

The first meeting was so way-cool groovy that we think we'll do it again. The next meeting will be on Friday, May 28th. Same bat time, same bat station: 109 N. Ardmore, Villa Park. Starts around 8pm.

Yes, it is the Friday of the holiday weekend. Guess this will separate the men (and woman) from the pantywaists.

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Date: Sun, 23 May 1993 09:11 EDT  
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>  
Subject: Brew Store Employees

A question: I've been offered a job filling in at a brew store. I teach high school so Im off for the summer and I would be filling in for vacation this summer (2 weeks) and then sometimes at night or weekends for the summer and fall. Any thoughts on pay? I haven't worked other than teaching (some might argue that its not work either ;-)) for quite a while. Any of you either own a shop--what would you pay--or work in a shop--what do they pay you? I figured maybe 8\$/hour. Any thoughts?

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva.bitnet  
Internet: oconnor@snycorva.cortland.edu

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Date: Sun, 23 May 93 11:15:10 -0600  
From: Steve Dempsey <steved@longs.lance.colostate.edu>  
Subject: NHC round 1 entries arrived in Denver

Whew! The unpacking is done in Denver. We have our work cut out for us; there were 840 entries logged. Not counting broken bottles and other problem entries (about 20 in all), the breakdown by category is:

|    |                 |    |
|----|-----------------|----|
| 1  | Barley Wine     | 32 |
| 2  | Belgian         | 47 |
| 3  | Brown Ale       | 32 |
| 4  | English Pale    | 56 |
| 5  | American Pale   | 58 |
| 6  | Bitters         | 36 |
| 7  | Scottish Ale    | 11 |
| 8  | Porter          | 52 |
| 9  | Strong Ale      | 15 |
| 10 | Stout           | 56 |
| 11 | Bock            | 48 |
| 12 | Bavarian Dark   | 19 |
| 13 | Dortmund/Export | 14 |
| 14 | Munich Helles   | 14 |
| 15 | Classic Pils    | 48 |
| 16 | American Lager  | 23 |
| 17 | Fest/Marzen     | 39 |
| 18 | Alt/Kolsch      | 22 |
| 19 | Fruit           | 26 |
| 20 | Herb            | 21 |
| 21 | Speialty        | 41 |
| 22 | Smoke           | 9  |
| 23 | Cal. Common     | 27 |
| 24 | Wheat           | 31 |
| 25 | Trad. Mead      | 12 |
| 26 | Flavored Mead   | 29 |

We advance only the best three from each category regardless of how many were entered. So if you entered in this region, you now know how much competition you'll have in passing round 1. Good luck to all!

There is plenty of room for extra judges. Judging will be Saturday and Sunday, June 5-6 at the Wynkoop in Denver. Two sessions each day will begin at 9:30am and 1:30pm. If you want to be involved in judging and have not contacted me, I need to know by May 25. Registration is required for judges and stewards. People who just show up on the judging days will make things more complicated for me, and I'd prefer to avoid the last-minute shuffle.

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===== Engineering Network Services
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End of HOMEBREW Digest #1147, 05/24/93

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Date: Sun, 23 May 1993 18:08:26 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: bleach and SS/treacle

the best and most complete source of info on the reactivity of various acids, salts, bases and whatever with various metals, plastics, rubbers is in the back of the Granger catalog.

for example, household bleach does not react with 304 and 316 stainless. however, no info is available on 302 and 440 although its very unlikely you will find pots or kegs made with these.

there are many other interesting items. e.g,. BEER doesn't react with much of anything (thank god) except a little with brass and polyethylene, a little more with silicon and quite severely with cast iron and polypropylene.

Now you are probably wondering about BREWERY SLOP. relax. it does not react with any of the materials tested.

honestly, the table is an array about 400x30.

tate and lyle black treacle can often be found at your fancy-pants food stores. for example, here in austin it is available at simon and david which has other stores around the country, fiesta supermarket, and also st. pat's of texas.

i have also seen treacle on the shelf of safeways in california a couple of years ago.

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Date: Mon, 24 May 93 06:44:25 -0700  
From: staib@oodis01.hill.af.mil (Major Donald L. Staib;545TG/SEF;)  
Subject: Re: Bottles/labels

Here's an input for you, I pick up Kulmbacher malt beer bottles. They are imported from Germany, are brown, have the porcelain tops. I buy them empty from a local German restaurant. I have about 200 now. The gaskets work for many batches, but I have 300 new ones when the time comes. (\$5-6 per 100). I boil them before bottling.

I use labels unlimited for creating great labels with graphics. I have been scanning in beer related stuff for a variety of graphics. I print using a laser and colored paper. It's easy to tell a batch by the label color. Glue stick is the easy way to go, it holds tight, and the label comes off under a minute of hot water rinse! (got to rinse the yeast anyway).

Cheers, The Braumeister in Layton, Utah

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Date: Mon, 24 May 93 09:40 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Funky, Break and Dew Point

>From: RBSWEENEY@msuvx2.memst.edu  
>Subject: cold plate

>The only problem is a tendency for the hose connections to leak, which is not too big a problem since everything is inside a small cooler.... I currently using 3/8ths inch OD tubing to connect to both sides of the cold plate with hose clamps on both connections. Is there anything else I could use or be doing to stop these blasted leaks?

You need to find out where the leak is. Maybe the fittings are not tight in the cold plate. There is nothing different about these devices as regards leaks. Mine has never leaked a drop since first setting it up. I use the same hose and clamps.

>From: bliss@pixel.convex.com (Brian Bliss)

>\* Cascades will give that funky american hop taste, if you desire, but taste unlike guinness.

Would someone kindly elaborate on this. It may be the root of my problem in trying to make a beer that "tastes like ale". Most of the homebrewed ales I have tasted have a flavor that I had written off as "extract tang" but upon tasting a few made from all grain, I began to have my doubts.

The new Miller Pale Ale has this "funky?" taste. Is there some connection?

>From: gummitch@techbook.com (Jeff Frane)

>I said that I had never seen a brewery that worried about racking wort off the cold break -- one fellow from (I think) Chicago said that I was wrong! (ooooooooooh!) and that such and such brewery there did so.

I pondered the same point and called up Ken Pavichavich at Baderbrau while producing my video and was convinced that the use of a fermenter with a conical bottom and drain, easily provides the function of removing the cold break and old yeast. This step can be resorted to at will.

I also suspect the whole discussion is irrelevant to those of us using imersion chillers as the hot/cold break is conveniently left behind in the kettle when the chilled wort is drawn off.

>From: <ferguson@zendia.enet.dec.com>

>I'm in the market for the smallest fridge that will accomodate 2 5gal  
soda  
kegs. Typically, these are about 5 cu ft of storage. of the ones i've  
seen,  
the inside is big enough if you include the freezer space. but, with  
the  
freezer in place, typically there is not enough room.

That is one of the reasons that makes a chest freezer so much more  
suitable  
for use in the homebrewery. Not only do you not have to deal with the  
freezer compartment but refers have as much useless space above a keg as  
useful space below it. Freezers are all the same height no matter how  
many  
cubic feet the capacity and the height is just perfect for kegs and  
carboys  
with air locks. There is little wasted space.

Just so happens that I bought and instaled a 14 cuft unit last week and  
have  
a PU clone fermenting in it now. Unfortunately, until my Hunter Airstat  
arrives, I is one. (The Airstat is a simple controller that makes a  
freezer  
think it is a refer.) Mine is a bit big for your apartment but just for  
reference, it holds 4 kegs, 2 carboys and a 10 gallon stainless  
kettle/fermenter and a couple cases of bottles.

>From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
>Subject: Evaporative Cooling

>Recently read some threads on using evaporative cooling for summertime  
brewing. The consensus seemed to be it was worthless in humid areas  
like Austin (where I live).

>Data: House is airconditioned.

Not so minor detail. An airconditioned house is not "humid areas like  
Austin", it is a dry environment where evaporative cooling works just  
fine.

However, I would suggest that if you have air conditioning, it would be  
far  
more effective and simple just to place your fermenter in front of the  
A/C or  
air duct.

js

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Date: Mon, 24 May 93 11:23:03 EDT  
From: drose@husc.harvard.edu  
Subject: Klages Malt/ Banana Beer

Hello:

I am an all grain brewer who has recently switched, for reasons of cost, from British Pale Malt to American 2-row. The supplier says that the american is a mixture of Klages and Harrington, and that it works well with a single-step infusion mash. The bag I got actually is labelled "50# Whole Klages". Anyway, I was concerned that the malt may not be sufficiently modified, so I have done some batches using a protein rest. This has generated the following questions:

1. Do people think that one needs to do a protein rest with Klages or Klages/Harrington? How well-modified are these malts?
2. If a protein rest was called for and I did not do one, what would be the result? Cloudiness? Poor yield? What?
3. When I do a protein rest, my sparges are very slow, as long as two hours. Are sparges usually longer with a protein rest, or with a long mash at any temperature? Traditionally I have had shorter sparges than some people (notable Miller) think I should have. Does the fact that I do single step mashes, combined with the fact that Miller loves lagers and protein rests, explain this discrepancy?
4. How do you pronounce Klages anyway? Is it German, suggesting Kla-gus? Or something else (Kla-jus? Klay-gus? Klay-jus?) This is what happens when you get all of your information from print media.

Also, someone recently asked about recipes for banana beer. My greatest success (failure?) in this area was with what was intended to be a trappist ale. I started with miller's recipe, yielding a high gravity wort, and pitched cultured chimay yeast. Since miller states that high fermentation temperatures are used to enhance ester production, I fermented near (but not, I though, TOO near) a radiator. The resulting beer was absolutely redolent of banana ester. It was completely undrinkable...almost. I am always very reluctant to throw out beer I have already payed for. Anyway, the banana-ness got a little mellower over time, but it wasn't a favorite, and I haven't tried a trappist ale since. If you do try this recipe, you might want to serve it as a black and tan with some of the chocolate stout some was discussing recently. Or with a big dollop of peanut-butter....

dave.

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Date: Mon, 24 May 93 11:05 EST  
From: LYONS@adcl.adc.ray.com  
Subject: SN Stout

I picked up a six of Sierra Nevada's Stout and really enjoyed it. I even like it better than Guinness (-shudder-), finding the hop profile of SN's more pronounced. Does anyone with knowledge of the SN Stout have any input into the type of hops, or hopping schedule, used? Not sure, but my initial guess was cascades.

Thanks in advance,  
Chris  
LYONS@ADC3.ADC.RAY.COM

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Date: Mon, 24 May 93 10:59:53 PDT  
From: tima@wv.MENTORG.COM (Tim Anderson)  
Subject: Trip Report.

Reading of Bud in Germany, England and Ireland is enough to drive a person to drink. So I took a drive this past weekend and drank (in that order)

I live in Portland, Oregon, where good beer, including REAL ALE, is readily available. I try to do my part in keeping the supply fresh.

I had to go to La Grande, a small town in Eastern Oregon, to see my daughter perform in a play (she was spectacular, a Tony would be inadequate). I lived in La Grande for several years, and its remoteness was the main reason I left five years ago. It is 260 miles from Portland and 200 miles from Boise, Idaho. I tried to tell the locals about the signing of the Magna Charta, but nobody would believe me. When I lived there, the classy taverns had Michelob on tap, and all had varying flavors of Schludwiller and Schludwiller Light.

I had dinner at the bar in one of the better places. There was a tap labelled Portland Ale and another labelled Widmer Hefeweizen! In the cooler there were proudly displayed bottles of Sierra Nevada Pale Ale, Bridgeport Blue Heron and Guinness Extra Stout! Over in a dark corner Rod Serling was smiling at me. Well maybe not, but this good beer thing was very disorienting. My first inclination was to plant myself for the evening, but then the thought occurred, "What else might be out there waiting for me?" So after downing a pint of Portland, I decided to do a little survey. I wandered down to what had been an ordinary neighborhood tavern, dark and nondescript, but with a beautiful old cherry wood bar. I had fallen off several of its stools in years past. Surprise! A sports bar! I think they were trying to be Cheers. To their credit they had Full Sail Golden Ale and Widmer Hefeweizen on tap. I ordered a Full Sail, which came with a lemon slice (Yuck, the lemon ruined it. Made it completely undrinkable, down to the last drop.) They also had many bottles worth opening.

At this point I decided to really put the trends to the test. A couple blocks away is (dramatic pause) Marge's Tavern. Marge's would be illegal in most Third World countries. The restrooms were last cleaned in 1922. My faith in rednecks was restored when I asked what kind of beer they had on tap and

was told "We got these." The bartender pointed to three taps labelled Bud, Hamms and Bud Light. I proudly ordered a Hamms and paid my 85 cents (this is true). I drank it (this is also true). They had nothing in bottles, lot's of Industrial Swill in cans.

Well, to make a short story long, this remote backwater of a redneck town has decent beer on tap, and more importantly, people are drinking it. I believe that when Joe Six-Pack starts buying good beer, good beer is here to stay. Perhaps we'll see the day when people will be coming to the U.S. for a decent pint, and we'll be looking down our noses at those Bud-swilling Germans.

tim

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Date: Mon, 24 May 93 14:07:33 EDT  
From: drwho2959@aol.com  
Subject: CAMRA in the USA?!

CAMRA for the USA?!

Is the US ready for a REAL grass-roots beer lovers' organization?  
We are about to find out:

Mr. Steve Hindy of the Brooklyn Brewery and some New York homebrewers have invited Steve Cox, the Campaigns Manager of CAMRA UK, to New York City on June 3-4. The subject of the meeting will be how US beer lovers can most effectively start an organization similar in scope and purpose to CAMRA in the UK.

The working meeting will take place Thursday, June 3rd at 6pm at the Marriott/Financial Center, 85 West Street, in Manhattan, just a few blocks from the World Trade Center.

There will be a beer-tasting the following day - Friday, June 4th, at the Kingston Ramada Inn in Kingston, NY at 7:30pm.

ALL interested people are actively encouraged to attend!! If this organization is to succeed, it needs a VERY broad base of support!

\*-----\*

|  |                                                              |  |
|--|--------------------------------------------------------------|--|
|  | Andrew Patrick                                               |  |
|  | SysOp, Houston Correspondent & Distrib. Mgr.                 |  |
|  | Home Brew Univ. BBS Southwest Brewing News                   |  |
|  | (713)465-0265,14.4kbps,V42bis Internet: andinator@delphi.com |  |

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Date: Mon, 24 May 93 11:37:26 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: purl recipe

> Hello All,  
> Someone asked for a recipe for Purl a while ago.

>.....

> Galanga, to the best of my knowledge is galingale,  
> for which I have as yet to find a source;

I use an ingredient know as galanga or galingal in my Thai cooking.  
It can be procured as sliced pieces of the root, or powder. Check  
your local Asian Grocer, or I could be talked into procuring it for  
you for an appropriate recompense :-)

> The orange peel is almost certainly the Curacao  
> peel, still used by some Belgian brewers;  
> The ales appear to be normal in all respects;  
> I have no idea what 2 dozen of Wormwood refurs  
> to (bunches, roots?).  
>  
> Happy experimenting!  
> Rob Thomas.

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Date: Mon, 24 May 93 12:42:46 PDT  
From: Mike Peckar 24-May-1993 1509 <m\_peckar@cscma.enet.dec.com>  
Subject: Phenolic brews --> Lambics

I've now had the opportunity to twice rescue bad batches from the jaws of the almighty disposal. For some reason -- maybe some of the more chemically active minds out there can explain this one -- Fruit juice neutralizes (or at least masks) the phenolic taste in beer which has had the pleasure of associating with one too many E. Coli.

Both times The beers were light golden ales; I think that was important. In both cases, I had waited a couple of months in hopes the off-flavors would dissipate, but to no avail. I don't remember what yeast's I used originally, but I think that is important here for several reasons

The first one was an attempt at a pilsner-like Ale. I'd just popped open a bottle and mix in two parts beer to one part Cranberry Juice. The results were quite impressive, though nothing like a real lambic. Still it was much more drinkable Sam Adam's poor excuse for a Lambic, with not even a hint of the off tastes.

The second one was much more interesting and produced a Lambic that is remarkably reminiscent of the real belgian stuff. I had left out a bottle of Cherry Juicy Juice for a while. This is a commercial juice from concentrate which is made up of Cherry, Apple, and White grape juices not necessarily in that order. The bottle had autopitched from the ether, and fermented to a slightly carbonated state. By itself, it had a wonderful champagne mouth, and a creamy taste, with all three fruits prevalent, but cherry dominating. What I did was decant this into my bottling bucket and then I added about a dozen or so 16 oz bottles of my bad brew, leaving behind as much of the dormant/dead yeasts as possible and tasted until the proportions were o.k. I also added some unfermented Cherry Juicy Juice from a fresh container to spark off fermentation again. My hopes were the less dormant natural yeasts would overpower the longer-dormant ale yeasts. Also, I stirred the carbonated beer to release as much CO2 from solution as possible without excessively aeration. My guess is about the same ratio of beer to juice as I had done before (2-1).

The results, after only four days were remarkable: A real good lambic without 6 months of conditioning, without messing with real fruit, and with wild yeasts!

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Date: Mon, 24 May 93 16:15:24 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: soot on Stainless steel pot problem

I just got a "King Kooker" propane burner. As many of you have also found out, a home gas stove makes it difficult to get 7 gallons of wort to a boil. My problem is that after the wort boils and I turn the cooker down to maintain a nice rolling boil, the flame is very yellow (presumably because the gas/air mix is off) and soot forms on the bottom of my expensive new Stainless steel pot.

Have any others experienced this problem and is there a good solution?

- --Tony Verhulst

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Date: Mon, 24 May 93 16:02:34 PDT  
From: bill@oilsystems.com (Bill Vaughan)  
Subject: Decoction mash

I tried my first decoction mash yesterday and would appreciate comments on the procedure. When I'm trying something new, I always make my baseline "plain jane all-grain" brew, because I know how it comes out with various strains of yeast & hop varieties. Grain bill:  
10# 2-row pale malt  
4# light Munich  
2# wheat flakes

(This is for 10 gallons, and yes, I know it's not reinheitsgebot.)

I normally use a 1.25 quart/pound ratio in my mash (learned this from George Fix's book), but this time I doughed the grain in with 8 quarts, let it sit ten minutes, and added eight more quarts. (All water is preboiled and conditioned.) I was aiming for a strike temp of 122-124 deg but missed it and wound up at 120 degrees, probably because the mash cooled more during the dough-in than I had figured on.

Now I had to pull out the "heaviest third" of the mash for my first and only decoction. (Noonan) So how do I measure a third? Must be volume, because there isn't a heaviest third by weight. But my mash tun isn't calibrated in quarts, so I had to figure out how much was in it. Noonan claims that grain has the same heat capacity as water but only takes up 60% of the volume. (At least this is how I translate his mish-mosh of arcane -- nay, alchemical -- terminology.) So I figured I must have had 21 qts in my mash tun. Using a strainer I pulled out 7 qts of mash -- wet grain, really -- and dumped it in my decoct kettle. Now here is where I really varied the standard procedure. Knowing I wanted another 4 qt water for my normal mash, I just added it to the decoct kettle, so it wouldn't stick and scorch while boiling. This resulted in a mash that felt a little thin, but not very. It converted just fine in 10 minutes at 158 deg, then I boiled it for 15 min and put it back in the mash tun.

I was looking for a conversion temp of 153 deg but only got 146, so I had to look-look the mash tun back onto the stove and heat it to 153, whence it went in the insulated box for an hour, converted just fine, and up to 170 for mash-out. Sparge worked wonderfully well. Just the right speed. I always acidify my sparge water with lactic acid to pH 5.0, so I can sparge out as much wort

as I need without getting husk astringency. I wanted 12 gal wort but after collecting 10.5 gal there was no more sugar left in the mash, so I just topped up the brew kettle with 1.5 gal of treated water.

I added a total of 12.5 AAU of hops as follows:  
start of boil: 1/2 oz CFJ4 (8.5% AA)  
1/2 oz Spalt (4.5%)  
1 oz Saaz (3.7%)  
+30 minutes: 1 oz Spalt (4.5%)  
+50 minutes: 1/2 oz Spalt (4.5%)  
end of boil: 1/2 oz Saaz leaf hops (compressed plug)

The boil was 1 hour -- actually the propane began to run low so the last 10 minutes was more of a simmer than a boil. I let the leaf hops sit in the hot wort for 10 minutes before adding the wort chiller, chilled to 70 degrees, collected a hair over 10 gallons of cool wort and pitched Wyeast 2007 "pilsen" lager yeast. OG was 1.048, for a net extraction efficiency of 30 points/lb. This morning, one carboy had started up, but the other one (which has a couple quarts more beer in it) had not. But at least it was producing positive pressure in the blowoff hose.

I expect to ferment this beer at about 60 in my garage -- assuming the Bay Area weather turns cold as it ought to. I do not intend to dry hop. The color was pale -- no darker than my infusion mashed plain-jane, but maybe a little more orange colored.

BTW, can someone tell me what the actual specific heat and density of grain are? I guess I can measure the density myself, but measuring specific heat is beyond my abilities, and nothing in the world will convince me that it is really 1.000 as Noonan says. (except, of course, the collective wisdom of HBDers.)

- --Bill Vaughan

"There is no law but the law that there is no law."

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Date: 24 May 93 15:36:43 EDT  
From: CHUCKM@PBN73.CV.COM  
Subject: efficiency and sparge rate

Is there a relationship between extraction efficiency and sparge rate. I seem to remember some previous dialog on this but don't remember what the concensus was.

<insert interesting quip here>

<insert clever graphic and logo here>

Regards,  
chuckm@pbn73.cv.com

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Date: Mon, 24 May 1993 20:46:01 -0400 (EDT)

From: CROFTE@delphi.com

Subject: New kid/local brewpubs/local suppliers

Hi-di-ho neighbors. I am a newcomer here. I just brewed my first batch. I chose an Irish Stout as I have grown fond of dark beers. I bottled it Saturday, and I am going to let it age until my baby's christening. Kind of a double christening I guess. Babies due around June 7th, so that should givvve it plenty of time to age. Side question, Would I be breaking any trademark rules if I put my name, Croft, on the label? Is Croft still brewing? Regarding brewpubs, I live in southern Massachusetts, anyone know of local brewpubs in that area? I'd like to try some other types of beer before I try to brew them. How about supply houses? I got my first kit from a supply shop in New Jersey. Just wondered if there was anything closer. One last comment, regarding Tim Murray's post about AB in Ireland. Kind of ironic, don't you think? Over in Ireland they are getting turned on by AB and here I am in America getting turned on by Guinness Stout. Oh well.  
Ed Croft

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Date: Mon, 24 May 93 20:00:18 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: defending my recipe

dipalma@banshee.sw.stratus.com (James Dipalma) writes:  
> I've used Bullion in my stouts with good results. Give them a try.

yep, but they definitely leave a taste that you won't find in guinness.

After a one hour boil, I can detect hop flavor from bullion, hallertau, or cascades and fuggles, and its not in line with what the real stuff tastes like. Just from taste, goldings seem to get me nearest real Guinness.

While were on the subject, I forgot to emphasize that it is important to resist the temptation to add a second dose of hops later in the boil or to dry hop.

- -----

Knight,Jonathan G" <KNIGHTJ@AC.GRIN.EDU> writes:  
>Thanks to Brian Bliss for his interesting response to my question about  
>making sour mash for Guinness clones.

>  
>Pardon my ignorance: what is meant by "P-Guinness"?

Pseudo-Guinness. Just as a P-lambic is not a lambic, neither is this real Guinness.

>Also, Brian, how do you introduce the lactic infection into the bottled  
>beers?

Nature care of that one for me. Save some of your next soured batch. Beware of exploding bottles, though. By the nature of the infection (sour but not rancid, appearing late in the fermentation, more attenuative that the brewing yeast) I assume that it was lactic.

- -----

Al K (originator of the P-lambic moniker) writes:  
>>The whole idea is to keep the protein in the beer, so you start with  
>>Pilsner malt & don't do a protein rest.

>  
>Yes, but there are big proteins and small proteins. The protein rest  
>will break the big proteins into smaller proteins and amino acids. I'm  
>pretty sure that any really big proteins that are left by the time you  
>are boiling will turn into hot break and do your beer no good anyway,  
>so I don't think that skipping the protein rest will actually  
significantly  
>increase your protein levels in the final beer. Comments?

Maybe you're right, but the technique doesn't hurt, saves times, and aids filtering during the sparge. The stuff IS too damn clear, though. (sometimes it's hard to get things backwards!) Maybe if I go back to a high-gravity boil...

- -----

Conn Copas <C.V.Copas@lut.ac.uk> writes:

>I find (British) N. Brewer works great in stouts; it definitely provides  
>flavour as well as bitterness when boiled an hour, unlike Hallertauer.  
Better,  
>if you are partial to fruit stouts, consider some Bullion for their  
>blackcurrant character. Unfortunately, these are being phased out here,  
and I  
>don't know of a suitable replacement. I actually find that if I use  
enough of  
>our cruddy, local Goldings, I also get blackcurrant. Conclusion? I am  
either  
>being sold mislabelled Bullion (unlikely, as they have Goldings aroma),  
or the  
>two varieties have something in common.

...  
>Hmmm. Our anonymous lager malt (which admittedly isn't the same as  
pilsener  
>malt) shows more tendency to set the mash than ale malt. I'd also be  
>interested to hear more about the effects of mash duration on viscosity;  
mine  
>seem to get more fluid with time. Unfortunately, I can detect lager  
malt in  
>even the most aggressive stout (sulphur?), which is why I don't follow  
Miller's  
>advice. Some wheat malt is well worth considering, however.

As far as the DeWulf Cosyn's malt goes, the pale ale definitely drains  
slower  
that the Pils. My experience with mash viscosity vs. time contradicts  
yours; I also would like to hear empirical evidence on the subject.

Does anybody know for sure exactly what Guinness is hopped with?  
Is this in Jackson's book (World Guide to Beer)?  
The next batch will utilize N. Brewer & wheat malt... Maybe some of  
the wheat malt could be sparged separately, with extra hot water.  
The wheat malt has no husk to contribute to the astringency, and  
the hotter water will make any protein more soluble.

- - - - -

Tim Murray <MURRAYT@WSUVM1.CSC.WSU.EDU> writes  
>Incidentally, the Irish natives also told me that the best Guinness is  
draught  
>(no surprise there), and that the next best thing is Guinness in the can.  
They  
>also firmly believe that the way a pint is "pulled" has alot to do with  
how  
>it tastes.

It should be poured turbulently to allow the carbonation (and N2) to  
escape  
and form the creamy head, then the pressure reduced as it is topped off.  
There should be a creamy head, but little carbonation left in the beer  
itself.

To answer this question, I have actually performed a blind tasting, and  
had  
it performed on myself. The results: the Guinness poured turbulently had  
a  
much creamier head. The taste was the same.

whew!

bb



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Date: Mon, 24 May 1993 21:17:13 -0400 (EDT)

From: SMUCKER@UTKVX.UTCC.UTK.EDU

**Subject: Fridge Question**

In stead of a fridge look for a small chest type freezer.  
They work great with a external thermostat. You maybe  
able to find one that will just hold 2 to 3 kegs. Chest type  
freezer also don't spill the cold air the way a fridge does  
when you open the door. Hunter makes a room air  
conditioner thermostat that many homebrewers have used  
to control a freezer to fridge temperatures

Dave Smucker

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Date: Mon, 24 May 93 22:27:40 edt  
From: Kim\_Kiesow@DGC.ceo.dg.com  
Subject: question

Message:

I would like to know if anyone has tried making "beerbread" using one of the new breadmaking machines? If so what are the proportions needed? The machine I am using can handle up to 3 cups flour. Email direct or post...

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End of HOMEBREW Digest #1148, 05/25/93  
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Date: Tue, 25 May 93 12:01:07 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Hops, Fruits/Racking off the trub/London bottle shops

Spencer writes:

"I've noticed that dry-hopping often results in a "grassy" or "herbal" taste that diminishes quickly with time. Sort of like chewing on raw hops."

I actually find this more with large amounts of certain bittering hops; Hallertauer in particular. My best guess is that this could be due to chlorophyll content, which is responsible for the green colour. My home dried hops (at room temperature) go brown without seeming to lose their aroma, presumably because I use neither forced drying nor sulphur dusting.

Lee writes:

"My current understanding of racking off the trub is that one should pitch into the chilled wort and rack a few hours later. This gives the yeast the opportunity to use some component of the trub which it needs in the beginning stage of fermentation and not provide the materials that the yeast uses later in fermentation to produce fusel alcohols."

This is a perennial issue and I don't have the definitive answer either. However, my understanding of the chemistry is that many fermentation byproducts, such as fusel oil and esters, are produced during the yeast respiration phase. At this point, the yeast requires oxygen to reproduce, most homebrewed worts contain suboptimal levels of dissolved oxygen, so it's a reasonable bet that the yeast will attempt to extract oxygen from the trub, and produce fusel oil in the process. Whether it will show more or less preference for the trub is one of HBD's great controversies. For the yeast to metabolise trub during the secondary requires it to switch from anaerobic to aerobic fermentation (yes?), which strikes me as unlikely under normal conditions.

Does anyone know of any decent bottle shops in London, specialising in imported beers? E-mail responses might be best.

- - -

Conn V Copas  
Loughborough University of Technologytel : +44 509 263171 ext 4164  
Computer-Human Interaction Research Centrefax : +44 509 610815  
Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut  
G Britain (Internet):C.V.Copas@lut.ac.uk

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Date: Tue, 25 May 93 10:05:42 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Funky, Break and Dew Point

Jack Schmidling writes:

- > However, I would suggest that if you have air conditioning, it
- > would be far more effective and simple just to place your
- > fermenter in front of the A/C or air duct.

I'm not sure about this. Putting the fermenter in front of the A/C, you get a blast of cold, followed by warming, followed by a blast of cold, .... Sitting in the corner with a wet T-shirt on, you get continual gentle cooling. (Of course, the difference may be irrelevant, given the thermal mass of 5 gallons of beer.)

=S

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Date: 25 May 1993 09:05:09 GMT  
From: WAUTS@CWEMAIL.ceco.com  
Subject: NOTE 05/25/93 09:05:50

From: Thomas L. Stolfi wauts@cwemail.ceco.com  
Subject: 3rd Annual Southport Beer Festival

Brewmasters Pub proudly announces the 3rd Annual Southport Beer Festival. The festival is to be held in the Bier Garten at Brewmasters Pub on June 19th between 2:00pm and 9:00pm. Brewmasters is located at 4017 80th St in

Kenosha, WI (Phone: 414-694-9050), for directions send private email. The purchase price is \$14/advance or \$16/door (advance purchase guarantees

commemorative mug)and includes unlimited beer tasting. For those requiring

solid nutrition you will be happy to know that a pig will be roasted. The following list of breweries are to participate (there may be some last minute changes):

Adlerbrau ----- Appleton, WI  
Boston Beer Co.(tm) --- Boston, Mass  
Brewmasters' ----- Kenosha, WI  
Broadripple ----- Indianapolis, IN  
Calumet Brewery ----- Chilton, WI  
Capital ----- Middleton, WI  
Cherryland Brewing ---- Sturgeon Bay, WI  
Chicago Brewing ----- Chicago, IL  
Lakefront ----- Milwaukee, WI  
Sprecher Brewing ----- Milwaukee, WI  
Water Street Brewery -- Milwaukee, WI  
Weinkeller ----- Chicago, IL

For anybody wishing to stay overnight a list of hotels is available, send request via private email.

Tom Stolfi  
wauts@cwemail.ceco.com

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Date: Tue, 25 May 93 07:16:10 PDT

From: Bud and European drinkers 25-May-1993 1011 -0400 <ferguson@zendia.enet.dec.com>

**Subject: The rise of Bud in Ireland**

There has been a lot of talk about the rise of the popularity Budwieser beer in Ireland and europe in general. I've been to Ireland twice recently

and Germany/Austria recently as well and this is the way my Irish friends have put it. When the warmer weather comes, the Irish look for brew that is lighter, and Bud has that appeal. Many Guinness drinkers switch to Bud

for the summer, and when the cooler weather returns, back to the Guinness.

When the Irish workers get home at 5:30pm, they still have 5 hours of day light left! The sun finally sets around 10:30pm or so. On the other hand,

in the winter it is light by 9am and dark by 4pm (November anyways).

Perhaps

this extended light period during the summer has an effect on the choice of brew too.

JC

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Date: Tue, 25 May 93 10:06:02 EDT  
From: Elaine Boris <EBORIS@UGA.CC.UGA.EDU>  
Subject: South East Suppliers

My local homebrew supplier is actually a natural foods grocery and their selection is VERY limited. I would like know if anyone can suggest a good mail order supplier in my area. TIA ( Thanks in advance ), E.

Elaine Boris Student Information Systems  
Computer Services Specialist University of Georgia  
706 542-0484 Athens Georgia

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Date: Tue, 25 May 1993 10:26:55 -0400 (EDT)  
From: roman@tix.timeplex.com (Daniel Roman)  
Subject: Manhattan Brewing Company

I've recently been made aware by a friend that the Manhattan Brewing Company has reopened (last week?) under entirely new management (it closed in 91). They produce up to six different types of beers and ales on premises and the theme there is beer. Even the food makes extensive use of beer in the recipes and/or is used to compliment the different beer styles. The address is 23 Watts St., between Thompson and Broadway I believe.

I have not been there yet but I know someone who knows the Manager so this info is 2nd or 3rd hand. I hope to get there soon, anyone work in the Canal St. area of NYC willing to do a scouting mission?

Also, does anyone have the address of the fellow who keeps the publist file on sierra? I seem to have misplaced it. I'd like to make sure he gets this updated info.

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Dan Roman GEnie: D.ROMAN1 Internet: roman@tix.timeplex.com //  
American Homebrewers Association member Only AMIGA! /X/

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Date: Tue, 25 May 93 10:15:35 EDT  
From: man@lcwdwl.att.com  
Subject: Sparge efficiency relative to flow rate

Subject: Re: efficiency and sparge rate

This past weekend I experimented with my sparge rate to see if speeding it up would result in reduced yield. I normally make 12 to 13 gallon batches in a converted keg mash tun with stainless false bottom. I always have to control the flow with a valve or I would sparge 15 gallons in 20 minutes. I usually restrict the flow to force the time to 2.5 to 3 hours. At this rate, my yields were generally 27-30 pts/lb/gal. I used a tried and true recipe for a session beer - Neshanic Bitter (1.039). This time the sparge lasted only one hour to claim 15 gallons. I boiled it down to 13+ with a OG of 1.040. My yield was 29.7 which I am quite pleased with. I will continue to experiment with this sparge rate.

For the recipe hungry:

Neshanic Bitter (Recipe for 13 gallons)

16.0 lbs DeWolf-Cosyns Pale Ale  
.9 lbs DeWolf-Cosyns Cara Munich  
.6 lbs DeWolf-Cosyns Wheat  
8.5 gal mash water @ 175 F (a little to hot for this much grain, try 5 F less)  
1 Tbsp gypsum in mash. Mash for 1 hour. Recycle 1 quart.  
8.5 gal sparge water @ 180 F. Acidified with 10cc 88% lactic acid.  
75 min boil  
22.4 AAU Northern Brewer Whole Hops (60 minutes)  
Counter-flow chilled  
Wyeast Chico (second generation)  
Fermenting @ 65 F.

Misc:

Grains weighed on Hobart deli scale.  
Grains cracked in roller mill.  
SG derived from refractometer, confirmed with hydrometer.

Mark Nevar

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Date: Tue, 25 May 93 10:53:02 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Brewing Techniques

My issue of Brewing Techniques came yesterday. Looks pretty good, I think I'll spring the \$24 to help keep it in business. In this issue:

"Factors affecting hop production, hop quality, and brewer preference," A. Haunold and G. Nickerson

I haven't finished this one, but it includes some gas chromatograms showing "hop oils" in a few varieties.

"Belgian malts: some practical observations," G. Fix

George does test batches. Includes charts with color, diastatic power, etc. Conclusion: the specialty malts are unique, the regular malts are very good, with slight flaws.

"Reinheitsgebot and the fifth ingredient," M. Schiller

Bacteria and how to keep 'em out.

"Thinking about Beer Recipe Formulation," D. Richman Darryl describes how he put together his award-winning "Bock Aasswards" recipe.

(Side note: it claims here he has a Bock book coming out soon.) I would like it if this became a (semi-)regular feature, probably with various contributors. (Hint: send in your contributions. I've seen some HBD postings that would do nicely in this slot.)

"Spreadsheet for Recipe Design," K. King

Haven't read it yet.

Articles are classified as "Feature" (cover story, 1st above), "Technical Articles" (2 & 3 above), and "Brewers' Forum" (4 & 5 above).

Columns (and therefore regular features, I assume):

"The troubleshooter," D. Miller

The obvious thing, but more in depth than the "prof" in Zymurgy.

"Brewing in Styles," R. Bergen

(This column will feature "guest brewers".) This month is American Wheat Beers. Talks about mashing & sparging techniques, as well as stylistic points. Some points aimed specifically at the professional (microbrewer) audience, e.g., reference to lauter tuns with rakes.

The letters section, "Technical communications," looks very much like some of the better articles in the HBD (and includes a couple of HBD regulars in this issue).

All in all, a good effort. This single issue has almost more information content than a whole year of Zymurgy! Well, maybe I exaggerate. And Zymurgy has its points, too: a profusion of recipes, a chatty style, and lots more ads. (I assume this will change.)

Brewing Techniques has a much sparer, cleaner, more professional "look" to it, which is appropriate to a publication of this sort. It's very readable, and shows good attention to look as well as content. Of course, there were a few typos, but not nearly as many as some other brewing magazines I could mention.

[Imagine standard disclaimer here.]

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Tue, 25 May 93 10:58:55 -0400  
From: br035@cleveland.Freenet.Edu (Raymond M. Yurick)  
Subject: Cold break separation

js writes (on cold break separation)

>I also suspect the whole discussion is irrelevant to those of us using  
> immersion chillers as the hot/cold break is conveniently left behind in  
the  
> kettle when the chilled wort is drawn off.

Actually, immersion chillers do not give a well-defined cold break due  
to the more gradual temperature drop.

Ray Yurick

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Date: 25 May 1993 09:59:34 -0500 (CDT)  
From: ROB WILSON <WILSONRS@VAX1.Winona.MSUS.EDU>  
**Subject: Starter?**

I want to make a yeast starter for my next batch, the problem is that I dont have any DME to make it with. Can I just use a corn sugar/water solution. If so who much water and corn sugar. Also is it true the more sugar the higher the yeast count. I use dry yeast, does this take longer to start? How long do you leave the starter before pitching?  
Thanks to every one who helped me with the equipment question. I got some from from Glenwood spring water for only \$8.(carboys) The bottles I will just have to look for.

E-mail me..

Thanks in Advance  
Rob Wilson      wilsonrs@vax2.winona.msus.edu

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Date: 25 May 1993 09:21:09 GMT  
From: "Tom Stolfi" <WAUTS@CWEMAIL.ceco.com>  
Subject: Christmas Beers

From: Tom StolfiTom Stolfi - CWE1IIN  
Subject: Christmas Beers

Hello All,

I am going to make a BIG Christmas beer this year and I am starting to compile my recipes. If you have a recipe you are willing to share (Ho Ho Ho, tis the season of giving) or any advice on spices and such a response would be greatly appreciated. Thanks in advance.

Tom Stolfi  
wauts@cwemail.ceco.com

p.s. If I get a lot of response I will compile a list and post to the HBD.

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Date: Tue, 25 May 93 11:57:03 -0400  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: efficiency and sparge rate

Inm HBD #3321 you write:

>Is there a relationship between extraction efficiency and  
>sparge rate. I seem to remember some previous  
>dialog on this but don't remember what the concensus was.

Chuck: I have sparged a 5 gallon batch (collected 6.5 gal) from less than 20 minutes to over 90 minutes. I have not noticed much difference in the efficiency. Now, however, with a poor crush or poor lauter geometry I have seen wide variations in my sparge efficiency. Actually, I don't know much about geometry other than I typically get 100% of the expected extract with my two rigs (false bottom plastic bucket with drum tap, and a 1/2 bbl keg and a 8" slotted copper ring for the filter - that is my new, fancy, 10 gal brewery). I do have experience with poor crushes: ones done by a coffee grinder (lots of whole grains and flour) lauter middling ok, but poor extract, ones done by a roller mill set too close: lots of flour, incredible slow sparge and excellent extract. A proper crush with a roller mill (or corona) lauters very fast and I still get 100% extract. BTW, the corona will give you more flour and a slower sparge, but other than that does a very credible job of crushing grain when set properly.

If you have poor extract rates and suspect your geometry you can try the technique (I can't remember who tried this first, I think maybe Martin Lodahl) where you drain the first runnings, add all the sparge water, stir, let settle and drain again. that should remove any geometrical considerations (channeling, etc.)

Cheers!

- - -  
Larry Barello uunet!polstra!larryba

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Date: Tue, 25 May 1993 09:10:43 -0700 (PDT)

From: gummitch@techbook.com (Jeff Frane)

**Subject: Re: Galanga**

Lord knows why anyone would put Galanga into a brew, but... As has been pointed out, galanga is used in southeast Asian cooking, primarily Thai and Vietnamese. It is a relative of ginger (so it is NOT a root, but a rhizome), but it is MUCH MUCH more expensive. It is available fresh in any Vietnamese grocery store, but the odds are a beverage recipe really requires dried, powdered galanga. In this form, it's more likely to be called "laos" (like the country). Although related to ginger, it doesn't taste at all like it, and ginger really wouldn't be a substitute.

And, come to think of it, dried galanga/laos isn't all that expensive, just the fresh stuff.

And while you're in there rooting around, try to find me a supply of kaffir lime peel (dried).

- --Jeff Frane

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Date: Tue, 25 May 93 09:38:28 PDT  
From: davidr@ursula.ee.pdx.edu  
Subject: RE: soot on Stainless steel pot problem

>My problem is that after the wort boils and I turn the cooker down to  
maintain  
>a nice rolling boil, the flame is very yellow (presumably because the  
gas/air  
>mix is off) and soot forms on the bottom of my expensive new Stainless  
steel  
>pot.  
>  
>Have any others experienced this problem and is there a good solution?

I learned this trick in boyscouts while backpacking.  
Cooking on an open fire seems to ALWAYS accumulate soot on the  
bottoms of your pans. The solution? Place a thin film of dish  
detergent on the pan bottom. Although, the soot still  
accumulates, it washes off easily with water. (Of course you  
are going to have to scrub real well with steel wool or something  
similar to remove the soot that has already accumulated... but  
after that, if you use this method, its easy street.)

-David Robinson  
davidr@ee.pdx.edu

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Date: Tue, 25 May 93 12:13:34 EST  
From: Ulick Stafford <ulick@davinci.helios.nd.edu>  
Subject: Bud in Ireland

In hbd1147 Tim Murray mentioned seeing lots of empty Bud cans on a train being drunk by Irish Football fans. There is much that should be known about this. Firstly, anyone who has travelled by train anywhere knows that the selection of beers can leave a little to be desired (it is interesting to note that the selection improves alot when crossing the Canadian border at Port Huron/Sarnia, but that is another story). Secondly, Budweiser produced in Ireland (by Guinness at the Smithwicks plant in Kilkenny) has been acclaimed by Americans who have drunk it as tasting like a beer (as agianst how it tastes here). It is produced to normal Irish strength (4.3% - a bit weker than here), which probably improves its balance. Thirdly. It is normally priced (in cans anyway) the same or cheaper than other lagers, and it is possible it was being drunk because it was cheap.

Ulick Stafford

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Date: Tue, 25 May 93 12:59 CDT  
From: korz@iepubj.att.com  
Subject: SS reactivity

Don writes:

>the best and most complete source of info on the reactivity of various  
>acids, salts, bases and whatever with various metals, plastics, rubbers  
>is in the back of the Granger catalog.

`Fraid not Don... a more complete source of reactivity is in the back of  
the Cole-Palmer catalog, but I won't go so far as to say that it is the  
most complete source.

>for example, household bleach does not react with 304 and 316 stainless.  
>however, no info is available on 302 and 440 although its very unlikely  
>you will find pots or kegs made with these.

According to the Cole-Palmer reactivity chart, both "Chlorine Water" and  
"Sodium Hypochlorite (<20%)" are listed as "Moderate Effect" for 316 and  
304 Stainless Steel and "Severe Effect" for 440 Stainless Steel. While  
we're at it, it also says that there is a "Severe Effect" with "Cast  
Bronze,"  
"Cast iron," "Aluminum" and "Carbon/Ceramic". Copper is not listed, but  
I strongly suspect that it, too, is reactive with both "Chlorine Water"  
and  
"Sodium Hypochlorite (<20%)."

>there are many other interesting items. e.g,. BEER doesn't react with  
>much of anything (thank god) except a little with brass and  
polyethylene,  
>a little more with silicon and quite severely with cast iron and poly-  
>propylene.

Strange, in the Cole-Palmer chart, "Beer" has "No Effect" on  
Polyethylene,  
Silicon or Polypropylene.

>honestly, the table is an array about 400x30.

Honestly, the Cole-Palmer table is about 550X40, but it still is not the  
most complete I've seen -- just the most complete I have here at arm's  
length.

Al.

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Date: Tue, 25 May 93 10:38:36 -0700  
From: jason@beamlab.ps.uci.edu  
Subject: Beer in europe

Sorry about this request (I know these things bug the crapola out of some of you), but I tried to retrieve the information from the archives via ftp and my computer (or I) couldn't hack it.

Where is great beer to be found and what no way to be missed beer sites are there in:

Brussels  
Munich  
Amsterdam  
and possibly other parts of Germany?

please respond via private e-mail by today

thank you very much, and have a glorious day.

Jason

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Date: Tue, 25 May 93 09:21:09 EST  
From: boomer@sylsoft.com (Richard Akerboom)  
Subject: Death of Rumor--There is NO Bud in Germany

There is NO Anheuser-Busch Budweiser in Germany. A message a few weeks ago started this rumor, but the author was confusing the original, Czech Budvar (called Budweiser in German because of the German name for the city) with the cheap imitation we get here in the states. I emailed the author to find out, and he now realizes his mistake. This also explains the high price he quoted.

If Anheuser-Busch were to import US Bud, they would have to change the name, as the Czechs have the rights to the name in Europe. At least until A-B buys them out, which I hope never happens.

Rich

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-  
Richard Akerboom Domain: boomer@sylsoft.com or akerboom@dartmouth.edu  
Sylvan Softwareuucp: dartvax!sylsoft!boomer  
Mechanic St. Phone: 802-649-2231  
P. O. Box 566 FAX: 802-649-2238  
Norwich, VT 05055 USA  
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Date: Tue, 25 May 93 18:58:15 GMT  
From: weissborn@dfwdsr.SINet.SLB.COM  
Subject: Solution to Soot and a Thank You

> Subject: soot on Stainless steel pot problem  
>  
>  
> I just got a "King Kooker" propane burner. As many of you have also  
found  
out,  
> a home gas stove makes it difficult to get 7 gallons of wort to a boil.  
> My problem is that after the wort boils and I turn the cooker down to  
maintain  
> a nice rolling boil, the flame is very yellow (presumably because the  
gas/air  
> mix is off) and soot forms on the bottom of my expensive new Stainless  
steel  
> pot.  
>  
> Have any others experienced this problem and is there a good solution?  
>  
> - --Tony Verhulst

Looks like you were never in the Scouts, Tony 8-) The soot problem can  
be  
solved  
by dampening a bar of soap and then rubbing it over the bottom and sides.  
When  
you cleanup 95-100% of the soot will come off since it is "stuck" to the  
soap  
and not to the pot.

Thanks to all who replied about my 1st batch problems. At the suggestion  
of  
several folks I took another gravity reading. The O.G. (@90f) was .1112  
the reading I got a few days ago was .1042(@74f) (I wish I could find my  
temperature adjustment chart). The feeling at the local brew shop is  
that it  
is close to finished although it still tastes a little sweet. I am  
planning  
to take another reading tonight and will probably bottle tomorrow.

Thanks again for the advice.  
Bill Weissborn  
weissborn@dfwvx1.dallas.geoquest.slb.com

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Date: Tue, 25 May 93 13:40:49 PDT  
From: John Cotterill <johnc@hprpcd.rose.hp.com>  
Subject: Fermenter Geometry/Sierra Nevada

- 1) I have been doing some experiments fermenting in 5 gal glass carboys and 5 gal SS soda kegs. I have found that the beers in the soda kegs all take much longer to ferment out. I think it is do to the geometry. Has anyone else noticed this? I have heard of some people fermenting in Sankey (sp?) kegs. I dont know what a Sankey keg is, but I am guessing that is is a regular beer keg. If so, how in the heck do you make sure they are clean? I want to use SS especially since I can use pressure to transfer the beer instead of syphons. And a standard beer keg has a geometry similar to a carboyu. Anyone have any experience fermenting in Sankey/beer kegs?
- 2) I have spent the last year trying to make a Sierra Nevada PA clone. I really have not even come close although the attempts have resulted in some mighty tasty beers. I have a pretty poor sense of taste which is complicating my efforts. It seems to me that Sierra Nevada Pale Ale uses lots of flavoring hops with low bittering hops - just an un-educated guess. Can anyone shed some light on the hop profile for SNPA and perhaps even suggest a recipe.

Thanks!  
JC  
johnc@hprpcd.rose.hp.com

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Date: Tue, 25 May 93 16:46:32 EDT

From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 25-May-1993 1644  
<macneal@pate.enet.dec.com>

**Subject: Soot on stainless**

Here's a little trick I picked up in Boy Scouts many years ago. To make soot easy to remove from the outside of pans that have been used over a campfire (or a yellow flamed Cajun Cooker), coat the outside of the pan with soap. You can either coat it in liquid dish detergent or rub a bar of soap all over the outside. The soot will simply rinse off with the soap at cleaning time.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Tue, 25 May 1993 14:22:53 -0600  
From: Paul Boor <PBOOR@beach.utmb.edu>  
Subject: kegs in fridges

In reference to fridges or freezers and the cold air falling out when you open the door, I finally broke down and installed a stem tap through the door of the keg fridge. It is the thrill of a lifetime, drilling a hole through the fridge door! It was so much fun (and the tap looked so much more professional than fumbling inside with the hoses) that I sprung for two more. I justify the cost by the electric I will save during the 10 month Galveston summer, not opening the door to draw a beer.

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Date: Tue, 25 May 1993 17:34:26 -0400 (EDT)  
From: jdg@cyberspace.org (Josh Grosse)  
Subject: Sparging efficiency

In HBD 1148, chuckm@pbn73.cv.com asked about the relationship between sparge time and extract efficiency.

My answer using English 2-row pale malt:

45 minute sparge = 27 pts / gallon.

2.5 hour sparge = 34 pts / gallon.

I've been using a grain bag in a BruHeat as a combined mash/lauter tun. I have found that I get the clearest run-off and slowest drain rate by lowering the level of wort until the grain bed compacts. Recirculating before this happens has no effect. Once the grain bed has compacted, it clears the runoff almost instantly. Then, I recirculate. With a compact grain bed, it takes a long time for the sparge to complete. I pre-acidify to 5.5-5.7 with 88% lactic acid.

Last fall, Spencer Thomas and I got 33 pts / gallon using a recirculating mash system. I don't have the money for such a system myself right now, so I'll read a book (or catch up on a week's worth of HBDS) while sparging.

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Josh Grosse jdg@grex.cyberspace.org  
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Date: Tue, 25 May 1993 10:26:29  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Beer Bread with Machine

Kim Kiesow asks if anyone has made beer bread with a bread machine:

Yes. My wife makes it all the time. She just substitutes some of my homebrew for the water in the recipe, but she microwaves it first. This is mainly to warm it up because the machine wants warm water (although I have yet to figure out why because you can delay the bread start for 12 hours or more). The type of beer to use depends a lot on the type of bread you want. But very bitter beers will make the bread a bit bitter. My favorite has been a dark rye made with Porter. To make the rye dark, she adds cocoa powder.

Mark from HopTech

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Date: Tue, 25 May 93 17:13:32 CDT  
From: fiero@pnet51.orb.mn.org (Bill Fuhrmann)  
Subject: soot on pots

|My problem is that after the wort boils and I turn the cooker down to  
|maintain  
|a nice rolling boil, the flame is very yellow (presumably because the  
|gas/air  
|mix is off) and soot forms on the bottom of my expensive new Stainless  
|steel  
|pot.

The standard camping solution to this is to smear dish washing liquid on  
the bottoms and sides of the pot. Then all the soot just washes off.

Bill Fuhrmann, aka fiero@pnet51.orb.mn.org

"You don't know what you've got till it's gone." - Joni Mitchell

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Date: Tue, 25 May 93 18:53:13 MDT  
From: thomas ciccateri <tciccate@carina.unm.edu>  
Subject: GABF Ad Claims

In the Jan/Feb '93 issue of The New Brewer, Charlie Papazian states that beginning July 1,1993 the Association of Brewers will enforce the following rules on participants: Brewers promoting their awards must mention the category in which the medal was awarded, they must mention the medal won, and they must tell for which year the medal was won.

Tom Ciccateri  
University of New Mexico  
Training and Learning Technologies

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Date: 25 May 1993 19:20:12 U  
From: "Steve Lovett" <Steve\_Lovett@qm.symantec.com>  
Subject: Sweetport recipe and Hoegaa

Subject: Sweetport recipe and Hoegaarden recipe help.  
Hi fellow brewors!

A couple of quick questions for you all. Has anyone brewed up Mike Ligas's recipe "Sweetport Porter" from The Cat's meow II, 5-45? The recipe says it is for six gallons, but the comments state that the author generally is an all grain dude. So... does this mean mix up six for a full wort boil that boils down to apx. five, or does it mean the actual volume of wort after the boil is six gallons??

Also... I have grown quite enamored of the coriander-orange peel flavor of Hoegaarden "White" from Belgium. The current fruit beer thread has me really itching to brew up something very similar. I have seen Papazian's recipe in TNCJOHB but it is all barley malt based, and my memory is not what it used to be, but I'm sure that Hoegaarden is a wheat beer. I have seen "Grand Cru" kits from Brewferm, but the kit thing makes me a little sceptical so any advice on reproducing this lovely brew would be most appreciated.

Thanks... Steve Lovett

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Date: Tue, 25 May 93 18:24 EDT  
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)  
Subject: Porter recipe

As a result of a private request by Keith Schwols, I am submitting the recipe for a beer that won first place in the Porter category in last month's AHA-sanctioned competition held by the Upstate New York Homebrewers Association (Rochester, New York). I've included my brewing notes, just for kicks.

"Independence Porter" by Tom Kaltenbach (5-gallon recipe)

6.6 lbs Munton & Fison amber malt extract  
0.5 lbs Munton & Fison light dry malt extract  
0.5 lbs chocolate malt, crushed  
2.5 oz Cascade hops pellets, boiling (55 min) (note: for 2 oz, alpha = 5.4; for 0.5 oz, alpha = 4.7)  
0.5 oz Hallertauer hops pellets, finishing (steep during chilling)  
2 tsp gypsum  
1 pkg Whitbread dry ale yeast

Brewing notes:

The chocolate malt grains were crushed and added to approximately one gallon of water and slowly heated. Before a boil was reached, grains were removed and sparged through two strainers, (one coarse and one medium). The malt extract, gypsum, and boiling hops were added and boiled for 55 minutes. About 15 minutes from end of boil, yeast was rehydrated by standard method [note: standard method consists of removing 1 ladleful (approx. 1/4 cup) of boiling wort and diluting to 1 cup with cold water in a sanitized 2-cup Pyrex measuring cup. It is then cool enough to add the yeast immediately. The Pyrex cup is covered with plastic wrap, sealed with a rubber band.] At end of boil, immersion wort chiller was placed into brewpot, the finishing hops was added, and the brewpot was removed from the heat. The pot was immediately transferred to the sink and the chilling begun. The brewpot lid was placed over the chiller and the gap between pot and lid was sealed with plastic wrap. After chilling for approximately ten minutes, the wort was transferred to the primary, straining out the hops pulp in the process. Wort was diluted to five gallons with jug-aerated water. [Note: jug-aerated water refers to the following: cold tap water is added to the fermenter 1/2gallon at a time to make 5 gallons. Each 1/2 gallon is shaken vigorously for 30 - 60 seconds in a sanitized plastic gallon jug to aerate. This may also help dechlorinate the tap water.] Some cold tap water was blended with warm to produce a final temperature between 65 and 70 degrees in the fermenter. The yeast was pitched immediately. The original gravity was measured to be 1.060 at approx. 67 degrees --> 1.061 corrected. Fermentation was carried out at approximately 62 degrees. Primary fermentation continued to 18-Nov-92, when beer was racked to the secondary fermenter. Batch was kegged on 7-Dec-92; final gravity: 1.015 @ 60 degrees --> 1.015 corrected. Alcohol content was computed to be 6.0375% by volume, 4.83% by weight.

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Date: Tue, 25 May 93 19:41:55 PDT  
From: "Tom Childers" <TCHILD@us.oracle.com>  
Subject: secondary fermentations and fruit

In HBD 1146, Bryan Kornreich asks

> How on Earth do you press your fruity wort (to get the juice out of the pulp)  
> with any hint of sterility.

I keep my (large wooden) spoon and strainer in the pot during the end of the boil to sterilize them. Since the Wheat Berry recipe used a partial boil, you can just take the implements out, set the strainer on the funnel, and start pouring the wort. When the strainer fills with hops and fruit, I press it with the spoon to extract the last bit of fruit juice, then toss the strainer contents and repeat the process until all of the wort is in the carboy. Then I slap a clean cork in, let it sit for a few hours to get to pitching temperature, and add about a quart of yeast starter.

By the way, I find that sterility is not a huge issue when I use big yeast starters. You can never maintain sterility in your cool wort - bacteria are falling into the stuff at the rate of hundreds or thousands per minute. Eventually, the yeast will crowd the bacteria out. However, if you pitch a small yeast culture, then the bacteria have enough time to create off-flavors before losing the race. I build up a very active starter, and primary fermentation is generally in full swing within a few hours.

(Of course, I do keep things very clean, and sanitize the fermenter, siphons, bottles and caps before using them. I haven't had a pedococcus infection yet, knock on wood. Remember, people have been making beer for thousands of years...)

> would it be a good idea to puree the raspberries and blackberries before adding them in order to avoid the pressing step?

Pureeing the fruit should work fine, although you may get a cloudier beer from all of the little pieces of fruit skin in suspension. You might want to thaw the frozen berries first :-)

Tom Childers  
Mill Valley, CA

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End of HOMEBREW Digest #1149, 05/26/93  
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Date: Wed, 26 May 93 10:17:11 BST  
From: des@pandora.swindon.ingr.com (Desmond Mottram)  
Subject: Czech Budweiser

In HBD recently Richard Akerboom wrote about Czech Budweiser. This is IMHO

one of the world's finest beers. Richard adds:

>  
> If Anheuser-Busch were to import US Bud, they would have to change  
> the name, as the Czechs have the rights to the name in Europe.

Not in all European countries. In many cases A-B got there first. Here in the UK both companies can use the name.

> At least until A-B buys them out, which I hope never happens.

It will happen, make no mistake. A-B are out to get the Czech company. I believe they already own 30% and are continually on the look out for ways to increase their ownership. You can try lobbying A-B but do you really think you will get anywhere? They will mouth all kinds of platitudes, but when they get it they will kill the beer. So enjoy it while you can, it really is a SUPERB beer and it won't be here for ever.

Rgds, Desmond Mottram  
des@pandora.swindon.ingr.com

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Date: Wed, 26 May 93 10:19:54 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re : Racking off thee trub

Yesterday, I wrote this:

"However, my understanding of the chemistry is that many fermentation byproducts, such as fusel oil and esters, are produced during the yeast respiration phase. At this point, the yeast requires oxygen to reproduce, most homebrewed worts contain suboptimal levels of dissolved oxygen, so it's a reasonable bet that the yeast will attempt to extract oxygen from the trub, and produce fusel oil in the process."

This relied on memory and is inaccurate; apologies for the confusion.

With further reading, precursors to these byproducts are formed, during both the lag and respiration phases. Yeast does not extract oxygen from trub, it uses the unsaturated fatty acids as an alternative to oxygen for growth. The net effects of this alternative pathway remain controversial.

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Date: Wed, 26 May 1993 14:11:26 +0000  
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)  
Subject: Guinness, Starter OG, wine acidity

Conn Copas <C.V.Copas@lut.ac.uk> writes:

>I find (British) N. Brewer works great in stouts; it definitely provides  
>flavour as well as bitterness when boiled an hour, unlike Hallertauer.  
Better,  
>if you are partial to fruit stouts, consider some Bullion for their  
>blackcurrant character. Unfortunately, these are being phased out here,  
and I  
>don't know of a suitable replacement. I actually find that if I use  
enough of  
>our cruddy, local Goldings, I also get blackcurrant. Conclusion? I am  
either  
>being sold mislabelled Bullion (unlikely, as they have Goldings aroma),  
or the  
>two varieties have something in common.  
...  
>...Unfortunately, I can detect lager malt in  
>even the most aggressive stout (sulphur?), which is why I don't follow  
>Miller's advice. Some wheat malt is well worth considering, however.

Brian Bliss <bliss@pixel.convex.com> asks:

>Does anybody know for sure exactly what Guinness is hopped with?

Although Guinness might have used bullion in the past, bullion has not  
been  
produced commercially in the UK since the 1987 crop, and is no longer  
available (if someone in the UK sold you some recently they were old). As  
a  
data point: when I last enquired (two years ago) Guinness were using  
Target  
hops, a high alpha (10%-12% depending on season) hop which doesn't seem  
to  
give too much aggression with its bitterness. It has a respectable aroma  
also  
and is gaining popularity with many commercial breweries. The choice by  
Guinness is based on the price per unit of alpha acid - that is, it is  
cheaper to obtain their bittering by using that hop rather than others;  
If  
another hop were cheaper they would use it (assuming it didn't adversely  
affect the flavour). No altruism on their part.

Further data: the 1992 UK hop crop, in Zentner, for some varieties was  
Target 47,396  
Challenger 12,866  
Northdown 11,977  
Goldings 8,965  
Fuggles 8,124

Northern Brewer was in 10th place with 347 Zentner, and the total  
production  
was 96,417 which is fairly typical (1991 was exceptional with 120,333)

I also recall that Guinness use a high proportion of 'lager malt' in  
their  
grist for reasons of economy too (I can't find my notes confirming this  
so



don't take that as gospel yet). It is simply that lager malt is cheaper than pale. In the small quantities that I purchase, lager malt costs 405.00 per tonne and pale costs 415.00 per tonne (crystal 425.00 per tonne, Roast Barley 385.00) - prices in pounds sterling.

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On the subject of Guinness, I shall refer back to the discussion about their thingy in the bottom of the draught guinness in cans. Al K. finally scotched this momily but his description was not quite complete. In fact the plastic chamber, which has a little hole in it, is totally empty when it is put in the can. (No I don't meean a vacuum, I mean gas at atmospheric pressure OK?)

The system works because the pressure in the can exceeds atmospheric pressure (remember the pssst when you pull the ring?). The can is filled with beer that is cold enough (0C to 1C) to retain sufficient condition and an oversize can (440ml beer in 500ml can, say) is used. They also "dose" the beer with extra nitrogen (less soluble and finer bubbles). Once the lid is on, (and the beer warms up) gas comes out of solution to create the pressure in the can. The pressure in the can and inside the chamber reach equilibrium forcing beer (and gas) into the device through its little hole. Once the can is opened, the resulting drop in pressure forces this beer back out of the chamber through the tiny hole. The shock of passing through this tight constriction creates small stable bubbles which rise through the liquid acting as centres where other bubbles form.

Clever really. The last remaining problem was finding a way to purge oxygen from the whole system (hence, or otherwise, the nitrogen momily?).

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Talking of momilies, Jack S. descibed me as 'a momily buster in the bud'. Now that we have been told what a momily is, I know what I was being accused of. But then again if Jack knew me better he probably wouldn't think of me as being 'in the bud'.

The above happened when I asked about the rationale for using starters with SG 1.020, which appears to be the received wisdom on this digest. I agreed to summarise the responses, but unfortunately I have little to report. The most promising response was from Kinney Baughan (quoting Dave Logson as) saying that it is "necessary only from the point of view of efficiency of reproduction

of the yeast."

Perhaps I shall carry on looking at this one for a while, but lets have a few data points. In my descriptions for making culture media, only two values seem to appear; if you are to use (hopped) wort agar one uses SG 1.040 (hopped) wort with 1.5% agar; if you choose to use MYGP (or similar) broth/agar then (I calculate) the SG is about 1.005.

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Bruce <NULL0TROOPER@delphi.com> writes

>I've found that fermentation often lowers the acidity of a wine  
>must, though this should be less pronounced with beers and ales (I  
>haven't tried it, yet).

On the contrary, under normal conditions fermentation increases the acidity (and lowers the pH) of wine must. This increase is typically of the order of 1 ppt (as Tartaric). The exceptions are when the must is extremely high in acid at the start (eg >12ppt), or if there is a high proportion of malic acid present and the particular strain of yeast being used can ferment malic acid. There are only a few of those strains available to the home brewer and it is very unlikely that one will be used (and then they only use about 20-25% of the available malic acid)

As for beer, one might expect a pH drop from 5.5, say, to below 4.5 (after which the activity of a number of bacteria is inhibited - fortunately for us)

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And finally, I was recently in central Florida and suffered the shock in the supermarkets of finding that they had yards and yards of chilled shelving all containing the same beer - they just had different names: Bud, Bud Dry, Bud Lite, Michelob, Michelob Dry, Miller, Miller Lite, Coors, Pabst ... etc. I was attempting to overcome the experience, when I spotted an oasis in the corner - there were a couple of six-packs of Carlsberg Elephant. A beer I know and I selected that one without hesitation - no choice really. If you haven't tried it I suggest you do, if you come across it.

Regards  
Geoff

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Date: 26 May 93 08:34:46 CST  
From: "Mary Dabney Wilson" <WILSON@library.uta.edu>  
Subject: New Orleans brewpubs?

I will be traveling to New Orleans and want to know if there are any good brewpubs. Any recommendations?

Mary Dabney Wilson

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Date: Wed, 26 May 93 09:03:44 EDT

From: man@lcwdwl.att.com

Subject: Re: Fermenting in Sankey kegs / caustic soda suppliers

< 1) I have been doing some experiments fermenting in 5 gal glass carboys and <5 gal SS soda kegs. I have found that the beers in the soda kegs all take <much longer to ferment out. I think it is do to the geometry. Has <anyone else noticed this? I have heard of some people fermenting in <Sankey (sp?) kegs. I dont know what a Sankey keg is, but I am guessing <that is is a regular beer keg. If so, how in the heck do you make <sure they are clean? I want to use SS especially since I can use pressure <to transfer the beer instead of syphons. And a standard beer keg has <a geometry similar to a carboyu. Anyone have any experience fermenting <in Sankey/beer kegs?

I primary ferment in 1/2 barrel Sankey kegs exclusively. Cleaning them immediately after use is a must. I sanitize them with boiling water on a King Kooker. I have well water with no iron in it, so I'm not worried about that reaction. I use one of those orange caps to cover the tap opening. It fits perfectly.

Anyone in NJ know where I can buy caustic soda? My previous supplier is out of business and I can't find anyone in the Somerville, NJ are that carries it. I use it periodically to make sure the fermenters are really clean.

Mark Nevar

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Date: 26 May 1993 09:59:04 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: **Brewers Resource Dir/NYCY 2**

Subject: Time:9:53 AM

OFFICE MEMO  
Brewers Resource Dir/NYCY 240  
Date:5/26/93  
Does anyone out there have access to The Brewers Resource Directory available from the Association of Brewers? I need to find some information, but am a little hesitant to shell out the \$80.

Also...does anyone know of a source for the yeast culture NYCY 240? This is (apparently) a highly flocculant English strain of great character that was once available from Intek (sp?) in Australia who has since gone out of business.

Please send private e-mail.

DanMcC

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Date: Wed, 26 May 1993 07:18:18 PDT  
From: Michael\_Genier.Wbst139@xerox.com  
Subject: An easy fix for soot on Stainless steel pot

"soot forms on the bottom of my expensive new Stainless steel pot. "

Dear Tony Verhulst

This problem is best solved by a very simple method that I learned while a Boy Scout. The problem of soot and the burnt outsides of pots and pans is epidemic on a campfire. The method is to gingerly wipe on ordinary dish soap on the outside of your pot. On a camp fire may be half way up the pot, but in your case maybe just the bottom. The soap forms a non flammable barrier, that attracts the soot. When you clean your pot, the soot will come off with very minimal scrubbing. P.S. don't forget that the soap is on the bottom of the pot and set it on your counter space, in the woods it dosen't hurt the dirt.

Good Luck --Michael Genier

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Date: Wed, 26 May 93 9:25:27 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: California Common Beer

I just bottled my first attempt at a California Common or "steam" beer yesterday and I noticed a definite DMSO odor in the beer (the cooked corn type odor). Will bottle conditioning help to reduce this over time or will I just have to get used to it. What causes this (I've heard that this is generally due to slow wort cooling, but as this was an extract recipe which normally is cooled rapidly as it is transferred to the carboy containing cold water, I doubt that the cooling is any different from my other extract recipes.)

The effect is not extremely unpleasant, just unwanted.

Thanks,

Anthony Johnston

P.S. In response to the current controversy of racking off of the trub, I have recently made two batches of beer (stout and steam) where I did rack mostly off the trub, but went ahead and pitched the gallon or so remaining with the trub to see if there would be a difference. All 4 beers are now in bottle, so I will report results in a few weeks.

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Date: Wed, 26 May 93 07:56:46 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: Lambics - Is Belgium Unique ?

Quoting a recent thread on lambic production ...

"From: Mike Peckar 24-May-1993 1509 <m\_peckar@cscma.enet.dec.com>  
Subject: Phenolic brews --> Lambics

"The second one was much more interesting and produced a Lambic that is remarkably reminiscent of the real belgian stuff. I had left out a bottle of Cherry Juicy Juice for a while. This is a commercial juice from concentrate which is made up of Cherry, Apple, and White grape juices not necessarily in that order. The bottle had autopitched from the ether, and fermented to a slightly carbonated state. By itself, it had a wonderful champagne mouth, and a creamy taste, with all three fruits prevalent, but cherry dominating. What I did was decant this into my bottling bucket and then I added about a dozen or so 16 oz bottles of my bad brew, leaving behind as much of the dormant/dead yeasts as possible and tasted until the proportions were o.k. I also added some unfermented Cherry Juicy Juice from a fresh container to spark off fermentation again. My hopes were the less dormant natural yeasts would overpower the longer-dormant ale yeasts. Also, I stirred the carbonated beer to release as much CO2 from solution as possible without excessively aeration. My guess is about the same ratio of beer to juice as I had done before (2-1)."

"The results, after only four days were remarkable: A real good lambic without 6 months of conditioning, without messing with real fruit, and with wild yeasts!"

"From: bliss@pixel.convex.com (Brian Bliss)  
Subject: defending my recipe

">Also, Brian, how do you introduce the lactic infection into the bottled >beers?

"Nature care of that one for me. Save some of your next soured batch. Beware of exploding bottles, though. By the nature of the infection (sour but not rancid, appearing late in the fermentation, more attenuative that the brewing yeast) I assume that it was lactic."

I am curious ... has anyone ever tried to induce a lambic in the Bay Area, or any other area which is known to harbor a particular type of yeast in the air ?



Are 'lambic' bacteria distinct from 'lactic' bacteria, and if so, how ?

The Bay Area, for instance, and California in general, was where  
sourdough  
was evolved, and I have been given to understand that the cause of sour-  
dough's sourness is lactobacillus acidophilis. So, making an intuitive  
leap  
here, I have to wonder ... has anyone tried this ?

Where would I get a pure lactobacillus acidophilis culture to experiment  
with ?

Is the sourdough made in Alaska different from that made in California ?

Is there a potential for an explosion of lambics along the West Coast ?

Comments, corrections, feedback, welcome, as always.

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com  
Was someone saying "God is dead."  
The simple use of The Word  
Negates the second, and the third. ( Duke Ellington, \_Sacred Concert\_ )

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Date: Wed, 26 May 93 10:50:43 EDT  
From: eisen@kopf.HQ.Ileaf.COM (Carl West)  
Subject: Re: Galangale

There was a long discussion on rec.food.historic two or three months ago about galanga v. galingale, the upshot being (if I remember correctly [I didn't save it, I wasn't that interested]) that galingale is a different plant from galanga, some similarity in flavor, but galingale was of European origin whereas galanga was of some eastern origin.

FWIW.

Carl  
WISL, BM.

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Date: Wed, 26 May 93 08:50:29 MDT  
From: "Steve Kurka - BMC West, Boise, ID" <kurka@bmcw.com>  
**Subject: Cat's Meow I & II**

This may be an FAQ, but where can I find the Cat's meow I & II?  
Or, If they cannot be found out on the net, could someone be kind enough  
to forward me a copy? Thanks... Steve - KURKA@BMCW.COM Boise, ID-

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Date: Wed, 26 May 1993 10:12:20 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: snpa revisited

Here is some info and speculation on Sierra Nevada Pale Ale and how one might try to clone it. SNPA is surely worth emulating, yet it has an elegance of flavor that is a bit elusive. I can't claim to have cloned it, but am iterating toward it!

Note that Sierra Nevada Draught Ale is SG 1.048 while Sierra Nevada Pale Ale (bottled) is SG 1.052. The Draught also tastes a bit sweeter to me than the bottled.

Malts used are U.S. 2-row, dextrin malt (U.S. cara-pils), and crystal malt. I don't know the proportions used at Chico, but it seems to me that you shouldn't be too heavy-handed with the crystal malt, as I don't find a pronounced caramel flavor in SNPA, in contrast to, say, Mendocino's Red Tail Ale.

Hops are Perle for bittering and Cascade for flavor/aroma. Perles are a fine general-purpose medium-alpha bittering hop, while Cascades are signature hops in SNPA, Liberty Ale, and other American pale ales.

Yeast is Wyeast "American" ale or bottle-cultured SNPA.

An all-grain recipe for a 5-gallon batch goes as follows (your mileage may vary):

8 pounds U.S. 2-row pale malt  
1 pound U.S. cara-pils  
0.5 pounds crystal malt 80L

0.8 ounces Perle (alpha 6.5) at 60 minutes  
0.5 ounces Cascade (alpha 6.3) at 30 minutes  
0.5 ounces Cascade (alpha 6.3) at 2 minutes  
0.5 ounces Cascade final addition (see below)

yeast is Chico yeast

In the mash, aim for a starch conversion temperature of 153 - 155 degrees F for some residual sweetness in the beer. As for the hop schedule, factors such as hop freshness and vigor of boil will affect the final beer. To my palate, SNPA is a medium-bitter beer, not high-bitter beer, so something like 35 IBUs seems to be a good target.

Regarding that final hop addition, I believe that Chico runs the hot wort through a hopback with some fresh hops in it, so you might rig up a homebrewer's gadget equivalent of a hopback. Or, you might add the final addition at flame off and let the hot wort sit for 10 minutes with the lid on before chilling. Or, you might try dry-hopping. I'm not claiming that these will produce an equivalent effect, but they are all attempts to give the beer some of the requisite hop flavor and aroma.

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Date: Wed, 26 May 93 10:25:36 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: SN

There have been a few request for Sierra Nevada Recipes the past two days. I pulled this off the hbd last December - it's one of those articles worth saving. Jack Schmidling asked about elaborating on "american hop flavor". My advice is to go out and buy a 6 pack of assorted SN beers, and see if you can pick out the ones made with cascade finishing hops and/or dry-hopped:

- -----

#### Summerfest

alcohol content: 3.5% by weight  
starting gravity: 11.5 plato (about 1.046)  
ending gravity: 2.7 plato  
yeast: lager  
bittering hops: perle  
finishing hops: hallertauer  
malts: 2-row barley malt, dextrin malt

#### Pale Bock

alcohol content: 5.2% by weight  
starting gravity: 16 plato (about 1.064)  
ending gravity: 3.7 plato  
yeast: lager  
bittering hops: perle  
finishing hops: mt. hood  
malts: 2-row barley malt, dextrin malt

#### Pale Ale

alcohol content: 4.4% by weight  
starting gravity: 13 plato (about 1.052)  
ending gravity: 2.8 plato  
yeast: ale yeast  
bittering hops: perle  
finishing hops: cascade  
malts: 2-row barley malt, dextrin malt, caramel malt

#### Porter

alcohol content: 4.7% by weight  
starting gravity: 14.5 plato (about 1.058)  
ending gravity: 3.5 plato  
yeast: ale yeast  
bittering hops: nugget  
finishing hops: willamette  
malts: 2-row barley malt, dextrin malt, caramel malt, chocolate malt, black malt

#### Stout

alcohol content: 4.8% by weight  
starting gravity: 16 plato (about 1.064)  
ending gravity: 4.5 plato

yeast: ale yeast  
bittering hops: chinook  
finishing hops: cascade  
malts: 2-row barley malt, dextrin malt, caramel malt, black malt

#### Celebration Ale

alcohol content: 5.1% by weight  
starting gravity: 16 plato (about 1.064)  
ending gravity: 3.9 plato  
yeast: ale yeast  
bittering hops: chinook  
finishing hops: cascade  
dry hops: centennial and cascade  
malts: 2-row barley malt, dextrin malt, caramel malt

#### Bigfoot Ale

alcohol content: 10.1% by weight  
starting gravity: 23 plato (1.092)  
ending gravity: 6 plato  
yeast: ale yeast  
bittering hops: nugget  
finishing hops: cascade  
dry hops: centennial and cascade  
malts: 2-row barley malt, caramel malt

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Date: Wed, 26 May 93 08:57:33 PDT  
From: "Tom Childers" <TCHILD@us.oracle.com>  
Subject: Hoegaarden Replication

In HBD 1149, Steve Lovett asks about reproducing Hoegaarden Grand Cru with wheat malt. A few months ago, I posted a barley malt extract wit beer recipe, and promised to try the same with wheat malt. Well, the first wheat malt batch finished a couple of weeks ago, and my friends and I are quickly wiping out the results. The wheat "bite" is great. This beer has a somewhat higher FG than Hoegaarden Grand Cru, so you may want to cut back the malt and/or honey to try and emulate Hoegaarden accurately.

Tamalpais Wit, v2.0

4-1/2 lb light dry wheat malt extract  
2 lbs orange honey  
1 ozHallertauer/N. Brewer  
7.5 HBU boiling hops  
1 ozHallertauer/Hersbrucker  
3 HBU finishing hops  
1-1/2 oz crushed coriander  
1/2 oz dried orange peel  
Belgian Ale yeast (Wyeast 1214)

Bring 5 gallons of water to a boil, then add first three ingredients. Boil 45 minutes, then add 3/4 oz. coriander. Boil 10 minutes, then add remaining coriander and orange peel. Boil 5 minutes, and add the finishing hops for a final 2 minutes. Chill immediately to 75 F, areate into 5 gallon carboy, and add yeast. Ferment using blow-off method, then prime with 3/4 cup corn sugar and bottle.

The keys to making this beer are (1) use belgian ale yeast, (2) crush the coriander yourself, so it is nice and fresh, (3) use orange honey, and (4) use the best Hallertauer hops you can find. Papazian's basic recipe is very flexible; I've made 5 different beers so far by changing the malt combinations, and I've liked them all. I like this one the best so far.

Tom Childers  
Mill Valley, CA

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Date: Wed, 26 May 1993 10:59:49 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Cleaning stainless steel

In HBD # 1147, Al (korz@iepubj.att.com) writes re cleaning stainless steel vessels:

>Right. I don't even use soap on mine -- just a non-stick-safe scrubbing  
>pad (more gentle than a scouring pad) and elbow grease. The only things  
>in there are a little scortched malt and some Beerstone -- if it gets  
really  
>bad, maybe I'll use a bit of cola (for the acid) or if one of my batches  
of  
>pseudo-lambik goes super acetic on me, I'll use it for scrubbing the  
kettle  
>(that's what the lambik brewers do!).

What about using a copper "Kurly Kate"-type scrubbing pad? If copper is softer than stainless steel (and I assume it is) then it shouldn't be a problem. Or is it? Also, how about baking soda?

- -----  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Wed, 26 May 1993 10:54:17  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: IBU Calculations

I'm working on the HopTech catalog, and I'm putting in a formula for calculating IBUs. I'm using Rager's formula (Zymurgy Hops Special Issue) as a base, but I think his utilization table is quite optimistic. I have worked up a preliminary set of numbers to replace his, but before I prejudice you with my estimates, what are yours? Do you feel his numbers are OK or too low (I know they're not too high)? If they're too low, what percentage should they be reduced? Final table will be posted back to HBD.

TIA,  
Mark at HopTech

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Date: Wed, 26 May 1993 10:48:39  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Yeast vs. Trub, Materials List, SNPA Hops

Con Copas talks about racking the wort off the cold break vs. yeast performance:

Let me throw this in: A brewer friend (who also happens to be the winemaker at a major Napa Valley winery) ran some controlled experiments on the performance of yeast in wort where some of the break material had been left in the fermenter, and where the break material had been completely filtered out. His results showed that the yeast definitely needed something from the break material. The "pure wort" did not ferment well at all. Both were oxygenated, the yeast was pitched from a starter (lab cultured) and the tests were conducted in the mini-lab of this winery. Sorry I don't have the details on what he meant by "didn't ferment well at all" but it doesn't really matter. The point is not to worry about getting rid of all the trub before pitching.

Al Corzona throws another chart into the ring....

After seeing Don's post, I was particularly concerned about the "severe effect on polypropylene" because HopTech is making a Hop Back out of polypropylene because of its excellent high temperature characteristics. I hauled out my Grainger's catalog and had a look at the list. Sure enough there it was polypro=severe effect with beer (with a note that beer is OK at less than 72F). Now a hopback really doesn't work with "beer" but wort. The list also contains "cane syrup" but it also got a severe rating with polypro. Anyway, I was concerned. Turns out Grainger's reprinted the list from the Little Giant Pump Co. (this reference is actually printed in the Grainger's catalog). So I called TLGPC. They didn't know squat about the list and told me it was provided by Phillips 66. So I called Phillips. After being bounced around to about 12 divisions, I finally found the one that deals with polypropylene (they make it). BTW, \*no one\* at Phillips ever heard of the list and they guess it must have been done a long time ago. Anyway, after a few minutes of begging that I should be connected to a materials engineer (not a sales "engineer") I got some helpful folks in one of their labs. Turns out the guy who knows the most about polypro is also a homebrewer! Well it was certainly a relief not to have to spend 1/2 hour explaining what a hop back, wort etc. were! Bottom line: The chart is wrong as regards to polypro. Beer won't hurt it or react with it (neither will wort). This guy said that polypro's barrier properties weren't that good and thought the chart might have been inferring that you wouldn't want to store carbonated beer in it for long periods because it would go flat. However, carbonated water is "OK" for polypro on the chart. We couldn't

figure it out. Now I know why Grainger's has a disclaimer as to the chart's accuracy right up front. For what it's worth...YMMV.

JC asks about the SNPA recipe:

I'm not sure what they use for bittering (I think Galena but don't quote me). For finishing and aroma they use Cascade. Lots of it late in the boil. And then they run the wort through a hop back charged with even more Cascade. They do not dry hop this beer. If I were trying to get an SNPA, I would do something like this:

8 lbs Pale Malt  
.5-1 lb 40 degree Crystal  
Optionally a pound of carapils for more body.  
40-45 IBUs of Galena, Cluster or Cascade, boiled 90 minutes  
1 oz Cascade 10 minutes  
1.5 oz Cascade 5 minutes  
2 ozs Cascade in a hop back (or steeped if no hop back)  
SNPA yeast cultured from a bottle, or Wyeast Chico Ale

Personally, I'd use a single infusion mash at 150-153 degrees.

Mind you, this is off-the-cuff and merely a guess.

Mark at HopTech

coming soon! HopTech gets its own domain (hoptech.com)....

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Date: Wed, 26 May 93 11:16:19 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Wheat Beer

I'm getting the ball rolling on my next brew---A Wheat Beer. I would appreciate tips and recipes for a real wheat beer with lots of clove aroma and taste. I would appreciate an all-grain (infusion) recipe. What hops should I use (Hallertau)? Also, I plan to use Bavarian Wheat #3056 yeast, what is the correct temp to ferment? Thanks in advance for all of the help.

While I'm here, I would appreciate some suggestions on getting my transfer hose (plastic-type) clean and clear. It always seems to go cloudy. Thanks.

STEVE BOXER

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Date: Wed, 26 May 93 14:54:51 EDT"  
From: Gary S. Kuyat <gsk@sagan.bellcore.com>  
**Subject: New Jersey Brewpub Bill**  
Full-Name: Gary S. Kuyat

Two bills are being "read" in the New Jersey State Legislature:  
#2354 in 2nd reading before Assembly  
#614 in 2nd reading before Senate

Both are voted on June 10th of this year.  
These bills will allow "brewpub" establishments to operate in NJ.

I have asked my Rep to send me more info. I will post details and  
the results of the vote after the 10th.

- - -

-Gary  
gsk@sagan.bellcore.com

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Date: Wed, 26 May 93 14:10:37 CDT  
From: "Kirk Oseid [ mfl1205 MechE ]" <oseid@s1.msi.umn.edu>  
**Subject: New Jersey Brewpub Bill**  
Subject: BPubS in Cour d'Alene

Fellow Brew Enthusiasts:

My wife and I will be spending several days in Cour d'Alene in the middle of June. Can anyone direct us to BrewPubs in that area?

TIA,

Kirk

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Date: 26 May 93 09:59:05 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Re-using yeast & commercial beer storage

Message Creation Date was at 26-MAY-1993 14:32:00

Greetings,  
I have some questions in two basic areas. Any insight would be appreciated.

1. I'm lazy. I would like to re-use my yeast as opposed to propagating multiple yeast colonies. I rack my beers to 2ndary fermentors and usually use polyclar on my lighter colored beers. Should the yeast cake I save come from my primary or secondary fermentor? I see problems with each:  
a. Primary will have more cold-break, dead yeast, and hop residue than secondary.  
b. Secondary will have plastic particles due to the polychlar. (Should I use isinglass, instead?)

2. I've a couple questions regarding the storage of commercial beer (You know - that stuff ridiculed in the HBD). Based upon the assumption that the vast majority of commercial beer is filtered and pasteurized is there any problem with storing the beer in an 80 degree dining room versus a 60 degree basement (assuming light is not a factor)? How about a 100 degree attic?  
Also, if I keep one 6-pack in my 65 degree basement as a control and then daily rotate a second 6-pack between my 35 degree refrigerator and my 80 degree laundry room will any differences in taste result? Will the rotated beer deteriorate more quickly? Will a commercial beer which is constantly changing in temperature by as much as a 50 degree delta deteriorate more quickly than beer constantly sitting in a warm room?  
Finally, how different would the test results be if I chose to also sacrifice (shudder!) a 6-pack of home-brew in this experiment?

I appreciate the help & information.

Andy A

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Date: Wed, 26 May 93 15:24:01 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: soot: take 2

I'd like to thank all who responded to my cajun cooker soot problem. I was gratified at the response - 8 to 9 people sent me email with suggestions.

First of all, I was a boy scout :-)) and I know the soap trick. I was not clear in my posting - it's not the cleaning of soot from the pot that is my problem. The cleaning is easy. After chilling the wort, I put a large strainer over my primary and pour the wort directly from the 10 gallon brew kettle into the primary. This usually means that I get soot on my hands and clothes. THAT's my complaint.

Two people wrote to me suggesting that a possible solution was to reduce the size of the hole in the gas jet from 5/64" to 1/16" (when will the U.S. move into the 20th century and use metric?). I did this and noticed an improvement in flame quality at low gas settings. I'm planning to brew a batch this weekend and see if the improvement is enough or if I'll be shopping for a new cooker.

Drew Lynch sent me a nice summary of different types of propane cookers which I'm happy to include (with Drew's permission):

"In my search, I found three types of burners.

The "real" cajun cooker (what you have) has a single flame. It has the benefit of the highest total heat output (as high as 200,000 BTU!), and the detriment of no real adjustability. They also are very inefficient gas-wise at the "simmer" setting. There is no mixture adjustability. This is the cause of your soot problems.

The "stove" type burner has ~100 individual flames. It usually has the lowest output (~20,000-40,000 BTU) and the best adjustability. It is very gas efficient. The mixture need not be adjusted on these.

The King Kooker company produces a hybrid of the two types (which I have). It has approximately 30 individual flames, 145,000 BTU and decent adjustability. The efficiency is in between the two listed above. To get an ideal burn, the mixture adjustment plate would be moved when you switch from "nuke" to "simmer". In practice, the wide open setting seems to work well enough all the time, and I get minimal soot marks on the bottom of my brewkettle.

I am very happy with the model I have. For a given batch, I heat 5 gallons of mash water to 178F, 5 gallons of sparge water to 180F, heat the mash from 156F to 170F, and do 90 minute boils of 5-7 gallons. I get about 4-6 batches from a single propane tank (20lb?). I would return the burner you have, if you can, and try to procure the more adjustable version.

I have a local (Los Altos, Ca.) source for the King Kooker of the



"right" type: Fermentation Frenzy, (415)941-9289. Where are you located?"

Thank you Drew.

Tom Stolfi wrote that he has a \_Camp Chef Cooker\_ "stove type" burner with 35,000 BTUs that will boil 5 gallons of cool water in about 20 minutes and gets NO soot on his pot at all. He also mentions that the same company makes a 135,000 BTU unit.

Well, that it folks. I wish I'd known the above info before I bought my cooker. I'll report the results of boiling with my modified King Kooker next week.

Good brewing,

Tony V.

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Date: Wed, 26 May 93 15:05 CDT  
From: korz@iepubj.att.com  
Subject: cold break/starters/fermenter geometry/faucets/fruit sanitation & HSA

Raymond writes:

>js writes (on cold break separation)  
>  
>>I also suspect the whole discussion is irrelevant to those of us using  
>> immersion chillers as the hot/cold break is conveniently left behind in  
the  
>> kettle when the chilled wort is drawn off.  
>  
>Actually, immersion chillers do not give a well-defined cold break due  
>to the more gradual temperature drop.

I get a very well-defined cold break with my immersion chiller (50' x 1/  
4"),  
so much so, that it looks like French Onion soup till I stir gently.

\*\*\*\*\*

ROB writes:

>I want to make a yeast starter for my next batch, the problem is that I  
>dont have any DME to make it with. Can I just use a corn sugar/water  
>solution. If so how much water and corn sugar. Also is it true the more  
>sugar the higher the yeast count. I use dry yeast, does this take longer  
to  
>start? How long do you leave the starter before pitching?

I suggest you get some DME and then first re-hydrate the dry yeast in  
104-110F sterile water for 15 to 30 minutes before adding it to a 1020  
DME starter for a day or two. Starters made from corn sugar have proven  
to make for a sizable yeast mass, but that the yeast subsequently has  
difficulty fermenting mixed-sugar (glucose, fructose, maltose, etc.)  
wort.  
It's best to start on wort. There are arguments on whether it's better  
to  
start the yeast on a 1020 OG starter or on a starter that is more like  
the wort they will be fermenting. I use a 1020-1030 OG starter. I've  
found that the yeast starts faster in lower gravity starters (this is  
in-line with Wyeast Labs' findings and recommendations). I believe that  
the ideal situation would be stepped-gravity starters -- first 1020, then  
1030, then 1040, finally pitching into the wort, but I don't go through  
all that trouble.

\*\*\*\*\*

JC writes:

>1) I have been doing some experiments fermenting in 5 gal glass carboys  
and  
> 5 gal SS soda kegs. I have found that the beers in the soda kegs  
all take  
> much longer to ferment out. I think it is do to the geometry. Has  
> anyone else noticed this? I have heard of some people fermenting in

DeKlerk wrote that fermenter geometry is an important factor and says  
basically that a short, wide fermenter is better than a tall narrow one.  
I know that George Fix ferments in 1/4 barrel kegs partly for this very  
reason.

\*\*\*\*\*

Paul writes:

> In reference to fridges or freezers and the cold air falling out when

>you open the door, I finally broke down and installed a stem tap through the  
>door of the keg fridge. It is the thrill of a lifetime, drilling a hole  
>through the fridge door! It was so much fun (and the tap looked so much  
more  
>professional than fumbling inside with the hoses) that I sprung for two  
more.  
>I justify the cost by the electric I will save during the 10 month  
Galveston  
>summer, not opening the door to draw a beer.

I had considered this also, but backed-off when I read that some people  
have  
problems with mold in the faucet. I've found that if I don't drink from  
a  
particular keg for two weeks or so, a big glob of mold forms in the  
faucet.  
This, despite the fact that I have my faucets INSIDE the fridge at 54F.  
If you use the faucets every day, you shouldn't have any problems.

\*\*\*\*\*

Tom writes:

>In HBD 1146, Bryan Kornreich asks  
>  
>> How on Earth do you press your fruity wort (to get the juice out of  
the pulp)  
>> with any hint of sterility.  
>  
>I keep my (large wooden) spoon and strainer in the pot during the end of  
the  
>boil to sterilize them. Since the Wheat Berry recipe used a partial  
boil,  
>you can just take the implements out, set the strainer on the funnel,  
and  
>start pouring the wort. When the strainer fills with hops and fruit, I  
>press it with the spoon to extract the last bit of fruit juice, then  
toss  
>the strainer contents and repeat the process until all of the wort is in  
>the carboy. Then I slap a clean cork in, let it sit for a few hours to  
get  
>to pitching temperature, and add about a quart of yeast starter.

This implies that you pour hot wort through a strainer. If this is true,  
then you are aerating the hot wort (Hot-Side Aeration or HSA) which is  
causing a considerable amount of oxidation of the wort. George Fix has  
a great article in a recent Zymurgy on Hot-Side Aeration, which explains  
in detail the problems with HSA.

Al.

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Date: Wed, 26 May 93 16:43:09 EDT  
From: jdsgeoac@osg.saic.com (Karen Jdsgeoac Hyrum GEOACOUSTIC)  
Subject: RE: Fridge Question

JC Ferguson asked a few days ago how to modify a double dorm fridge to fit 5 gallon kegs. I did this a few years ago as follows:

The U shaped freezer was attached to the top of the fridge with 4 clips. Remove these clips. The freezer/cooling plate is now supported by the incoming freon line. I carefully pushed the U shaped freezer down and back so that the large part of the plate was parallel to the back of the fridge. This operation is tricky since there is some danger of crushing or splitting the freon line. I however had no problem, and the fridge has been working fine for about two years like this.

Hyrum Laney

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Date: Wed, 26 May 1993 05:07:01 -0800  
From: scott@fm.gi.alaska.edu (Scott Stihler (USGS analyst))  
Subject: SO4 and hops

Hello folks,

I've been working on an article on hops for the Fairbanks homebrew club's newsletter and I've come across several references to the fact that SO4 somehow enhances hop bitters. However, I've never come across any explanation as to why this is the case. Does anybody out there have any comments in this regard?

- Scott Stihler

P.S. Should anybody in the unlikely event be in Fairbanks on June 19th, we're having our annual summer equinox meeting and you're invited.

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Date: Wed, 26 May 93 14:13:51 PST  
From: Hugh R Bynum <Hugh\_R\_Bynum@ccm.hf.intel.com>  
Subject: More soot on pots...

A number of articles in HBD 1149 suggested the tried-and-true Boy Scout method for easily removing soot on SS pots. Keep in mind that if your propane cooker is burning with a yellow flame and making enough soot to be a problem, it's also generating some carbon monoxide. CO is generated when hydrocarbons (e.g., propane) don't burn completely due to insufficient oxygen. It's colorless, heavier than air, and highly poisonous. In nonlethal amounts, prolonged exposure can leave you with nausea and a splitting headache.

If you want to solve the problem and not just the symptom, try adjusting the damper plate on the gas inlet to your cooker. On my "Superior"(tm) propane burner, it's a slotted disk that fits over the air intake on the cast iron part of the burner, just behind the gas inlet valve. Fully open, there's enough air to blow the flame off the jets; closed down, it burns bright yellow. With a few tweaks, I was able to get it adjusted for a clean blue flame through the full range between a simmer and full throttle. While the Superior burner is rated at 35,000 BTU, I would guess that the 200,000 BTU King Kooker is fairly adjustable through its full output range as well. Good luck!

Hugh Bynum  
Portland, Oregon  
hugh@littlei.intel.com

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Date: Wed, 26 May 93 17:12:04 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: **Brewing Techniques address**

I figured this address had appeared enough times recently, but mail I got today has convinced me otherwise. Here it is, again:

Brewing Techniques  
P. O. Box 3076  
Eugene, OR 97403

A charter subscription is \$24/6 issues (1 year).

=S

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End of HOMEBREW Digest #1150, 05/27/93  
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Date: Wed, 26 May 93 17:15:58 edt  
From: Paul\_Szabady@DGC.ceo.dg.com  
Subject: Ferment too quick?!?

Message:

I was wondering if anyone out there in HBD-land has tried the recipe for Armenian Imperial Stout from TNCJOHB. I just brewed a batch using this recipe this past sunday night. I pitched the yeast (that came with the "M&F Old ALe Kit" first thing monday about 6:30am. By about 8pm, I had a nice ferment going. Tuesday am, I switched from an overflowing airlock to a hose and pan of water due to an extremely vigorous ferment. Wed at about 1am I switched back to my airlock and was pleased with a "once every 15sec glug". By noon on wed, I seem to have practically stopped fermenting. I've been making homebrew for about 6 years now and have never seen a recipe with this amount of malt (almost 11 lbs - \$33.00 for supplies!!!) finish soooo quick. Barely 54hrs. I'm thinking maybe I should've spent a little more and got a better yeast. Any suggestions/comments???? Should I pitch more yeast??? I broke my hydrometer a while ago and haven't replaced it yet so I don't have any sg readings.  
Email direct or post...TIA ps

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Date: Wed, 26 May 1993 23:18:49 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: bleach and ss

i'd like to clear up some confusion evident in al's post yesterday. al's confusion is significant, although understandable.

al is confused regarding sodium hypochlorite, chlorine water and bleach. bleach is a dilute, about 5%, aqueous solution of sodium hypochlorite. chlorine water is water with hypochlorous acid. sodium hypochlorite is the sodium salt of the acid. i doubt that anyone is using either sodium hypochlorite or chlorine gas for sanitizing their SS pots or kegs. although the reactivity of chlorine water and sodium hypochlorite with SS is mildly interesting and contained in both the cole-parmer and granger catalogs, it's not pertinent to the issue. as i mentioned earlier, the table in the granger catalog suggest there is no reactivity between 304 and 316 ss and bleach. curiously, the cole-parmer table al has is in perfect agreement on this point. it's under "chlorox (bleach)".

my own experience agrees with the data in al's coleparmer table and the granger catalog. i used to use about 1 teaspoon of bleach per gallon of water in sanitizing kegs (304 ss) and have observed no effect whatsoever with exposures typically of 30 minutes to 1 hour. it is best to be cautious however. it's easy to confuse aluminum for SS and the granger catalog suggests bleach is reactive with aluminum. curiously, the cole-parmer catalog says that bleach does not react with aluminum. these tables are only guidelines. no details as the conditions of the test such as length of exposure are given.

al is also confused about the nature of silicon and silicone. the one with the 'e' has a long 'o' as in conehead. although they are spelled similarly, the difference between silicon and silicone is similar to the difference between graphite and plastic. al's confusion led him to erroneously state that there is no reactivity between beer and silicon. closer examination of the cole-parmer table will reveal that there is no reactivity between beer and siliconE. as i said earlier, the granger catalog indicates that beer is reactive with silicon but who cares.

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Date: Thu, 27 May 93 00:23:46 edt  
From: Kim\_Kiesow@DGC.ceo.dg.com  
Subject: breadmachines

Message:

Thanx for the recipes I received for beerbread using my machine. And as far as using the "goop" from the bottom of the fermenter(sp?)it sounds like the breadmachines do not allow enough time for the bread to rise properly. I will most likely give it a try anyway. :\*)

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Date: Thu, 27 May 93 08:12:46 PDT  
From: "Bob Jones" <novax.llnl.gov@novax.llnl.gov>  
**Subject: Brewing Techniques**

Is anyone at brewing Techniques reachable via email? Someone knowledgable about subscription info. that is.

Bob Jones

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Date: Thu, 27 May 93 11:21:06 -0400  
From: driscoll@curacao.dartmouth.edu (Jim Driscoll)  
Subject: Manhattan Brewing/Bud in Europe

Danial Roman asked for a scouting reported from the newly reopened Manhattan Brewing Company ("New York's Working Brewery & Restaurant", 42 Thompson Street, New York, NY 10013, (212) 925-1515, Fax (212) 925-7051, Opens at 5:00pm for dinner, with lunch hours to be added soon.)

Up from the street level a flight or two, you find an open space with 2 large (~100 BBL) copper kettles dominating a small dance floor, a bar with hand pumps, some table seating in the center, and above the bar additional table seating. On tap are 5 ales, from which I sampled the Brown Ale, India Pale Ale and their Amber Ale. Mixed drinks and wine can also be had from the bar, but there is no evidence of any beer other than those house brewed. I didn't stay for dinner, but the menu, along with everything else, seems hardly changed from its previous incarnation.

You might find Garrett Oliver running around in a white lab coat with a patch marked MBAA (for the Master Brewers Association of the Americas), which readily identifies him as the brewmaster. Garret was the former assistant brewer at Manhattan and he was kind enough to take me up a floor and show me their brewery. They have a 7 and a 12 BBL steam jacketed kettle with agitation. They mash in the M&F malt in the kettle and do a temperature program mash (Michael Lewis of UC Davis derides the term step-infusion mash as ``homebrew language'') and then pump the mash to the lauter tun with a v-wire mesh false bottom. They use only whole hops in the boil. Fermentation takes place in open fermenters with top fermenting yeasts. From the open fermentors the green beer goes into one of their 15 or so 7 BBL grundyds in a cold room where it undergoes a secondary fermentation and is racked to a serving grundy which dispenses to the bar below under pressure.

Garrett is an enthusiastic brewer and mentioned some exciting and unusual brews that he plans on producing once the new operation settles down a bit. When in the NY metro area you should support the local brewers by checking this place out as well as Zip City (Manhattan) and Mountain Valley Brewpub (Suffern, NY).

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Richard Akerboom notes that AB would have to change the name of Bud in Europe since the Czechs have rights to the name Budwiser there. This is in fact what they do. If you grab a long neck ``Bud'' here the label says Budwiser, but in Europe when you grab a ``Bud'' the label says just that: Bud. I guess they want to be their Bud too. (Actually, the only place I have personally seen this Bud was in a specialty beer store in Mechelen, Belgium.)

Jim Driscoll  
Driscoll Brewing  
(908) 665-8333  
(908) 665-8355 Fax

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Date: 27 May 1993 08:35:08 PST  
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>  
Subject: re-using yeast

Due in part to things I've read here re; yeast culturing, I decided to try an experiment with my last batch. A couple weeks back, I took a 3 gal. keg of SNPA-clone pale ale to a picnic. It occurred to me that, since the beer was clean (and tasty) and had yeast cultured from an SNPA 6-pack, why not just let the dregs sit in the keg under pressure at room temp until I brewed again (last Saturday) then simply pop the lid, add 1 cup sterile cool water, swish it around, and dump directly into the primary. Fermentation started within 12 hrs and smells clean. It's a slow ferment as are most that I do with SNPA but smells clean. Questions:

- can anyone see potential problems or drawbacks with this method
- how long might clean yeast be held under pressure this way before it loses viability.

One other question.... I recently bought WYEAST packs for both british ale and Lonmdon ALe (forget the #'s). Can someone tell me what the difference in these yeasts are based on their experiences, and which styles of ales they might match up best with.  
Thx

| If it's good for ancient druids runnin naked thru the woods |  
| drinkin strange fermented fluids then it's good enough for me. |  
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

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Date: Thu, 27 May 1993 12:19:53 -0500 (CDT)  
From: brewmstr@genesis.mcs.com (Jim Bayer)  
Subject: New Orleans Brewpubs

Mary Dabney Wilson asks about brewpubs in New Orelans:

Mary,

I was just in New Orleans and there is a new(er) brewpub there called Crescent City Brewhouse. The place is very nice and the beer isn't bad either. There's also an oyster bar and live entertainment. I especially enjoyed the Weissbeer they had. They also have a Marzen they call Red Stallion. If I recall correctly, you can get a sampler of all of their current brews. You can see the copper mash kettles on the first floor and the stainless holding tanks on the second, but they don't give any brewery tour (like Goose Island does in Chicago)

Be sure to check out the t-shirts. I like the logo and the stallion on the back. I bought one right away!

It's located between St. Louis (for sure) and Tolouse (I think) right off the waterfront (Decatur?).

Don't get confused about the Jackson Brewery (Jacks), it's just a shopping mall conversion of a real brewery. The only thing at Jacks is Budmilloors.

Jim Bayer  
brewmstr@genesis.mcs.com

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Date: Thu, 27 May 93 14:00:08 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Hoegaarden Replication

Randy Mosher suggests tossing 1/4c of flour into the boil to get the typical haziness of a White beer.

I haven't tried it.

=S

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Date: Thu, 27 May 93 14:28:44 EDT  
From: <geotex@engin.umich.edu>  
Subject: Marigold Ale

Has anyone made Marigold Ale as listed on 6-2 in The Cat's Meow II?

I am thinking about starting up a batch, but I have never made such a high alcohol brew.

I would be interested in hearing about the fermentation time (primary and secondary) and aging time (in bottles).

Any other advice would also be appreciated.

Thanks!  
Alex  
geotex@engin.umich.edu

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Date: Thu, 27 May 93 19:15 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: Close brush with disaster

I'll set the scene:

Here I am at work, hustling to get things wrapped up so I can head off tomorrow (Friday) for Belgium. I'm looking forward to lambic hunting, while my friends over there are combing the countryside for rare and unusual brews made in farmhouses, basements, garages and what have you for our week of overindulgence. I'm packing up two sixes of my own beer for field testing, and bringing along several bottles of Celis for presents. In other words, all is nearly ready for a peak snob beer experience. Now it's time for lunch.

I walk out the door and down the street to our usual lunch place and walk straight into.....a Bud Lite commercial! There they were...camera crews, mountains of equipment, people trying to look important, cases and cases of the vile stuff, workers everywhere hanging neon Bud Light signs where there'd never been any before, and a gathering tribe of bimbos and guys named Biff.

During lunch it turned out I'd sat down next to the crew, who were reviewing takes from their recent shooting in Baltimore. Must've seen the Bud Light truck drive by Baltimore's Washington Monument at least twenty times. Lots of in-bar photos of guys named Biff touting Bud Light. Babes named Gina and Tiffany, touting Bud Light. Dogs, touting Bud Light. My lunch companions and I (NOT the crew!) could not contain our amusement and got some nasty looks.

That was close, though. What would the homebrew world think if my face showed up in an ad for this pathetic stuff? It would be almost as bad as being in a Sam Adams commercial! (Of course, nobody here knows what I look like, but...)

Looking forward to better things,  
Phil Seitz  
PSEITZ@MCIMAIL.COM

P.S. On second thought, perhaps I could infiltrate their evil organization, swap some bottles, and change history?

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Date: Thu, 27 May 93 16:53:18 -0400  
From: sxs32@po.CWRU.Edu (Subbakrishna Shankar)  
Subject: Rot on hops leaves?

I've noticed some yellow/brown rust like discoloration on the lower leaves of my hops vines recently and am concerned (not worrying) that it might be a symptom of a fungal infection. This is the second year in the ground for these rhizomes, and the vines are already at 12-15 ft and growing vigorously. Last year we had a cold, wet summer here in Cleveland, so the vines reached 10 ft only by the end of the summer and failed to produce any flowers. I also found plenty of slugs and aphids. This year the weather has been warmer and drier, and I have not seen any slugs or aphids. I have of course watered and fertilized the plants.

Has anyone else seen this discoloration? Is it a lack of a certain nutrient or is it indeed a disease? How can I safely get rid of it? Thanks in advance for your help.

- - -

Subba Shankar  
E-mail: sxs32@po.cwru.edu (Internet)      U.S. Snail: Dept. of  
Neurosciences  
Voice: (216)368-2195 Case Western Reserve U.  
FAX: (216)368-4650 Cleveland, OH 44106

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Date: Thu, 27 May 1993 17:24:55  
From: garetz@brahms.amd.com (Mark Garetz)  
Subject: Correcting My Previous Post about IBUs

Rick Garvin sent me a private email saying he was a bit confused about my post requesting feedback on Jackie Rager's utilization chart. I guess I mixed up my "too highs" and my "too lows". Let's try again:

I was asking whether people thought that Rager's chart numbers were too high or not. Then I went on to ask "if they were too low, by how much..." I really meant to ask: If you think that Rager's numbers for utilization are too high, then how much would you lower them?

Thanks again,

Mark from HopTech

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Date: Thu, 27 May 1993 21:56:11 -0400 (EDT)  
From: Bryan Kornreich <bkornrei@pennsy.med.jhu.edu>  
Subject: Beer in Japan

Hey all,

Firstly, I want to thank everyone who responded with their opinions on the importance of secondary fermentations and with hints on obtaining banana ester formation in beers.

I was wondering if anyone knows any place to obtain real beer in Japan. I have heard all sorts of horror stories about the big 4 brewers over there hiding knowledge of real beer from the Japanese public. All I have ever seen there in the past are a small variety of American Pilsner clones. Pretty gross; it actually drove me to drinking lots of sake--

not necessarily a bad thing, but this summer I'm going to be over there for two whole months, and I don't know if I'll make it without a true ale, bock, or stout to tide me over until my return. If anyone knows of a nice

brewpub, or even any sort of place with good beer in Tsukuba (where I'll be) or Tokyo (not too far away)--I'd really appreciate it.

And if anyone who gets this list is in Tsukuba or Tokyo now, or will be this summer, drop me an E-mail, and maybe we'll be able to set out in search of beer together.

Thanks,  
Bryan

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Date: Thu, 27 May 93 23:21:15 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: hoptech.com now active!

Just wanted to let you all know that HopTech now can receive email directly and now has it's own domain. You can email to: mgaretz@hoptech.com

Mark at HopTech

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End of HOMEBREW Digest #1151, 05/28/93  
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Date: Thu, 27 May 93 13:01:55 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: Cleaining stainless steel

For cleaing my stainless steel boilers I use a non-scratch bathroom scotch-brite pad like 3M makes. I have found that a lot of other brands can scratch stainless.

To remove beerstone and other gunk that does not come off I use standard cheap white vinegar and the same type of pad. This works quite dramatically even on caramelized wort.

Cheers, Rick

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Date: Thu, 27 May 93 16:00:14 -0400  
From: David Adams <tmc!david@uunet.UU.NET>  
Subject: Re: New Orleans brewpubs?

Mary Dabney Wilson <WILSON@library.uta.edu> asks...  
> I will be traveling to New Orleans and want to know if there are  
any  
> good brewpubs. Any recommendations?  
>

The only brewpub I found when I was there last month was the Crescent City Brewpub, and I hate to be negative, but I must say I was singularly unimpressed. I only had a weiss beer (actually about a half of a weiss beer, I was unable to bring myself to finishing it.) A group of 7 friends gathered there, and no one was interested in going back. In all fairness, I had just finished a rather wicked hurricane when I got there, so my taste buds (not to mention my vision, my sense of balance, or my speech) were not in top form.

One positive recommendation: drink Abita beer while you are in New Orleans, especially Abita Turbo Dog. And if you get outside of the city, try to visit the brewery. Good people; wonderful beer.

- -- Dave

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/vvvvvvv/ David Adams:  
  
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Date: Fri, 28 May 93 07:36:16 EDT  
From: Jim.Beauvais@East.Sun.COM (Jim Beauvais - CONTRACTOR HRIS)  
Subject: Re: Ferment too quick?!?

Paul writes;

Date: Wed, 26 May 93 17:15:58 edt  
From: Paul\_Szabady@DGC.ceo.dg.com  
Subject: Ferment too quick?!?

Message:

I was wondering if anyone out there in HBD-land has tried the recipe for Armenian Imperial Stout from TNCJOHB. I just brewed a batch using this recipe this past sunday night. I pitched the yeast (that came with the "M&F Old ALe Kit" first thing monday about 6:30am. By about 8pm, I had a nice ferment going. Tuesday am, I switched from an overflowing airlock to a hose and pan of water due to an extremely vigorous ferment. Wed at about 1am I switched back to my airlock and was pleased with a "once every 15sec glug". By noon on wed, I seem to have practically stopped fermenting. I've been making homebrew for about 6 years now and have never seen a recipe with this amount of malt (almost 11 lbs - \$33.00 for supplies!!!) finish soooo quick. Barely 54hrs. I'm thinking maybe I should've spent a little more and got a better yeast. Any suggestions/comments???? Should I pitch more yeast??? I broke my hydrometer a while ago and haven't replaced it yet so I don't have any sg readings.  
Email direct or post...TIA ps

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Well the first thing i would do is get a new hydrometer, how quick the batch appears to finish is not accurate enough. i have seen batches of stout become extremely vigorous, coming out the top of the fermemnter then after dropping about 0.10 to 0.20 in 48 hours to a slow steady drop over a period of up to 5 days! This of course is somewhat dependent on the yeast used, but before doing anything but waiting, BUY A NEW HYDROMETER!

jim  
IBC,Ltd

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Date: Thu, 27 May 1993 08:39:06 +0200 (MET DST)  
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>  
Subject: European Bud rights...

Richard Akerboom (akerboom@dartmouth.edu) wrote:

> If Anheuser-Busch were to import US Bud, they would have to change  
> the name, as the Czechs have the rights to the name in Europe. At  
> least until A-B buys them out, which I hope never happens.

First of all this is not true. The Czech company does not "own the rights in Europe." There is no such thing as a European patent office. Rights to trademarks are secured in every country. And this being the case, Anheuser-Busch products are widely available in a few countries here. In this country, Sweden, one can get US Bud (in all 3 strength classes - the least of which allowing it to be advertised on tv), Schiltz, Michelob, Sam Adams (arggh!), Anchor Steam, and various temporary products. But you can also get the superior Czech Bud... which happens to be the cheapest class 2 beer (up to 4.5%/vol)... By the way, the better Czech pilsner (IMHO), Pilsner Urquell (also given a german name - as if that was a good thing) - is the cheapest class 3 beer sold here (up to 5.6%/vol)...

- - -

Kurt Swanson, Dept. of Computer Science,  
Lunds universitet. Kurt.Swanson@dna.lth.se

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Date: Fri, 28 May 1993 10:02:23 +0200 (MET DST)  
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>  
Subject: European Bud...

[I don't know why my previous post didn't make it, but here's the gist of what I attempted to say before]

There is NO European trademark office. Each country has its own, and thus has the right to decide a difficult question - who has the right to the name "Budweiser". Here in Sweden, both products are sold - with no difference in name. In other countries US Bud is "Bud." But it is certainly not an equivalent situation in all of Europe. In any case, I read in a recent issue of CAMRA's "What's Brewing," that AB and the Czech firm have come to an agreement in terms of marketing, so that both products would be marketable in all countries...

P.S. Besides BUD, we in Sweden can buy Schlitz, Michelob, Sam Adams (arggh!), and Anchor Steam, as well as a few other temporary products...

- - -  
Kurt Swanson, Dept. of Computer Science,  
Lunds universitet. Kurt.Swanson@dna.lth.se

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Date: 28 May 1993 08:07:08 GMT  
From: "Tom Stolfi" <WAUTS@CWEMAIL.ceco.com>  
**Subject: Beer Festival Info**

For those requesting more info on the Southport Beer Festival,  
please resend your request and include yourfull email address.  
Our REPLY option is not addressing properly.

Tom Stolfi  
wauts@cwemail.ceco.com

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Date: Fri, 28 May 93 10:36:30 EDT  
From: pgs@ai.mit.edu (Patrick Sobalvarro)  
Subject: litmus papers, Cambridge (MA, USA) water

I made my first partial mash last weekend, and ran into a problem. I was following the instructions in Miller's "Complete Handbook of Home Brewing." My problem was with the litmus papers I found at the local brewing shop (The Modern Brewer). I thought that the range was appropriate (4.6 -- 6.2), but according to the chart and also to my own results, the variation in color over the range was quite narrow -- tan to a rather light brown. The result was that I had a very hard time telling whether my mash pH was in the right range. So here is my question:

Does anyone know a retail source of good litmus papers that have a greater variation in color over this range, or perhaps a range of only 5.0 -- 5.5? A shop in the greater Boston area or a mail-order house would be best. The Cole-Parmer and Edmund Scientific catalogs I have don't have litmus papers -- only pH meters.

Speaking of pH meters, the cheapest ones do not have detachable electrodes. Can someone with experience in these matters tell me how long I might expect the electrodes on these meters to last if one is only using them in brewing, where only mildly acidic solutions are encountered?

Next topic. Because my local brewing shop didn't have this information, I thought I would post for interested homebrewers in the area the assay I got from the Cambridge Water Department. I didn't actually get to talk to a chemist, so I wasn't able to get anything about seasonal variation from them, but this is interesting all the same. Miller's book leads me to believe that the number listed as "Alkalinity" refers to the total amount of both carbonate and bicarbonate.

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Source: Cambridge Water Department  
Operations Report (03/23/93)

Comparison of Cambridge Tap w/EPA & State Standards for 1993

Parameter Finished Water EPA & State Standards  
(mg/l) (mg/l)

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Alkalinity 21 ---  
pH 8.43 ---  
Dissolved Solids 230 500  
Conductivity 354 umhos/cm@25C ---  
Turbidity <0.1 N.T.U. 0.5 N.T.U.  
Free Chlorine 0.1 ---  
Total Chlorine 1.0 ---  
Color <5 color units 15 color units  
Chloride 58 250  
Nitrate 0.60 10  
Sulfate 28 250

Aluminum <0.100.05 -- 2.0  
Arsenic <0.005 0.50  
Barium <0.101.00  
Cadmium <0.010 0.01  
Calcium 17 ---

Chromium <0.020.05  
Lead <0.005 0.015  
Magnesium 3.2 ---  
Manganese 0.022 0.05  
Mercury <0.0002 <0.002  
Selenium <0.010 0.01  
Silica3.1 ---  
Silver <0.020.50  
Sodium 32 20  
Zinc 0.024 5

Total Coliform 0 C.F.U./100ml 0 C.F.U./ml  
Standard Plate Count 10 C.F.U./100ml 500 C.F.U./ml

Langlier Saturation (corrosion) Index: -1.0

Total Trihalomethanes; SWDA TTHM M.C.L.  
The M.C.L. is a Four Quarter Average of 100 ppb

Current Four Quarters Data Average: 64 ppb  
1993 (sic) Average: 17 ppb

No other regulated volatile organics, pesticides or herbicides are found.

Sample Collected Feb. 11, 1993, Payson Park Reservoir  
Camp, Dresser & McKee, Inc. Laboratory Services, Mass. Cert. I.D. MA012

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Date: Fri, 28 May 1993 11:05:44 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinass)  
Subject: Dubbel, Steam

A double batch of Belgian Dubbel Ale and Steam (tm) (a trademark that deserves one, btw) Beer, fermented at high gravity and diluted at keggling:

5 lbs. light Munich  
2 lbs. light Vienna  
1.15 lbs. crystal (60L ?)  
10.35 lbs. M&F 2-row  
2 lbs. turbinado sugar

1 oz. Centennial whole hops (90 minutes boil)  
2 oz. Saaz whole hops (added at end of boil, steeped while chilling)

2 tsp Irish Moss (15 minutes)

Single-step infusion by mashing in with 20 qts. water at ~170 degrees. My notes have "17" with no 3rd digit, but it's commonly 170-172 degrees. Conversion at 156 degrees for 4 hours (probably done much sooner; I was busy). Pour mash into 10 gallon cooler lauter-tun. Top off with boiling water. Stir. Let settle 30 minutes. Drain, recirculate 2 gallons. Boil 90 minutes, leaving about 8 gallons at 1.070 (not measured).

Rack ~5 gallons onto slurry from a previous batch of Belgian ale. The yeast had been cultured from bottle of Chimay.

Rack the remainder (~3 gallons) into another carboy. Pitch with Wyeast California Common (aka Steam) slurry from a previous batch.

Ferment the Belgian at 60-70 degrees. Yes, that's a wide fluctuation. I tried to keep it warm by surrounding the carboy with gallons of hot water. It works, but eventually the cool cellar temps win out.

Ferment the Steam at 55-58 degrees.

No secondary fermentations.

Keg the Dubbel after 16 days. Had to add 3/4 gallon of boiled/cooled water to fill 5 gallon keg. FG: 1.012 (before adding water). Fruity, but no bananas. Some bubblegum. More spice/clove. Did I say fruity? Very fruity, in a very nice way. Strong, alcoholic, rum flavors/aromas, maybe from the t.sugar. Dark brown. Stayed cloudy until just recently. A unique and delicious beer; I've taken to drinking it from a wine glass.

Keg the steam after 37 days. Had to add ~ 2 gallons of boiled/cooled water to fill 5 gallon keg. FG: 1.014 before adding water. At the time it tasted sulphurous with a homeperm(!) aroma. Something happened as it carbonated, though, because within a couple of days those off flavors and aromas were gone, replaced by a Steam beer fruitiness (not at all like the Belgian though), and a nice Saaz aroma, not noticeable in the Belgian.

A little too light body maybe, but perhaps only in comparison to the very big body of the Dubbel. Neither beer is very bitter, though the Steam reveals the bittering hops better. The Steam is a crystal clear light brown color. An excellent summer beer, if I do say so myself.

So, a grand and very successful experiment. If your brewing time is limited and seldom, I highly recommend this double batch/high gravity/dilution brewing approach.

Russ Gelinias  
esp/opal  
unh

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Date: Fri, 28 May 1993 17:15:45 +0000  
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)  
Subject: Zentner, cheese

Chip Hitchcock asks in a private email:  
>All right, I'll bite. What's a Zentner? Teribu, perhaps?

I was afraid someone would ask that. Well, its a unit for measuring hops  
in,  
isn't it. Aka a big sack full :-)

I think it's 50Kg of hops (but not absolutely certain).

\*\*\*\*\*

I said that I recently had a bad experience with beer in Florida, but in  
fact  
with the help of a few HBD contributors, I found a couple of brewpubs  
that  
sold some very pleasant beers. May the brewpub concept prosper and  
flourish.

And what about American cheese? Is there any chance of a Campaign for  
Real  
Cheese being started over there? I got the impression that the mega-  
cheeseries  
had done the same to your cheese as the mega-breweries have done to your  
beer.  
Plasticity, bland, virtually no variation in flavour or texture. Where did  
I go  
wrong?

I found the good beer in Florida by asking your advice, maybe next time  
I'm  
on your side of the pond I'll ask for advice of sources of cheese too.

Geoff

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Date: Fri, 28 May 93 11:31 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Budlight, Sam Adams and church

"A riot is an ugly thing... and it's about damn time we had one."

- "Young Frankenstein"

Phil Seitz's post about infiltrating the evil empire of A-B and substituting a homebrew for a bud light, possibly changing the course of history, is a step in the right direction. Radical activism is like farting during the church sermon. Its a barbarous act in the face of entrenched hypocrisy.

Here in Chicago we're currently being bombarded by a wave of Samuel Adams billboards. It's not enough that the Chicago tollway system is the cheapest parking in town. To add insult to injury you have to stop in front of one of these billboards. Sitting in traffic for a half hour, staring at a monstrous Sam Adams advertisement? I still have nightmares.

During one of my more recent tollway camp-outs, I tried to avoid staring at one of these billboards. I did this by admiring the architectural design of the billboard structure itself. I was amazed with the precision with which the welder had mounted the ladder rungs. These rungs marched all the way up the pole with military precision. It looked like a step ladder was necessary for the billboard painters to reach the rungs from the ground. I became amused with the idea of donning a ninja suite, climbing the billboard and painting the word "boycott" in huge black letters in the foam of the billboard pint. But alas, the traffic started to move again, the daydream vanished and common sense soon returned.

Although I consider myself to be a Question Authority type from way back and a student of the Arf School of Agnosticism (ASA), I decided that this was something I wouldn't try. Not because of being scared of heights. Not because of my history of brewing-related accidents. The real reason is that I can't tolerate the I-told-you-so's while stuck in a full-body cast.

chris campanelli

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Date: Fri, 28 May 93 12:13 CDT  
From: fjdobner@ihlpb.att.com  
Subject: AHA National Conference In Portland

All,

For those interested in going to the national conference this year, I would like to know if there is something special that the HBD crowd should organize while there? Perhaps it is customary for this group to identify themselves by a characteristic identifier (scarlet letter, black armband..).

I would like to meet the faces behind the e-mail addresses and I thought maybe our own activity might be a thought. Many things come to mind but some possibilities might be:

1. A brewpub night for the HBD crowd.
2. A preconference HBD get together.
3. A postconference HBD get together
4. your proposals here.

I would be happy to help organize something but would like to know if there is any interest. No doubt that we will see each other anyway but some kinship may be just the thing.

If you would like to e-mail me directly and save airtime that would be fine and I could then just give all responders the dump.

Frank Dobner

PS: I have my plane tickets, conference registration and hotel arrangements already made. I am staying at a place up the street and saving a bit of money

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Date: Fri, 28 May 1993 11:29 PDT  
From: shane <DEICHMAN@perch.nosc.mil>  
Subject: Czech Bud?

O.K., I know -- I'm still clueless in California...

I posted some erroneous info on "Bud in Germany" recently,  
and was promptly corrected by some more astute zymurgophiles.  
However, I deleted the message explaining the Czech Bud -- so  
could whomever is aware of this please resend?

Spaseeba! :-)

-shane  
<deichman@perch.nosc.mil>

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Date: Fri, 28 May 93 12:18:32 -0700  
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
Subject: Aluminum reactivity

>Date: Wed, 26 May 1993 23:18:49 -0500  
>From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
>Subject: bleach and ss

>  
>curiously, the cole-  
>parmer catalog says that bleach does not react with aluminum. these  
>tables are only guidelines. no details as the conditions of the test  
>such as length of exposure are given.

Aluminum has some pretty unusual properties which are probably relevant here. It is unstable in the presence of oxygen, water, acids and bases, BUT it is normally covered with a layer of oxide which prevents these corrosives from reaching the actual metal. If you manage to amalgamate a bit of mercury with the surface of a bit of aluminum this oxide coat will not stick. The piece of aluminum will corrode in air, right before your eyes (this makes a very impressive demo)

The relevant point is that in a strong oxidizing solution, such as concentrated bleach, the oxide coat is stabilized and the aluminum is not attacked. If you dilute the solution too much though, the alkalinity will overcome the oxidizing strength, and at some point the aluminum will get attacked (I don't know the figures here). The same phenomenon allows concentrated, fuming, nitric acid to be transported in aluminum containers. God help you if you get any water in there though!

Personally I wouldn't mess with aluminum for beermaking, because it's corrosion properties are so tricky.

- --arne (the ex-chemist)

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Date: Fri, 28 May 93 14:31:56 EST  
From: woessner@psych.purdue.edu (Leo Woessner)  
Subject: keg party

I want to make a keg of homebrew and have a summer keg party, but I cannot afford to buy a co2 system. I can easily get a stainless steel beer keg since I live in a college town. It will be the type with a ball in the top

I want to prime the keg to get it carbonated.  
Question #1: How do I prime the keg (amount of sugar, DME etc)  
QUESTION #2: How do I get the ball out of the keg?  
Question #3: Will the ball seal the keg without pressure behind it?  
Question #4: If not how can I get the ball to seal without a co2 system?

I don't think the ball will seal without pressure behind it, so I have been thinking of using a magnet to hold the ball in place while the keg is conditioning. Anyone with experience, knowledge, hearsay, guesses, etc. please send e-mail. When I make the keg I will write a summary of my experience.

Thanks in advance

Leo Woessner

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Date: Fri, 28 May 93 14:27:33 PDT  
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>  
Subject: Spontaneous Fermentation

In HOMEBREW Digest #1150, Richard Childers speculated:

> I am curious ... has anyone ever tried to induce a lambic in the Bay Area,  
> or any other area which is known to harbor a particular type of yeast in  
> the air ?

We're headed here for an Avernus of terminological confusion. By definition, a "Lambic" is Belgian, which is why those of us experimenting with homebrewing in the style usually call our efforts by some other name. And yes, quite a few of us have experimented with spontaneous fermentation. In some cases, the results have been vaguely similar to Lambics, but it would be asking quite a lot to have enough similarity between the microflora of the Senne valley and that of, say, Mill Valley to produce a beer that in any way resembled the "real thing." The more promising experiments have been those using cultures of the organisms identified as having the greatest effect on the Lambic flavor profile.

> Are 'lambic' bacteria distinct from 'lactic' bacteria, and if so, how ?

Yes, they're quite different, for the most part. Most Lambics have a Lactobacillus component in their makeup, but it's relatively small and completely overshadowed in its flavor effects by the bacterium *Pediococcus damnosus* (nee *P. cerevisiae*) and the yeasts *Brettanomyces bruxellensis* and *B. lambicus*. The balance of these last two seem to vary depending on how close to Beautiful Downtown Brussels the brewery is, with *B. bruxellensis* dominating in town and *B. lambicus* dominating in the country. Main alcoholic fermentation is carried out by wild *S. cerevisiae* and *S. bayanus*, and there's a wide spectrum of others that get into the act at one time or another. A simplified summary can be found in "Lambic", by Jean-Xavier Guinard, from the Classic Beer Styles series, Brewers' Publications, 1990.

> The Bay Area, for instance, and California in general, was where sourdough  
> was evolved, and I have been given to understand that the cause of sour-  
> dough's sourness is lactobacillus acidophilis. So, making an intuitive leap  
> here, I have to wonder ... has anyone tried this ?

I haven't tried it in the Bay Area, but I'd guess that while a tray of wort left out overnight and then fermented without further encouragement would produce something, but I really doubt you'd recognize it as a Lambic. One of the reasons I say that is that if you want a good idea of what a spontaneously-fermented beer made in a given location will taste like, just consider the smell of standing water. In Brussels, puddles and gutters have a sharp, Lambic-like "tang", instantly recognizable.

= Martin A. Lodahl Pacific\*Bell Systems Analyst =  
= malodah@Pacbell.COMSacramento, CA 916.972.4821 =  
= If it's good for ancient Druids, runnin' nekkid through the wuids, =  
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

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Date: 28 May 1993 18:26:37 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@Lilly.com>  
Subject: BAA humour

It figures. All along many of us have complained about the beers we were getting from Beer Across America. Too light, too many lagers, blah,blah.

..

This month they sent 2 porters. I found both of them-- Catamount and Boulevard

to be so roasty/burnt that I don't really enjoy them.

What was it my Mom always said about be careful what you ask for...you may get

it ? (Does that make it a momily)??)

sandy c

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Fri, 28 May 1993 17:20:16 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Wheat Beer Recipe

In HBD #1150, Steve Boxer wrote:

> I'm getting the ball rolling on my next brew---A Wheat Beer. I would  
> appreciate tips and recipes for a real wheat beer with lots of clove  
> aroma and taste. I would appreciate an all-grain (infusion) recipe.  
> What hops should I use (Hallertau)? Also, I plan to use Bavarian  
> Wheat #3056 yeast, what is the correct temp to ferment? Thanks in  
> advance for all of the help.

Here's an all-grain recipe for a lovely wheat ale I brewed last fall  
which  
uses Wyeast's Belgian Ale yeast rather than the Bavarian Wheat, with  
plenty  
of nice clove aftertaste resulting. It is a light, refreshing beer,  
perfect for summer (pretty good for winter, too, which is when I drank  
it).

Belgian Wheat Ale  
-----

For about 23 l:

1 tsp. Gypsum in mash water  
6 lb. Pale Malt (British highly modified variety from Baird's)  
3 lb. Wheat Malt  
1/4 lb. Crystal Malt (light)  
2/3 oz. Bramling Hops (boil 50 min.)  
1/3 oz. Bramling Hops (boil 10 min.)  
1/4 oz. Centennial Hops (boil 1 min., then steep for 15 min.)  
Wyeast Belgian Ale yeast

S.G. 1.044

Two-stage mash: 50 deg C. for 30 min., then 66 deg C. for 45 min.

The two-stage mash is because of the wheat malt component.

Fermented at cool room temperature (around 16 deg C.).

That's it. The light hopping is to let the wheat and yeast flavours  
shine  
through, and they do, very nicely. Although this is an ale, I found it  
tasted best well-chilled. It also needed a little while (about a month)  
in  
the bottle for the yeast and hop flavours to reach an optimum balance.  
Enjoy!

- - - - -  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Fri, 28 May 93 22:34:05 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: AHA Conference in Portland

The AHA conference is rapidly approaching. I will be making the trip from Washington, DC. While looking over the materials I was trying to find the value added by a partial registration vs buying tickets to the social events. I got three speakers for \$30. I got the partial anyways.

I will be going out Friday before and checking out the local culture (haha).  
Anyone who will be out early also let me know and we can get together.

I am trying to convince John Mallet at Old Dominion Brewing Co to ship homebrew kegs with his product that will be in the Oregon Brewers Fest. He has yet to agree. Otherwise, I think I will ship a case of my brew to the hotel. That way I can hand carry a case too.

Cheers, Rick

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End of HOMEBREW Digest #1152, 05/31/93  
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Date: Mon, 31 May 93 08:18:32 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Celis - Part 2

Laurie and I did get into some really detailed discussions with Peter Camps and Kimberly Blackmon concerning the yeast they are using. Except for Pierre-Xavier Guinard's fantastic book, and my good fortune to be able to talk with experts like Martin Lodahl, I have not been able to find detailed and reliable information about the strains that are preferred for Belgian Ales. Peter is a native of Belgium, and Kimberly has taken a course in brewing microbiology there, so this was a opportunity that could not be passed up.

The White and Grand Cru are fermented from the same ale yeast, a strain that originates from Belgium. A special strain of lactobacillus is also added to the White, hence the intrinsic characteristics of their Belgian ale strain is best seen in the Grand Cru. One will note a honey like taste and smell in this beer. While some of this comes from "special ingredients", honey is not added, and I feel the flavor note is primarily a fermentation product (2,3-pentandione). How well it serves this beer! I brought some fresh bottles of the Grand Cru to the Beer Fest at Temecula, Ca. for Martin Lodahl to taste. He gave it high marks for both authenticity and overall quality. Comments Martin?

The White has been highly praised in this forum, and both Laurie and I concur with this opinion.

Whitbread ale yeast is used to ferment the Pale Bock (Belgian Pale Ale). I had extensive discussions with Kimberly about this strain. Based on this plus investigation of her working slants, I conjecture that it is one of the single strain versions in the Whitbread yeast collection, and not the 3 strain version. Peter tells me that the Whitbread yeast have found wide acceptance among Belgium's ale brewers, and indeed their strain was obtained from Belgium.

They brew a very fine lager called Golden, which is not widely available outside Texas. It is cold fermented (10C), and well aged. The total cycle time for a brew is 8 weeks. The yeast used is definitely a mixed strain. One is a lager strain which originates from Czechoslovakia, and the other is a Belgian ale strain. Two distinctly different colonies can be seen on their working slants, and both are inoculated during propagation. Given the fermentation temperatures used, it is likely that the lager strain is the major player, however the ale strain likely introduces subtle effects in this tasty brew. Peter tells me that such mixed strains have found acceptance among some Belgian lager brewers.

Perhaps the most impressive thing we found at Celis is that everyone seems to love their job and would not want to be doing anything else. Who can blame them!

George Fix

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Date: Mon, 31 May 93 08:17:53 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Celis - Part 1

It was my and Laurie's good fortune to be able to visit Peter Camps (Head Brewer at Celis) and Kimberly Blackmon (their QA Director). What terrific people! Pierre Celis was out of town the day we visited, and we therefore did not get a chance to meet him. Rumor has it that he is a class act as well.

We were told that over 12 million has been put into the plant, but it looks to be worth five times that. Words like "attractive" and "tastefully done" seem to apply to everything from the building to the brewhouse. Those familiar with the special requirements of closed looped systems used in commercial brewing will immediately recognize that some world class process engineering went into this facility. It also impeccably clean.

Peter was besieged at the conference in New Orleans with questions about how to brew White Beer, so we decided to spare him and keep the conversation on a general technical/scientific level. Nevertheless, the following points emerged:

1. They brew four 100 hl. batches a week which go into two 200 hl. fermenters. All of the yeast is pitched with the first brew, and the fermenter is filled to its working capacity with the brew from the next day. They are currently using two vessels, a combined mash/lauter tun and a brew kettle. There is a second brew kettle in place, but is not as yet in operation. When it goes on line, they will be able to do two brews a day. These vessels are copper, and were built in the 1930s. They are indeed gems!

2. Cascade, Saaz, and Willamette hop pellets are used in different amounts for each of their beers.

3. The White is 50% unmalted wheat and 50% pale six-row malt from Belgium. Their other beers use a pale two-row malt from Belgium as a base. The six-row with its high DP is needed to convert the large unmalted grain fraction in the White.

4. A domestic caramel malt is used, but this may soon be replaced with one from Belgium.

5. After the fermentation all their beer is sent through a centrifuge. I estimate that this is roughly equivalent to a filtration at the 8-10 micron level.

6. All of their beers, except the White, are given a DE filtration at the end of storage.

7. All of their beers are flash pasteurized before packaging.

8. Their Pale Bock is really a Belgian Pale Ale, and is fermented at 22-24C. Its alcohol content is under 4% by wt., and because of a (really stupid) Texas law can not be called an ale.

9. Iodophor or sometimes paracetic acid is used for sanitizing; caustic solutions are used for cleaning.

George Fix

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Date: Mon, 31 May 93 08:54:01 -0500  
From: gjfix@utamam.uta.edu (George J Fix)  
Subject: The Hop Source

It has come to my attention that Glenn Tinseth, a person who has been on HBD, has opened a new hop outlet. The address is the following:

The Hop Source  
11886 Paradise Road NE  
Silverton, Oregon 97381  
503-873-2879

I do not know Glenn personally, but I am aware of his background. He was trained as a chemist, both on the undergraduate and graduate levels. His current full time job is with Dr. Gail Nickerson's research lab at Oregon State. Those who saw the feature article in the first issue of Brewing Techniques will recall that name. Dr. Nickerson is one of the leading figures

in hop research, and the labs at Oregon State are world class in every sense.

In fact, I think it is fair to say that Oregon State is to the hop industry

what MIT and Stanford are to the computer industry.

In any case, Glenn's prices seem right. For example, he has an impressive list of imports which sell for \$18.18/lb. I recently purchased 3 pounds (one each of East Kent Golding, Styrian Golding, and Czech Saaz), and plan to get more when the new crop comes out next fall. He also sells all the major domestic varieties for \$9.45 to \$11.85 per pound.

My major interest in Glenn's operation is his ability to give us "as is" alpha-acid data rather than values measured at harvest. For some of the low alphas (most notably Saaz), this is important. I am also going to urge Glenn to provide other services like doing IBUs on samples of homebrew sent to him. Analysis like that is a piece of cake given the type of lab he is in. There are going to be some charges for such services, for among other things Oregon State is going to overhead on the use of their equipment. Given the elementary nature of the assays, I hoping the charges will not be too expensive.

Glenn deals only with whole hops, but he will not get any complaints from me for that. Also I have no financial interest in this operation. I am simply a very satisfied customer.

George Fix

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Date: Mon, 31 May 93 10:17:57 EDT  
From: drose@husc.harvard.edu  
Subject: Homebrewed Clear

Hello:

With all the talk of Miller Clear recently, I became curious. How do they do it exactly? Of course, a more pertinent question may be "WHY do they do it?" That notwithstanding, I set out to make my own clear on a very small scale, not in the interest of good beer, or even acceptable beer, but out of plain curiosity. I work in a yeast lab. We routinely treat amino acid solutions with activated charcoal to remove contaminating nucleotides. A byproduct of this treatment is that the solutions go from yellow (before filtration) to completely clear (after). Hmmmm. Could this simple observation be applied to the world of brewing? I did the following experiment: I took 1 ml samples of three beers I have fermenting at present: a dark lager, a cream ale, and a pale ale. All yeast and hop particles were removed by centrifugation. Then I added a small amount of activated charcoal powder to each tube, mixed for a while, and then removed the charcoal by filtration. The result: three tubes of absolutely colorless liquid! But appearance is not everything; had I really succeeded in reproducing miller clear? I took a tentative sniff; there was the distinctive aroma of ABSOLUTELY NOTHING. A small taste: again, the very soul of NOTHINGNESS. There was a slight alcohol flavor, but I am sure that I can tone that down in subsequent batches. In short, the experiment was a complete success, and I will begin large scale production soon, beating miller into the Massachusetts market and becoming fantastically wealthy. Of course, when I design the packaging for this unique product, I must avoid using words like "Boston", "beer", "the", and "and", thereby inviting the ire (and lawsuits) of the venerable Jim Koch. Perhaps a totally blank white label would be appropriate (Jim has already aquired the rights to red, blue and silver); when people walk into their neighborhood tavern and say nothing, they will be served a frosty mug of ""!  
dave.

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Date: Mon, 31 May 93 09:39:25 -0500  
From: zentner@ecn.purdue.edu (Mike Zentner)  
Subject: Re: Zentner, cheese

Geoff Cooper writes:

>Chip Hitchcock asks in a private email:

>>All right, I'll bite. What's a Zentner? Teribu, perhaps?

>

>I was afraid someone would ask that. Well, its a unit for measuring hops  
in,

>isn't it. Aka a big sack full :-)

>

>I think it's 50Kg of hops (but not absolutely certain).

And it can be a person too! Actually, I think it has its roots  
as a measure of potatos (at least, that's what I thought it WAS  
commonly used for, but I don't really know about its current  
use).

Mike Zentner

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Date: Mon, 31 May 1993 09:29:20 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: AHA Conference in Portland

There were a couple of posts today in reference to the AHA Conference here in Portland; I suspect there will be many mor in the days to come. With luck, we shall get a big Internet crowd there, along with plenty of people from the CompuServe Beer Forum. Last year, Russ Wigglesworth provided everyone with little red computer stickers for their nametags so that we could pick out fellow computer beer/nerds from the crowd. With luck, someone else will do the same this year.

Someone (Rick?) said that he was buying a partial membership, leaving out the social stuff and paying for speakers. A suggestion: You've got it backwards! From my experience at last year's conference, the "lectures" are the least interesting part -- hanging out, eating and drinking with other homebrewers, that's the real fun...and the most educational. I say this as one of last year's speakers! There were a couple of really interesting presentations, but the high points for me were meeting George & Laurie Fix, having dinner next to Charlie Olchowski, finally meeting Martin Lodahl in person, and doing a walking tour of Milwaukee with Russ, and... oh, yeah, that beer. And judging in the 2nd round. And Fred Eckhardt's cheese and beer tasting. And...

Speeches? We don't need no stinkin' speeches.

- --Jeff (on the ground) Frane

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Date: Mon, 31 May 93 12:32:13 EDT  
From: jkirsch@dolphin.uri.EDU (Jay Kirschenbaum)  
Subject: Beer Balls

I have recently found myself in possession of two beer balls (ok, after yesterday's Memorial Day cookout). I was wondering if it is possible to use them in my homebrewing endeavours? I am trying to get the metal cap/seal off and clean it out very well. Is there a way that I could use them for either fermenting or kegging?

Thanks,  
Jay Kirschenbaum  
jkirsch@dolphin.uri.edu

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Date: Mon, 31 May 93 13:21:34 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: AHA National Conference In Portland

In HBD 1152 Frank Dobner Writes:

> For those interested in going to the national conference this year,  
> I would like to know if there is something special that the HBD crowd  
> should organize while there? Perhaps it is customary for this group  
> to identify themselves by a characteristic identifier (scarlet letter,  
> black armband..).

There are two JamBeery nights. HBD could host a table. I beleive that there is a \$35 fee. We are doing one for BURP (Brewers United for Real Potables) the Washington, DC club.

Otherwise, I will be out there with some other HBD participants and enjoy a session. I thinks a brewpub trip would be a crowd pleaser.

Cheers, Rick

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Date: Mon, 31 May 93 14:07:45 PDT  
From: John Cotterill <johnc@hprpcd.rose.hp.com>  
Subject: EASYMASH & MALTMILL

My experiences brewing this last weekend are note worthy.

I usually use a slotted copper tube manifold and cooler as a mash tun. My grain is roller milled by the local brew shop, generally about a week before

I get around to brewing. I do a single step mash. My extraction is generally around 24 pts/lb/gal with an efficiency of about 70%. Sometimes it heads up closer to 75%. I have been happy with this level of extraction and just add a little extra grain to compensate.

I am working on a RIMS system. I have a SS pot with a fitting welded near the bottom. I have not brewed in it yet since the RIMS is not done. It seemed like such a waste to have this pot collecting dust when there was some brewing to be done.

I just purchased the world famous MALTMILL (had not used it yet). I have a false bottom for the mash tun, but my experiences using a mash kettle on the stove with a false bottom have been poor. I decided what the heck, I'll make an EASYMASHER and see what happens. Well, my extraction was 31.2 pts/lb/gal with an efficiency of of over 91%!! I could run the sparge as fast (or slow) as I desired. I did, however, have to recirculate about 1 gal to get a clear beer, but that is much better than the copper manifold (about 3 gal). I did have a relatively thin mash (1.4 qt/lb), so that may have something to do with it.

I gotta say, the system really works. I am impressed by the results. I need to brew a few more batches to say for sure how repeatable things will be. But I expect little difference on future batches. I suspect the gains are a combination of both the MM and the EM.

My only complaint is that I did not expect such a high extraction. Instead of a 1.054 pale ale, I got a 1.070 strong India pale ale!

JC  
johnc@hprpcd.rose.hp.com

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Date: 31 May 1993 14:24:00 -0700 (PDT)  
From: Philip Atkinson 356-0269 <PATKINSON@galaxy.gov.bc.ca>  
**Subject: Hops**

Hop bine.  
Grape vine.  
Hop BINE  
BINE, right? BINE.  
thank you =\*)

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Date: Mon, 31 May 93 23:15 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: pH Testing

>From: pgs@ai.mit.edu (Patrick Sobalvarro)

>Speaking of pH meters, the cheapest ones do not have detachable electrodes. Can someone with experience in these matters tell me how long I might expect the electrodes on these meters to last if one is only using them in brewing, where only mildly acidic solutions are encountered?

I have no idea but I suggest that anyone on a tight budget contemplating the purchase of a pH meter, borrow one and try it a few times. I have used mine on about 10 batches since purchasing and no step in the process has varied from nominal by more than the measurement error.

The only reason I continue to use it is because it is humiliating to think I got sucked into buying something I have no use for.

What bugs me even more is finding out that it is even more useless for wine making because pH is not a useful measurement of acidity in wine. One must measure titratable acidity with an arcane process that makes the pH meter look like something from Star Wars.

js

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End of HOMEBREW Digest #1153, 06/01/93  
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Date: Tue, 1 Jun 93 09:09:50 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: Abita Bock (was Re: New Orleans brewpubs?)

David Adams writes:

> One positive recommendation: drink Abita beer while you are in New  
> Orleans, especially Abita Turbo Dog. And if you get outside of the  
> city, try to visit the brewery. Good people; wonderful beer.

A recent selection from Beers Across America was Abita Bock. This stuff was good! I didn't do a formal evaluation of it at the time, so I'm relying on memory:

Style: Helles Bock

Appearance: golden, nice rocky head, good clarity.

Aroma: malty/sweet.

Flavor: Malt predominates, hops bitterness evident, no apparent hops flavor/aroma, sweet, but not overly so.

Body: medium. Appropriate.

Overall impression: A very nice beer, true to style, and very drinkable. I want more!

I'd give it around a 40 (out of 50), I think.

Too bad it's not available in Michigan...

=Spencer

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Date: Thu, 27 May 93 08:24:05 PDT  
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)  
Subject: Spruce beer

I have a spruce tree growing in my front yard and I have been wondering about using some of the fresh spring growths in a brew. Does anyone have any experience using spruce in beer? Papazian has a recipe for using it and there are a couple of recipes in the cats meow, but they are all a little vague on how to use it. So far my plan is as follows:

10 lb 2-row pale malt  
1/4 lb crystal 401  
1/3 lb chocolate  
1.5 oz Cascades (boil for 60 min)  
1 pint of spruce clippings  
American ale yeast

My biggest question right now is when to add the spruce. Should I boil it for 60 minutes or should I add it at the end of the boil? Any suggestions or comments would be welcome. I don't want the spruce to be overpowering, yet I want it to be evident along with the hops.

Darren

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Date: Tue, 1 Jun 93 11:12:40 -0600  
From: LPD1002%NYSHESCV.bitnet@UACSC2.ALBANY.EDU  
Subject: Converting a freezer to a fridge

When I moved into my new house, a large (as in 20 or 22 Cubic feet) freezer was included. I have no use for it in its present form. Does anyone know of a way to convert it to a fridge. I know there are thermostats you can buy and hook to a fridge for more precise temperature control. But, I don't want to spend the \$\$, if it is impossible for a freezer to be kept at a temp. above freezing. If it would work, the size would be great. It would probably fit a couple of carboys and a case or two.

Email me directly or post if you think there are others who are curious.  
Thanks for any responses.

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| STEVE SEPTER | INTERNET |  
| BITNET:LPD1002@NYSHESCV | LPD1002@NYSHESCV.BITNET@UACS2.ALBANY.EDU |  
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Date: Tue, 1 Jun 1993 11:03:17 -0600  
From: Paul Boor <PBOOR@beach.utmb.edu>  
Subject: Michigan brewpubs?

To Michigan-knowledgable persons:

What would be your advise re: brewpubs and micros in the Michigan area,  
specifically in and around Grand Rapids, Holland, Traverse City (Cherry  
capitol  
of the world), Saginaw, and Kalamazoo?

Thanks.

Pboor, for a returning Michigander

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Date: Tue, 1 Jun 93 11:07:35 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: Re: BAA humour

Sandra Cockerham writes:

>It figures. All along many of us have complained about the beers we were  
>getting from Beer Across America. Too light, too many lagers, blah,  
blah...

>This month they sent 2 porters. I found both of them-- Catamount and  
Boulevard

>to be so roasty/burnt that I don't really enjoy them.

I, for one, was happy.

I received a bottle of boulevard "Bully" porter 2 years ago from  
a friend, and remembered it as being somewhat watery. When the  
package came, I was delighted to see blackened friends awaiting  
me. I tried the bully porter at room temp, and it was anything  
but watery - smooth & delicious. Upon refrigerating the rest in  
a too-cold fridge (I like my milk COLD and my keg fridge was full),  
the somewhat watery (by my taste) mouthfeel returned.

IMHO, Bully porter is a much better beer at warm temps.  
(and exhibits more of a taste change with temp than most beers).

The literature that came with it (or was it the bottle?) claims  
that it is made with roasted barley and chocolate malt; it is  
more a stout (and a fine one at that) than a porter.

bb

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Date: Tue, 1 Jun 93 09:05:55 -0700  
From: sag5004@yak.ca.boeing.com (Ford Prefect)  
Subject: Another data point

Hello,

I am busy brewing for my upcoming wedding. And have made a couple observations that some people might be interested in. If not, I apologize in advance (AIA :-).

Basic recipe:  
19 lb Klages  
3 lb Munich  
1.5 lb Crystal  
1 lb Wheat

2oz Tettenanger, 2oz Centennial (for 60 minutes)  
2oz Cascade (5 minutes)

\*(NOTE: I am not sure about the Centennial but I am sure it is one of those 'C...' types of hops)

I have made this four time recently, had an OG from 1.054-1.058. This makes ~11 gallons (one 5 gallon, and one 6 gallon carboy). I do a single step infusion mash, with a mash out up to 175 and hold for 15 minutes.

Experiment 1: Make two batches in a row pitching whitbred dry in one, and wyeast 1214? (belgian) in the other. The dry yeast had a bit of a bite that is mellowing out as time goes by. The only thing I can say about the liquid is I like in more than the dry.

Experiment 2: This was an accident. Having scotch/irish genes, I decided to stretch the next packet of 1214. I put a 2 quart starter in a gallon jug and let er rip for 3 days. Brewed, pitched 2/3 into the carboys, and 1/3 into some settled, cool wort from this batch. (monday) On friday I brew again, and had the fastest start I have ever seen. eg. 1:30 pitch and clean up, and by 4:30 foam city.

Everything smells and tastes "normal". I will hopefully, have enough for the wedding (I probably will if I don't drink it all myself first :-).

Just a data point, PS What style catagory would this beer fit into?

stuart galt boeing computer services  
sag5004@yak.boeing.combellvue washington  
(206) 865-3764 or home (206) 361-0190  
#include <standard/disclaim.h>  
I don't know what they say, they don't know what I say...

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Date: Tue, 1 Jun 93 11:28:13 PDT  
From: rstya@mda.ca (Roy Styan)  
Subject: dusty, dry beer

I was racking my beer a few weeks ago and found there was an extra two liters or so. Can't waste good beer so I found a two liter bottle and racked into it. During all that mucking about the yeast got quit stirred up and a lot ended up in the bottle. So its experiment time. What does beer taste like after spending a couple of weeks on a couple of cm. of yeast?

The quick answer? Yech.

This stuff was as dry as a popcorn fart. One sip and all the moisture in your mouth gets sucked down with the beer, leaving nothing but dustball for you to choke on. And bitter? Not the nice hop bitterness we all know and love, but the bitterness one gets from biting into a tree root (y'all chew tree roots down there, don't you?).

The main batch, on the other hand, has the nice malty aroma and taste I was looking for (its an english brown), and slides down leaving a pleasant roast aftertaste. Yummy.

What I found interesting is that all the elements of the dry, bitter batch were in the main batch, but they had not be accentuated. Rather, they had blended with other elements leaving a well balanced and rounded beer.

Woof.

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Date: Tue, 1 Jun 93 13:04 CDT  
From: korz@iepubj.att.com  
Subject: Cloudy hoses/Bleach and SS

Steve writes:

> While I'm here, I would appreciate some suggestions on  
>getting my transfer hose (plastic-type) clean and clear. It always  
>seems to go cloudy. Thanks.

You're probably sanitizing it in bleach solution, right? Don't soak it longer than 10 minutes and rinse with "clean" water immediately and it will not turn cloudy.

\*\*\*\*\*

donald writes:

>al is confused regarding sodium hypochlorite, chlorine water and bleach.  
>bleach is a dilute, about 5%, aqueous solution of sodium hypochlorite.

I re-checked my 1991-1992 Cole-Parmer Chemical Reactivity charts and there was no mention of Chlorox (bleach). There was no confusion on my part as to the difference between bleach and sodium hypochlorite. I was quoting the "Sodium Hypochlorite <20%" entry because it was all I had to work with. I've just gotten off the phone with a Cole-Parmer Applications Specialist, who took my order for the 1993-1994 catalog and verified that "Clorox (bleach)" has been added to the 1993-1994 catalog. Indeed, the table now shows no effect between Clorox Bleach and 304 or 316 Stainless Steel.

However, as don says himself:

>these tables are only guidelines. no details as the conditions of the test  
>such as length of exposure are given.

I've read reports in the HBD of pitting (especially on the welds) in Stainless Steel kegs after repeated use of Bleach solution in the kegs. I trust the cumulative experiences of homebrewers well beyond what I read in a table and I've taken don's report as a single datapoint.

Furthermore, I'd like to point out that don's wife is the owner of St. Pat's of Texas (brewing supply) and they do not stock Iodophor rather they stock a chlorine sanitizer.

Finally, don has, in a newsletter, questioned the quality of the DeWolf-Cosyns Belgian Malts (another item not stocked by St. Pat's of Texas) while on the other hand, St. Pat's of Texas turns out to be the sole distributor of Breiss malt in the area.

I've yet to find the reasoning for don's tirade on yeast a few weeks ago, but I'm sure that his ulterior motives will surface eventually.

Please note that this is not a flame. I'm simply posting data that I've collected and am not personally attacking anyone.



A1.

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Date: Tue, 1 Jun 93 13:31 CDT  
From: korz@iepubj.att.com  
Subject: Wyeast British and London/Rusty hop leaves

JACK writes:

>Due in part to things I've read here re; yeast culturing, I decided to try  
>an experiment with my last batch. A couple weeks back, I took a 3 gal.  
>keg of SNPA-clone pale ale to a picnic. It occurred to me that, since the  
>beer was clean (and tasty) and had yeast cultured from an SNPA 6-pack,  
>why not just let the dregs sit in the keg under pressure at room temp  
>until I brewed again (last Saturday) then simply pop the lid, add 1 cup  
>sterile cool water, swish it around, and dump directly into the primary.  
>Fermentation started within 12 hrs and smells clean. It's a slow ferment  
>as are most that I do with SNPA but smells clean. Questions:  
> - can anyone see potential problems or drawbacks with this method

Repeated re-use could favor a mutant strain and I recommend not re-using yeast too many generations for this reason. Typical problems with mutant yeast are the loss of the ability to ferment certain sugars and the loss of the ability to re-absorb diacetyl.

> - how long might clean yeast be held under pressure this way before it  
>loses viability.

The pressure probably won't make much of a difference. Temperature does. You are better off storing it at around 40F, but letting it warm up to pitching temperature slowly before use. At 40F, I believe that your yeast would have a sufficient percentage of viable yeast for at least a month, but this is dependent on the health of the yeast at pitching time, the level of oxygenation of the wort, etc.

>

>One other question.... I recently bought WYEAST packs for both British  
>Ale and London Ale (forget the #'s). Can someone tell me what the difference  
>in these yeasts are based on their experiences, and which styles of ales  
>they might match up best with.

British is very similar to the old, three-strain Whitbread yeast, whereas the London Ale is very similar to Bass and Co's Whiteshield yeast. I haven't used the British (Wyeast #1098) but I've read that others have reported a spicy, tart flavor profile. Wyeast's London (#1028) is one of my favorites and I use it often. It has a woody profile but otherwise is quite neutral.

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Subba writes:

> I've noticed some yellow/brown rust like discoloration on the lower  
>leaves of my hops vines recently and am concerned (not worrying) that it  
>might be a symptom of a fungal infection.

Did the leaves first turn light green between the veins, then yellow, then rust-colored? If so (and maybe also if not), you may have a Magnesium deficiency in your soil. I did and I could stop what you reported by dissolving two tablespoons of Magnesium Sulfate (Epsom salts -- at your

local drugstore) in a couple of gallons of water and then splitting this between my four hills. I don't know if this is the best way to add Mg to your soil, but it worked for me. I had to do this about every 2 to 4 weeks to keep the leaves from turning. Any other suggestions for increasing soil Magnesium? I know that hops are one of the few plants that require Mg, but a tablespoon of MgSO4 a month!?!

Al.

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Date: Tue, 1 Jun 1993 09:35:58 -0400 (EDT)

From: jd@cyberspace.org (Josh Grosse)

**Subject: pH Meter - uses**

In today's issue, Mr. S. questioned his purchase of a pH meter, and said he felt he purchased equipment he found to be useless.

I have one, and I find it extremely useful for three purposes:

- 1) Adjusting the pH of the mash. (pH 5.0-5.5)
- 2) Adjusting the pH of sparge water. (ph 5.6-5.8)
- 3) Ensuring I don't oversparge. (ph > 5.5)

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Date: Tue, 1 Jun 93 11:48:21 -0400  
From: jpgareri@acs.bu.edu (Joseph Gareri)  
Subject: EDME Brewcraft Barrel

I recently purchased an EDME Brewcraft Barrel. The first batch I put in was not great. The main problem was it was terribly flat. The barrel is 6 gallons with the CO2 injectors and a release valve that is supposed to keep pressure up to 10 psi.

The batch was about 3.5 gallon wheat recipe from the Cat's Meow. The recipe itself was very weak, but that's another problem.

I primed it with 1/4 cup corn sugar dissolved in 1.5 cups boiled water. There was some gas build up, but the beer never got terribly carbonated, so after 2 weeks, I primed again with the same amount. This didn't seem to work either. Is it because there was too much air space, so the CO2 did not remain in the beer? The directions from EDME say it is not necessary to use one of the CO2 injectors for conditioning. Any thoughts?

I am currently in the secondary with Tom Childers "Wheat Berry", and would not want to spoil a batch that seems to be coming along nicely (thanks Tom for your tips). Should I prime with the 3/4 cup corn sugar as Tom recommends for bottling or should I reduce the sugar as is recommended for kegging? I can't figure if this system is more like bottling or kegging.

Any help would be greatly appreciated.

Joe Gareri  
Boston, MA

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Date: Tue, 1 Jun 93 11:13:42 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Iowa Beers

Just thought I'd share a pleasant experience I had this weekend. While visiting Cedar Rapids, I dropped down to the Amana Colonies (19 miles south) and was pleasantly surprised to find in addition to several small wineries.... a brewery! Millstream brewery is in Amana (Main Amana) and has 3 beers on tap and in bottles; their Schild Brau was the best IMHO, amber in color and not too hoppy. They also had a very nice wheat beer. Their lager however could stand some improvement, no one in my group really cared much for it.

And while I'm on the topic of Iowa, has anyone out there been to the microbrewery in Alden, Iowa? Any idea how far it is from C.R. and if it is worth the trip. Private email please.

Anthony Johnston  
Chemist, Homebrewer, Beer junkie.

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Date: Tue, 1 Jun 93 11:58 CDT  
From: korz@iepubj.att.com  
Subject: DMS/Lambiks/Hoegaarden

Anthony writes:

>I just bottled my first attempt at a California Common or "steam" beer  
>yesterday and I noticed a definite DMSO odor in the beer (the cooked  
>corn type odor). Will bottle conditioning help to reduce this over time  
>or will I just have to get used to it. What causes this (I've heard  
>that this is generally due to slow wort cooling, but as this was an  
>extract recipe which normally is cooled rapidly as it is transferred to  
>the carboy containing cold water, I doubt that the cooling is any  
>different from my other extract recipes.)

DMS (Dimethyl Sulfide) is the chemical that give the cooked-corn aroma.  
DMSO (Dimethyl Sulfoxide) is oxidized DMS. Some DMSO can break down to  
DMS during the ferment by the yeast. Most of the DMS that is created  
during the boil, cooling and ferment gets scrubbed out by the CO<sub>2</sub>, so  
you need to have very high levels of SMM (the precursor of DMS), DMS  
and DMSO to have some spill-over into your finished beer.

There are primarily two sources for DMS, bacteria and the malt. The  
bacteria that generates DMS is called *Obesumbacterium Proteus*. You  
may have had wort infected with this bacteria all along, but since  
this bacteria's activity is mostly during the earliest stages of  
fermentation, when the pH of the wort is greater than 4.5, a longer  
lag time on this particular batch may be all that was needed to get  
the DMS in the final beer above the 30ppb human detection threshold.

Another source for DMS is from the SMM that is created when malt is  
germinated. During the kettle boil, virtually all DMS that is created  
is boiled-off. If you cover the kettle or if the boil is not a rolling  
boil (just a simmer) you can retain enough DMS to detect after  
fermentation.

Also, as you mentioned, fast cooling is essential to minimizing DMS  
in the wort because when you take the kettle off the boil, DMS still  
continues to be produced until you cool the wort below 140F, but is no  
longer being boiled-off.

\*\*\*\*\*

Richard writes:

>Are 'lambic' bacteria distinct from 'lactic' bacteria, and if so, how ?

Lactic bacteria are only one of many bacteria that contribute to the  
flavors and aromas of Lambiks. *Pediococcus Cerevisiae* and *Lactobacillus*  
*Cerevisiae* are two of the lactic acid producers, but certain types of  
(all?)

Pedio also create diacetyl, for example, but only God knows what the  
other  
microbiota in Lambik wort do with the diacetyl since I have yet to taste  
a Lambik with a noticable diacetyl character. In addition to the Pedio  
and  
Lacto bacteria, Enteric bacteria play a role in the flavor/aroma of  
Lambiks.

Brettanomyces yeasts, *B. Bruxellensis* and *B. Lambicus* give the  
characteristic  
"horsey" aromas as well as contribute to the flavor. Many "wild"  
*Saccharomyces* and *Brettanomyces* yeasts combine to produce the intense  
fruitiness found in many Gueuze Lambiks, so much so, that I've often had

to look back at the bottle to make sure I hadn't been served a fruit lambik!

So you see, there's a lot more to Lambiks than just a lactic sourness. Note that recent bottles of Timmerman's Framboise that I've tasted have had a more pronounced Brett (horsey) character than I recall. Perhaps this is simply a batch-to-batch variation (lambiks, more so than any other beers, vary quite a bit from batch-to-batch and even bottle-to-bottle!) or perhaps Timmerman's is trying to blend more towards a traditional flavor (I hope so).

\*\*\*\*\*

Tom writes:

>In HBD 1149, Steve Lovett asks about reproducing Hoegaarden Grand Cru with wheat malt. A few months ago, I posted a barley malt extract wit beer recipe, and promised to try the same with wheat malt. Well, the first wheat malt batch finished a couple of weeks ago, and my friends and I are

Actually, Hoegaarden White is made with (unmalted) wheat, but the Grand Cru is a sort of "all-barley" version, with no wheat added. I conjecture that the Celis are made similarly, but I'm certain that they are are much fresher and better versions than those now made by Interbrau in Belgium.

\*\*\*\*\*

Mark writes:

>ago. Anyway, after a few minutes of begging that I should be connected to a materials engineer (not a sales "engineer") I got some helpful folks in one of their labs. Turns out the guy who knows the most about polypro is also a homebrewer! Well it was certainly a relief not to have to spend 1/2 hour explaining what a hop back, wort etc. were! Bottom line: The chart is wrong as regards to polypro. Beer won't hurt it or react with it (neither will wort). This guy said that polypro's barrier properties weren't that good and thought the chart might have been inferring that you wouldn't want to store carbonated beer in it for long periods because it would go flat. However, carbonated water is "OK" for polypro on the chart. We couldn't figure it out.

I expect that a materials engineer at Phillips 66 should have been able to figure out that the reason that Polypropylene is not acceptable for long-term storage of beer is not only because of CO2 permeability, but O2 permeability! According to the Cole-Palmer catalog, the O2 permeability is  $25 \times 10^{-10}$  (cc-mm)/(sec-cm<sup>2</sup>-cmHg), which is 2.5 time higher than HDPE (high-density polyethylene) which is widely known to be too oxygen-permiable for long-term beer (or hop, for that matter) storage. Long-term storage in oxygen-permiable plastics will, of course, oxidize your beer (or hops).



By the way, why does every post by Mark sound like an ad for his business?

I, for example, have yet to mention that my store/mailorder house, Sheaf & Vine Brewing Supply, sells hops stored in a special, proprietary plastic that is food-grade, yet is an oxygen-barrier and that the pouches are CO2-purged before vacuum sealing... but you don't see \*me\* running shameless ads in the allegedly non-commercial HBD ;^).

Al.

Sheaf & Vine Brewing Supply  
Countryside, Illinois  
708-430-HOPS

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Date: Tue, 1 Jun 93 16:25:40 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Octoberfest recipe request

Greetings.

I had several (OK, many) bottles of Hacker-Pschorr Octoberfest this weekend, and I like it a lot. Now, it seems to me that it's a very malty, lightly-hopped lager, possibly something like a Maibock. I dunno, I'm asking.

Anyway, my point is this....how can I make something like that? I checked the Cat's Meow, and didn't see anything listed specifically as an Octoberfest. Anyone have a good recipe for this type of thing, or at least pointers on what types of malts & hops to try?

All-grain recipe would be preferred, but I'll "take what I gets".

Thanks,  
Dave Hinz

ObBeerComment:

The Strong Scottish Ale from Papazian's "style guide" in TNCJOHB is fantastic. Only 3 weeks in the bottle, and it's almost GONE.

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Date: Tue, 1 Jun 93 14:29:35 PDT  
From: tinsethg@ucs.orst.edu (Glenn Tinseth)  
Subject: Hop Utilization and clarifications

In a recent Digest, Mark Garetz petitioned the readers for info regarding Jackie Rager's alpha acid (AA) utilization numbers in his article in the Zymurgy Hop Special Issue. I am currently in the middle of a fairly good sized research project into this exact subject.

As George Fix mentioned in a recent posting, I am fortunate enough to be able to work in Gail Nickerson's USDA hop lab where I have the glorious title "Official Volunteer Hop Grinder and Sample Prepper" in exchange for the use of their equipment. In addition to running alpha and beta analyses on my hops, I am studying AA utilization vs boil time and AA utilization vs wort gravity. Both my early findings and an extensive literature review indicate that there are problems with Rager's numbers. Typical util vs boil time curves look nothing like Rager's numbers and max. util % numbers range all over the place in the literature, from 10-50% in the finished beer (Rager gives a middle of the road 30% for a 60 min boil).

It is still too early for me to give some definitive answer to the util question. I know how unsatisfying it is to hear that something is wrong without hearing the right answer but I am afraid that we (myself included) are stuck with Rager's numbers for a while longer, at least until I get a few more test batches in bottles and run through the spectrophotometer. Is this "Vapor-data"?

Also, for everyone I promised a catalog to, they come from the printers tomorrow, and will be in the mail the same day! Sorry for the delay but the response to my previous posting surprised me (a good surprise:)

Glenn

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Date: 1 Jun 1993 16:02:03 U  
From: "Rad Equipment" <rad\_equipment@rad-macl.ucsf.edu>  
Subject: Electronic Brewers in Portl

Subject: Electronic Brewers in Portland Time:3:56 PMDate:6/1/93  
As Jeff Frane mentioned I supplied stickers for our band of techies so we  
could  
be easily spotted. I am willing to do the same this year and have had my  
sign-maked friend begin work on the design.

I need a rough head count so I know how many to cut. Send me E-mail  
indicating  
your intention to attend.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmacl.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Tue, 1 Jun 1993 16:28 EST  
From: "Glen Flowers 601-4003, GTC-104" <GFLOWERS@LANDO.HNS.COM>  
Subject: European BUD questions

In HBD #1152, Kurt Swanson writes:

>In this country, Sweden, one can get US Bud (in all 3  
>strength classes - the least of which allowing it to be advertised on  
>tv), Schiltz, Michelob, Sam Adams (arggh!), Anchor Steam, and various  
>temporary products.

I'm puzzled by two questions:

- 1) Why the (arggh!) after "Sam Adams"? Wouldn't you consider Sam's a better American brew than the first two brands on the list, (neither of which rated an "arrgh!"), and easily better than BUD?
- 2) What is a temporary product?

Just wondering,

Glen Flowers  
Technical Training  
Hughes Network Systems  
GFLOWERS@LANDO.HNS.COM

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Date: Tue, 1 Jun 1993 21:14 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Litmus Papers

Actually, nowadays just about nobody uses "litmus" papers any more. The old fashioned "litmus" came in two types, red and blue, and you had to use the correct one for measuring acid or basic solutions. The modern equivalent is referred to by various names, but in our lab we just call them "pH papers". If you can't find the right stuff in your catalog, look under "test strips" or "test papers" or "pH" rather than "litmus". Modern test strips are much better than "litmus". The ones I like best (NOT the cheapest BTW) are known by the trade name ColorpHast, and come as single use strips of plastic with patches of colored indicator at the business end.

Just thought all the pH-concerned out there might like to know... P.

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Date: Tue, 01 Jun 1993 21:34:12 -0400 (EDT)

From: WESTEMEIER@delphi.com

Subject: Zentners of hops

To clear up any lingering confusion, I can't resist putting in my \$0.02 here.

Geoff's memory was exactly right. The zentner (note lower case) is the standard unit of measurement used in commercial hop dealings in Europe. The zentner is equal to 50 kilograms. It is abbreviated zr and is (I think)

beginning to be used outside Europe as well.

Wouldn't it be nice to have a unit of measurement that worked like IBUs or BUs, so that we could speak of "X hoopsles of Saaz" produced and mean so many kilos at such a percent of alpha acid?

- -- Ed Westemeier -- Cincinnati, Ohio -- westemeier@delphi.com --

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Date: 01 Jun 1993 21:45:19 -0500 (CDT)  
From: HUGH@vaxa.cis.uwosh.edu  
Subject: Hey Hayward!

Date sent: 1-JUN-1993 21:42:21  
Looking for a good micro-brew pub in Hayward, California.  
Any suggestions?  
Bitnet - Hugh@oshkoshw  
Internet - Hugh@vaxa.cis.uwosh.edu

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Date: Tue, 1 Jun 1993 22:56:15 -0400  
From: Nick Zentena <zen%hophead@canrem.com>  
Subject: Belgian malts in Brewing Tech

Hi,

I got my copy of Brewing Techniques this week and I've got some questions.

The article on Belgian malts by Prof. Fix stated that the test mashes were conducted using distilled water and 30grs of calcium chloride. Is this enough in the way of minerals? Would this very soft water profile cause the results to differ from real world mashes? I assume that the distilled water was used to give some sort of a standard.

Also the article gives the following:

Pils malt -linter 105 able to convert 15-20% adjuncts  
Pale ale malt- linter 60 able to convert 10-15% adjuncts

In comparison I think Canadian 2row is 120-130linter and capable of converting 50+% adjuncts.

Are the adjuncts numbers given for the Pils just conservative? Would it be able to convert a high adjunct mash like a normal p-lambic?

Finally is Brewing Techniques going to be review books other then those available from the AHA?

Thanks  
Nick

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I drink Beer I don't collect cute bottles!  
zen%hophead@canrem.com  
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Date: Tue, 1 Jun 93 22:47:32 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: AHA Conference in Portland

Jeff Frane writes:

> Someone (Rick?) said that he was buying a partial membership, leaving  
> out the social stuff and paying for speakers. A suggestion: You've got  
> it backwards! From my experience at last year's conference, the  
> "lectures" are the least interesting part -- hanging out, eating and  
> drinking with other homebrewers, that's the real fun...and the most  
> educational.  
>  
> Speeches? We don't need no stinkin' speeches.

I agree, the partial registration includes all social events and some  
of the lectures. I have been to a few of these conventions and I have  
trouble sitting in a wonderful place like Portland in a hotel for 8  
hours a day. Plus, getting up early after Brew Pub hopping.

Cheers, Rick

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End of HOMEBREW Digest #1154, 06/02/93  
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Date:Wed, 2 Jun 93 7:36:25 EDT

From: Jpetty@PICA.ARMY.MIL

**Subject: Microbrewery festival**

A recent HBD post mentioned the Second Great Eastern Invitational  
Microbrewery  
festival in Adamstown Pa. This is just a bit further than I care to  
drive  
(home from), however a local bartender thought a similar event was  
planned  
for Bethlehem Pa. during July. Anyone have details on this ?

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Date: Wed, 2 Jun 93 08:04 EDT  
From: tmr1@hotmailg.att.com  
Subject: Re: Cloudy hoses/Bleach and SS

I also suffer from the "cloudy hose" syndrome. I left mine soaking overnight in a water/bleach (20:1) solution and it is permanently(?) cloudy. Will this impair the use of the hose for racking? Will the bleach leach? Can I do something to get the hose clear again? Maybe boiling in water will do something to it.

Any suggestions are welcome.

Tom Romalewski

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Date: Wed, 2 Jun 1993 13:57:46 +0200 (MET DST)  
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>  
Subject: European BUD questions

In HBD #1153, Glen Flowers (GFLOWERS@LANDO.HNS.COM) wrote:

> In HBD #1152, Kurt Swanson writes:

>

> >In this country, Sweden, one can get US Bud (in all 3  
> >strength classes - the least of which allowing it to be advertised on  
> >tv), Schiltz, Michelob, Sam Adams (arggh!), Anchor Steam, and various  
> >temporary products.

>

> I'm puzzled by two questions:

>

> 1) Why the (arggh!) after "Sam Adams"? Wouldn't you consider Sam's  
>a better American brew than the first two brands on the list,  
>(neither of which rated an "arrgh!"), and easily better than BUD?

I said arggh because I know the the mere mentioning of Sam Adams  
products is enough to start an HBD trade war...

> 2) What is a temporary product?

>

"Systembolaget" likes to keep a permanent stock and a rotating stock -  
always trying new brands for a short time. They buy them in massive  
quantities [for example, they bought 500,000 bottles of the Belgian  
De Koninck recently] at one time & get a great deal....

- --

Kurt Swanson, Dept. of Computer Science,  
Lunds universitet. Kurt.Swanson@dna.lth.se

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Date: Wed, 2 Jun 93 08:45:21 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: iodine

I'm sure this has been covered before, but here I go again....

The last batch I made, I did the iodine test two ways: 1. I drained a little out of the spigot at the bottom of my mash/lauter tun (Gott cooler with copper-pipe manifold). This tested completely starch free after 20 minutes (the first time I tested it). 2. I pushed the spoon into the top of the mash and let some fluid run into it. This never tested clear, even after 1.5 hours.

So which one should I believe? I got a great (for me) extraction rate of 31 pts/lb/gal, with wonderfully clear sweet wort, so it would seem that conversion was indeed complete (maybe at 20 minutes).

A related question: Foster suggests (in Pale Ale) that you should mash for 1.5 hours for flavor development, even if conversion is complete sooner. Any comments on this?

=Spencer

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Date: 02 Jun 93 10:33:32 EST  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: Weissbier available: Elkton MD

From: Matthew Mitchell

On the way back from the NCAA lacrosse finals (Syracuse 13, NC 12 in what is arguably the best tournament game ever-see it on CBS Sunday at 3:30 ET)

I took a detour off I-95 to avoid traffic, toll, and poor PA state liquor stores.

I discovered that my favored shop: State Line Liquors in Elkton, Maryland (between I-95 and Newark, Delaware on MD route 279) has an excellent selection of Weissbier, and a number of Belgian beers, all available as singles. Selection of US microbrews is fair to middlin': there is SN and Pete's and a few other more common varieties, but I've seen better at other places.

They have an 800 number (I think it's 800-345-WINE, but please check first!) The booze prices are significantly better than most neighboring states, and their wine selection is decent (if you can afford it, the

Latour and Palmer is right out on the shelves, but of recent vintage rather than classic) So if you are traveling 95 south, exit northbound at MD 279 or southbound at DE 896 (then turn left at the football stadium and left again on 279) You'll save more than the toll!

No connection of course: just a satisfied Pennsylvania refugee!  
Howzat!?!

Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

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Date: Wed, 2 Jun 93 09:42:34 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Stainless Steel

As one the people who raised concerns on HBD about the use of chlorine with stainless equipment, perhaps a few additional remarks might be helpful.

The two alloys which are most relevant to brewing are the following (shown with their % concentrations):

| type | Cr    | Ni    | C    | Si | Mn    | P    | S    | Mo  |
|------|-------|-------|------|----|-------|------|------|-----|
| 304  | 18-20 |       | 8-12 |    | .0812 | .045 | .030 |     |
| 316  | 16-18 | 10-12 |      |    | .0812 | .045 | .03  | 2-3 |

The 316 alloy differs from 304 by its 2-3 % molybdenum (Mo) content. It is the latter which gives this alloy complete resistance to chlorine. However, 316 is very expensive, very difficult to cold work, and not used to make 5 gallon soda pop kegs. The best of the latter are made from 304. This alloy has some resistance to chlorine, but not like 316.

Studies

done with brewing in mind concluded the following:

1. The relevant parameter is the concentration of the free available chlorine (FAC), independent of its source (bleach, chlorine powder, etc.).

2. At room temperature (and a normal pH), 304 is resistant to chlorine as long as the FAC is below 250 mg/l.

Since our standard 1 oz. bleach per gallon gives a FAC of 100 mg/l, one could conclude that chlorine bleach can be used to sanitize ss kegs. Careful brewers will reject this conclusion. The factor of 2.5 is cutting it too close. More to the point, the studies were based on a one time application of the chemical to the metal, and does not take into account the effects of long time use. I use boiling water or iodophor simply because I am not prepared to gamble with ss equipment that I hope will be with me in the long run.

I am not against taking gambles in other aspects of brewing, like taking ones standard Vienna formulation, doubling the hop rate, and sending a few bottles to Jeff Frane. Actually a much bigger gamble, and one I may live to regret, is \*\*\*not\*\*\* doubling the hop rate and sending some to Jeff! Gambles like this are done everyday, but hopefully not with valued equipment.

There is, in addition, a completely different aspect to these issues. My grandfather was a brewer who like many of his generation absolutely detested "chemical" cleaners and sanitizers. For him it was hot water, 18 hr. brew days, and maybe some vinegar and wet steam. I do not fully agree with this viewpoint, but recalling some excellent homebrews I have judged at various points in the past that have been ruined by residual chlorine, there are some merits to this point of view. That is way I was initially excited about peracetic acid. However and alas, the version Diversity and others is producing for the brewing industry is not for us. Even a drop or two of their concentrated solution on our hands would turn them white as snow. These products were produced with closed CIP systems in mind, and not the way we do things. It would therefore appear that boiling water or iodophor are our best options for ss. If the latter

is used I would also recommend rinsing before use with water or sterile beer, although there are many successful brewers who do not rinse.

George Fix

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Date: Wed, 2 Jun 93 07:46:14 PDT  
From: Jamie Ide 02-Jun-1993 1044 <ide@studio.enet.dec.com>  
Subject: EasyLauter

My last six batches have included partial mashes of 4-6# malt, which gets combined with extract for the boil. I've found partial mashing to be easy, once I got the hang of it, and I can taste the improvement it's made in my beer.

The only problems I've had with the process have occurred during sparging. Up until my last batch, I'd been using a cylindrical water cooler (it came with my house, you can't fight destiny) with a grain bag, which sat on a vegetable steamer, as a lauter tun. I got lousy extraction with this method -- the one time I carefully measured gave me 17 points! -- and I had to recycle 1 gallon (out of 2.5) of runoff before it cleared. The poor extraction may have been due to my grain bag's mesh sides and a poor crush. I quickly grew tired of going through the extra work of mashing and then having to add 6 lb. of extract to get a reasonable SG, so it was time to look for a Better Way.

In the grandest tradition of science, I appropriated someone else's idea. Jack Schmidling's EashyMasher (tm?), sounded, well, easy and cheap to make. I decided to adapt the idea to my lauter tun. I poked around the hardware store and found a PVC connector which would screw onto my valve (the plastic one with the red lever, though it may fit a drum tap too). This connector ended in barbs which fit 3/4" plastic tubing. I attached a couple of inches of that to extend the pick-up tube, and fixed a few inches of rolled up screen, cut out of a broken window, on with a hose clamp. Total cost was about \$4.

I've tried it on one batch and it performed impressively. The runoff cleared after only two cups! I couldn't calculate my extraction because I ran some extra off for canning yeast starters, but I hit my target gravity which I'd predicted using 25 point extraction. A big improvement, though I think a better crush will improve it further. Not having to recirculate a gallon saved me some time, and clean-up was easier. An unmitigated success.

I recommend giving this a try if you're currently using a grain bag or a Zapap system. Almost every brewer has a bucket with a valve on it, and for \$4 you can convert it to an EasyLauter tun.

Jamie Ide ide@studio.enet.dec.com

Disclaimer: I only know Jack through the HBD and the EasyLauter is too cheap to sell.

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Date: Wed, 2 Jun 93 07:47:15 PDT  
From: Jamie Ide 02-Jun-1993 1046 <ide@studio.enet.dec.com>  
Subject: Wort Chiller to Sparge Heater

I'll be going all grain soon, and I have an idea for heating sparge water. I don't have a second large boiler to heat the water, and I collect the runoff of my partial mashes in my boiling kettle, so I can't use that. What I was thing of doing is running my immersion wort chiller (aka that coil of Cu tubing currently sitting in my basement) backwards.

That is, immerse the chiller in a pot of hot (boiling?) water and run tap water through it to heat sparge water. By playing with the flow rate and the water temp., I ought to be able to get it up to temp. easily.

This would also give a couple of advantages:

I could stop the flow when the runoff sg dropped and not have any leftover water. With practice, I could even use the water that the chiller sits in.

I could easily hook up a "showerhead" to the hose output and get a nicely distributed flow over the mash.

Has anyone tried this? Any opinions?

Jamie Ideide@studio.enet.dec.com

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Date: Wed, 2 Jun 1993 14:52:49 GMT  
From: "UARS::COOK"@CDHF1.GSFC.NASA.GOV (Chris Cook)  
Subject: Spruce and Oak Additions

Darren Aaberge asked about adding spruce clippings to his beer.

I've made a number of spruce beers and I enjoy the flavor a lot. I started with Papazian's Goat Scrotum Ale and have stayed close to that style, adding spruce to a rich, dark base for my spruce beers. Unfortunately, given that I don't have a spruce tree, I've depended on spruce extract, so my experiences may not translate completely but they may still be useful.

For the first few spruce batches, I threw in a bottle of essence at the beginning of the boil. This was a lot, and I think compares to about a quart of new spruce growth. The house smelled wonderful and, when the beer was done, the spruce flavor was smooth and rich without being overpowering. Keep in mind that I was making a Spuce Beer, so I wanted spruce to be one of the major flavors.

After a few batches, I got to wondering that wonderful aroma when I boiled meant that I was boiling off the aromatics. For the next Spruce Beer batch, I waited until just before the boil ended to add it. I knew the flavor would be stronger, so I added half as much as usual.

This beer was, to be kind, different. The flavors were too bold and too harsh, without the richness I'd expected. This might have been an artifact of the essence, and may not apply to fresh spruce. There may be no bad beers, but this was certainly not a good beer, and I ended up dumping the last half.

Darren said that he didn't want the Spruce overpowering the hops, so a pint sounds about right. I'd use a quart, but then I'm already a convert. Not knowing, I wouldn't worry about bruising the branches; just throw them in whole at the same time as the boiling hops.

[A side note: I hold off the boiling hops until I've gotten a good, obvious hot break - about 10 minutes after the boil starts. If I don't wait, I don't seem to get as much hops bitterness. Someone said once that the uncoagulated proteins coat the hops, limiting hops utilization. I don't have much hard evidence of this, but I've been following the advise.]

As a counter-example, I've also used oak chips and oak essence in IPAs. (I know that it's not in style any more, but I like it as a subtle addition.)

In this case I added the chips or the essence to the secondary. The batches with the oak chips were good; the batch with oak essence wasn't good at all. It had something like the real oak flavor, but with harsh, strange overtones that were unsuitable; eventually it had to be tossed.

Let us know how things work.

Chris Cook    cook@cdhfl.gsfc.nasa.gov

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Date: Wed, 02 Jun 93 09:55:11 CDT  
From: atzeiner@iastate.edu  
Subject: Re: Iowa beers

Anthony writes:

>Date: Tue, 1 Jun 93 11:13:42 CDT  
>From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
>Subject: Iowa Beers

>

>Just thought I'd share a pleasant experience I had this weekend. While  
>visiting Cedar Rapids, I dropped down to the Amana Colonies (19 miles  
>south) and was pleasantly surprised to find in addition to several small  
>wineries.... a brewery! Millstream brewery is in Amana (Main Amana) and  
>has 3 beers on tap and in bottles; their Schild Brau was the best IMHO,  
>amber in color and not too hoppy. They also had a very nice wheat  
>beer. Their lager however could stand some improvement, no one in my  
>group really cared much for it.

>

>And while I'm on the topic of Iowa, has anyone out there been to the  
>microbrewery in Alden, Iowa? Any idea how far it is from C.R. and if ti  
>is worth the trip. Private email please.

>

>Anthony Johnston  
>Chemist, Homebrewer, Beer junkie.

I think you probably mean Adel, Iowa which is west of Des Moines. The  
Old  
Depot brewpub just open there in 1991. My wife and I just went there a  
couple  
weeks ago. They make 3 or 4 beers(I think an ale, lager, porter and  
something  
else) and 1 or 2 beers of the month. When we were there they had a  
Weisse and  
an IPA which were both really good. I talked to someone who went there  
earlier this year and had a good Irish Red Ale. The food there is also  
very  
good. The restaurant is not what you would probably think of a normal  
brewpub  
though. Its a new, modern-looking building which is separate from the  
brewery. I would recommend going there if you're in the area.

Andy

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Date: Wed, 2 Jun 93 7:54:22 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Zentners

There have been a few messages on the digest recently concerning the term "zentner". A zentner is 50kg (~110 lb) of hops. It is most commonly used in England as a measure of crop yield. As far as I know, hops are not actually sold in "zentners", but in 100kg (~220 lbs) bales. This is slightly larger than our US bale which is 200 lbs.

Mark from HopTech

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Date: Wed, 02 Jun 1993 10:33:09 CDT  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: clorox and stainless steel

Al (korz@iepubj.att.com) writes:

>I've read reports in the HBD of pitting (especially on the welds) in  
Stainless  
>Steel kegs after repeated use of Bleach solution in the kegs. I trust  
the  
>cumulative experiences of homebrewers well beyond what I read in a table

(here here, didn't one of those tables say that grape juice ate teflon?:  
-)

Here's yet another data point (YADP)

I believe that problems may arise when brewers use a bleach solution that  
is  
too concentrated. I started keging in 1978 using cornelius style kegs  
and  
1980 with SS 1/2 barrels. I still have those same kegs. They have been  
sanitized with bleach solution every time and believe me these kegs have  
seen a  
lot of activity:-) I have yet to see any wear of any kind on these  
lovelies,  
beyond the occasional need to replace the O rings and brass wing nuts on  
the  
cornelius's, and the bungs and figure 8 gaskets on 1/2 barrels. I had  
bartending experience prior to the use of these kegs where I learned  
about  
chlorine test strips to determine the sanitizing power of the solution. I  
use  
in the ballpark of 50 ppm as determined by these strips and I havent had  
any  
problems with the results.

When I work with newer brewers, one pretty common trait is to watch them  
splash  
horribly (to me anyway) concentrated solutions of bleach water over  
everything  
associated with the brewing process. I usually take some of my test  
strips  
along and show them that they are using solutions that are 'off the  
scale' of  
the strips capacity (it only reads up to 200 ppm). Its easy to believe  
that  
'more is better', but when it gets to the point where you may sustain  
damage by  
contact to yourself, it may be time to examine your technique. I always  
wear  
eye protection/gloves but at ~50 ppm I dont get too worried about burning  
holes  
in my lab jacket or brief skin contact - or eating holes in Stainless  
Steel.

Dont get me wrong, I'm not knocking idophor (I used it all the time when  
I was  
doing hospital OR work), but bleach is inexpensive (esp. when you dilute  
it

properly), easily available, effective, and pretty safe when used properly.

John Isenhour  
Hop Devil and National Beer Judge  
john@hopduvel.UUCP  
isenhour@lambic.fnal.gov

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Date: Wed, 2 Jun 93 09:43:04 PST  
From: Jack St.Clair at fmccm6 <Jack\_St.Clair\_at\_fmccm6@ccm.hf.intel.com>  
Subject: Electronic Brewers in Portland

In HBD#1154, Russ Wigglesworth asked for a headcount. Since the two messages that I sent to him were returned with "Host Unknown" I'm posting my reply here. Please excuse the bandwidth and hope to see you all in Portland.

Russ, count us in. My wife and I are both planning to attend.

Jack St.Clair  
Folsom, CA 95630

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Date: Wed, 2 Jun 1993 13:19:35 -0600

From: gmeier@ncsa.uiuc.edu

**Subject: spruce beer**

Darren writes on the subject of spruce beer:

>"My biggest question right now is when to add the spruce. Should I boil  
it  
>for  
>60 minutes or should I add it at the end of the boil?"

I have no experience in using spruce clippings in beer or anything else,  
but the terpenes responsible for much of the characteristic aroma are  
fairly volatile, and I suspect they would steam distill out during a  
prolonged boil. I'd add them at or near the end of the boil.

Gary Meier  
FMC Corporation  
Princeton, NJ 08543

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Date: Wed, 2 Jun 93 11:59:57 -0700  
From: Loren Carter <lcarter@claven.idbsu.edu>  
Subject: aha conference

Is anybody out there in need of a room for the AHA conference in  
Portland,  
Oregon this July?

I have a room at the Marriott where the conference is being held that I  
would  
share with one or two people.

If you are interested contact me by email.  
Loren Carter  
Chemistry Department  
Boise State University  
Boise, Idaho

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Date: Wed, 2 Jun 93 12:47:29 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: Iowa beer, Scottish Ale

Anthony Johnston wrote commenting on Amana beer and asking about a microbrewery in "Alden."

I'm relatively new to the state (4 years), and my spouse and I have been procreating since we arrived. The rug rats, unfortunately, keep me from getting around much. However, I concur with Anthony's appraisal of Amana beer (good amber, not-so-hot-but-not-too-bad-either lager) which I have been able to get frequently on tap locally and in bottles. (I have my first trip to the brewery itself planned in a couple weeks - provided we can get a good babysitter.)

But I'm confused about "Alden." Do you mean "Adell?" (It's entirely possible that there is a place called Alden that I haven't heard of - please correct me if so.) Adell is on Route 6 just West of Des Moines, and no I haven't been there either. I've heard they have a very interesting menu, and their beer is available locally in bottles. I've only had a chance to sample the porter, which won't knock your socks off, but I found it very pleasant. The name of this beer is "Old Depot." If I ever get over there I'll post a review.

- - - - -

David Hinz posts an enthusiastic report of his Scottish Ale brewed to Papazian's "style guide" specs. David, would you care to share the specifics of your efforts? I'm an extract brewer, but I'd still like to see your grain bill if you did an all-grain recipe, so I can try to approximate with extracts, and I'd be curious about your choice of hops and yeast as well.

Jonathan Knight  
Grinnell, Iowa

P.S. speaking of Iowa beer etc. - Tom Calahan, my e-mail reply to you bounced. Are you still on the net?

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Date: Wed, 2 Jun 1993 10:55:21 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Spruce Beers

In HBD #1154, Darren (dra@jsc-ws.sharpwa.com) writes:

>I have a spruce tree growing in my front yard and I have been wondering  
about  
>using some of the fresh spring growths in a brew. Does anyone have any  
>experience using spruce in beer?  
>[cut]  
>My biggest question right now is when to add the spruce. Should I boil  
it for  
>60 minutes or should I add it at the end of the boil? Any suggestions  
or  
>comments would be welcome. I don't want the spruce to be overpowering,  
yet I  
>want it to be evident along with the hops.

I've brewed two batches of spruce beer: one a dark ale similar to the  
recipe you propose, and the other a light lager. I used about 100g (~4  
oz.) of green spring Sitka spruce growth in each one, boiled for about  
one  
hour. Personally, I preferred the light lager, but the dark ale was OK  
too. The flavour lent by the spruce surprised me. It wasn't at all like  
a  
tree, or a forest, or sap, or anything else one might associate with a  
spruce tree. Instead, it's a sweet, almost berry-like taste, with a bit  
of  
sourness thrown in. I can see why Papazian thought it tasted like  
Pepsi-Cola. It's subtle, yet distinct. I have also found that it  
dissipates fairly quickly in the bottle. My spruce lager has been in the  
bottle for a little over a month now, and the spruce character has  
subsided  
considerably, which is OK because it was a bit much at first.

Whether you go the ale or lager route, keep the hops light to bring out  
the  
subtle spruce flavour, and you should probably use a little extra spruce  
in  
a darker recipe.

To brew, perchance to dream....

- -----  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Wed, 2 Jun 93 13:25:54 -0500  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Stainless Steel - Part 2

Shortly after sending my post on stainless to HBD I started to worry that my phrase "boiling water or iodophor" may be misinterpreted as one and not

two alternate procedures. In particular, one should \*\*\*never\*\*\* add an iodophor to water at an elevated temperature, since potentially toxic fumes can result. The version of iodophor I use is called Accord II, and is made by Diversity. This is the version that has the iodine bound up in phosphoric acid; the other versions have it bound up in detergents.

Diversity

states that their product if applied at 110 F can be used to clean. I tried

this once and the smell was not pleasant. The point where it would be dangerous is much higher, but I bet it happens below 212 F.

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Date: Wed, 2 Jun 93 11:47:58 PDT  
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>  
Subject: My Swollen Head, and Book Reviews

My goodness! HOMEBREW Digest #1153 seems to have been the Martin Lodahl Commemorative Issue! Prof. George Fix called to mind a truly delightful afternoon:

> I brought some fresh bottles of the Grand Cru to the Beer Fest at  
> Temecula, Ca. for Martin Lodahl to taste. He gave it high marks  
> for both authenticity and overall quality. Comments, Martin?

Sure! I can't imagine a better antidote for an 11-hour drive than to sit sipping beer and talking brewing with G. Fix and D. Richman! And I can't remember when I've had a beer that delighted me as much as that Celis Grand Cru. It's solidly in the Belgian Strong Ale tradition, delightfully smooth and complex, different flavors arriving in succession. Before that, the White was the only Celis product I'd tried, and was delighted with it both bottled and on draft. One of these days I'd very much like to get to that brewery, and try the rest of the line!

By the way, I would have been perfectly happy with just that afternoon, but as an Extra Added Bonus there was the Southern California Beer Fest put on by the Barley Bandits and the Maltose Falcons, in Temecula. It was truly superb.

In the same issue, Jeff Frane was speaking of last year's AHA Conference, and said:

> ... the "lectures" are the least interesting part -- hanging  
> out, eating and drinking with other homebrewers, \_that's\_ the real  
> fun...and the most educational. I say this as one of last year's  
> speakers!

And one of the better ones, at that! I very much enjoyed Jeff's presentation on wort chillers. I also agree with his priorities -- the people were certainly the best part.

> ... There were a couple of really interesting  
> presentations, but the high points for me were meeting George &  
> Laurie Fix, having dinner next to Charlie Olchowski, finally  
> meeting Martin Lodahl in person ...

That guy, again!

> ... and doing a walking tour of Milwaukee with Russ, and...  
> oh, yeah, that beer. And judging in the 2nd round.

Where Jeff got to meet Eric Warner's to-die-for Weizen.

> And Fred Eckhardt's cheese and beer tasting. And...  
>  
> Speeches? We don't need no stinkin' speeches.

Fortunately, in HOMEBREW Digest #1154 Nick Zentena restored my perspective (I may some day be able to find a hat that fits, again) by asking:

> Finally is Brewing Techniques going to be review

> books other than those available from the AHA?

As the author of the book review in question, I have to tell you that BT didn't ask me to write it. They asked me to write something, leaving it pretty much up to me what I wrote. I like that particular book (Jean-Xavier Guinard's "Lambic"), I've read it a number of times, and so I thought I could review it without doing it (or BT) too much violence. As far as I know, there's neither a connection nor is there antagonism between BT and any part of AoB, including the AHA and Brewers' Publications. So the answer is yes, there's no preference at all being extended towards any one publisher, in BT's reviews.

= Martin A. Lodahl Pacific\*Bell Systems Analyst =  
= malodah@Pacbell.COMSacramento, CA 916.972.4821 =  
= If it's good for ancient Druids, runnin' nekkid through the wuids, =  
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

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Date: Wed, 2 Jun 1993 14:04:09 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: oktoberfest recipe ideas

Most German Oktoberfest beers have a starting gravity of 1.052 - 1.055, which puts them more in line with the AHA "Vienna" style. These beers are amber-colored (aim for 10L - 12L), malt-accented lagers. From the point of view of recipe formulation, you have the choice of using crystal malts, munich malt, or some combination.

In their book, George and Laurie Fix present recipes using crystal malt. Depending on your setup and extract efficiency, for a 5-gallon brew you might use a grain bill such as the following:

8 - 9 pounds pilsner malt  
6 oz crystal malt 10L  
6 oz crystal malt 60L  
6 oz crystal malt 120L

The above grain bill specifies pilsner malt, and you should use the finest German or Belgian pilsner malt. Lacking that, use a good U.S. 2-row pale malt. The crystal malt blend gives the beer the requisite color, body, and sweetness.

In subsequent articles and postings to HBD, George Fix has reported using mixes of DeWolf-Cosyns Cara-Vienne (20L) and Cara-Munich (80L) malts. In the first issue of Brewing Techniques, it appears that George Fix has settled on a mix of Cara-Vienne and Special B. Using the BRF program, the following grain bill should produce a color in the desired range:

9 pounds pilsner malt  
1 pound Cara-Vienne (20L)  
1.5 ounces Special B

As an alternative to the above grain bills, one could explore the use of Munich malt, which should give color and malt flavor. As an example, consider the following grain bill:

5 pounds pilsner malt  
4 pounds Munich malt  
1 pound U.S. cara-pils  
1/4 pound crystal malt 40L

Note the high fraction of Munich malt in the grain bill. As U.S. Munich malt can be of variable quality, brewers have raised the concern that the resulting beer will suffer from grain harshness. However, with the availability of DeWolf-Cosyns Munich malt, as well as German Munich malts, surely such a recipe should be tried.

For hops, use fine European Noble hops, and hop to 22 - 25 IBUs (or roughly 6 AAUs). As an example, the hop schedule might be:

0.85 ounces Tettnang (alpha=4.5) at 45 minutes until end of boil  
1/2 ounce Styrian Goldings (alpha=4.9) at 30 minutes until end of  
boil  
1/2 ounce Saaz (alpha=3) at 15 minutes until end of boil

This style is not a bitter style, so total hopping is kept down. Nor are pronounced hop flavor or aroma desired, so the last hopping is 15 minutes before end of boil.

Use a good lager yeast and proper fermentation temperatures.  
Wyeast "Bavarian" lager works very well. Ferment at 50 degrees F  
or so. Rack the beer to secondary, and lager for 4 to 8 weeks.

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Date: Wed, 2 Jun 93 15:05:20 EDT  
From: Hal Laurent <laurent@tamdno.ENABLE.com>  
Subject: How can I protect my stove?

Uncle Schweem:

Hey, next time you call tell me what your phone number is!!!!

-Hal

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Date: Wed, 2 Jun 93 15:12:12 EDT  
From: Hal Laurent <laurent@tamdno.ENABLE.dec.com>  
Subject: How can I protect my stove?

Whoops, sorry about the previous post! I mailed the wrong file!  
(insert sheepish grin here)

I've recently gone all-grain, and I must say I've found the improvement in my beer to be considerable (although I \*hate\* how long it takes to brew a batch). If it wasn't for the HBD, I'm sure I wouldn't have gotten the nerve to try it yet. My thanks to all of you.

However, I still have a bit of a problem. I've been using a 33-quart enameled canning pot over two burners of my (gas) stove. The problem is that the stove top is getting really disfigured from the heat, especially between the two burners. Some sort of brown deposit forms on the white enameled stove surface that is darn near impossible to remove.

Two questions:

1. Is there some method of removing these stains from the stove?
2. Would it help if I lined the stove top with aluminum foil or some other material when doing the boil?

Hal Laurent  
Baltimore, Maryland

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Date: Wed, 2 Jun 1993 17:01:26 -0400  
From: lorelle@meglos.mdcorp.ksc.nasa.gov (Tom Lorelle)  
Subject: Yeast history

This was given to me and I wonder if anyone can authenticate it.

---

Solutions of The Secret of Alcoholic Fermentation

"Beer yeast, when dispersed in water, breaks down into an infinite number of small spheres. If these spheres are transferred to an aqueous solution of sugar they develop into small animals. They are endowed with a sort of suction trunk with which they gulp up the sugar from the solution. Digestion is immediately and clearly recognizable because of the discharge of excrements. These animals evacuate ethyl alcohol from their bowels and carbon dioxide from their urinary organs. Thus one can observe how a specifically lighter fluid is exuded from the anus and rises vertically whereas a stream of carbon dioxide is ejected at very short intervals from their enormously large genitals."

By Friedrich Woehler and Justus von Liebig.  
Published in the Annals of Chemistry, Volume 29, 1839

Thanks,

Tom

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Date: Wed, 2 Jun 93 15:39:33 PDT  
From: TAN1%SysEng%DCCP@cts27.cs.pge.com  
Subject: California Festival of Beers & Style Question

For those of you unlucky folks who don't live in the central coast of California, you missed an excellent event over the holiday weekend - The California Festival of Beers, held in San Luis Obispo. This event has been annual for at least 5 years and features the majority of California micro-brewers displaying their craft. There were 65 brewies present this year with a relaxed atmosphere and almost no lines anywhere. The exception to this was the line to get into the event, which seemed endless but really moved along pretty well. There were too many beers to critique, but who wants to be critical at an event like this anyway? The afternoon spent in pursuit of great beer and amazing scenery is an annual event that overshadows even my wedding anniversary, which my wife has reluctantly given up the last 5 years running. To anyone within driving distance, go to it. I have a friend who comes in from Phoenix every year for this event. Good time, highly recommended, always held on Memorial Day weekend.

In HBD 1154 Stuart Galt gives a recipe of the following:

```
>Basic recipe:  
>19 lb Klages  
>3 lb Munich  
>1.5 lb Crystal  
>1 lb Wheat  
  
>2oz Tettenanger, 2oz Centennial (for 60 minutes)  
>2oz Cascade (5 minutes)
```

and asks what style it is. Based on the recipe my program, the Brewer's Workshop, predicts the OG to be 1.056, color to be 8 degree lovibond, and bitterness to be about 55 IBU's. This is based on an 11 gallon boil, an extraction efficiency of 70%, and 20 lovibond crystal. By these parameters alone the style would fit an India Pale Ale almost like a glove.

But one must use caution when designing recipes to meet a style. IPA is classically fermented in oak, so the use of oak chips would round out the style. IPA should use british Hops, not German or American. The use of Tettenanger, a finishing hop, in the full boil is also unusual and wasteful in that the excellent aromatics will be boiled off. The bottom line is that there are many beers worth brewing, even if they don't fit a style exactly. Darryl Richman has an excellent article in the new magazine, Brewing Techniques, which deals with the topic of recipe design. Highly recommended to anyone with a casual or better interest in the hobby.

Disclaimer - I wrote and sell the Brewer's Workshop, so my opinions are necessarily biased.

Tom Nelson - TKO Software - (805) 481-4900 - CI\$: 72310,2710

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Date: Wed, 02 Jun 1993 18:55:09 -0400 (EDT)  
From: "EDWARD M. CROFT" <CROFTE@delphi.com>  
Subject: What's the story with SA?

What's the story with Sam Adams. It seems it's always getting trashed here.

A lot of people in my area (Southern MA) are buying Sam Adams. (Course there's not a whole lot of selection in my area.) Is Sam Adams Ale and Lager really that bad, or is it that people just don't like Koch(?). I'm new, so forgive me for not being up on the controversy.

\*\*\*\*

Finally tasted my first homebrew after only a week of aging in the bottle. Not Bad... I made an Irish Stout. I'm letting the rest age, but tasting one bottle a week to get an idea of the progression as it ages. I may not go back to the packy again. My next effort will either be a wheat or a porter.

\*\*\*

TIA for your responses to my Sam Adams question.  
Big Ed

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Date: Wed, 02 Jun 1993 21:13:44 -0400 (EDT)

From: SMUCKER@UTKVX.UTCC.UTK.EDU

Subject: Using a freezer

I think that this is a good question and if I knew how easy it was to use a

freezer and how cheap used chest freezer where I would have started with a

freezer rather than a fridge. I am sure this information has been in HBD before but I don't think it hurts to add another data point.

Using a freezer works very well. I have both a fridge and a freezer for my beer and the freezer works the best and has the most useable space. This is of course a chest type freezer and not an upright. The Thermostat I use is a Johnson Controls, A19AAT-1C, PORTABLE THERMOSTAT, RANGE 20/80 DEG F, SPST, OPEN LOW, STYLE 1.

I purchased it from the Brewhaus, 4955 Ball Camp Pike, Knoxville, TN 37921.

phone 1-800-638-2437. price was \$ 64.45. It works very well!

Hunter room air conditioner thermostats are also reported to work but are limited to a lower temperature of about 40 der F. You want to go lower for long term storage or lagering. Cost about \$ 40.00

Dave Smucker, Brewing beer, not making jelly!!

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Date: Wed, 02 Jun 1993 21:25:24 -0400 (EDT)  
From: RADAMSON@delphi.com  
Subject: Stoudt's Fest

Hope to meet any of the fellow HBD'ers at Stoudt's 2nd Annual Event. I don't quite know where I'll be - I've donated my efforts to the cause as I did last year to where-ever Ed & Carol put me. I lived in Philly last year so it was an easy task. This year I'm trekking from Long Island with family in tow. I'll be at every session, so look me up. Just say "Home Brew Digest", I should be able to recognize that!  
>Jim Busch - I hope to meet you - you'll be at Baltimore Brewing, is that right?  
Side note: I had been away from HBD awhile, and while catching up on my reading, I found that what I had done to my Honey Wheat Ale (without knowing) was to get it closer to a "White". It had started out to be a quick, simple wheat beer:  
6.6 lb Northwestern Wheat Extract & 3 lbs honey, Cascades up front with Hallertau to finish. Simple, just rack and can (I'm that 5 Liter Keg guy). But for some reason I hesitated when racking. It needed something... Somehow came up with Coriander and Orange Peel - I must have read it long ago and just filed. Anyway, I can't wait for it (but I will). Question: Does it Clear? or does it stay rather cloudy? Hope I have some to take to Stoudt's.. enough is enough.  
Later.

Richard Adamson Brewer, Patriot (NOT Patriots), Steeler Fan.  
/ex  
/exit  
/EXIT  
/HELP  
(how embarassing, I can't get out. ;-)

-----  
End of HOMEBREW Digest #1155, 06/03/93  
\*\*\*\*\*  
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Date: Thu, 3 Jun 93 11:46:29 +0200  
From: dejonge@tekserv.geof.ruu.nl (Marc de Jonge)  
Subject: Oktoberfest recipe and dirty stove tops

After reading Tony Babinec's post in HBD 1155, I decided to throw in another recipe for munich oktoberfest. This one is so simple it's hardly a recipe but the taste comes out great: Strong malty flavour, might do with a bit more hops, the taste is definitely 'in style' (so the style might do with a bit more hops :)

[recipe for 20 litres]

5.5 kg Munich malt  
40 g Hallertau hops (whole, 5.1% alpha)

yes, that's it

I make this with a 2-stage decoction mash, fairly high temperature (for German beer)

Add strike water to get a temperature of 53C (pH of the mash around 5.4) while 60% is at this temp. do a quick infusion step of 67C with 40% of the mash (20 mins), boil (20 min) and back, (temperature should be around 67C) rest 45 mins, boil 1/3 of the mash for 10 minutes, back and rest 20 minutes (around 72C), sparge

add 30 g of hops at the beginning of the boil, the remainder some 20 minutes before the end

Pitch bottom fermenting yeast, primary at 14C, secondary at 9C, lager at 6C for a month.

OG 1053-1057  
FG 1012-1014

The malts I've used for this recipe are Belgian munich and Munich munich, they come out a bit different (the German version was somewhat darker), but very nice.

On another issue:

Hal Laurent asks about stains on the stove top:

>Two questions:

>

> 1. Is there some method of removing these stains from the stove?

>

a warm cleaning soda (Na<sub>2</sub>CO<sub>3</sub>, not caustic soda!) solution may help, but I'm not sure what that does with your stove top

> 2. Would it help if I lined the stove top with aluminum foil or

> some other material when doing the boil?

Being a sloppy cook, I find it useful to flood the stove with water before I start cooking anything messy, that reduces the cleaning of the stove to mopping up afterwards.

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Marc de Jonge dejonge@geof.ruu.nl  
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Date: Thu, 3 Jun 93 08:45:36 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: iodine

Hi All,

In HBD#1155, Spencer W. Thomas writes:

>I'm sure this has been covered before, but here I go again....

>The last batch I made, I did the iodine test two ways: 1. I drained a  
>little out of the spigot at the bottom of my mash/lauter tun (Gott  
>cooler with copper-pipe manifold). This tested completely starch free  
>after 20 minutes (the first time I tested it). 2. I pushed the spoon  
>into the top of the mash and let some fluid run into it. This never  
>tested clear, even after 1.5 hours.

>So which one should I believe?

I'd say believe the first sample. What I think happened is that the sample drawn from the spigot was free of grain husks and pieces of grain by virtue of being drawn through your sparge manifold, while the second sample taken from the top of the mash contained grain material.

IMHO, the iodine test *is* a reliable means of determining starch conversion, but it is absolutely critical that the sample be free of any grain husks (which contain cellulose) and grain chunks (insoluble starch, which will never convert). What is being tested here is the degree of conversion of *soluble* starch to sugars, so it's important to test a sample that is liquid only, free of any particulate matter.

Cheers,  
Jim

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Date: Thu, 3 Jun 93 09:31:43 EDT  
From: Ralph Palmer <rpalmer@Think.COM>  
Subject: microware sanitation, superheated water

- - - - -  
X-Sun-Data-Type: text  
X-Sun-Data-Description: text  
X-Sun-Data-Name: text  
X-Sun-Content-Lines: 0

- - - - -  
X-Sun-Data-Type: default  
X-Sun-Data-Description: default  
X-Sun-Data-Name: Articles  
X-Sun-Content-Lines: 37

Does the radiation from a standard home microware offer any sanitation or sterilization benefits? I remember reading about a new autoclave design that also used microwave in the process and began to wonder about home microwave ovens.

I just cultured my first batch of wyeast into 4 starters, and was very paranoid about sanitation. Afer soaking the bottles in a bleach solution I decided to boil them. I do not have a pot big enough, so I filled each bottle 1/3 full and stuck them into the microwave to boil the water inside the bottle. As I sat there waiting for the boil, I wondered if the microwaves themselves would kill any of the nasties.

Boiling the water inside the bottles worked well, but I also got to relearn the hazards of superheating water. The bubbles in boiling water need a site to nucleate or the water does not boil at 212F. Typically scratches in pans or glass provide a nice nucleation point. However if there are no scratches, ie a nice smooth bottle or flask, the water will heat above 212F. That is why boiling chips, little pieces of porus ceramic, are put in flasks in chem class. One of my 4 bottles did not boil when the others did. I first thought it was because it was positioned in the corner. When I opened the microware and touched the bottle, the hot water spurted out the top! Thank goodness I was wearing an oven mit. I will continue to use the microware to boil water in the bottle, but plan to put in a scratched glass marble in to act as a boiling chip.

Ralph Palmer

- - - - -  
-----  
Ralph Palmer |The opinions above are mine alone and do not  
Thinking Machines Corporation |necessarily represent the views of my  
employer  
245 First Street |-----  
Cambridge, MA 02142 | "Even paranoid people have real enemies"  
email: rpalmer@think.com |  
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Date: Thu, 3 Jun 1993 08:37:12 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: SS/dry yeast

Al writes,  
"I re-checked my 1991-1992 Cole-Parmer Chemical Reactivity charts and there was no mention of Chlorox (bleach)."

Better check again Al. Page 1185, item 23 from the top, 1991-92 Cole Parmer catalog is none other than "Clorox (bleach)." It's in the 93-94 catalog as well, page 1465.

Al goes on,  
"Furthermore, I'd like to point out that don's wife is the owner of St. Pat's of Texas (brewing supply) and they do not stock Iodophor rather they stock a chlorine sanitizer."

Wrong again. St. Pat's has never at any time stocked a chlorine sanitizer  
. St. Pat's has stocked both the 4 oz and liter size of iodophor for about a year. We've been using iodophor for as long but I see no reason to run down bleach which, as John Isenhour points out, is inexpensive, readily available and just fine if used properly. It should be noted that my standard dose (1 tsp/gallon) was 1/6 th that suggested by George Fix (1 oz/gallon), i.e., nearly a full order of magnitude below the safe level. If I understand George correctly, he believes repeated use with a bleach solution known to be safe, will eventually cause harm. Poor logic. If we drink a beer a day for 40 years, we won't die from alcohol poisoning.

I recommend Arne's ? wonderful post of a couple days ago about the reactivity of chlorite with aluminum. Its a wonderful example of how useless superficial knowledge such as numbers from tables can sometimes be.

More from Al,  
"Finally, don has, in a newsletter, questioned the quality of the DeWolf-Cosyns Belgian Malts (another item not stocked by St. Pat's of Texas)"

Not true on both counts. St. Pat's newsletters have had only good things to say about belgian malts. Not only does St. Pat's sell Belgian malt, St. Pat's was one of the first shops to do so. In fact, St. Pat's was the first shop to advertise the availability of Belgian malts in Zymurgy (summer '92 Great Fermentations also has an ad in the same issue). My wife Lynne learned of these malts from Pierre Celis during a personal tour of his brewery while it was still under construction. Lynne can testify to Pierre's wonderful nature. He spent an hour or so toting our youngest boy Patrick, 1 at the time, around the brewery.

Al adds,  
"St. Pat's of Texas turns out to be the sole distributor of Briess malt in the

area."

St. Pat's, like Pierre Celis, appreciates the quality of both Briess and DeWolf Cosyns malt.

Al goes on,  
"I've yet to find the reasoning for don's tirade on yeast a few weeks ago,  
but I'm sure that his ulterior motives will surface eventually."

The only two people who have resorted to sophomoric remarks regarding my posts about yeast are Al and George. I believe Al sells dry yeast for a profit and George of course is employed by the distributor of Whitbread. On the other hand St. Pat's gives dry yeast away free because Lynne cannot in good conscience sell it for a profit. I would be more than delighted if George and Al's dream of pure dry yeast were to come true; then Lynne could start selling the dry yeast for a profit.

I found it ironic that in the end George was blaming Lallemand, Al's favorite dry yeast producer, for the problems with Whitbread, the product that George represents. For the record, all Whitbread, the good, the bad and the ugly has been produced under contract by Distillers in England. That particular portion of the Whitbread history seems to have been invented for the purpose of not only deflecting responsibility for the really atrocious batch of a couple of years ago, but also to pass blame on to the competitor, Lallemand.

Best regards,  
Don

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Date: Thu, 3 Jun 93 07:38:07 -0600  
From: LPD1002%NYSHESCV.bitnet@UACSC2.ALBANY.EDU  
Subject: Converting a freezer to a fridge

Thanks to all who responded to my query.

I have found the Hunter Airstat as recommended at Builders Square For \$28. It only has a low end of 40 Degrees. That was somewhat bothersome since one of the reasons I wanted a fridge was to try lagering. The other suggestion, a Johnson Controls Portable Thermostat is sold at my local Homebrew store for \$64.95. This price was somewhat bothersome, but I think it's the one for me. It has a wider range (down to 20 degrees) and the owner of the homebrew store says he recommends it over the Hunter because he knows of some people who used Hunters and had their compressors burn out. It seems the Hunter is a little TOO precise and kicks the compressor on when there is any fluctuation in temperature. The freezer I lucked into seems pretty old, so I guess my decision is made.

STEVE SEPTER

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Date: Thu, 3 Jun 1993 08:52:07 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: SS and phosphoric acid

George Fix uses a sanitizer containing phosphoric acid for his 304 stainless kegs. Phosphoric acid reacts quite severely with 304 stainless. should we then conclude that the use of this sanitizer will damage his kegs with repeated use? of course not. For the same reason that dilute bleach will not either.

the key here is to use the product whether its phosphoric acid or bleach properly.

-----

Date: 3 Jun 1993 07:08:23 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.edu>  
Subject: California Crazy Train

Subject: California Crazy Train Time:7:04 AMDate:6/3/93  
Due to a gross lack of response (0 reservations) the Crazy Train between  
LA &  
Portland has been cancelled. Frequent reasons offered included the  
extended  
travel time required and the attraction of lower RT airfares available.  
Maybe  
we'll try again next year to Denver.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Thu, 3 Jun 93 09:06 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: pH Testing

>From: jdg@cyberspace.org (Josh Grosse)

>In today's issue, Mr. S. questioned his purchase of a pH meter, and said he felt he purchased equipment he found to be useless.

>I have one, and I find it extremely useful for three purposes:

You will note that \*I\* found it to be useless, i.e. with MY process, using MY water. I only suggested that before spending the money, one should try one to see if it is needed in his/her case.

If no adjustments are necessary and the water supply is constant, then one need not make the measurements on a continuing basis.

>1) Adjusting the pH of the mash. (pH 5.0-5.5)

I presume you mean that you adjust the water to something so that after adding the malt, the pH is 5.0 to 5.5. I wonder what that something is.

My water is 8.1 and drops into that range. I would be interested in knowing what your numbers are without adjusting.

>2) Adjusting the pH of sparge water. (ph 5.6-5.8)

Again, my sparge water is 8.1 and after sparging 10 gallons, it only raises the total pH of the wort a tenth of a point.

>3) Ensuring I don't oversparge. (ph > 5.5)

It is just as useful to use a hydrometer. If you stop sparging when the gravity falls below 1.008, you will not likely have any problems. It will take tons of a water a few points higher to have any effect on the total wort.

But again, I am only suggesting that one try it before buying. He may find that it only tells him what he already suspected from the quality of the beer produced.

-----  
>From: korz@iepubj.att.com  
>Subject: Wyeast British and London/Rusty hop leaves

>JACK writes:

It may seem folksy to use first names but it's a bit confusing. I (one of several Jacks) am not responsible for the above.

js

ZZ

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Date: Thu, 03 Jun 93 10:28:42 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: looking for time saving tips

In HBD #1155 Hal Laurent appreciated the quality of his brews after switching to all grain but complains about the amount of time it takes.

When I read his post I thought he was talking about me! :-). I've got 3 all grain batches under my belt now and they were great (IMHO). Even my wife drinks my beers now - she was indifferent to my extract brews. My best time for brewing an all grain batch is about 5 hours and I'd like to cut that down as much as possible. Some one in a recent Zymurgy issue said that an all grain batch took him 3 hours, including clean up.

My biggest problem right now is that I don't have water ready at the right temperature at the right time and I know that this will be cured by experience. I would like to hear about time saving tips from other brewers.

regards,

- --Tony Verhulst

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Date: 03 Jun 1993 10:06:10 -0600 (CST)  
From: BLAST@sn01.sncc.lsu.edu  
Subject: Hunter AirStat modification

I remember reading about a mod to the Hunter AirStat to make it work for a lower (< 40F) temperature range.

Could someone with the specifics please repost or e-mail it to me?

I'm getting ready to do a lager and with outside temps above 90F already, the little yeasties are going to need lots of TLC (Thermal Lagering Control).

Thanks,  
Bruce Ray

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Date:3 Jun 93 11:01:04

From: "Rafael Busto" <SUPERVISOR@bnk1.bnkst.edu>

Subject: A beer joke

- Why american (commercial) beer is like making love in a canoe?
- Because is f\_\_ing close to water

Rafael Busto

Computer Center Bank Street College of Education, New York City

RBusto@bnk1.bnkst.edu

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Date: Thu, 3 Jun 93 08:01:13 PDT  
From: TAN1%SysEng%DCPP@cts27.cs.pge.com  
Subject: Re: What's the story with SA

In HBD 1155 Big Ed asks

>What's the story with Sam Adams. It seems it's always getting trashed here.  
>A lot of people in my area (Southern MA) are buying Sam Adams. (Course there's  
>not a whole lot of selection in my area.) Is Sam Adams Ale and Lager really  
>that bad, or is it that people just don't like Koch(?). I'm new, so forgive me  
>for not being up on the controversy.  
>\*\*\*\*

The controversy is not the beer produced by SA, it is generally regarded as excellent (with the exception of the "Lambic"). The problem is Ed Koch and his less than above board advertising techniques and litigations. SA has made claims that were not true (winner of the GABF 4 years running), filed lawsuits against micro-brewerys for the use of the name "Boston" in their beer, and generally handled himself in a manner that makes you glad he is not your neighbor.

I've been watching the digest for almost a year now and have found it amusing as to the various controversies that unfold. It's like watching the black sheep of the family, wondering what he's going to do next to screw up.

I personally do not participate in the boycott of SA products. I like his beers, and use them as examples good American beers. I do go on, then, to explain about Koch. I may not like Koch, but its hard to deny that the lager is excellent.

Tom Nelson

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Date: Thu, 3 Jun 93 10:31 CDT  
From: korz@iepubj.att.com  
Subject: HELP FROM NJ!!!

HELP!!!

URGENT!!!

If you live or work in New Jersey and would be willing to do me favor (picking up some boxes from a warehouse and UPSing them to me) please send me email directly. Yes, this is beer-related and I'm sure we could figure out some kind of beer-related compensation for this favor.

Thanks. Sorry about the bandwidth.

Al.

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Date: Thu, 3 Jun 93 08:55:57 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: Lautering

I realize that the variety of methods of sparging are as numerous as people brewing, but I am looking for some general guidelines.

What are the main parameters in sparging? That is, what are the important things that you want to work towards however you are sparging? How important is, for example, the thickness of the grain bed? the temperature of the water? the level of water above the grain bed? the amount of recirculation? water hardness/softness? pH?  
what have I missed? which are irrelevant? which depend on the style of beer the brewer is aiming for? what do people that sparge for two or three hours doing all that time, recirculating or waiting for the grain to "soak" or what?

With that information, what is important for equipment? geometry of the lauter tun?

Several points of view would be great. I think this aspect (along with a poor grain crush from the store) is my main problem with poor efficiency now (and maybe others too). Thanks

- Bryan

I guess I'm asking for a lot of information, so pointers to a good reference would be fine, if one exists.

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Date: Thu, 03 Jun 93 12:01:52 -0400  
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>  
Subject: RE: How can I protect my stove?

In HBD 1155 Hal Laurent asks about how to avoid brown stains on his stove.

Hal, I have the exact same set up you described: A 33 qt enameled steel brewpot over two burners of a white enameled gas stove. I get the same brown stains you do. One obvious source of the brown gunk is wort boil-overs or small drips and spills. I've also found that ANY residue on the stove at the start of the brew session will turn into that impossible stain even if it doesn't look dirty to begin with. While starting out with a very clean stove, and cleaning all spill as they happen will help, I have never had a brew session that didn't leave some stain. The solution is to use oven cleaner after you're all done. Let it soak awhile and you should find that the stain wipes right off.

Bob Santore  
rsantore@mailbox.syr.edu

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Date: Thu, 3 Jun 93 11:08 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Sparging, Oktoberfest, pH Testing

>From: Jamie Ide 02-Jun-1993 1046 <ide@studio.enet.dec.com>

> That is, immerse the chiller in a pot of hot (boiling?) water and run tap water through it to heat sparge water. By playing with the flow rate and the water temp., I ought to be able to get it up to temp. easily.

> Has anyone tried this? Any opinions?

Ah, yes. Great minds do travel the same paths. You just missed my latest new product announcement. The EASYSPARGER (tm) or easysparger (if you make it yourself) does exactly that with a lot less fuss.

It is a small (6 qt) kettle with two barb fittings on it. One goes to a hose and faucet adapter and the other, an inch lower, goes to a piece of stiff tubing that dribbles water into the lauter tun. The kettle sits on the stove and will provide all the sparge water you will ever need with no pre-planning or calculating.

On second thought, there is one significant disadvantage of your approach and that is there is no chlorine evaporation in the wort chiller, whereas in the open kettle, most of it is evaporated before getting to the outflow.

> I could easily hook up a "showerhead" to the hose output and get a nicely distributed flow over the mash.

For the record, a shower head is one of those things that commercial brewers use that have no application in small batches but are so cute that some suppliers just can't resist selling them.

If (as it should be) the water level is maintained above the grain level in the lauter tun, it make no difference where or how the water enters as long as it is not a tunneling downpour.

>From: tony@spss.com (Tony Babinec 312 329-3570)

>Most German Oktoberfest beers have a starting gravity of 1.052 - 1.055, which puts them more in line with the AHA "Vienna" style.

> Ferment at 50 degrees F or so. Rack the beer to secondary, and lager for 4 to 8 weeks.

I got the idea from the Fix's book that the most fundamental difference between the two styles derived from the fact that the Oktoberfest was, by

definition, aged for many months, i.e. March to October.

If you look at the gravity ranges for the two styles, they just about overlap to the extent that the bottom end of one is the top end of the other.

I would think that aging a "Marzen/Octoberfest" for two months would be cheating on the old family recepie.

.....

To clarify a point on an earlier posting, my tap water is around 8.1 and upon doughing in, the pH of the mash drops to around 5.5. The point being that if one buffers their water to this range before doughing in, they may be just kidding themselves.

js

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Date: Thu, 03 Jun 93 08:57:20 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: iodine

> I'm sure this has been covered before, but here I go again....

Well, sort of....

> The last batch I made, I did the iodine test two ways: 1. I drained a  
> little out of the spigot at the bottom of my mash/lauter tun (Gott  
> cooler with copper-pipe manifold). This tested completely starch free  
> after 20 minutes (the first time I tested it). 2. I pushed the spoon  
> into the top of the mash and let some fluid run into it. This never  
> tested clear, even after 1.5 hours.

I have been using an identical setup, and have have identical results. My top test did eventually test complete, after 3-4 hours. For a while, I even did overnite mashes to get complete conversion. I ended up with a lot of underbodied, overalcoholic brews. What I have done since then is raised my normal mash temp to the upper end of the range, and stir occasionally. I now get complete conversion top and bottom in less than an hour. The stirring does speed loss of temperature though.

- - - -

My SS keg went to the fabricators today! I am having false bottom supports and a nipple welded into it. I already have the pump, and plan on doing a pseudo-RIMS using my existing King Kooker, the keg and the pump, and graduating to 10 gallon batches as well :-)! Thanks to Rick Larson for all the info!

Home of Drew's Brew, Beer Worth It's Malt!

Drew Lynch  
Chronologic Simulation, Los Altos, Ca  
(415)964-3312 x18  
drew@chronologic.com

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Date: Thu, 3 Jun 93 10:47:56 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Beyond momilies

If a momily is an opinion presented as fact, what should we call the following?

Al Korz in HBD #1154 re St. Pat's of Texas.

[snip]

>Furthermore, I'd like to point out that don's wife is the owner of St. Pat's

>of Texas (brewing supply) and they do not stock Iodophor rather they stock

>a chlorine sanitizer.

Wrong. I just last week purchase iodophor from St. Pat's of Texas.

[snip]

>Finally, don has, in a newsletter, questioned the quality of the DeWolf-Cosyns

>Belgian Malts (another item not stocked by St. Pat's of Texas) while on the other hand, St. Pat's of Texas turns out to be the sole distributor of Breiss malt in the area.

Wrong again. I regularly buy Briess malts from another seller in the Austin area.

[snip]

>Please note that this is not a flame. I'm simply posting data that I've collected and am not personally attacking anyone. ^^^^^^^^^^^^^^^^^^^  
^^^^^^^^^^

Perhaps you meant to say ". . . lies that I've made up . . ."

I have no particular stake in St. Pat's, it just one of the three local homebrew suppliers I use. I am however amazed at the amount of mis-information spread by some contributors to HBD. Momilies are bad enough, let's at least cut out the completely false statements, Al.

WAK

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Date: Thu, 3 Jun 1993 12:11:34 CDT  
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>  
Subject: Noble Hops Wasteful? \*NOT\*

In the last HBD, Tom Nelson said:  
>The use of Tettenanger, a finishing hop, in  
>the full boil is also unusual and wasteful in that the excellent  
>aromatics will be boiled off.

I beg to differ! The use of "noble", low-yeild hops in the full boil improves your beer. The only "waste" is money, but hops are a relatively small part of our financial investment in homebrewing, so I only use the best.

As has been discussed here at some length before, hops contribute much more than sheer bitterness, even when used early in the boil. The "other flavors" - not all of which are driven off by an hour of boiling - are a vital part of the incredible complex of flavors in a truly great beer. I say, calculate your bittering units, and then throw bales and bales of Tettenanger, Saaz, or whatever, in, if that's what it takes. The extra buck or two will be well spent. Leave those high-alpha hops for the commercial guys who watch the bottom line.

-----

Date: Thu, 3 Jun 93 12:08:08 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: OFest Recipe Formulation

Regarding the use of German vs Belgian Pilsner malt for Fest recipes. In George Fix's review of Belgian grains he mentions that the Belgian Pilsner pilsner malt is much lower in SMM, the DMS precursor that is a good indicator of the level of malty/sulphury flavor in the brew, than the German malts. I find this component an important part of the flavor and aroma profile of a fest beer like Spaten Ur Marzen and would consider using German malts as the base malts in addition to the highly praised Belgian specialty malts. I would also do a decoction mash.

My read of George's review suggests that for Chec style Pilsners, Fest and other lagers with a rich malty profile quality German pils malts are a better choice than Belgian. Are there other factors which out weigh the low SMM that make the Belgian a better choice? Did I miss something?

-----

Date: Thu, 3 Jun 93 14:16:28 -0400  
From: djt2@po.CWRU.Edu (Dennis J. Templeton)  
Subject: Iodine testing

>From yesterday's digest:  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: iodine

I'm sure this has been covered before, but here I go again....

The last batch I made, I did the iodine test two ways: 1. I drained a little out of the spigot at the bottom of my mash/lauter tun (Gott cooler with copper-pipe manifold). This tested completely starch free after 20 minutes (the first time I tested it). 2. I pushed the spoon into the top of the mash and let some fluid run into it. This never tested clear, even after 1.5 hours.

So which one should I believe? I got a great (for me) extraction rate of 31 pts/lb/gal, with wonderfully clear sweet wort, so it would seem that conversion was indeed complete (maybe at 20 minutes).  
<end>

This point is poorly made in the books, I think, but I remember one text covering it. Iodine will react with powdered husk as well as with starch.

In my experience the starch reaction is the purple color that is usually described, and the reaction with husk particles produces a greenish brown color. In a thick solution, with excess iodine around, the two results can be confusing. If you look closely at the husk reaction, you will probably notice that the color is not in the solution, but in tiny particles, with clear fluid in between.

I have developed the habit to test only runoff that has been pre-circulated a little, as Spencer reports above, and I also dilute it a little, maybe 2:1 with water before adding the iodine.

Good luck,  
dennis

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Date: Thu, 3 Jun 93 14:37:02 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Oops...

Thanks to all who let me know that the town in IA is Adel, not Alden.

Tony Johnston

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Date: Thu, 3 Jun 93 13:17:29 PDT  
From: ng570@andechs.pnl.gov  
Subject: taste of yeast starters

I have a question concerning how a yeast starter should taste, i.e., whether contamination has occurred or not. The situation is this:

after propagating a Wyeast 1084 (Irish) package into several bottles of about 5 oz each (unhopped, O.G. 1.020, fermented completely out), I took one out last night to pitch into a 1 quart starter so that I could brew this weekend. Well for once I decided to taste it to see if there were any problems. Well it was very clean tasting and the 'beer' was very clear (i.e. not cloudy), however it seemed very acidic. Is this typical for this case or do I have a possible contamination of lactic or acetic acid bacteria? I hate to toss out all of these potential starters if I'm just being paranoid, but I don't want to ruin a perfectly good batch of beer either.

Thanks for the help,

Kirk Peterson  
- - -

Theory, Modeling, and Simulation  
Molecular Science Research Center  
Pacific Northwest Laboratory

office - (509) 375-6350  
FAX - (509) 375-6631

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Date: Thu, 3 Jun 93 16:50:22 EDT  
From: casagran@gdstech.grumman.com (Lou Casagrande)  
Subject: Garlic Beer Inquiry

Fellow Brewers,

A friend of mine is contemplating making a Garlic brew. Actually, he wants to take about 1 six-pack out of another brew and add garlic to it. Does anyone have any advice on the best stage at which to add the garlic? AdvTHANKSance.

Lou Casagrande  
casagran@gdstech.grumman.com

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Date: Thu, 3 Jun 1993 15:28:40 -0600 (CDT)  
From: max!chad@uunet.UU.NET (Chad Sheley)  
Subject: Micro in Alden, Iowa

HBD;

There has been a small amount of discussion on a micro-brewery in Alden, Iowa, and subsequently in Adel, Iowa.

Well, I did a very small amount of research and called the City Hall in Alden and was informed there was no brewery in Alden. (Dispersed amongst much laughter). Just for reference, the town of Alden is located about 30 miles north of Ames, Iowa off of highway 35 on highway 20. (Not that it matters now.)

Now for something that I DO know for sure. I live exactly 3 blocks from the Dallas County Brewing Company in Adel. The other information supplied by other HBDers is correct. The beer is marketed under the name "Old Depot" in reference to the restaurant which is housed in the former Adel railroad depot.

The 4 beers that are available \_are\_ Lager, Porter, Ale, and a Light. The other beers mentioned are only available on tap in the Old Depot Pub which is part of the restaurant. These beers are touted as "Beer of the Month" and are available on a monthly basis, or until the batch runs out.

As far as the restaurant goes, the menu is very diverse. I have only been there for the lunch which is pretty normal, but the appetizers and dinner entrees are different.

I don't know how most micro-breweries work, but in this case the brewery and the restaurant seem to be separate entities. Which is probably good. I have heard some not-so-great things about the restaurant (ie: service) and since the newness has worn off (The whole thing is only in it's 2nd year.) the parking lot has been sorta empty. At least if the restaurant assumes room temperature, I can still get that beer that I have come to love. :-)

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*****
*****
* *      *
*  Chad A. Sheley      * / / ___ *
* * / ___ / *
*  chad@uis.com *| / / / ___ *
* *| / / / / /*
*  UNIX INTEGRATION SERVICES * / / /_ / / / *
*  11033 Aurora Ave. * / / ___ / / *
*  Urbandale, IA 50322 * / ___ / *
*  (515) 254-3074 * /_ / *
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Date: Fri, 28 May 93 05:24:57 PDT  
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>  
Subject: Wort Chiller to Sparge Heater

I have a RIM system that works the same way. I have a 15g covered keg as a boiler and pump hot water to a 50gal. double wall insulated storage tank ( it is a old A&W root beer vat) then use two copper coils in parallel (25ft long ) that are summered in the vat and recirculate the mash through it as a temp. boost .I figured out how to keep my mash from sticking when running my RIM system I use a third 11gal converted keg as a "GRANT" what I do is set the flow rate out of my insulated mash tun to the GRANT so the grain does not compact then pump the mash out of the GRANT through the copper coils back to the top of the mash tun. I did two brews this last weekend both of then where wheat ales.

31gal.

11lb wheat malt  
29 lb 2row  
5 lb carapils  
5 lb crystal 40l  
4 tsp. Irish moss last 20 min.  
4 oz. Saaz (alpha=4.5) boil  
1 oz. Tettnang (alpha=4.0) 30 min.  
3 oz. Tettnang (alpha=4.0) end of boil

31 gal

28 lb British 2 row  
19 lb wheat malt  
4 lb carapils  
4 oz. centenals boil  
1.5 oz. Haller-tau 30 min.  
2.5 oz. Haller-tau end of boil

mash 76c5min

/4min  
72c15min/

/ 67c15min\_/ 7min.

/ /  
/ 17min

/ 50c30min.\_\_/

-----

Date: Thu, 3 Jun 93 16:42 CDT

From: korz@iepubj.att.com

Subject: EDME Brewcraft Barrel/Bleach & SS/St. Pat's of TX correction

Joseph writes:

>I recently purchased an EDME Brewcraft Barrel. The first batch I put in  
>was not great. The main problem was it was terribly flat. The barrel  
is  
>6 gallons with the CO2 injectors and a release valve that is supposed to  
>keep pressure up to 10 psi.

I think the problem may be that these barrels, most of which are made by  
or for English companies, are made for storing and dispensing English-  
style  
ales, which are considerably less carbonated than American-, Belgian- or  
German-style beers. You may be able to modify it to keep the beer at  
a higher pressure, but I think that it would just be better to just store  
English-style ales in it.

\*\*\*\*\*

George writes:

> 2. At room temperature (and a normal pH), 304 is resistant to chlorine  
>as long as the FAC is below 250 mg/l.  
>  
>Since our standard 1 oz. bleach per gallon gives a FAC of 100 mg/l, one  
>could conclude that chlorine bleach can be used to sanitize ss kegs.  
>Careful brewers will reject this conclusion. The factor of 2.5 is  
cutting  
>it too close.

Then John writes:

>cornelius's, and the bungs and figure 8 gaskets on 1/2 barrels. I had  
>bartending experience prior to the use of these kegs where I learned  
about  
>chlorine test strips to determine the sanitizing power of the solution.  
I use  
>in the ballpark of 50 ppm as determined by these strips and I havent had  
any

I put two and two together and thought about what my test strips read.  
Just as another data point, when I use Bleach solution (bottles,  
thermometers, glass carboys, etc.) I use one tablespoon per gallon  
of hot water (and yes, I use only cool water for Iodophor solutions).  
Testing with chlorine test strips, as I do periodically, results in  
a reading of 200ppm at the start, dropping from there (how quickly it  
drops is proportional to how much organic material is stuck to the  
item being sanitized -- bottle that still contained the yeast from a  
previous batch will turn your 200ppm solution to something way below  
50ppm).

Later, George writes:

>The version of iodophor I use is called Accord II, and  
>is made by Diversity. This is the version that has the iodine bound up  
in  
>phosphoric acid; the other versions have it bound up in detergents.

I use an "Iodophor" that is sold under the name BTF or B.E.S.T. (same  
stuff, judging from the chemical composition on the labels). It does  
not contain phosphoric acid, but also does not contain detergents.  
I know there are versions that do have detergents, and these types

are to be avoided for our purposes, but BTF and B.E.S.T. are not of this type and \*are\* suitable for homebrewing use.

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I must apologise to Lynne O'Conner about posting outdated and incorrect data about St. Pat's of Texas. Without checking, I incorrectly posted that they do not carry Iodophor or the DeWolf-Cosyns malts. I've since been told by two sources that they do, indeed carry these items. My mistake. Sorry.

The whole issue of posting information for possible commercial gains is a tricky subject. Even if we don't identify ourselves as retailers or having commercial interests in a particular item, could we be posting information that tends to bias the buying habits of the HBD readership? I think so. I have done my best to be fair whenever I post on a topic. Sure there's a much bigger profit from a package of Wyeast than a package of Lallemand or Coopers... it's easy to bash dry yeast because many people have had bad experiences with it. Most brewers will believe it. I, personally, have had some good experiences with Lallemand and Coopers and have posted favorably about them. I've had private email which has indicated that recent shipments of Red Star (can you believe it!?) have produced prize-winning beer. I will re-assert myself to continue to try to be unbiased in my posts and urge everyone to do the same.

The HBD is one of the best sources of brewing information in the world. On the Brewing Techniques magazine subscription, you will notice there's a question something like: "where do you get most of your brewing information? Personally, I have to say the Homebrew Digest. Even the questions are often as enlightening as the answers, because they make you think and because they make you put yourself in another brewer's apron re-think something you may have done 250 times and come up with an even better way to do it.

I started to brew because I could not buy English Bitter here in the states. I continued to brew because I love the art and science of brewing.

I opened a homebrew supply store because I have hopes of someday making a living related to brewing. I'm passionate about beer and brewing and have spent hundreds of hours helping brewers not because I hoped to gain their business, but because of my love for the art, the science and the result -- bottom line.

Al.

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End of HOMEBREW Digest #1156, 06/04/93

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40-50 psi; 3) "Shake the shit out of it" for 10-15 minutes (I assume this means periodically over 15 minutes time). I haven't tried this method yet as I have read that this is indeed a way to do it but is more intended for getting beer carbonated quickly; The way I have been going about it is to 1) Chill to below 40 deg F; 2) Crank the CO2 up to 25-30 psi; 3) let it sit for 3-5 days under pressure (with the CO2 valve open). Again this gets me adequate carbonation but gives me the foam problem. Maybe part of the problem might be related to the fact that when I actually go to dispense the beer after letting it carbonate I lower the CO2 regulator to 10 psi and "burp" the excess pressure out of the keg. One guy told me this sudden pressure change may be the problem but I have gotten the same results if I carbonate and dispense at a common pressure of 10 psi.

The guy at the local beer store claims that the "head pressure" has to be pretty much equal to the "pressure" trying to rise up out of solution and that even a difference of +/- 1-2 psi can cause problems. I am hardly a physics expert but I would think that these pressures would reach an equilibrium on their own (over time). I am also thinking if the pressure difference was \*that\* critical, this would be a much more common problem and would therefore be asked more frequently on the HBD. All the people I have talked to say that they have never had a problem with foaming.

Also, this problem of not being able to keep the beer carbonated at low storage pressures and the foam problem at high pressures makes me wonder how people get away with the "demand cooling" approach using cold plates, etc. How can the beer stay carbonated when stored at temperatures approaching and exceeding room temperature and not foam when dispensed? Is it possible the CO2 will re-dissolve back into solution spontaneously in the cooling coils or some such? Once I get my foam problem solved I was thinking about putting one of these things together for portable use.

Lastly, I was wondering how to control bacterial growth in beer dispensing faucets if they were used less frequently (once or twice a week)? Will the mold (or whatever) grow in just the nozzle or will it spread throughout the dispensing hose? Is there a way to prevent or retard this process without having to disconnect and flush the line after each use.

I would greatly appreciate any help that anyone could give on any of  
the  
above questions.

Thanks in advance,

Mark--

- - -

-m----- Mark Parshall  
 ---mmm----- Pyramid Technology Corporation  
 -----mmmmmm--- markus@pyramid.com or [decwrl,hplabs,sun,uunet]!  
pyramid!markus  
- -----mmmmmmmm- VOICE: 408/428-8462 FAX: 408/428-8210

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Date: Thu, 3 Jun 1993 09:52:48 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Brewing Techniques & Book Reviews

In addition to Martin Lodahl's comments on whether Brewing Techniques will review books published by other than the Association of Brewers: like, f'rinstance?

A major reality: AofB is publishing the bulk of homebrew- or even micro-brew related books right now. It would be dishonest to avoid them and would also mean cutting down severely on the book reviews.

So publish something, folks!

A week or so ago someone asked if there was an e-mail connection for BT. No. But considering some of the people involved, I wouldn't be surprised if Steve broke down and got a connection -- really soon. Those of you out there who know him: keep nagging.

- --Jeff

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Date: Thu, 03 Jun 93 21:30:04 EDT

From: biogeek@aol.com

Subject: what happens when you aerate fermenting wort?

While racking my latest concoction, a strawberry ale, into the carboy I splashed the wort around a lot. The problem was that my hoses were all cruddy

so I figured (perhaps mistakenly) that I should just pour the wort through a

filter funnel into the waiting carboy. As the wort was splashing around, something from the deep recesses of my mind remembered Papazian saying something about how doing this was a BAD thing. Does anyone know why this is

so bad? Will my precious brew survive? Thanks,

Daniel Katz, crazed student, homebrewer, armadillo

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Date: Thu, 03 Jun 1993 21:36:53 -0400 (EDT)

From: SMUCKER@UTKVX.UTCC.UTK.EDU

**Subject: Cloudy Hose and Stainless Steel**

To clear cloudy hose wrap it in a large sheet of clean paper, brown paper or a paper bag is OK. Seal with tape and place in you oven at 200 deg F. for 30 to 60 minutes. Your hose will clear and if you keep it sealed will be ready to use when you break the seal.

On the discussion of stainless steels while 304 and 316 are both used, 304 being the most common, it is very likely that the welds are made with type 308 or 308-L. Corrosion is most likely in the weld or in the heat effected zone next to the weld. Like Fix I don't like bleach in contact with the stainless I pay for and want to use for years.

Dave Smucker, Brewing Beer not making jelly!!

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Date: Fri, 04 Jun 1993 10:30:09 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: in defence of George Fix

Donald Oconnor writes:

> If I understand George correctly, he believes repeated use with a  
bleach  
>solution known to be safe, will eventually cause harm. Poor logic. If  
we  
>drink a beer a day for 40 years, we won't die from alcohol poisoning.

I think George has the logic correct: If you land your canoe on  
the beach once nothing happens. Land it on the beach a thousand times  
and  
the bottom of your boat will be scraped away. And if I may correct your  
first sentence, it should read: "...repeated use with a bleach solution  
believed to be safe may eventually cause harm." Neither is a  
certainty, but better safe than sorry.

ed

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS

ech@ac.dal.ca +-----  
+  
| I object to that comment! I know several pinheads |  
| and they are fully functional members of society! |  
+-----+  
Eschew Labudmilloorsonhead

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Date: Fri, 4 Jun 93 09:21:31 -0400  
From: cestes@argos5.DNET.NASA.GOV (Chris Estes)  
Subject: Propane Cooker

Hi All...

We're getting ready to move into our new house next month. My brewing activities have been banished to the basement! That works well, except that I don't relish the idea of carrying 5 gallons of wort down the stairs after cooking. Add that to the fact that the new house has an electric stove and things look grim.

I'd like everyone's input on what kind of propane cooker to get. I only make beer in 5 gallon batches, so I don't need a surplus Saturn V motor up-ended! What's best? What kind of gas do I use? How much should I expect to spend? Can I use it in the basement, or do I have to step out-side on the patio? Will I have to build a stand to hold my brewpot, or will it come with something sturdy enough? You get the idea; I'm totally in the dark on these things!

TIA for everyone's help (I'm indebted to all for similar advice last year on the purchase of my keggng setup. "I'll never wash another bottle!")

Please e-mail directly or post here if you think it'll be of social benefit!

Thanks,

-Chris Estes-

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Chris Estes | (301)925-4411
Manager of Production & Operations | ARGOS5::CESTES (6776)
Service ARGOS | CESTES@argos5.dnet.nasa.gov
1801 McCormick Drive, Suite 10 |
Landover, MD 20785 |
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PGP is good. Let's all use it.

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Date: Fri, 4 Jun 93 08:24:19 -0500  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Red Star Yeast

The production of Red Star ale and lager dry yeast by Universal Foods of Milwaukee was terminated a few years ago because consumer dissatisfaction with these products. At the beginning of 1993 Larry Noakowski of Universal and Crosby + Baker entered into discussions about bringing these products back with new and improved production procedures. There was general agreement that yeast samples would be tested, and any production batch that did not meet standards would be sent back to Universal. Eventually Dr. Jim Foy of Universal and I came to an agreement about what precisely these standards would be. In particular, they are exactly the ones I gave in my article "Evaluation of Pitching Yeast" which appeared in the 1992 edition of Beer and Brewing.

Dr. Foy decided to start with an ale strain AHY 43391. It is a different strain than was used previously, and my background checks indicate that it possibly may be one of the strains in the Tanner collection. These were used in small and medium sized commercial brewing in the first half of the 20th century.

Two different evaluations were made. The first was on yeast produced in Dr. Foy's lab in Milwaukee, and the second was on yeast from a full production run at Universal's plant in Baltimore. The detailed analysis can be found in reports to C+B. The following is a summary:

1. Lactics - Some rods were detected in the lab sample, but the total lactic count satisfied our criteria of <1 cell per million viable yeast cells.

The HLP analysis of the production yeast showed a nil count. Both Dr. Foy and Larry Noakowski anticipated this result. The production run was done under sterile conditions, while the lab sample was produced in a standard laboratory environment.

2. Viability - This is a strong point of fresh dry yeast. Less than 10% of the cells stained with Rhodamine B, indicating >90% viability. Dr. Foy and I are recommending the following hydration procedure:

a. Use 14 grams of dry yeast per 5 gallons of brew. \*\*\*Rigorously\*\*\* sterilize everything used in the hydration procedure.

b. Add the dry yeast to 1/4 - 1/2 cup of water at 90F. Higher temperatures are not needed with yeast like this which have a high % viability.  
Leave for 15 mins.

c. Combine the hydrated yeast with 1-2 gallons of wort that is as close to the wort to be fermented as possible. I took samples from the main wort at the end of the mash/sparge and rapid boiled and rapid cooled it. This was used for the starter wort.

d. Aerate the starter as much as possible under of course sanitary conditions.

e. Don't forget to properly oxygenate the main wort once it is chilled.

f. Pitch the starter into the main wort once the latter has been chilled to the recommended fermentation temperature (65-68F). Yeast with this type of viability will result in minimal lags. The longest I experienced in my test brews was 2 hrs.

3. Attenuation - Red Star's old ale strain was reported to be a poor attenuator. This is not the case for AHY 43391. One can expect an ADF in the 76-78% range.

4. Flavor - This strain leaves a clean, slightly dry finish with a gentle fruity tone. A German style wheat ale was brewed with it, and entered in the recent competition in Kenosa, Wisc. It took first place in the mixed ale category with scores of 41 and 42. The judges were Cheryl and Jay Schultz (certified). Copies of the score sheets were sent to C+B along with my reports.

5. General Recommendations - I feel this is an excellent yeast for beginning and intermediate brewers. It will not contribute the sophisticated flavors that many strains available in liquid form and slants do. On the other hand, if proper sanitation is used, this strain will not contribute anything ugly or unpleasant either. This is a yeast where the malt and hops used, and the way they are processed, will define the finished beer's flavors.

As I hope was clear from my first post, I am being paid by C+B standard consulting rates to do this work. I also do similar work for others. I am not, however, involved in the distribution, marketing, or sales of this or any other products for that matter. In this particular case, this is actually something I regret. I fear C+B is going to retain "Red Star" on the label. If I had a vote, which I do not, I would call this new strain "Pasteur Ale Yeast" in analogly with Universal's widely used, and indeed first rate, champagne yeast.

I have really enjoyed being on this forum, and I have posted the C+B material because I thought it might be of interest. There are, on the the other hand, some distinctly unpleasant elements on HBD that makes it anything other than fun. Perhaps it is the special nature of this type of communication which brings out these things.

George Fix

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Date: Fri, 4 Jun 93 10:34:18 EDT  
From: drose@husc.harvard.edu  
Subject: Anagrams...

Greetings:

OK, OK, I give up. What is a RIMS? And while I'm at it, what is  
a GRANT? Private e-mail if it seems like I'm the only one who doesn't  
know  
these terms....  
dave rose.

---

Date: Fri, 4 Jun 1993 07:42 PDT  
From: shane <DEICHMAN@perch.nosc.mil>  
Subject: Sam Adams revisited

Fellow zymurgophiles:

It keeps getting strangerer and strangerer -- a Sam Adams spot heard last week on a local radio station (San Diego, Calif.) had our pal Mr. Koch telling the listeners that his beer had been chosen as the "Best Beer in America" at the GABF, "THREE years running." (emphasis added) Now, I've heard those commercials where he sez "four years...", and even heard one after the 3 yr. promo. Looks like Madison Avenue has got a few ads out that they don't want to pull, and that Mr. Koch has taken some of the uproar to heart... (however, even in the "3 yrs running" spot, he still tells us that Sam Adams is the only U.S. beer imported into Germany).

-shane  
<deichman@perch.nosc.mil>

-----  
oOoo000 Relax! Don't Worry!  
oo0000|/  
oo | | Have a homebrew!  
....oo0|\_\_\_\_|/  
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Date: Fri, 4 Jun 93 08:35:26 -0700  
From: sag5004@yak.ca.boeing.com (Ford Prefect)  
Subject: A Hop question.

I asked a question recently about a belgium like (I think) style, and some previous bumblings with trying to make a barley wine... Just made me have more questions.

I realise that when the wort first comes to a boil there is no hot break yet. I have been told (or read I can't remember) that adding hops before the hot break will cause them to be coated protein goop and not allow for as much utilization as one might hope for. There also seems to be a debate about the use of low alpha acid hops for bittering. I there any information out there that could tell me if there are any know differences between adding the hops at the start of the boil, and waiting a bit till it really gets going and hot break has occured? Also what properties do the hops contribute to the beer when you add the bitter hops at first boil so they can get all goobered up with the proteins?

I am not paniced, just curious.

Thanks a bunch.

stuart galt boeing computer services  
sag5004@yak.boeing.combellvue washington  
(206) 865-3764 or home (206) 361-0190  
#include <standard/disclaim.h>  
I don't know what they say, they don't know what I say...

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Date: Fri, 4 Jun 93 11:52:09 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: **Faster all-grain**

In the search for faster all-grain brewing, I'd like to put forth something I tried this weekend. I made two (5-gal) batches of beer, an IPA and a Porter, from a single mash. It worked like this:

Mash-in 20 lbs (turned out to be too much) pale ale malt and a little crystal malt at 67C. Mash for 1.5 hours (on suggestion of Foster in Pale Ale), mash out to 77C, sparge 4 gallons, dilute with 2 gallons, start boiling it. Meanwhile, add .5lb chocolate malt, .25lb black patent, .75lb crystal malt to mash tun, add 77C water as needed, steep 30min. Sparge 6 gal porter while IPA is boiling (60 min boil). Bring Porter to boil, start chilling IPA. Rack IPA to primary carboy, combine 2 smaller pots of Porter into large boiling pot (that had IPA in it), finish Porter boil. Chill & rack Porter. Pitch 1qt yeast starter into each (using same yeast for both, in this case). Clean up. Total elapsed time, from starting mash water heating, to end of clean up, about 7 hours.

Wait, you say, that's a long time! Yes, but I got two batches of beer, so it's only 3.5 hours each. Also, I'm don't consider myself an "experienced" all-grain brewer, and it's only slightly longer than I have taken for my other 5 gal batches. There are some opportunities for making it shorter:

- \* Overlap heating the initial strike water with some other activity. This takes almost an hour on my 11,000 BTU stove burner.
- \* Shorten the mash. 1.5 hours is pretty long.
- \* Get a more powerful burner. This would shorten the initial water heating period and the time to bring the first wort to a boil.
- \* Get a second 8 gal pot. Except I don't know if my stove could really hold 2 of them.

It seems to me that the critical path in this is:

heat strike water-mash-sparge 1-boil 1-chill 1-finish boil 2-chill 2-finish clean up.

Certain things are irreducible: the mash has a minimum length (30 min???)

)  
The boil need to be 60min to for best hop utilization, etc. I don't think it would be too hard to get it down to 5 hours for two batches, though.

How did the beer come out? Well, it's still fermenting. But I did use too much malt: I got an IPA at 1.064 and a robust Porter at 1.060! And I probably could have bottled several pints of starter solution -- the gravity of the wort stream when I stopped sparging the Porter was still 1.025 (temperature corrected, of course).



=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

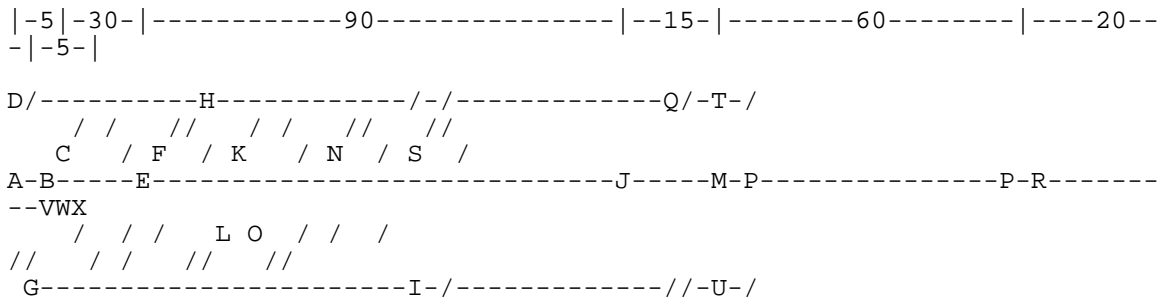
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Date: Fri, 4 Jun 93 11:02:53 CDT  
 From: jlf@palm.cray.com (John Freeman)  
 Subject: Mashing times

I've posted this before, but the question of making mashing more efficient came up again, so...

I drew up this PERT chart long ago to determine what could be done in parallel. I have mashed in as little as 3 1/2 hours - I had no homebrew to drink while I was doing it... With homebrew, it takes a little longer.

I tried to draw this to scale, each column representing about three minutes, each task placed approximately where it belongs in time. The straight line represents the critical path, the things you cannot hurry: heating, mashing, boiling, cooling. One of the best speedups you can make is to sparge into your boiler while applying heat (at J).



- A. Clean mash tun, measure mash water.
- B. Heat mash water.
- C. Assemble grains, scale, grain mill, etc.
- D. Crack grains.
- E. Mash.
- F. Clean up from cracking.
- G. Relax.
- H. Measure and heat sparge water.
- I. Clean and set up sparge equipment.
- J. Sparge into boiler.
- K. Heat wort to boil.
- L. Weigh hops.
- M. Boil wort.
- N. Clean up sparge equipment.
- O. Proof yeast (dry) or take wort sample for yeast starters.
- P. Add hops to boil.
- Q. Clean and set up wort chiller.
- R. Chill wort.
- S. Put hydrometer and thermometer in wort.
- T. Put away materials.
- U. Clean boiler, strainer, etc.
- V. Pitch Yeast.
- W. Clean wort chiller.
- X. Relax. Relax. Relax.

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Date: Fri, 4 Jun 93 12:10 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: EASYMASHER vs easy masher

> johnc@hprpcd.rose.hp.com  
>Subject: EASYMASH & MALTMILL

> I decided what the heck, I'll make an EASYMASHER and see what happens.

Just for the record, EASYMASHER (like MALTMILL) is a registered trademark and technically, can not be "made" by any entity other than JSP. However, I encourage you all to make "easy mashers" to your heart's content. What better way to stimulate the need for a mill.

> I did, however, have to recirculate about 1 gal to get a clear beer, but that is much better than the copper manifold (about 3 gal).

As I claim that the runoff runs clear after a few ounces, I thought it was worth exchanging mail with John to see what the "problem" might be.

Turns out the spigot he selected has a 3/8" flow through and the one I use has a 1/8". The flow through is defined as the smallest passage in the system, sort of like Kirchoff's law in current flow.

The smaller opening restricts the maximum flow and seems to be the key to speedy clearing. Even with my smaller flow, I only crack it slightly until it runs clear and then run it at this rate for a while before opening it full. Actually, I open it full just to clear the big stuff and then close it down.

Although a 1/8" flow doesn't sound like much, when several feet of 3/8" hose are connected to the spigot, the rate is about 10 min per gallon and provides a typical sparge rate.

This is not a condemnation of larger spigots, just a suggesting of how to get a clear runoff more quickly when using one. To repeat, open it to clear the big stuff then close it down to a trickle until it runs clear and then gradually open it wider as needed.

js

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Date: Fri, 4 Jun 93 12:06:47 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Lagering with A Hunter Airstat

A Hunter Airstat is a fine device for homebrewers to use for a temperature controlled environment. The 40F limitation really isn't a problem unless one is trying to do an extended lagering near 32F. I generally ferment at 45F, diacetyl rest at 48F and lager at 40F. I really don't have the time or space to do a March to October Fest Bier fermentation. When I need temps near 32F I bypass the Hunter and use the temp control on the fridge which I have marked with the setting for 34F. My fridge happens to have a really good control that goes to eleven. The only time I set it for the low 30s is to clarify beer, both prior to racking to a keg and the first few days its in the keg. One needs to take appropriate caution when doing an extended low temp lagering to ensure that you don't get yeast autolysis. Another important part of producing a lager is proper wort chilling to inhibit DMS production and a wort pitch temp at fermentation temp to minimize production of diacetyl and esters. Low temp lagering is another piece of the delicate puzzle we call lager beer.

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Date: Fri, 4 Jun 1993 10:48:41 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: Garlic Beer Inquiry

Lou Casagrande asks:

>Does anyone have any advice on the best stage at which to add the  
>garlic?

In HBD# 757, I wrote:

Date: Wed, 6 Nov 91 08:14:52 PST  
From: Richard.Stueven@Corp.Sun.COM (Richard Stueven)  
Subject: Garlic Beer

Due to numerous requests (four, to be exact) here's the  
"recipe" for gak & laurel's Garlic Beer:

We didn't keep any notes on the garlic beer, so here's my best  
recollection:

6# plain light extract syrup (hopped? who knows...)  
2oz Cascade leaf (60 min)  
2oz Cascade leaf (10 min)  
one Big Thing of garlic (maybe half the size of your fist)  
Whitbread dry ale yeast

The procedure is the same as for any simple extract beer. Chop  
up the garlic and throw it into the boil for the full 60  
minutes. If you don't want quite so much garlic flavor, strain  
the garlic bits out before racking (we didn't).

To which I'll add:

Avoid this recipe. It was a particularly nasty beer...simply awful.

have fun  
gak

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewery, hockey haven and pinball palace

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Date: Wed, 2 Jun 93 07:36:55 PDT  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Hop Utilization

I commend Glenn Tinseth's work on hop utilization! I have been looking for this type of info for years. Rager's numbers are a good first cut, however I think it's about time for the second cut. Keep up the good work, were all waiting for the results, that I assume will be published here first. Please don't tease us and then make us wait for the results in a Zymurgy special issue or Brewing Techniques. Formal publishing is also a good idea.

Bob Jones

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Date: Fri, 4 Jun 93 13:07:31 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: stovetops, fermented black beans

Here's my two bits on cruddy stovetops.

bit #1: it seems to me that a lot of the crud comes not from actual boil-overs, but rather from various kinds of condensation and dripping. I wouldn't be surprised if some of it is simply from goopy steam condensing on the top of the stove (the scientists in the crowd are invited to blast this to smithereens if untrue) - but beyond that, if you just have a regular ole gas stove and you like to boil four gallons or so, as I do, then you have to keep the pot partially covered to maintain a good rolling boil (or is this a momily?). The steam that condenses on the lip of the lid on the side that sticks out over the edge of the pot then dribbles down the side of the pot, into the eye of the stove where it gets nicely cooked!

bit #2: I haven't tried sloshing the top of the stove with water, or with dish soap, prior to brewing. Both ideas have been suggested in HBD and I certainly think they are worth trying. As an alternative to oven cleaner for the top of the stove (AFTER making a mess), may I suggest the more environmentally-friendly (not to mention epidermally-friendly) baking-soda-and-water solution? Just let it sit on the crud for a while, then most of it comes right up. For the worst of it you may need steel wool and elbow grease. But seriously, baking soda works great. I've also used it to clean greasy car batteries, and yes, also ovens!

This is not a beer-related question except that it involves fermentation. I have seen several chinese recipes which call for fermented black beans. I love black beans, and I love fermenting, so I'd like to make my own. Does anyone out there have the slightest idea how to go about this??? T.I.A.

Jonathan Knight  
Grinnell, Iowa

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Date: Fri, 4 Jun 93 13:27:52 EST  
From: Ulick Stafford <ulick@brahms.helios.nd.edu>  
Subject: The stick I buried won't grow and other stories

A few day ago I posted to r.c.b and received no repsonse. Basically I buried a Rhizome an inch deep 2 weeks ago and nothing has peeped up yet. Comments? Is it dead or did I dod something wrong (I planted it horizontally).

Second comment is related, but there is a hop growing article that makes occasional appearence here, and a yeast washing article is often requested on r.c.b. Could these be stored in stanford/sierra/pub/homebrew/docs? If they are in a different directory there, let me know.

Thirdly, js commented about the lack of need for pH meters, but if you have the soft water supply that comes from the large natural reservoir (that is our sewer) that Chicago uses, pH adjustement is not necessary. The hard ground water I use requires considerable adjustement unless around 1.5 lb of black stuff is used in a batch. I will concur that a pH meter (cheapo) is a pain in the butt, and I am happier using those awful cheap 5-6 papers everyone complains about.

Fourthly, I must thank Rafael Busto for his joke. AS the saying goes it was so funny that the first time I heard it, I fell off my wooly mammoth.

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'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@darwin.cc.nd.edu

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Date: Fri, 4 Jun 93 14:16 CDT  
From: korz@iepubj.att.com  
Subject: SS and Phosphoric Acid

Don writes:

>George Fix uses a sanitizer containing phosphoric acid for his 304 stainless  
>kegs. Phosphoric acid reacts quite severely with 304 stainless. should

Back to Cole-Parmer...

Phosphoric Acid (<=40%) No effect on 304 Stainless Steel  
Phosphoric Acid (<=40%) Minor effect on 316 Stainless Steel  
Phosphoric Acid (<=40%) No effect on 440 Stainless Steel below 120F

Phosphoric Acid (>40%) No effect on 304 Stainless Steel below 120F  
Phosphoric Acid (>40%) Minor effect on 316 Stainless Steel  
Phosphoric Acid (>40%) Minor effect on 440 Stainless Steel below 120F

Also, the 23rd item on page 1184 is Benzaldehyde, still no sight of Chlorox...

Are we using the same 1991-1992 Cole-Parmer catalog?

Al.

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Date: 4 Jun 93 19:25:58 GMT  
 From: mkenny@bcmlg01.attmail.com  
 Subject: RE: Hunter Airstat Modification

In HBD1156 Bruce Ray asks how to modify a Hunter Airstat to maintain temperatures below 40F.

I originally posted this last November and have been using it with the mod very happily ever since. I use the airstat to control a 13cf chest freezer. I put the airstat in a manual "HOLD" mode and simply set the temperature up or down as desired. The airstat is designed to control a compressor driven refrigeration device (a room air conditioner) so it is right at home with a refrigerator or freezer. It turns the attached unit on when it senses a temperature 2 degrees above the setting and off 1 degree below the setting. It has a built-in timer with a 4 minute delay to keep the attached unit from cycling too rapidly. At 45F my freezer runs less than 2 hours total in a 24 hour period and about 3 hours at 35F.

You cannot change the Air Stat range but you can offset the sensor calibration. In other words, performing the following modification will allow you to set the Airstat at 40F yet the fridge/freezer temp will be maintained at 35F.

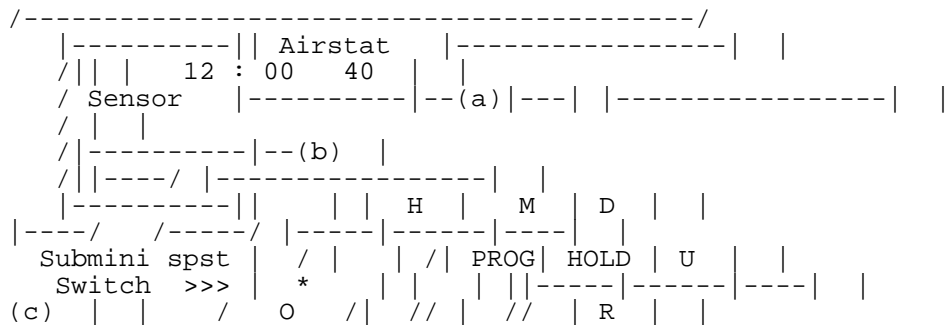
The sensor is a thermister that provides 10K ohms of resistance at 25 degrees C. According to the thermister data sheet, at 32 degrees F the resistance is 27.28K and 22.05K at 41 degrees F. The resistance decreases as the temperature rises so if you make the air stat think the sensor is 22k when its really 25k the air stat will say 41 but the sensor temp will be around 35 degrees F. This is done by simply putting more resistance in parallel with the sensor. Using ohms law,

$$R_t = 22K, R_{th} = 25K \text{ (Thermister), and } R_p \text{ (parallel resistor) =}$$

$$\frac{R_{th} (25K) * R_t (22K)}{R_{th} (25K) - R_t (22K)} = 183K \text{ Ohms}$$

With this resistor in place the the range of the air stat is effectively shifted about 5 degrees lower. Just keep in mind that the temperature reading on the air stat will not match the fridge temp.

The thermisters change in resistance is not linear. It will change about 20k ohms going from -13F to -4F and only 2k ohms going from 68F to 77F. Therefore the desired range of use should be considered before determining the magnitude of offset. Although, in the 12 degree swing between 33F and 45F this should not pose a problem.



| /-----/ |-----| |  
/-----/

180K  
(a) -----////////-----o /o----|  
(c) |  
(b) -----

I installed a 180K ohm resistor in series with a sub-mini spst toggle switch mounted on the front panel just left of the AC outlet and below the pocket that holds the sensor. It is fairly easy to do since the sensor leads are readily accessible. This switch lets me use the airstat normally above 40 degrees when off and down to 34-35 when on. The airstat seems to sample the sensor about every 5-10 seconds and will indicate the change in this timeframe.

Cheers,  
Mike Kenny

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Date: Fri, 04 Jun 1993 13:54:29 -0600 (MDT)  
From: Mark Taratoot <SLNDW@CC.USU.EDU>  
Subject: **Garlic in Beer: Not meant to be.**

Greetings.

In HBD 1156, Lou Casagrande asks about garlic beer. Well, I made one (12 oz) bottle of the stuff. I put a peeled clove of garlic into one bottle of a golden amber ale that I had brewed (at bottling time.) We split this beer between 5 people for tasting. After we had all tasted it, there were still 11 ounces left. The stuff was bad. And I LOVE garlic (I usually move the decimal place in recipes calling for garlic so I increase the garlic content by an order of magnitude).

Nobody liked this beer. And 3 of us liked the jalapeno beers we had made previously.

But, by all means, try it. You might like it. Just don't expect too much.

-toot

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Date: Fri, 4 Jun 93 14:24:08 PDT  
From: davep@cirrus.com (David Pike)  
Subject: Paulaner Salvator recipe

All right HBDer's,  
I'm looking for a Salvator clone recipe. All grain, extract, whatever you  
have. We have the technology to brew any recipe. I'll summerize the  
private  
responses back to the HBD.

Thank you.

Dave

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Date: Fri, 04 Jun 93 18:15:55 CDT  
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>  
Subject: Temperature Controllers

Steve Septer:

I have a 23 cu ft chest freezer that I use a temp controller I got from William's for \$49. It has a range from 20F-80F with a 4 degree temperature differential. When set to 50F, it will cool to 46F, shut off, then wait for the temp to rise back to 50F before it comes on again. I'm very happy with it.

Darren

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Date: Fri, 4 Jun 93 21:35:00 +0000  
From: DAMON\_NOEL/HP0800\_01@mailhub.cs.itc.hp.com  
Subject: sanitizer

I have been using a product called "Starsan" which I obtained from a local brewpub which uses it in sanitizing their stainless equipment on a continual basis. I have to believe that it is not only effective, but also harmless in continuing use to their equipment. I was told that it is a phosphoric acid product, but no mention was made of iodine content. I use it as prescribed, 6 ml per gallon. At this concentration it does not require a rinse and seems to have no taste (I tried it straight, at the use concentration...some people will drink anything!). It's been very effective on bottles, tuns, counterflow chillers, etc. Does anyone know what the nature of this product really is? I can recommend it without reservation based on experience.

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Date: Fri, 4 Jun 93 16:35:36 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hunter Air-Stat too precise...

Steve Septer writes (paraphrasing):

>My dealer told me that the Hunter Air-stat was TOO precise, shutting on  
>and off for every little temperature variation... burning out  
compressors...

The Hunter Airstat has a reasonable temperature differential built in to prevent this. After all, it was designed to control a room air conditioner which has the same kind of compressor as a refrigerator/freezer. Its only limitation is that it doesn't go below 40F. Someone else in the last HBD requested posting of a mod to make it go lower. I too, would appreciate that post. BTW, I got my Airstat at Home Depot (a hardware "superstore") for about \$19.75. Home Base (the competition) also has 'em for the same price. One of the advantages of the Hunter vs the Johnson is that the Hunter has a digital temperature readout of the internal fridge temp (as well as the set point). Another is that the sensor is solid state and connected by wires. The other uses a capillary tube and makes it a bit harder to get a good door seal (but this is being real picky). For those that like that type, Graingers has several of these to choose from, starting at about \$37 (if memory serves)

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Mark from HopTech

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Date: Fri, 04 Jun 93 19:28:24 CDT  
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>  
Subject: Calcium Chloride Source?

Does anyone know a source for food grade calcium chloride?  
I'd like to use some for water adjustment.

Darren

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Date: Fri, 04 Jun 93 19:32:42 CDT  
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>  
Subject: Iodine test

Personally, I stir my mash at least once to evenly distribute the temperature and enzymes. I used to put a drop of mash liquor on a white plate and then put a drop of iodine next to it and run them together. It was hard to read due to particles or because the beer was dark (porter/stout). Here's what I do now... Put a drop of mash liquor on one edge of the plate and tilt the plate so it runs to the other side. Put a drop of iodine next to the starting point of the mash liquor drop. Run them together and observe the reaction. A single drop spread out that much, you will be able to see particles and the liquid and see the color change. I haven't tried it yet with a really dark beer like stout, but I don't see why it wouldn't work.

Darren

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Date: 4 Jun 93 15:06:00 PST  
From: John Fitzgerald <johnf@ccgate.SanDiegoCA.NCR.COM>  
Subject: SS kegs, beer fests in So. CA

There is something that I've been wondering, and I've seen this question posted before, but I'm not sure I've seen the answer. I know there are a lot of homebrewers using half of a keg for a brew pot. What I'm wondering is how do you know whether or not the keg is SS? Are they layered metal, Aluminum on the outside, but lined with SS? I guess I've always thought they were made out of Al, but I must be wrong. Are certain kegs made from different materials? And with all of this talk about different grades of SS, is there a cheap/efficient way of determining what grade the keg is made of? I'm searching for the "cheapest big SS brewpot", and cutting a keg in half seems like a decent way to go, but I'd like to know what it is made of.

Sorry to end on a sad note, but I was majorly bummed to learn that there was a beer fest (several?) in Temecula, CA, and I never even knew! Whoa! Imagine a collective gathering over good brews just 40 miles from your house, with some pretty major HBD players attending (see HBD #1154, and 1155 for some of the names), and you missed it without a clue! Are these things annual events? Do you need to be invited? Do I need to get on somebody's mailing list?

Missing the boat,  
John Fitzgerald.

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End of HOMEBREW Digest #1157, 06/07/93  
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Date: Sat, 5 Jun 1993 09:35:02 -0400 (EDT)  
From: jdg@cyberspace.org (Josh Grosse)  
Subject: pH adjustment Qs & As

In HBD 1156, Jack Schmidling asked for process clarifications on my pH adjustments and measurements:

> >1) Adjusting the pH of the mash. (pH 5.0-5.5)  
>  
> I presume you mean that you adjust the water to something so that  
after  
> adding the malt, the pH is 5.0 to 5.5. I wonder what that something  
is.

Correct. After mashing in, I adjust pH downward with gypsum. The amount I need to get my pH in range varies depending on the malts I use in the mash, so it's recipe dependent. I've yet to need to adjust upward, but, if I did, I'd use calcium carbonate.

> My water is 8.1 and drops into that range. I would be interested in knowing  
> what your numbers are without adjusting.

My water supply's pH varies slightly from day to day. They use slaked lime, like many public supplies, but there is some6. sources (ground/river water). Today's reading is 9.54.

On my last batch, my notes show unadjusted pH was 5.9. That batch was 100% Hugh Baird Pale Malt.

> >2) Adjusting the pH of sparge water. (ph 5.6-5.8)  
>  
> Again, my sparge water is 8.1 and after sparging 10 gallons, it only raises  
> the total pH of the wort a tenth of a point.

I adjust to approximately 5.7 using 88% lactic acid. I do this to ensure that I minimize phenols and tannins in my wort. See any Miller book for the how-to's, and see Dr. Fix's book (Principles of Brewing Science) for the whys.

> >3) Ensuring I don't oversparge. (ph > 5.5)  
>  
> It is just as useful to use a hydrometer. If you stop sparging when the  
> gravity falls below 1.008, you will not likely have any problems. It will  
> take tons of a water a few points higher to have any effect on the  
total  
> wort.

I find the pH meter is easy to use; it's already sitting out, and it is a more accurate indicator of phenol or tannin extraction than specific gravity.

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Josh Grosse [jdg@grex.cyberspace.org](mailto:jdg@grex.cyberspace.org)

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Date: Sat, 5 Jun 93 10:40 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Airstat

>From: LPD1002%NYSHESCV.bitnet@UACSC2.ALBANY.EDU

>I have found the Hunter Airstat as recommended at Builders Square For \$28. It only has a low end of 40 Degrees. That was somewhat bothersome since one of the reasons I wanted a fridge was to try lagering.

I have been trying to "lager" a batch with Wyeast Bavarian yeast for almost 3 months now at 40F and it still is bubbling at the same rate as when I first transferred it to the secondary. It is my not so humble opinion that 40F is plenty cold enough for lagering.

> The other suggestion, a Johnson Controls Portable Thermostat is sold at my local Homebrew store for \$64.95. This price was somewhat bothersome, but I think it's the one for me. It has a wider range (down to 20 degrees) and the owner of the homebrew store says he recommends it over the Hunter because he knows of some people who used Hunters and had their compressors burn out.

I made an interesting discovery several days ago that may be a clue to that problem. While bottling some beer, I noted the compressor attempted to go on but shut down after about 2 seconds. After a delay of a few minutes, it cycled again but went off right away. I have noticed this before but it usually stayed on after several cycles but this time it persisted for over thirty minutes and I decided I had a problem.

The investigation seemed to point to bad advice from the supplier of the Airstat and users on this forum. The instructions say to turn the freezer to max cold when using the remote controller. When I turned the temp controller on the freezer down (warmer), there was a click near the low end and the compressor went on, stayed on and has not exhibited the problem since.

> It seems the Hunter is a little TOO precise and kicks the compressor on when there is any fluctuation in temperature. The freezer I lucked into seems pretty old, so I guess my decision is made.

There could be something wrong with the one you are using because the guard band of the Airstat is 3 degrees. When set at 45 for example, it should go on at 47 and off at 44 and mine does exactly that. Considering my above comments, there might also be a problem if it is set to 40F as this is the lower limit.

Frankly, I think it is a terrific little gadget for the money and a real

testimonial to modern technology. It even gives a record of daily and cumulative usage.

>From: Drew Lynch <drew@chronologic.com>  
>Subject: Re: iodine

> The last batch I made, I did the iodine test two ways: 1. I drained  
a  
> little out of the spigot at the bottom of my mash/lauter tun (Gott  
> cooler with copper-pipe manifold). This tested completely starch  
free  
> after 20 minutes (the first time I tested it). 2. I pushed the spoon  
> into the top of the mash and let some fluid run into it. This never  
> tested clear, even after 1.5 hours.

I get the feeling from this and the followup comments that stirring is  
only  
casually considered as part of the mashing process and two or 3 hours  
mashes  
would lead one to believe that it might even be considered a bad idea.

I stir my mash every ten minutes when resting and almost continuously if  
heating. I get conversion times that agree with the specs for the malt  
being  
used. For example, the Belgian Pilsner converts in just a tad over the  
5  
minutes specified.

I take my sample by simply pulling the spoon out and letting whatever is  
on  
it drip into the sample dish. Not very scientific but I get consistent  
results.

js

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Date: Sun, 6 Jun 93 10:23:18 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Cornelius Keg as fermenter

I am interested in using my stainless steel Cornelius Keg as a primary and secondary fermenter. I would appreciate any suggestions from those who have given this a try.  
STEVE BOXER

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Date: Sun, 6 Jun 93 10:30:14 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Stuck Run-off

My first wheat beer coincided with my first stuck run-off during the sparge. I used 5 pounds of 2 row klages and 5 pounds of wheat malt. The malt appeared to be crushed correctly. I have used my lauter tun a few times before and didn't have a problem with slow sparges. If anything, the sparges were a little on the fast side. I should also mention that I used a infusion type mash w/o a mash out. Do I need to mash out when I use that much wheat malt? I'm not even sure what could cause a stuck run-off except for too fine of a crush on the grains.

I use a Phils style lauter tun. Instead of using the Phill's false bottom, I used the lid of my bucket and drilled hundreds of 1/8" holes. There are a few little gaps between the side of the false bottom and the bucket. Any ideas or suggestions?

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Date: Sat, 5 Jun 93 23:08:10 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: AHA Conference in Portland

Here is the list of people that responded to my entry in HBD about the AHA Conference in Portland. If you know of anyone else going who is on the net let me know and I will add them.

There is interest in getting together for beers on Monday night. Any suggestions? Maybe a walking tour of brew pubs?

| Address                      | Name           | Arrival | Hotel     |
|------------------------------|----------------|---------|-----------|
| rgarvin@btg.com              | Rick Garvin    | Friday  | Marriot   |
| fjdobner@ihlpb.att.com       | Frank Dobner   | Sunday  | Riverside |
| tciccate@carina.unm.edu      | Tom Ciccateri  | Sunday  | unknown   |
| uunet!atmel.com!.jlrandreman | John Landreman | unknown | unknown   |

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Mon, 07 Jun 93 07:49:59 EST  
From: thutt <thutt@MAIL.CASI.NASA.GOV>  
Subject: What differs in American Beers

We all complain about the lack of variety in American beers, and as I was bemoaning this fact to a friend of mine, an excellent question popped into my head. I recently read (forget where) that A.B. has about 17 different beers, all basically the similar, while many European breweries have the same number, but with a much greater, often seasonal variation.

So, the question is, what exactly are the differences between, any two beers made by the same mega-brewery? (eg: Bugwieser -vs- Busch)

And, another observation: It seems to me that Miller is the least resistant in trying new styles of beer. Some good (Amber Ale), some marginal (Reserve) and some questionable (Clear). I would surmise that if these work out well for Miller, you can bet your brew kettle that A.B. & Coors will soon begin brewing a larger variety (with real variation) of beers.

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Date: Mon, 7 Jun 1993 8:25:25 -0400 (EDT)  
From: P\_LABRIE@UNHH.UNH.EDU (Paul LaBrie)  
Subject: "Thick" dry stouts...why?

This past weekend I attended a local homebrew party where I brought along a Cornelius keg of my latest dry stout (a variant on the Line/Miller recipes which I have been consistently happy with).

The comment I always seem to receive at these parties, whether I'm pouring my own, or an actual Guinness, is that dry stout is "thick". Do beer-tasters (read "willing amateurs") elsewhere also refer to stouts as "thick" or is this just a local phenomenon?"

Note: I'm NOT looking for a diatribe on the tasting abilities of the average American light beer drinker (flame-throwers on stun only). What I am curious about is whether the dark color and strong bitterness of dry stouts actually imparts a feeling of "thickness" to some peoples' minds, even though the body of the beer may be quite thin. "Thick" (to me) implies a comment on texture and body. My stouts (luckily) and their commercial counterparts definitely do NOT have the texture of a syrup or a motor oil so why "thick"? Any taste & aroma physiologists out there? (I'll summarize any private postings).

- paul -  
p\_labrie@unhh.unh.edu

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Date: Mon, 07 Jun 1993 09:04:45 EDT  
From: hmcook@boe00.minc.umd.edu (Hardy M. Cook)  
Subject: Kegging Alternatives

On page 6 of BREWING TECHNIQUES, there is an ad for a 5 liter Mini Keg System.

I am not interested in 5 gallon Cornelius keg systems at this time, but there are occasions, one or twice a year, that I would like to have kegging ability.

Does anyone have any experience with this kegging system or advice about kegging alternatives to the 5 gallon Corneilus -- beer balls, batch latches, and so on.

Also several months ago, I recall a posting about someone in Riverdale, Maryland, who sold yeast cultures that I have since misplaced. If anyone knows of this person, could you please email me privately with address, telephone number, or other information?

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Date: Mon, 7 Jun 93 10:43:40 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: top cropping???

I've got this batch in the fermenter that just won't quit. The yeast has been crawling up-and-out for a week now. Yesterday, I thought it had settled down and switched the blow-off for an airlock, but NO! A few hours later, I took off the airlock and replaced the blow-off. The airlock was half full of "solid" yeast sludge. Seems like, with the proper care, I ought to be able to collect this stuff and reuse it. Does anyone have any hints on doing this in a "sterile" fashion? (I should mention that the blow-off bucket also had about 1/4" of nice looking yeast slurry on the bottom when I switched it out.)

One thought that occurs to me is to do a "2-stage" blow off, where the main blow-off tube goes into a sealed, sanitized container with a second blow-off or airlock. I could collect the yeast in this container, and then save it for the next batch. Does this sound like a reasonable scheme?

Yours in confusion,

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Mon, 7 Jun 93 11:10:03 EDT  
From: "Spencer W. Thomas" <Spencer.W.Thomas@med.umich.edu>  
Subject: sparging & manifold design

A while back, there was a discussion about copper manifold sparging designs. A few of us had built in a "down pipe" into our design. This is a pipe that rises from the manifold to a point above the top of the mash, and is open at the top. I designed it into mine with two purposes in mind: to easily underlet mash and sparge water (although this could be done through the outflow), and to act as a "suction breaker" in the case that a sparge through a hose to a lower level was to apply too much suction (by siphon effect) and "set" the mash. Others pooh-poohed the need for such a device.

Well, the other night, I got to see the suction-breaker effect in action. I was (as previously described) trying to make to batches from one mash, and was, understandably, trying to make it go as fast as possible. So I opened the valve full (3/8 OD pipe/tubing) and let it run. At one point, when I glanced over at it, the tubing was full of bubbles, presumably resulting from air sucked in through the down tube. I quickly throttled back the sparge, and the bubbles disappeared. So at least it worked to let me know I was going to fast, and may have helped prevent over-compaction of the mash.

=S

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Date: Mon, 7 Jun 1993 10:21:51 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: paulaner salvator ideas

It's a great beer, and so is Spaten Optimator. The premier issue of Brewing Techniques has an article by Darryl Richman where he describes the thinking that went into his first place Bock. The recipe for the beer appeared in Zymurgy. I don't remember the exact amounts, but based on his article and some bocks I've made, I'd suggest lots of Munich malt and some Aromatic malt too. If I remember correctly, Darryl used no pale malt.

More generally, you might consider using proportions of the following malts:

pale malt  
Munich malt  
Aromatic malt  
U.S cara-pils (dextrin malt)  
crystal malt

The starting gravity for your doppelbock should be 1.076. Hops should be multiple additions of Hallertauer. Yeast should be a good liquid lager yeast such as Wyeast "Bavarian" lager.

Doppelbocks do not have to be so dark as traditional bock. Color can be obtained with ample amounts of crystal and Munich malt. Be careful with highly roasted malts. While there is a temptation to use them for color, I don't think a chocolate malt or burnt malt flavor is appropriate in a doppelbock.

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Date: Mon, 07 Jun 1993 09:26:21 -0600 (CST)  
From: Robert Schultz <Robert.Schultz@usask.ca>  
Subject: Re: Homemade cooker (and Easymasher)

I have been using a Coleman camp stove and I am not overly happy with the results, over an hour to bring 25 litres to boil. However, if I shroud the pot I'm sure that I could lower the time to boil. On the other hand, I think this is fairly heavy duty work for the Coleman stove and I don't want to start repairing it the next time I go camping....

SO, I am putting in place pieces for a cooker. I got a 120 litre water heater from a friend for the cost of removing it from her basement (it is going to cost me a six pak for the friend that helped me carry it out). I have ripped it apart keeping in tact the base and burner assembly. I have an old portable barbeque which I have scouged the control/regulator and now have to mount to the base. The last item is to get my welder friend to build a rack strong enough to hold 50 litres of brew while applying 35,000 BTU. Total cost should be 2 six paks of brew.

The major obstacle is to determine if I can fire this unit up inside the house? I have used the Coleman stove inside the house (keep the exhaust fans running) with no apparent dangers .. it depends how clean this new unit burns (proper orifice/burner combination).

EasyMasher  
=====

As for the building of trademaked/patented items, I am under the impression that one can build these items for personal use, but you can not sell for profit.

Robert.Schultz@usask.ca

~~~~~  
~~~~~  
"I'm going off half-cocked? I'm going off half-cocked? ...  
Well, Mother was right - You can't argue with a shotgun." - Gary Larson  
~~~~~  
~~~~~

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Date: Mon, 7 Jun 1993 09:22:53 -0700 (PDT)

From: gummitch@techbook.com (Jeff Frane)

**Subject: Those Black Beans**

Someone was asking about Chinese fermented black beans and how to: well, foist of all, they aren't really black beans. Second of all, I'm pretty sure they aren't really "fermented". There's a problem that arises with translations from Chinese, not to mention the Chinese habit of employing picturesque terminology, especially in reference to food.

At any rate (and completely void of beer references): if memory serves, FBBs are actually produced from soybeans. They are heavily salted, and usually in conjunction with ginger. And as dear old dad pointed out in reference to "fermented bean curd", protein doesn't "ferment", it putrifies. The bean curd and the "black" beans would probably more accurately referred to as "pickled" or perhaps "salted". The beans are available at any decent Asian grocery (don't buy the stuff in jars at your supermarket --fooeey!); the best come in a yellow cardboard tub (can't remember the brand name offhand, could be Pearl River Bridge). As nice as the tub is, the beans will stay moist longer if you transfer them to a tightly closed jar. Use much more than called for in most recipes; they seem to be written for the "American" palate; one of my favorites is beef chow fun made with wide rice noodles, green peppers and LOTS of black beans. Yum.

- --Jeff

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Date: 7 Jun 1993 10:53:44 U  
From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
Subject: Wheat beer puzzle: 2 layers?

One of our local club members reported a puzzling result from his latest batch. Since no one here could positively identify what happened, I thought the collective wisdom of the HBD could at least offer some plausible theories.

The situation:

A German wheat beer, about 60% wheat, mashed and boiled normally, and pitched with Wyeast wheat yeast. Fermented at 75 to 80 degrees Fahrenheit to get the most spiciness, and racked to a secondary after 3 days. Fermentation stopped after 10 days, and when he looked at it, it seemed to be in two layers. The top half of the carboy was dark, and the lower half was much lighter. Thinking that it was a case of the yeast simply taking a while to settle out, he peered through the carboy, using a flashlight. No, the top half was definitely much darker, and there was a distinct dividing line in the middle, separating the layers.

He then used a racking tube to carefully take samples from each layer. The top (darker) half was considerably lower in gravity than the lower half. Both layers tasted fine, although the alcohol definitely came through in the taste of the darker, upper layer. He bottled the two layers separately, as best he could, and now seems to have two distinctly different wheat beers from the same carboy.

Has anyone ever seen this effect before?  
Can anyone offer an explanation for it?

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++ Ed Westemeier ++ Cincinnati, Ohio ++  
++ E-mail: westemeier@delphi.com ++

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Date: Mon, 7 Jun 1993 09:27:31 -0700  
From: Bob Konigsberg <bobk@NSD.3Com.COM>  
Subject: Re: Propane Cooker

Posting as a followup to Chris Estes question on putting a propane cooker in his basement.

Aside from the burner size comparisons Chris, I would strongly recommend that you also install a really good exhaust fan WITH a hood.

Boiling that much wort will release a lot of water vapor into the air, and it may well condense in places you don't want, providing a breeding ground for higher concentrations of strange critters that you don't want in your beer, as well as possibly allowing wood rot to set in in your home's structure.

In addition, if the burner is any kind of healthy size at all, depending on its adjustment, you may be risking built up concentrations of Carbon Monoxide (toxic) and Carbon Dioxide (non-toxic, but oxygen displacing).

I decided not to brew in my basement for those reasons (too cheap to put in a good exhaust hood I guess :- ) ).

Good Luck,

BobK

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Date: Mon, 7 Jun 93 10:33:04 MDT  
From: Rick Myers <rcm@col.hp.com>  
Subject: Phosphoric acid nonsense

>kegs. Phosphoric acid reacts quite severely with 304 stainless. should

Gee - don't let this information leak out to soda pop manufacturers!  
All that phosphoric acid they are putting in their cola syrup is ruining  
their kegs!!!

> Phosphoric Acid (<=40%)No effect on 304 Stainless Steel

Ah, so that's why the cola manufacturer's aren't worried about it!

Rick "Will drink beer for food" Myers

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Date: Mon, 7 Jun 1993 09:43:02 -0700  
From: Bob Konigsberg <bobk@NSD.3Com.COM>  
Subject: Yucky Stove tops

The nasty stuff on stove tops falls into two basic categories.

1) A Light film of grease/oil which is left over from other cooking,  
and gets burned in place by the heat of boiling.  
CURE: Wash the stove thoroughly BEFORE brewing.

2) Spills that get burned into place.  
CURE: Clean up spills right away, even if you have to turn off the  
heat and slide the pot to the side for a bit. They will never get  
easier to clean up, only more difficult.

BobK

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Date: Mon, 7 Jun 1993 12:00:36 -0400  
From: Nick Zentena <zen%hophead@canrem.com>  
Subject: Re: Btus,Burners, hops not growing

>Date: Thu, 3 Jun 1993 09:52:48 -0700 (PDT)  
>Subject: Brewing Techniques & Book Reviews

>In addition to Martin Lodahl's comments on whether Brewing Techniques  
>will review books published by other than the Association of Brewers:  
>like, f'rinstance?

>A major reality: AofB is publishing the bulk of homebrew- or even  
>micro-brew related books right now. It would be dishonest to avoid them  
>and would also mean cutting down severely on the book reviews.

I wasn't suggesting that they be avoided but that  
there might be a few books out there that the AHA  
has decided not to carry that might be of interest.

>From: cestes@argos5.DNET.NASA.GOV (Chris Estes)  
>Subject: Propane Cooker

>Hi All...

>We're getting ready to move into our new house next month. My brewing  
>activities have been banished to the basement! That works well, except  
>that I don't relish the idea of carrying 5 gallons of wort down the  
>stairs after cooking. Add that to the fact that the new house has an  
>electric stove and things look grim.

No need to carry hot wort. Chilled it and then  
shipon it down the stairs. I brew either in the  
garage or outside. After cooling the beer is  
shiphoned down the stairs using a 1" shiphon hose.  
Works well and is pretty quick.

>I'd like everyone's input on what kind of propane cooker to get. I  
>only make beer in 5 gallon batches, so I don't need a surplus Saturn V  
>motor up-ended! What's best? What kind of gas do I use? How much  
should  
>I expect to spend? Can I use it in the basement, or do I have to step  
out-  
>side on the patio? Will I have to build a stand to hold my brewpot, or  
>will it come with something sturdy enough? You get the idea; I'm  
totally  
>in the dark on these things!

The burner I use is only 60,000btus but has no  
problems with 40-55litress that it boils regularly.  
Since it designed for large scale home canning it  
comes with a very sturdy stand. Many people place  
40gallon drums on it! I don't know if it's available  
outside of Toronto. In my understanding all the  
higher BTU's give you is a faster boil.

>From: Ulick Stafford <ulick@brahms.helios.nd.edu>  
>Subject: The stick I buried won't grow and other stories

>A few day ago I posted to r.c.b and received no repsonse. Basically I

>buried a Rhizome an inch deep 2 weeks ago and nothing has peeped up yet.  
>Comments? Is it dead or did I do something wrong (I planted it  
>horizontally).

Assuming the weather is fine and the rhizome was alive when planted the only thing I can think of is that you planted it upside down. Brush the dirt off and check for growth. Depending on type some hops are relatively slower growers. My hallertau plants grow and develop much slower than either the nugget or Mt. Hood.

Nick

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I drink Beer I don't collect cute bottles!  
zen%hophead@canrem.com  
-----  
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Date: Mon, 7 Jun 93 11:58:46 -0400  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: Calcium Chloride Source?

In HBD# 1157, Darren asks:  
>Does anyone know a source for food grade calcium chloride?  
>I'd like to use some for water adjustment.

I got my CaCl<sub>2</sub> from "All World Scientific Supply" in Lynnwood, WA. They have an 800 number so you can just call 1-800-555-1212 to get it. I think I paid \$15/500gm for USP grade. You should be able to look under chemical supplies in the yellow pages and find someone local. If not, then All World does ship. Also, since you are at a university, try your local chem student store or ask around the biology section.

Cheers!

P.S. a 55 gal drum of USP CaCl<sub>2</sub> costs only \$.75/lb - quite a mark up for stuffing small bottles and labeling...

- --  
Larry Barello uunet!polstra!larryba

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Date: Mon, 7 Jun 1993 10:09:40 -0700 (MST)  
From: JLIDDIL@AZCC.Arizona.EDU (Jim Liddil)  
Subject: Iodophors

With all the discussion of iodophors I thought I might post the following info from a tome entitled "Disinfection, Sterilization and Preservation" Ed. by Seymour S. Block 4th ed 1991.

Iodophor is a complex of elemental iodine or triiodide with a carrier that has at least 3 functions. (1) to increase the solubility of iodine (2) to provide a sustained release reservoir of the halogen and (3) to reduce the equilibrium concentration of free molecular iodine. The carriers are neutral polymers such as polyvinyl pyrrolidone, polyether glycols, polyvinyl alcohols, polyacrylic acid, polyamides, polyoxyalkylenes and polysaccharides. No where does the article mention the use of phosphoric acid as a iodine complexing agent. I have been told by an industry rep that phosphoric acid is added to maintain a low pH (<9) and aid in cleaning.

Another important feature of aqueous povidone-iodine solutions is that there exists a maximum concentration of 25.4 mg/L of "free iodine" that arises in a 0.1% solution and can never be exceeded. So more iodine is not better and is in fact wasteful.

I suggest this book for anyone who really wants to know about all the sanitizing techniques used by brewers.

Jim

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Date: Mon, 7 Jun 93 13:36 EDT

From: gcw@granjon.att.com

**Subject: Have 6 extra tickets for Stoudt's Fest on Saturday**

I have 6 extra tickets for the 2PM - 6PM Stoudt's Second Great Eastern Invitational Microbrewery Festival on June 12 (Saturday) in Adamstown, PA.

Tickets are \$15 and includes "Best of the Wurst Buffet" and a glass to taste all of the fine brews with.

Geoff Woods  
gcw@granjon.att.com

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Date: 7 Jun 1993 13:36:01 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: brewpub opens in Michigan

Subject: Time:12:48 PM  
OFFICE MEMO brewpub opens in Michigan Date:6/7/93  
GREAT NEWS FOR THE STATE OF MICHIGAN!!!!

Well folks, it's finally happened. Michigan's first brewpub, The Eccentric Cafe, will open its doors at noon, Friday June 11, 1993. Located in downtown Kalamazoo, the brewpub is adjacent to The Kalamazoo Brewing Co. Congratulations and thanks to Larry Bell, president, mover and shaker.

Larry brews a fairly long and interesting, some would say eccentric line of brews that range from the refreshing (Bell's Beer) to the massive (Explorer Stout). I don't have a clue as far as which brews will be offered in the pub. Some of us will be traveling from Ann Arbor to Chicago this Friday for the national competition. Hummmmmmm isn't Kalamazoo on the way? The usual report will follow....

DanMcC

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Date: Mon, 7 Jun 1993 11:17:43 -0800 (PDT)  
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>  
Subject: dry hopping = 100 IBU's ??

Summary:

Hop pellet residue that got into my bottles seems to be making the beer progressively more bitter and undrinkable.

My first try at dry hopping resulted in some suspended pellet material getting into the bottles. At first the beer was delicious, with a lovely fresh hop aroma but 6 weeks later the beer is becoming undrinkable. Is this

likely to be due to continued extraction of bitterness? I am under the impression that hops must be boiled to extract bitterness. Is an infection likely? There's no unpleasant taste, just this very bitter characteristic.

Peter

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Date: Mon, 7 Jun 93 14:42:16 EDT  
From: perreaul@egr.msu.edu  
Subject: Brewpub opens in MI! (fwd)

> > Date: Mon, 7 Jun 93 13:53:50 EDT

> > Subject: Brewpub opens in MI!

> >

> > In case you've been wondering about the deafening silence on the  
> > "Michigan Brewers" e-mail list, it's my fault. For reasons best left  
> > unexplained, the error messages that should have been coming to my  
> > mailbox were going to another, so I didn't see them until just  
> > recently. Hopefully, it will work this time. Now, to the business  
at

> > hand:

> >

> >

> > Subject: Time:12:48 PM

> > OFFICE MEMO brewpub opens in Michigan Date:6/7/93

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> >

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> >  
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> > will be offered in the pub. Some of us will be traveling from Ann  
> > Arbor to Chicago this Friday for the national competition. Hummmmmm  
> > isn't Kalamazoo on the way? The usual report will follow....  
> >  
> > DanMcC  
> >  
> >  
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Date: Mon, 7 Jun 93 10:53:23 -0500  
From: gjfix@utamata.uta.edu (George J Fix)  
Subject: Miller Lite and American Lagers

I conjecture that the Miller Brewing Co. uses a high gravity system whereby their beers are brewed at 16 P (SG = 1.065), fermented, and then aged. Following this, it would seem reasonable that they are diluted, filtered, and then in the case of Miller Lite, pasteurized. According to Fred Eckhardt (see page 49 of his TEOBS) the diluted version has an (equivalent) OG of 7.8 P (SG = 1.031), an IBU of 19.5, and an alcohol level of 3.3 % by wt. I believe these are accurate numbers, which means Miller Br. is diluting by a factor of two. What is interesting here is the Miller Lite that is residing in Miller's ruhr storage tanks. It is a 16 degree beer with an IBU of 39, and has an alcohol content of 6.6% by weight (8.25% by vol.). A knockout? You better believe it!

The point of this observation is that the undiluted Miller Lite is what the original American lagers use to be. If one has any doubts about this, then check page 38 of Nugy's book. The latter is reference 12 on page 41 of Fred's book, and reference 6 in my book with Laurie. Nugy's book is full of the older beer formulations. In particular, on page 38 he gives the recipe for one of the best selling lagers in the Northeast in the pre-prohibition era. Here it is:

100 bbl. (3100 gals.) batch  
4775 lbs. pale malt  
1380 lbs. flaked maize  
50 lbs. domestic hops  
38 lbs. imported hops  
OG = 15P (1.061)

The IBU was not cited, but with a .88 pounds per barrel hop rate it had to be as high as the undiluted Miller Lite, and maybe higher. This beer could be distinguished from European lagers because of its use of some unmalted cereal grains. Note that the flakes are used in this formulation as an adjunct in the proper sense of that term; i.e., not as a malt replacement but rather as a specialty grain which is used for special effects. In particular, the flakes give the beer a residual grainy sweetness that was apparently valued in lagers in that period. By the way, although Fuller's ESB is a dramatically different beer, one can still pick up that same "sweetness" in it. Fullers also uses flaked maize as an adjunct, something Laurie and I both directly observed last summer in London.

What is a real irony here is that if any of us were to brew Nugy's lager, and enter it in the American Light category, all \*\$## would break loose. I can just see the looks of disbelief as unsuspecting judges tasted this one! Yet this is exactly the type of beer that originally defined this category.

One final point. It is my belief that Miller Reserve is made exclusively

from malted barley, and in particular no raw barley is used. I would be willing to bet that the phrase "100% Barley" was chosen by their marketing people and not by their brewers. Why is it so lightly flavored? Well folks, guess what submicron filtration gives you!

George Fix

P.S. Many commercial breweries (including a large one in Ft. Worth) use a 5% phosphoric acid solution as a final step in cleaning. It is not too good with organic dirt (caustic solutions are used for that), but it will really put a nice shine on 304 stainless. It is regarded as being natural to beer, and not aggressive to equipment. Rinsings is nevertheless used after its use.

P.P.S. Thanks for all the nice e-mail that was sent. There are a bunch of really great people on this network!

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Date: Mon, 7 Jun 93 16:25:33 EDT  
From: "Robert J. Napholz" (GC-HSI) <rnapholz@PICA.ARMY.MIL>  
Subject: cherries

hello all

in hbd #1157 mark asked about kegging pressure (dispensing)  
I use 8-10 psi (even less for a party) to dispense but 15 psi when not  
in use its a pain but it works well. Keep your spigot Mark!!

Im considering brewing Papazian "cherries in the snow" p220 TNCJOHB

6 lbs light malt extract  
2 oz hallertuer  
.5 oz hallertues finishing  
10 lbs sour cherries  
1-2 pks ale yeast

however i prefer a partial grain any suggestions ??  
how about a Wyeast number ?? can i get away without a starter ???

TIA rob

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Date: Mon, 7 Jun 1993 14:17:36 -0700 (PDT)  
From: Eric Wade <ericwade@CLASS.ORG>  
Subject: Iodine test, unpleasant elements

I usually dip a turkey baster an inch or two below the surface of the mash and draw up a tablespoon of liquid. Then filter several drops through a coffee filter onto a white plate. Seems to sufficiently filter out husk particles; my iodine tests come up negative for starch.

I also wish to second George Fix's comments regarding some of the rather unpleasant elements that appear on the HBD from time to time. Judging from some of the responses that get posted to the HBD and that general etiquette is to flame in private, I'd hate to see what George gets by private e-mail. I certainly don't think he need me to defend him, but fer chrissakes, its not like the info he posts is advocating anything unorthodox or harmful.

Lets try to keep this digest to useful ideas and respectful differences of opinion. If you have to blow your own horn for some reason, go outside and away from your keyboard.

BTW George, keep posting. I enjoy reading and can make my own decisions based on the info provided.

Eric Wade  
<ericwade@class.org>

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Date: Mon, 7 Jun 93 16:10:11 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Re: SS Kegs

Someone queried about differentiating between SS and aluminum in kegs...

There are many entries in the archives regarding this, but the best method is probably to obtain a sample of NaOH or KOH (caustic soda or caustic potash). Put a few drops on the metal to be tested. Within about 30 seconds, the solution will start to fizz and bubble, evolving hydrogen gas, if the metal is aluminum. The solution will have no effect on SS. This should also work with Drano or lye, if you don't have access to a chem lab.

WARNING: THESE SOLUTIONS ARE VERY DANGEROUS. USE ONLY WITH ADEQUATE SAFETY PRECAUTIONS, OR NOT AT ALL IF YOU ARE THE TYPE TO HOLD OTHERS RESPONSIBLE FOR YOUR OWN MISHAPS.

Kelly <k-jones@ee.utah.edu>

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Date: Mon, 07 Jun 93 16:51:02 CDT  
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>  
Subject: Foam with kegging

In response to Mark Parshall <markus@pyramid.com>:

Mark,

Your problem can be related to both temperature and pressure. I had exactly your same problem. The main cause of foaming is dispensing with too low a pressure. However, since a higher dispensing pressure causes more agitation of your beer, it also causes the CO2 to come out of solution and foam. So the trick here is to increase dispensing pressure but slow down the flow. How do you do that? Use a smaller diameter dispensing hose so that it takes more pressure to push the beer through the smaller hose. I changed all my tubing from 1/4" to 3/16". The out connector and the cobra faucet take 1/4" hose, so you have to have short pieces for connection plus 2 hose unions that change from 1/4" to 3/16".

faucet---1/4" line---union---3/16" line---union---1/4" line---keg  
connector  
6"6' 6"

I use 6' of 3/16" tubing and this has completely eliminated my foaming problems. Another thing that will cause foaming is temperature. At home I have no foaming problems because the keg and dispensing lines stay inside of my fridge. However, when I take a keg somewhere, the lines warm up and the 1st couple glasses drawn are foam until the lines are cooled by the colder beer. At homebrew club meetings, I always watch for someone to get a beer from a keg and then immediately get one after them. They get foam, I get beer.

Dont give up on the cobra faucet. My beers draw just like they do in a bar, nice and slow but with plenty of carbonation and a nice head.

Get you some 3/16" tubing, unions, and hose clamps. Rapids has them.

174-T Trans 3/16" vinyl tubing .35/ft  
RP220C 1/4" X 3/16" Unions .90/each

Rapids, Inc.  
1-800-553-7906  
MasterCard/Visa

I have no affiliation with Rapids, just a satisfied customer.

Darren

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Date: Mon, 07 Jun 93 16:45:46 -0700  
From: "Stephen Hansen" <hansen@gloworm.Stanford.EDU>  
Subject: Curmudgeons

cur.mud.geon / (, ) k < e > r - ' m < e > j - < e > n / n (1577)  
[origin unknown]  
1 archaic: MISER  
2: a crusty, ill-tempered, and usu. old man-- cur.mud.geon.ly adj

I have noticed that the curmudgeons among us have been getting more active of late. You know who you are, so knock it off. If you don't like a post's contents or it's tone then send private e-mail and try and resolve it that way. If someone posts something misleading you should give them a chance to correct it themselves. If you feel you MUST flame I strongly suggest that you wait 24 hours between writing the flame and sending it.

The HBD has been something special in network land in terms of its high s/n ratio and relative lack of flamage. Please, let's keep it that way.

Stephen Hansen  
Homebrewer, Archivist

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Date: Mon, 7 Jun 93 16:56:49 MDT  
From: pyle@intellistor.com (Norm Pyle)  
Subject: Batch sparging

Rob Thomas asks about batch sparging. I use this method, out of laziness mostly. It works for me but my efficiency isn't near what is claimed here on the net for many folks. Of course, I only do a single batch, i.e. I dump all of the sparge water into the lauter tun, stir it, let it settle, recirculate a bit, and drain it all off. Once. I get around 24 pts/lb/gal. I expect that could be raised significantly with a couple of batches, even if the total amount of sparge water isn't significantly increased. Of course, as you increase the number of batches, you approach the continuous inlet of sparge water method which I, because of my admitted laziness, am trying to avoid. I may get really ambitious next time and split my sparge water into two batches to check the impact on extract efficiency. Or not.

For those of you using a Bruheat or equivalent as a boiler: I always pull my stove out, crawl back there, unplug the stove, plug in the Bruheat, and proceed to brew with the stove in the middle of the kitchen (don't want to push it back in, might be a bit too much work!). My new plan, soon to be implemented, is to connect a small extension to the back of the stove. It will be connected from the terminals on the back of the stove up to a 220V connector which is mounted on the back of the stove, near the top (much easier to get at). There is no modification to the house wiring, or to the stove, and it can be removed when/if I move. The added benefit of this is that my stove will not be out of action for heating sparge water or something else. The Bruheat will be in parallel with the stove's load but it is small compared to the maximum drain from the stove/oven. If I only use one or two other heating elements at the same time it should be no problem. Another added benefit is that, at most, the stove will only be pulled out a few inches.

DISCLAIMER: Don't do this! Working with 220V (221, whatever) is dangerous and this does not comply with any Electrical Codes that I am aware of. NO NO NO! I do not recommend you do this! It was only a joke (note smileys: ; ) :0 : ) ).

Cheers,  
Norm

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End of HOMEBREW Digest #1158, 06/08/93  
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Date: Mon, 7 Jun 93 10:23:50 PDT  
From: Bob.Clark@Eng.Sun.COM (Bob Clark)  
Subject: Keg experiences (was Re: Foam With Kegs; Forced Carbonation)

My 3-tap fridge is based on 1/4" tubing, and ball lock cornelius kegs.

Maximum liquid line length from disconnect to tap is about 4 feet.

My artificial carbonation technique is to put the keg in the fridge, and hook up the CO2 at about 30 psi once a day. About half a week of this, and it's carbonated. I'm trying a new technique right now of keeping the keg continuously connected at 30 psi - don't know how quickly this will work.

When carbonated, I just hook the keg up to my fridge CO2 supply, which is somewhere around 8-10 psi, continuously connected (if I don't have any leaks at the time!). Since I have individual check valves for each of the three potentially connected kegs, overpressure in one or more of the kegs is not a problem. I just start pouring, and live with the extra foam until everything reaches equilibrium, which doesn't take too many pints. If I have not sufficiently carbonated the beer, another week or so at my normal dispensing pressure is sufficient to carbonate it properly.

As far as moldy taps go, I just disconnect the liquid line from the keg, and take the tap off. This is easy, since there is a knurled collar and thread system which connects the tap outside of the fridge to the beer shank, which is the pipe that runs through the sidewall of the fridge. I take apart the whole tap, and do a little boiling and a little rinsing to clean out the mold.

I'll clean a tap if it's been a coupla weeks, or if there are some folks coming over. If I get a little lazy, I just never bring up the subject of mold with company, and they've never noticed anything ;-)

Bob C.

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Date: Mon, 7 Jun 93 20:40:41 PDT  
From: "Joe Stone" <JSTONE@SJEVM5.VNET.IBM.COM>  
Subject: William's Temperture Controller

Darren Evans-Young was happy with the temperature controller from William's. Does anyone else have any comments regarding this unit? Does this unit have a solid state sensor or the "capillary tube" sensor? Is the four degree differential too inaccurate or is this actually equivalent to the Hunter and Johnson?

Joe

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Date: Mon, 7 Jun 93 23:28:54 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Boil and New Utilization Table

Someone, sorry but I can't find my note, asked about adding hops before or after the hot break:

I think the most important thing is the boil time, not worrying about when the break occurs. Your utilization will be more affected by the boil time than any supposed break material coating the hops. Besides, it doesn't matter a whit what coats the petals (aka, but wrongly, leaves). It is the stuff in the little yellow lupulin glands that counts. I've never seen any stuff on the petals in my wort anyway. There is also the argument that having the petals and/or hop particles from pellets thrashing around in the boil is helpful in getting a good break to happen.

Bob Jones commented about the work that Glenn Tinseth is up to taking a new cut at Rager's numbers:

Glenn and I have corresponded on the subject relative to incorporating his results in my book. Until the results are in (which could take a while)

I have taken a stab at modifying Rager's utilization chart. My revised figures are based on inputs from many brewers (thanks, BTW, to those from HBD that responded to my request for comments on Rager's numbers), reviews of the literature and my own estimates. The following should not be considered as an absolute (there aren't any in brewing) but more as a "work in progress". The chart is about to be published in my catalog, but in the spirit of Bob's note and the input HBDers have provided, I'm willing to share it with all.

The chart lists Rager's original numbers, and three different columns of new numbers. The first column is Rager's, the second lists numbers for yeast with "average flocculation", the third column for yeast with fast flocculation and the last for yeast with slow flocculation. Besides the boil time and wort gravity, the effect of the yeast on the bitterness is probably the next most important factor and that is why I've included it. The reason for the three figures is that the faster the yeast settles, the less time it will be suspended (duh) and therefore has less opportunity to absorb alpha acids, so the utilization is adjusted upwards. It follows that yeast dropping out slowly will absorb more alpha acids and therefore the utilization should be adjusted downwards. Also, you can see that I've discounted any alpha utilization at low boil times.

| Boil Time<br>Number | Rager's<br>Flocculation | Average Yeast<br>Flocculation | Fast Yeast<br>Flocculation | Slow Yeast |
|---------------------|-------------------------|-------------------------------|----------------------------|------------|
| < 5 min             | 5% 0%                   | 0%                            | 0%                         | 0%         |
| 6-10 min            | 6% 0%                   | 0%                            | 0%                         | 0%         |
| 11-15 min           | 8% 1%                   | 1%                            | 1%                         | 1%         |
| 16-20 min           | 10.1% 4%                | 5%                            | 3%                         |            |
| 21-25 min           | 12.1% 6%                | 7%                            | 5%                         |            |



|           |        |     |     |     |
|-----------|--------|-----|-----|-----|
| 26-30 min | 15.3%  | 11% | 13% | 9%  |
| 31-35 min | 18.8%  | 13% | 16% | 11% |
| 36-40 min | 22.8%  | 16% | 19% | 13% |
| 41-45 min | 26.9%  | 19% | 23% | 15% |
| 46-50 min | 28.1%  | 20% | 24% | 16% |
| > 50 min  | 30.21% | 25% | 17% |     |

I'm sure that I don't have to ask for comments :- ) and of course, YMMV.

BTW, for those who don't know what we're referring to, we're talking about a chart and formulas published in the Zymurgy special issue on hops. Also, the complete formula is published in both Glenn's and my catalogs. And for those that don't know, the original article had a formula error in the gravity adjustment. It should have read:

$$GA = (\text{Boil Gravity} - 1.050) / 0.2.$$

Also, the example shown is wrong. It should be:

$$GA = (1.096 - 1.050) / 0.2 = 0.23.$$

Mark from HopTech

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Date: 08 Jun 93 06:59:09 EDT  
From: CHUCKM@PBN73.CV.COM  
Subject: Malt and Hops

Hello All....

1. What is the difference between caramel and crystal malt. When would I use/not use them.

2. The lower leaves of my Centennial (and Mt. Hood to an extent) hop vines are turning a yellowish color. Can anyone help out here as to what is happening, is it bad, and how do I stop it. I live in the Boston area.

Thanks for your help  
Chuck

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Date: Tue, 8 Jun 93 8:23:49 EDT  
From: U-E68316-Scott Wisler <swisler@c0431.ae.ge.com>  
Subject: Strawberry Ale

After reading all the articles on fruit beers over the past month, I decided to some strawberry ale. Fresh picked raspberries will have to wait for mid-summer. I had a 38 OG, 28 IBU pale ale in clearing in a secondary secondary fermenter. I bottled 4 gal, then added 1.5# of chopped and mashed up strawberries to one gallon remaining in my carboy. After about a week, I strained/racked off the beer with a grain steeping bag stretched over my racking tube. The beer, which was once very clear, now has the appearance of fresh-from-the-farm apple cider (golden brown and opaque). It is now in a one gallon glass secondary in the refridgerator 'clearing'. I have become curious about the absence of strawberrys in the previous HBD discussion, or any brewing literature for that matter. Strawberries are more pulpy than raspberries, but I really never expected the cloudy final product. If anyone else tried this, another data point would be nice.

BTW, I aquired a 3 barrel SS 'vat', for lack of a better term, that overwhelms my small scale. (10 gal takes up 3" in the bottom). It is 36" high by 31" diameter. It has a drain in the bottom with a sanitary fitting, a lid with a slot for a mechanical stirrur, and is on a heavy duty 3 wheel stand. My eyes got a bit greedy before my brain realized just how big it was. Anybody close to Cincinnati interested can private email me.

Scott Wisler  
swisler@c0431.ae.ge.com

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Date: 08 Jun 1993 09:52:09 GMT  
From: WAUTS@CWEMAIL.ceco.com  
Subject: Recipe Request

Does anyone have a good recipe for a low gravity traditional bitter, similiar to that served in England. I don't have a cask but I will be using an authentic beer engine :-). Please respond via private email if you can help me out. Thanks.

Tom Stolfi  
wauts@cwemail.ceco.com

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Date: Tue, 8 Jun 1993 07:54:04 -0700 (PDT)  
From: John Brooks <jbrooks@u.washington.edu>  
Subject: FULL SAIL ALES

I am a big fan of Full Sail (brewed in Oregon), especially their Amber Ale.  
Does anyone have any information about recipes for either their Amber or Golden Ales? [malt types, O.G., hop varieties, IBU's, etc.] Please post or reply to private e-mail. I will be glad to compile responses and post.

John (jbrooks@carson.u.washington.edu)

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"Don't Worry, Be Hoppy!"  
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Date: Tue, 08 Jun 1993 09:00:42 MDT  
From: John Landreman X1786 <jlandrem@atmel.com>  
Subject: Foam with kegging

In HBD #1158 Darren Evans-Young writes the following.

> I had exactly your same problem. The main cause of foaming  
> is dispensing with too low a pressure. However, since a higher  
> dispensing pressure causes more agitation of your beer, it also causes  
> the CO2 to come out of solution and foam. So the trick here is  
> to increase dispensing pressure but slow down the flow. How do you  
> do that? Use a smaller diameter dispensing hose so that it takes  
> more pressure to push the beer through the smaller hose. I changed  
> all my tubing from 1/4" to 3/16". The out connector and the cobra  
> faucet take 1/4" hose, so you have to have short pieces for connection  
> plus 2 hose unions that change from 1/4" to 3/16".

I have been able to attach both the cobra tap and disconnect to 3/16"  
hose  
by heating the end of the hose in hot water. This softens the hose enough  
to get it on the barbed fitting with out too much effort.

John

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Date: Tue, 8 Jun 93 11:30:24 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: Stuck Run-off

Hi All,

In HBD#1158, Riccardo Cristadoro asks about using kegs as fermenters.

Some time ago, I obtained some free pin-lock kegs from a friend who owns a restaurant. I had an existing ball-lock setup, bought some pin-lock hose barbs and used the new kegs for awhile, but eventually amassed enough ball-lock kegs that the pin-locks fell into disuse. Recently, I've been using them as secondary fermenters for lagers with great success.

I removed the pickup tubes, and cut about 1/2" off the end. Prolonged secondary at 40F produces a fairly thick yeast sediment, shortening the tube allows me to transfer from these kegs without picking up the sediment.

I put a ball-lock hose barb on one end of a short length of pressure tubing, and a pin-lock barb on the other, which allows me to connect a ball-lock keg directly to the pin-lock via the liquid out fittings. When the beer is ready, I put the CO2 tank on the gas in fitting on the pin-lock, and transfer the beer under pressure from the secondary to a ball-lock keg that has been purged of oxygen. The entire five gallon batch is transferred from one sealed, sanitized, oxygen-free container to another sealed, sanitized, oxygen-free container in about two minutes. No worries about starting a siphon, keeping my mouth off the siphon tube, no oxidation, no exposure to airborne micro-nasties.

The best part is that pin-lock kegs take up much less space than carboys, I can fit three batches of lager in the same fridge that won't take two carboys at once.

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Also in HBD#1158, Riccardo writes about a stuck sparge:

>My first wheat beer coincided with my first stuck run-off  
>during the sparge.

.  
>I should also mention that I used a infusion type mash w/o a mash  
>out. Do I need to mash out when I use that much wheat malt?

Wheat contains a lot of high molecular weight proteins, sparging a wheat mash is somewhat more problematic than one that contains 100% barley. Stuck mashes are a fairly common occurrence with wheat.

You didn't mention whether or not you did a protein rest, but I would \*strongly\* advise using a protein rest in the future, particularly if you're not going to use decoction mashing. Eric Warner recommends a staggered protein rest in his Classic Style series book, that is, brief rests at 117F, 122F, and 126F. At each of those temperatures, a different class of peptidase (protein reducing enzyme) is activated. The point is to break down as much high molecular weight protein during the mash as

possible, in order to reduce the chances of a stuck sparge later.

>I'm

>not even sure what could cause a stuck run-off except for too fine  
>of a crush on the grains.

Lack of heat in the tun is another classic cause, and this relates to your question on mash-out. When mashing-out, the temperature of the mash is raised to ~170F, and held for 5-10 minutes. Adding heat to the mash not only stabilizes enzyme activity, it is very helpful in avoiding a stuck sparge. Highly recommended for wheat mashes.

One other little pointer. When mashing barley, most brewers use a water to grist ratio of roughly 1 - 1.5 quarts/lb. When I brew a weizen, I use 1.5 qts/lb for the mash itself, as a thick mash protects protein reducing enzymes better than a thin one when the mash is heated. At mash out, I add quite a bit more water than I typically use for barley mashes. Since the mash is finished, enzyme activity is irrelevant, and the extra water thins the mash and helps keep it from setting during lautering.

Cheers,  
Jim

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Date: Tue, 8 Jun 1993 11:59:00 +0000  
From: "Bill (W.R.) Crick" <heybc@bnr.ca>  
Subject: Microwave for sterilization

Ralph Palmer asked about sterilizing in the microwave.

At a microwave cooking class that came with my microwave, they said DO NOT DO ANY CANNING<, JAMS, or PRESERVES IN THE MICROWAVE. They said stick to boiling it on a canner on the stove. I don't know why, but suspect that there could be an issue with the microwave not sterilizing well enough?

I have boiled wort in the microwave in a beer bottle, with a loose cap, and then capped it while hot, for yeast starters. It seemed to work OK, with no obvious growie things in the bottles after a few weeks in the fridge. The starter I made, and the beer seemed healthy

Bill Crick    Brewius, Ergo Sum

PS: If you have temp probe microwave, you can easily mash a few pounds of grain in the microwave. Just program the temps, powers, and times you want, including a mash out, and go cut the lawn or something. It beeps when its time to sparge;-)

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Date: Tue, 8 Jun 93 09:07:23 PDT  
From: johng@adx.la.ca.us (John E. Greene)  
Subject: Brewpub in Michigan.

>Date: 7 Jun 1993 13:36:01 -0500  
>From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
>Subject: brewpub opens in Michigan  
>  
>> Subject: Time:12:48 PM  
> OFFICE MEMO brewpub opens in Michigan Date:6/7/93  
>GREAT NEWS FOR THE STATE OF MICHIGAN!!!!  
>>  
>Well folks, it's finally happened. Michigan's first brewpub, The  
>Eccentric Cafe, will open its doors at noon, Friday June 11, 1993.  
>Located in downtown Kalamazoo, the brewpub is adjacent to The  
>Kalamazoo Brewing Co. Congratulations and thanks to Larry Bell,  
>president,  
>mover and shaker.  
>  
>Larry brews a fairly long and interesting, some would say eccentric  
>line of brews that range from the refreshing (Bell's Beer) to the  
>massive (Explorer Stout). I don't have a clue as far as which brews  
>will be offered in the pub. Some of us will be traveling from Ann  
>Arbor to Chicago this Friday for the national competition. Hummmmmmm  
>isn't Kalamazoo on the way? The usual report will follow....  
>  
>DanMcC

The last I heard (Jan, 93) it still isn't legal in Michigan to brew beer  
and  
serve it in the same place. Maybe I am just picking nits here but a  
brewpub  
it a pub where the brewery is part of the pub, no? Sounds to me like  
Larry  
Bell opened a pub adjacent to his brewery in which he will sell the beer  
brewed  
in his brewery. Not the same thing as a brewpub.

So either the Law in Michigan has changed in the past 6 months and I  
don't  
know about it or what it being described here is not actually a brewpub.  
I would like to know because there is a lot of interest in opening one in  
Traverse City should this law ever be changed. :)

-john (yoosed to be a yooper) greene

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Date: Tue, 8 Jun 1993 09:27:12 -0700

From: Richard Stueven <gak@wrs.com>

**Subject: Re: Yucky Stovetops**

>Date: Mon, 7 Jun 1993 09:43:02 -0700

>From: Bob Konigsberg <bobk@NSD.3Com.COM>

>

>2) Spills that get burned into place.

>CURE: Clean up spills right away, even if you have to turn off the

>heat and slide the pot to the side for a bit. They will never get

>easier to clean up, only more difficult.

Not at all! A wire brush attachment on your electric drill will do wonders cleaning up a burned-on mess. Of course, you'll have to forego your stove's enamel finish, but you'll end up with a nice burnished steel finish instead.

have fun

gak

Richard Stueven, Castro Valley CA

gak & gerry's garage, brewpub, hockey haven and pinball palace

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Date: Tue, 08 Jun 1993 08:56:16 -0700 (MST)  
From: Cisco <FRANCISCO@lan.ccit.arizona.edu>  
Subject: Calculating Proper Dispensing Pressure

There has been enough talk about dispensing pressures for cornelius keg systems so I thought I'd throw in some logic on how to calculate dispensing pressures. I have been kegging for over ten years and learned a lot by trial and error until I had the luck to run into the individual who sets up most of the draft systems here in Tucson. Believe it or not there is some logic to all this and your elevation from sea level must also be taken into consideration.

Optimum dispensing pressure is 12 lbs. at 36 to 40 degrees. For every 2000 feet above sea level you must add 1 lb. Tucson resides at 2400 ft above sea level so I need to add 1 1/4 lbs to 12 lbs to get a total of approximately 14 lbs(13 1/4) total dispensing pressure. I have a chrome tower draft column which will offset 3lbs pressure, leaving me with 11 lbs(14-3=11) that must be taken up with hose. How much hose will I need to offset 11 lbs? That depends on the inside diameter. A hose of 1/4 id. has a 1 lb drop for every 18 inches, so I would need 198 inches or 16 1/2 feet. That's a lot of hose! A hose with 3/16 id has a drop of 1 lb for every 4 inches, so I would use 44 inches or 3 ft 8 in. This is what I use.

After you have calculated and assembled your system you can fine tune the way your system pours a beer by adjusting the pressure no more than 1 lb above or below the calculated pressure. My CO2 pressure is set at 13 1/2 lbs and I get a beautiful creamy head about an inch thick.

One last point is that you should keep your CO2 tank at room temperature - not in your cooler. If you keep the CO2 tank in the cooler the CO2 can not form a gas and remains in a liquid state feeding into your beer and eventually it will overcarbonate it. Read the dial that states internal tank pressure and when it is stored in a cooler you'll notice that the dial indicator is in the red zone, take it out and let it sit at room temperature and the dial will move above the red zone indicating that the CO2 is allowing gas to form from the liquid.

My draft system is in an old freezer with a Johnson type controller. The Hunter airstat just couldn't get the temperatures I wanted.

The new magazine Technical Brewer is great! Keep up the good work!! The short blurb on dispensing pressures was nice but it left out some of the fine points of calculating proper pressure.

John Francisco  
Francisco@lan.ccit.arizona.edu  
May your homebrew always give you good head!

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Date: Tue, 8 Jun 93 11:37 CDT  
From: korz@iepubj.att.com  
Subject: Sanitizers

As an offshoot of the Bleach/Iodophor/SS discussion, Ulick and I have exchanged some private email, the last of which had a few points of general interest:

U>I guess that is the best solution. I use bleach for  
U>sanitizing everything - but the only stainless I use  
U>is a spoon. It does corrode my wort chiller (Cu) and steel

A>I have a copper immersion wort chiller and I don't use any  
A>sanitizer on it -- I wash it with water immediately after use,  
A>store it in a large plastic bag between uses and sanitize it  
A>by dunking it in boiling wort for a few minutes.

U>spoons I use for skimming if I leave them soaking a while.  
U>I don't see why anyone would want to use any chemical  
U>when stainless kegs can be boiled anyway.

A>Yes, but the kegs I have, have rubber tops and bottoms, not to mention  
A>the rubber seals throughout the beer path (8 seals if you include the  
A>large one -- I just reconditioned two kegs... I know) which would  
A>probably  
A>survive several bouts with boiling, but would eventually lose  
A>elasticity  
A>and not seal anymore. Boiling water is a good sanitizer, but is also  
A>more dangerous. Bleach and Iodophor only harm you if you get them in  
A>your eyes or mouth -- boiling water will mess you up anywhere it hits  
A>you!

Al.

P.S. This last statement is probably of some general interest. Do you mind if I post the above email? Or you could just post it, I don't care.

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Date: Tue, 8 Jun 1993 13:22:42 -0400 (EDT)  
From: Bryan Kornreich <bkornrei@pennsy.med.jhu.edu>  
Subject: Are stouts really thick?

Hi All,

In response to Paul Labrie's comment that his friends labelled his not-so-thick stout as a thick beverage, I think I may have an idea what's going on with them:

When I first started drinking beer--not too long ago, since I'm only 22-- I also tended to call stouts "thick". And in fact, I still call that

Guinness stuff in the bottle (though not so much the draught) "thick".

I guess I can speak from a tiny bit of medical/physiological authority since I'm a medical student, but I don't know if that's necessary. I think the reason is threefold:

1. It has to do with the strong flavor and bitter aromas of a stout in comparison with a pilsner, or even an ale. The burnt chocolate malt and other strong/bitter flavored ingredients give a greater input into the bitter taste receptors of the tongue but especially to the olfactory receptors in the nose. Don't forget--all this burnt grain stimulus is in addition to the bitterness of the hops. And in an ale, the predominant odor is fragrant hop--in a stout, burnt grain/coffee/chocolate odors predominate--and these are bitter aromas. So even though your stout may not taste as bitter as some ales, the bitterness of the stout is multimodal (taste and smell), so it may seem to be more bitter overall. This bitterness may be manifest as a much more potent and "thicker" input to the brain.

It's not at all unlike strong coffee (especially since stouts often have coffee-type aromas and flavors). A strong batch of coffee or espresso will seem thick, even though the liquid itself isn't syrupy--and indeed they are thick, with flavor.

2. The visual cues of a dark stout, (during the cerebral phase of digestion for those picky readers) prepare the mind and the gut for receiving a thick liquid. In nature, dark liquids (eg: mud, honey...) are often thick, so the brain associates dark liquids with thick/viscous liquids, and clear/light colored liquids (eg: water, salt water) with thin liquids.

3. Stouts typically have a thick creamy head, which will make one subconsciously think that the beverage beneath is itself thick and creamy--like a milkshake.

Of course, as experienced beer drinkers, we all know that dark colored beers are not all thick, though some may be thick tasting. Just look at Michelob dark--Michelob with brown food coloring--or here in Baltimore, we have National Bohemian Dark, which is an even poorer imitation of Michelob Dark.

I hope I haven't bored you to death,  
Cheers,  
Bryan

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Date: Tue, 8 Jun 93 12:14:23 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: "fermented" beans/american beer/headaches

Thanks to Jeff Frane for the info re: "fermented" (not) "black" (not) beans.  
Seems like I'll either have to go to the Asian market in Des Moines or find someone who knows how to make the suckers.

The postings in the latest HBD from George Fix and "thutt" re: American mega-brews reminded me of an interesting experience I had this weekend. A friend of mine (who appreciates my homebrew very much) offered me a Coors Extra Gold to try. So, I said, what the hell. I was actually pleasantly surprised - the stuff actually tasted like it had something to do with malt! So, I had another.

Now, at this point I actually hadn't had a budmilloors in months. So I am wondering if other HBD reader concur with me that this is a slight cut above?  
I suppose I could be enterprising and give myself a blind tasting of megabrews to see if I could pick out the Extra Gold from among them, but hey, let's get real - when there's homebrew around, why should I torture myself?

The other reason I don't want to do this - and the reason I stopped after two Extra Golds - was that I got something I don't remember getting in a long time: a headache! Now, I normally just have one homebrew a night. Helps me sleep well, and makes me get up on time when I have to go to the bathroom. On occasion I have indulged in two or more homebrews at a time, and I have gotten warm fuzzies, or even been a little drunk - but no headaches. (I don't think I can compare my experiences with really "good" commercial beer, because it tends to be so expensive I consider it a waste to overindulge in it - I hardly ever have more than one at a time).

Does anyone else have experience comparable to this? Anyone get headaches from homebrew? Is my non-headachy homebrew due to my use of the blow-off method (that ought to be good for some lively dialogue!) or is it common for homebrew not to cause headaches anyway? Could I be allergic to the preservatives in commercial beer? At any rate, now I remember why back in my youth (creak) I had such a hard time getting drunk on beer. Two or three bumilloorses and that was about all I could stand. Of course, maybe even back then my palate was crying out, "no, not that swill, please -- get me some real beer you dolt!!"



Jonathan Knight  
Grinnell, Iowa

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Date: Tue, 8 Jun 93 10:37:12 -0700  
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
Subject: Stratified Homebrew

>Date: 7 Jun 1993 10:53:44 U  
>From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
>Subject: Wheat beer puzzle: 2 layers?

>  
>One of our local club members reported a puzzling result from his  
>latest batch. Since no one here could positively identify what  
>happened, I thought the collective wisdom of the HBD could at least  
>offer some plausible theories.

>  
>The situation:  
>A German wheat beer, about 60% wheat, mashed and boiled normally,  
>and pitched with Wyeast wheat yeast. Fermented at 75 to 80 degrees  
>Fahrenheit to get the most spiciness, and racked to a secondary  
>after 3 days. Fermentation stopped after 10 days, and when he  
>looked at it, it seemed to be in two layers. The top half of the  
>carboy was dark, and the lower half was much lighter. Thinking  
>that it was a case of the yeast simply taking a while to settle  
>out, he peered through the carboy, using a flashlight. No, the  
>top half was definitely much darker, and there was a distinct  
>dividing line in the middle, separating the layers.

I had exactly the same thing happen with a steam beer. The only common element seems to be the high temp ferment. I never racked off, and after a couple of days I began to dump ice on the carboy because it was getting up to 90 in my apt. Within a few days of starting with the ice two distinct layers developed just as you described. I don't know what caused it, I eventually stirred up the whole mess and bottled it. A month later I flushed 50 bottles of beer down the toilet, which should speak for itself :-). I think you've had better luck.

- --arne

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Date: Tue, 8 Jun 93 12:06:43 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Dry Hopping 100 IBUs?

Peter Maxwell writes:

>Summary:

Hop pellet residue that got into my bottles seems to be making the beer progressively more bitter and undrinkable.

>My first try at dry hopping resulted in some suspended pellet material getting into the bottles. At first the beer was delicious, with a lovely fresh hop aroma but 6 weeks later the beer is becoming undrinkable. Is this likely to be due to continued extraction of bitterness? I am under the impression that hops must be boiled to extract bitterness. Is an infection likely? There's no unpleasant taste, just this very bitter characteristic.

I suspect what has happened is this: A significant amount of beta acids got into your beer either from the dry hopping or the boil. In the bottling, racking or some other process, you also introduced a lot of oxygen which has caused the beta acids to oxidize. Normally, the beta acids are not bitter, but when oxidized they become bitter.

I would doubt that you have an infection. I would also doubt that the suspended hop particles are the actual culprit, unless we're talking about \*lots\* of them. If there are really a lot, you might now be extracting tannins, which you might be interpreting as bitterness. But this is highly unlikely. Usually you get this effect \*first\* and then it mellows into a nice hoppy aroma.

Next time you should use a hop bag to get rid of the pellet particles and see what you can do about reducing O2 introduction.

Mark from HopTech

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Date: Tue, 08 Jun 93 16:13:16 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Kegging Alternatives

> On page 6 of BREWING TECHNIQUES, there is an ad for a 5 liter Mini Keg  
> System.  
> I am not interested in 5 gallon Cornelius keg systems at this time,  
> but there  
> are

I currently "keg" in the 5 litre minikegs. Absolutely unbeatable for ease of use. Simply rinse them, pop them in the oven at about 250 for half an hour, rinse the outside to cool, fill and plug. I have two kinds of tap, a pump, and a CO2 cartridge type. The CO2 tap has a valve to shut off gas flow, and I have found that I can store the tap for two months without losing pressure, simply by turning off the valve. Each cartridge will dispense 1.5 5l cans. I use the hand pump when reasonably sure that the beer will get consumed rapidly. If you are ordering from the place in Pa, they have converted to the smaller US CO2 chargers. I don't know how long they will last.

As I understand it, the outfit in Pa. has a limited supply, as they purchased the leftover stock of a defunct brewery. I am considering going into business selling cans and taps. My cost is about \$5.50 a can, and \$15-\$20 for the tap depending on type. These prices would go down if I was able to order more from the importer. Supposedly, the original mfg of the cans was in the US, but is now exclusively in Germany. It would be great if we could get them made here again.

Drew

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Date: Tue, 8 Jun 1993 10:08:00 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: More on Black Beans (still no beer)

I checked on those fermented black beans last night. As I remembered, they're actually soybeans, and they are first inoculated with a special fungus, then dried, and occasionally salted. These are apparently the oldest form of what we now know as soy sauce (brown bean sauce is the intermediary step in soy sauce evolution). But, anyway, fermented they're not, at least in the sense that we use the term as brewers.

- --Jeff

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Date: Tue, 8 Jun 1993 20:03:32 -0500 (CDT)  
From: Hi-keeba! <BIRMINGH@FNALV.FNAL.GOV>  
Subject: Miller reserve

Prof. Fix says:

>One final point. It is my belief that Miller Reserve is made exclusively  
>from malted barley, and in particular no raw barley is used. I would be  
>willing to bet that the phrase "100% Barley" was chosen by their  
marketing  
>people and not by their brewers.

I may be able to shed a little light on that subject, actually.  
About two years ago, I took part in a marketing taste test, the  
product  
being Miller Reserve Amber Ale (let's just say that I couldn't avoid  
the guy with the clipboard in the mall, and when he offered me beer,  
I  
didn't want to.)

Anyway, I was given several little cards with the names of beers  
on them, and told to rank them (I could stack cards to indicate that  
I  
thought certain beers were more or less interchangeable.) I forget  
the  
names of all the beers; Samuel Adams was one, the rest were  
undistinguished beers. I don't remember if there were any imports in  
the list, and I wouldn't have recognized most microbrewery products  
then.

After I ranked the beers, I was given a sample of the ale, then  
told to insert it into my ranking. I put it between the 'premium'  
megas  
and Sammy's.

The surveyor then asked several questions, and had me fill out a  
questionnaire. The word "barley" came up several times, but since I  
was  
not yet a homebrewer, the word "malt" did not. I knew about the  
Reinheitsgebot, however, and thought I should stress "barley good,  
corn  
and rice bad."

I'm not saying that I skewed their statistics or anything, but  
considering that I liked the beer and therefore am one of the people  
they want to reach, my words might have been more heavily weighted.  
Also, it's conceivable that there were lots of other people who knew  
that  
barley malt makes good beer, but didn't know how important the  
difference between raw and malted barley can be.

So, anyway, this is possibly part of the reason that the Miller  
marketing types use the phrase "Barley" and not "Barley Malt."

Phillip

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Date: Tue, 8 Jun 93 20:47:08 CDT  
From: wayne\_clark@SEMATECH.ORG  
Subject: victory malt?

From: NAME: Wayne Clark  
FUNC: 230  
TEL: 512-356-3994 <CLARK.WAYNE@A1@VAXEN>  
To: "homebrew@hpfcmi.fc.hp.com"@INTERNET

Last week I was in the beer section of the n. Austin Whole Foods Market picking up some supplies for my next batch of homebrew. I came across a package of "victory malt" from St. Patricks. Can anyone tell me what this is, and what style of beer it would be used for?

Just curious -

Wayne

wayne\_clark@sematech.org

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End of HOMEBREW Digest #1159, 06/09/93  
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Date: Mon, 17 May 93 16:20:15 EDT  
From: "" <allers@hns.com>  
**Subject: Stoudts Microbrewery Festival**

I will be in the Adamstown Pa. area on June 12 for the annual Microbrewery festival sponsored by Stoudts brewery. If the weather is good I want to camp out instead of moteling it. Can anyone familiar with the area recommend a good place to camp?

Dan

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Date: Wed, 9 Jun 1993 07:50 EDT  
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>  
Subject: William's

I have two of the William's controllers for fridges. I am completely happy with them. Im not sure how the innards work--as requested in yesterday's HBD--but it does an excellent job of keeping the temperature near to what you set.

Actually--it cools the fridge to below the temp you set--4 degrees--then allows it to warm up to the set temp--then cools again.

I've used an indoor outdoor thermometer (the kind with a probe) to check whether the Controller is accurate and it seems to be so.

I tihnk the thing also has a 1 yr guarantee--although I think it might (hope) be lifetime! Anyway--it does have a broader range than the Hunter--the Controller goes from 20-80 degrees F--the hunter low end range is 40.

If any brewers have further questions on this--feel free to e-mail me.

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva.bitnet  
Internet: oconnor@snycorva.cortland.edu

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Date: Wed, 9 Jun 93 08:30:11 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: headaches

Hi All,

In HBD#1159 Jonathan G Knight writes:

>The other reason I don't want to do this - and the reason I stopped  
after two  
>Extra Golds - was that I got something I don't remember getting in a  
long  
>time: a headache!

Yep, same here, one or two Budmillors was always sufficient to give me  
a pounding headache the next morning.

>On occasion I have indulged in two or more homebrews at a time, and I  
have  
>gotten warm fuzzies, or even been a little drunk - but no headaches.  
>Does anyone else have experience comparable to this?

Ditto again, my consumption will vary from just one to several at a  
time, but regardless of consumption levels, I've never gotten a hangover  
from drinking homebrew.

>Is my non-headachy homebrew due to my use of the blow-off  
>method (that ought to be good for some lively dialogue!) or is it common  
for  
>homebrew not to cause headaches anyway?

At the risk of re-starting the blowoff vs. no blowoff thread, I don't  
think  
use of a blowoff system has anything to do with this, as I use 6.5 gallon  
carboys as primary fermenters, no blowoff. IMHO, the reason the mass  
produced commercial swill always gave me such awful headaches was due to  
their use of artificial preservatives/flavorings. There just isn't  
enough alcohol in 12 ounces of ~4.5% beer to account for getting me that  
sick.

On the other hand, homebrew has plenty of nice, healthy yeast in it.  
One  
of the reasons people get hangovers is the depletion of vitamin B that  
occurs as the body processes alcohol. Yeast is a great source of vitamin  
B,  
and I think that's one reason I don't get hangovers from drinking  
homebrew.

Comments? Anybody else noticed a homebrew/no hangover connection?

Cheers,  
Jim

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Date: Wed, 9 Jun 93 14:05:24 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: RE: Stuck Run-off

James writes:

"Eric Warner recommends a staggered protein rest in his Classic Style series book, that is, brief rests at 117F, 122F, and 126F. At each of those temperatures, a different class of peptidase (protein reducing enzyme) is activated."

I could use a little more information here. Where does Warner say these digestion enzymes come from, ie, from malted wheat itself, or from any accompanying lager malt (I presume not from either ale malt or unmalted wheat)?  
Secondly, does the mashing schedule differ according to whether one is using malted or unmalted wheat (I presume the latter requires more digestion)?

- - -  
Conn V Copas  
Loughborough University of Technologytel : +44 509 263171 ext 4164  
Computer-Human Interaction Research Centrefax : +44 509 610815  
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Date: Wed, 9 Jun 93 09:23:11 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Hops/Hot Break and Strawberries

To add hops before or after the hot break. Good question.

I can't say much about the utilization factor, but I *have* found, on advice from this forum, that if you skim off the hot break you don't have to worry about boilovers. I now do this regularly with great success.

Of course, this means that you add the hops *after* skimming off the hot break (unless you can mechanically figure out a way to leave in the hops floating amongst all this stuff).

++++++

Strawberries:

The flavor of strawberries isn't very intense, IMHO. I have tried using them in beer without any success and suspect you will need on the order of 20 lbs per 5 gallons to get any strawberry flavor. Once the sugar ferments out, the remaining flavors are very subtle.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Wed, 9 Jun 1993 10:13:14 -0400  
From: Nick Zentena <zen%hophead@canrem.com>  
Subject: Duties on importing Belgian malts into Can

Hi,

I checked the following out for both myself and because of somebody else question. So I thought I'd pass the info on.

I called customs and got the following info.

chapter 11.07.10.10.00 covers unroasted whole malt [I hope this means pale etc]

chapter 11.07.20.10.00 covers roasted whole malt[RB,black etc I guess]

Duty on belgian malt is \$0.0073[.73cents]per kg. for whole malt. Thats \$0.37 per 50kg bag. If they actually charge you the duty the custom service charges would likely higher.

Crushed malt is 1.1cents per kilogram.

The duties are on belgian malts I didn't ask about US malts they maybe [and likely are] different. Also any local taxes aren't included but at least here in Ontario the items are classed foodstuff and not subject to tax.[cross your fingers and pray on that one]

Nick

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I drink Beer I don't collect cute bottles!  
zen%hophead@canrem.com  
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Date: Wed, 9 Jun 1993 07:38:35 -0700 (PDT)  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Hop Utilization and temp controllers

Mark posted his "better estimates" of hop utilization. Thanks for a "seat of the pants/back of the envelope" estimate. I don't think yeast flocculation has anything to do with hop utilization. I DO know what your saying and DO understand the resultant effect of yeast flocculation, however lets keep the two seperate. I sure hope Glenn is doing that. I would rather do two separate calculations.

On a different subject... Those that are looking for a temp. controller, I use Honeywell temp controllers (yes they have the little tube connected to them, ie. none electronic). The one I use has a single pole double throw switch in it. This allows me to control either a cooling source or a heating source by flipping another switch mounted in the bottom of the unit. This way I can control warmer temps in the winter for making ales. I use a glow coil screwed into a light socket for the heat source. Works great! The temp controller was about \$22 from Johnstone's (a local parts supplier).

What's the count from all the regional first rounds?

Bob Jones

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Date: 9 Jun 1993 10:08:10 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: MI Brewpubs

Subject: Time:9:54 AM  
OFFICE MEMOMI Brewpubs Date:6/9/93

John writes:

>So either the Law in Michigan has changed in the past 6 months  
>and I don't know about it or what it being described here is not  
>actually a brewpub.

The law WAS recently changed (early 1993 as I recall.....help Spencer!)  
and a number of \*real\* brewpubs are in the planning/development stages.  
You  
may be correct about the \*true\* definition of the Eccentric Cafe  
since it is at the site of a long standing brewery. However, an  
establishment  
in which you can sit down at a table or bar and order  
a beer that was brewed on-site seems to fit the guidelines in my book. 8-  
)

BTW this makes the Kalamazoo Brewing Co. not only Michigan's oldest  
operating  
brewery, but Michigan's oldest operating Brewpub.

>I would like to know because there is a lot of interest in opening  
>one in Traverse City should this law ever be changed. :)

More good news! Now if you could serve cider similar to Larry  
Mawby's Tatoo.....

DanMcC

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Date: Wed, 9 Jun 93 09:13:11 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Clarifying Fruit Beers

After reading the recent thread on fruit beer I decided to give one a try. The batch history (from memory):

For 5 1/2 gal  
5 lbs Briess 60%wheat/40%barley malt extract  
1 lb Briess amber barley malt extract  
7 HBU Goldings (I think it was Goldings)  
OG 1.038  
Chimay Yeast repitched from a recent batch

One week primary fermentation  
Secondary fermentation 4 days  
All fermentation at ~70 F

5 lbs fresh blackberries macerated w/2 crushed campden tablets.  
Allowed to sit in bucket for 36 hours.

Fruit put in 7 gal carboy and beer racked on top. Fermentation restarted in 36 to 48 hours. Slow but steady fermentation for about a week. By then most of the fruit pulp had floated to the top of the beer and had lost most of its color, sort of looked bleached out. I then racked under the floating fruit and over the sediment back into a 5 gal carboy where it has been for an additional week.

The 5 gal carboy is full up to the neck and I can still see little CO2 bubbles forming in the neck. A last check I was getting about 4 bubbles/hour out the lock. SG at final racking was 1.010. There's a yeast sediment at the bottom of the carboy. The beer's a \*beautiful\* pinkish red color. But, its not clarifying. Not a sign of clarification even near the top. It looks like a huge bottle of chilled Celis White (except for the color).

I would like:

- 1) General comments. (Does this read like the way your fruit beers behaved?)
- 2) Specific comments about clarity. Will it clarify eventually? How long should I wait?
- 3) If it isn't going to clarify, how can I tell when to bottle?

Sante', WAK

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Date: Wed, 9 Jun 93 08:11:01 PST  
From: Bob W Surratt <Bob\_W\_Surratt@ccm.hf.intel.com>  
Subject: Calculating % Alcohol

Hello all!

I know that I've seen this before in the digest, but failed to save it. I wanted to know how to calculate the % alcohol by weight & by volume by using the specific gravity readings. I just got my hydrometer & now want to put it to use.

Thanks,

Bob Surratt Orangevale, CA

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Date: Wed, 9 Jun 93 10:49:33 EDT  
From: mmlai!lucy!gildner@uunet.UU.NET (Michael Gildner)  
Subject: phils mill

I got my free issue of Brewing Techniques the other day and I noticed an ad for a grain mill called Phil's Mill. The ad was very sparse on information but it did say the price was suprisingly low. It showed the mill clamped to a table with a 2 liter bottle for a hopper. Has anyone seen or used one of these mills?

Mike Gildner  
gildner@mml.mmc.com

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Date: Wed, 9 Jun 93 08:34:01 MDT  
From: pyle@intellistor.com (Norm Pyle)  
Subject: IBU, etc. calculations

The last several batches I've brewed were hopped according to a program I received from a fellow hb'er. It calculates the IBU's for a "balanced" beer, based on OG, volume, etc. It also calculates the IBU's that I would achieve with certain hop additions (AA%) at a given boil time, etc. It is very handy, and I've had no problems hitting my hopping rates right on with this program. I typically adjust my IBU's on the hoppy side of "balanced", maybe 10-20% high, and I've been quite happy (hoppy).

The problem is this: it runs on a PC and I only have PC's available to me at work, not at home. Lets just say I get enough of computers during the day. I'd like a list of these formulae on paper so I can run the numbers the old-fashioned way at home, during the brew process. He said he took them out of an old issue of Zymurgy, presumably the hops special issue. Does anyone have this handy and could post a concise list? I could probably go out and find the issue, but I'd sort of like to have it this week. Thanks.

I may just try a type of easysparger in my cooler mash/lauter tun next time (who sez it has to be done in a pot on the stove?). Of course, if my extract efficiency goes way up, my hopping rates will have to be recalculated!

Cheers,  
Norm

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Date: Wed, 9 Jun 93 09:37:34 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Apology from a curmudgeon

in HBD #1158

"Stephen Hansen" <hansen@gloworm.Stanford.EDU> writes:

[snip]

>I have noticed that the curmudgeons among us have been getting more  
>active of late. You know who you are, so knock it off. If you don't  
>like a post's contents or it's tone then send private e-mail and try  
>and resolve it that way. If someone posts something misleading you  
>should give them a chance to correct it themselves. If you feel you  
>MUST flame I strongly suggest that you wait 24 hours between writing  
>the flame and sending it.

[snip]

My incursion into the Korz/O'Connor fued over sanitizers (HBD#1156  
"Beyond momilies") was the tackless outburst of a curmudgeon. I would  
like to add a public apology to the personal ones I've already made.

To all you who had to read my post, please excuse me.

Thankyou, Stephen, for your timely and instructive advice (above).  
I will, from here on, try mightily to follow it. I think the  
24 hour waiting period is an especially good idea.

Sante', WAK

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Date: Wed, 9 Jun 93 08:24:47 PDT  
From: rone@alpine.pen.tek.com (Ron Ezetta)  
Subject: Re: The stick I buried won't grow

>A few day ago I posted to r.c.b and received no repsonse. Basically I  
>buried a Rhizome an inch deep 2 weeks ago and nothing has peeped up yet.  
>Comments? Is it dead or did I dod something wrong (I planted it  
>horizontally).

Last year I planted a rather sickly looking Cascade rhizome. After several weeks a couple of weak shoots appeared (while the Mt. Hood hops, planted at the same time, were growing vigorously) and grew to a whopping two feet tall. This year, my Cascade hops are still weak looking, but have grown to 5 feet tall.

The rhizome should be planted vertically. The shoots should bud out from the rhizome like branches on a tree. They may travel horizontally and eventually turn upwards.

-Ron Ezetta-

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Date: Wed, 9 Jun 1993 08:59:43 -0700 (PDT)

From: gummitch@techbook.com (Jeff Frane)

**Subject: Those Lite/Light/Lyte Beers**

Some very interesting information about Light beers from Dr. Fix. I'd be interested in tasting a lager like that -- it sounds like it would go a long way toward explaining the popularity of American beers before Prohibition. When I started doing all-grain ales, I used a small portion of flaked maize and the results were as George described. Hmm, maybe we should try that again...

At any rate, when the Blitz-Weinhard brewery developed their light beer, they apparently achieved the lower gravity by Reducing the Amount of Corn Grits! What a concept! And the amazing thing is, the beer is really very good -- at least if you drink it from the taps at the brewery. The flavor profile is definitely improved by cutting down on the breakfast cereal additions.

Now if B-W would only try brewing an all-malt lager of their own...

- --Jeff

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Date: Wed, 9 Jun 1993 12:00:00 +0000  
From: "Bill (W.R.) Crick" <heybc@bnr.ca>  
Subject: re:mircowave mashing

I had a few requests of details on my microwave mashing methods, so I thought I'd post it.

What I do is something like this, but I'm still developing the method.

To mash two pounds of grain in a large plastic bowl.  
Add about 1.5litres of water at 130F to grain to get protein rest of around 122-125F.

Put in microwave with temp probe in middle of mash, supported by chopsticks across the bowl.

Program following on microwave: (Mine is a Panasonic "Quasar")

- o low power 130F  
This will slowly warm it up for a protien rest.  
after about 30 minutes clear program and program following:
- o medlow 160F
- o hold temp 160F 30minutes
- o medlow 170F

Wait for the beep, and then sparge in a sieve, or colander with a litre or two of 170F water, into boiling pot.  
Add extract and boil, Add hops .....

NOTES:If you use too high a power level, the outside heats faster than the inside, and you get uneven heating. Too low a power, and the temperature ramp is too slow.

My microwave cycles temperature in the hold temp program from about 5F below setting to actual setting. IE:for 160F it will go down to 155F , add heat to 160F, cool to 155F ....

This is a good range if you are trying to use a partial mash to add maltiness, and body to an extract beer.  
To change the alcohol, body balance , you could do a 150F step, or use a lower power toramp the temperature more slowly. I usually am going for body, so I sometimes use a 170F water infusion after the protein rest to get to the mash temperature faster, and then only used the microwave to hold the temp, and do the mash out. I forget the amount, but I think it is .75litre of 170F water per pound of grain, assuming there is already .75litres per pound of water for the protien rest.

Bill -nuke it on high for 15 minutes, and then bottle it- Crick

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Date: Wed, 9 Jun 93 11:04:48 CDT  
From: jlf@palm.cray.com (John Freeman)  
Subject: canned beer

Is there any good beer that comes in cans? I like to have a beer while fishing, and don't want to risk breaking bottles. My fishing buddies showed up with Bud Lite and Pig's Eye last weekend. So it's either bring the beer myself or get new friends...

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Date: 09 Jun 1993 18:25:28 +0200  
From: KENT@lecs.ericsson.se  
Subject: RE:Strawberry ALE

>The beer, which was once very clear,  
>now has the appearance of fresh-from-the-farm apple cider (golden brown  
>and opaque). It is now in a one gallon glass secondary in the  
>refridgerator 'clearing'. I have become curious about the absence of  
>strawberrys in the previous HBD discussion, or any brewing literature  
for  
>that matter. Strawberries are more pulpy than raspberries, but I really  
>never expected the cloudy final product. If anyone else tried this,  
>another data point would be nice.

I have brewed a combination of the "Strawberry Beer" From CATS MEOW - II  
and Papazian's "Rocky Racoon Honey Lager". What I did was make a batch  
of  
Rocky Racoon, but used ALE yeast (I'm still limited to brewing Lagers in  
the  
Winter). To the recipe I added 1 lb of Crystal Malt, and then steeped 8  
pints of pureed fresh Strawberries in the Wort after boil.

As the Cats Meow recipe suggested I added a few tablespoons of Pectic  
Enzyme  
to the primary fermenter to aid clearing. I also used Gelatin Finings  
(for the first time) on this batch since it still a little cloudy after ~  
2  
weeks in secondary. It appears to be clearing well in the bottles,  
but has a lot of sediment on the bottom.

The beer did turn out very well, a very pronounced Strawberry smell, and  
a  
pleasant Strawberry flavor. The only problem was the the primary  
fermentation looked really bad with all the chopped up strawberries and  
sludge floating around in it.  
(I received more than a few comments about what it looked like ;^>).

Jim Kent Ericsson GE

P.S. This post did not really come from Sweden!

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Date: Wed, 9 Jun 93 10:30 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: Peach wine/beer?

My brother's got some peaches, and wants to make wine. Suggestions anybody?  
OTOH, I like fruit beers, so maybe I'll snag some of his peaches to make me a peachy brew. Has anyone ever made beer with peaches? Reactions?

Thanks,  
Chuck

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Date: 09 Jun 1993 09:09:00 -0700 (PDT)  
From: Philip Atkinson 356-0269 <PATKINSON@galaxy.gov.bc.ca>  
Subject: Old, old ale

Last week I did the weeding thing around the garden and discovered an enormous alecost plant in the herb patch. Well, it's just too tempting to pass up so I'm going to have a bash at brewing with it. Has anyone tried it as a bittering medium? I don't know anyone who was around in the fifteenth century and the leaf I tasted was very bitter but much more like wormwood than hops. Wormwood is the characteristic bitterness found in many aperitifs like Campari and Cinzano Rosso. Please E-Mail direct if you can help or are interested. I'll post the results when its all done.

Waes hael

Phil Atkinson  
Victoria, BC

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Date: Wed, 9 Jun 1993 09:53:32 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: headaches

>From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>

>

>Does anyone else have experience comparable to this? Anyone get headaches

>from homebrew? Is my non-headachy homebrew due to my use of the blow-off

>method (that ought to be good for some lively dialogue!) or is it common for

>homebrew not to cause headaches anyway? Could I be allergic to the >preservatives in commercial beer?

Here's a data point, for what it's worth...

During the 1991-92 Sharks season, the best beer they served at the Cow Palace was Meister Brau. (Insert trendy umlauts as needed.) While it's certainly not the best beer in America (oops, apologies to Mr.Koch and his lawyers) I generally put away four or five or six large cups (at \$4.50 a throw) during a game.

During the 92-93 season, they replaced Meister Brau with Miller Genuine Draft, got rid of the large cups, and sold the small ones for the large price. Half a cup of this stuff gave me a ripping headache, so I drank 7-Up at the games last year.

Next season in the new "Your Company's Name Here Arena at San Jose", we'll be drinking Gordon Biersch beers, which I'll guarantee are headache-free.

have fun  
gak (The Go Man...GO SHARKS!)

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewpub and hockey haven

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Date: Wed, 9 Jun 1993 10:00 PDT  
From: shane <DEICHMAN@perch.nosc.mil>  
Subject: Strawberry brews

Scott (swisler@c0431.ae.ge.com) described in the latest HBD his experience with adding strawberries to the secondary, and mentioned the cloudy results. I've never tried adding strawberries to my fermenting brew, but I have made strawberry-flavored vodka (as well as kiwi, raspberry, and blueberry). The hard, non-pulpy fruits (like blueberry and raspberry) worked best, straining out with no residue or precipitate left in the vodka; strawberries left a pulpy haze which coagulated when left in the freezer.... Of course, the taste was quite good (Stolichnaya, da? :-)

vr/ shane  
<deichman@perch.nosc.mil>

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Date: Wed, 9 Jun 93 12:32 CDT

From: korz@iepubj.att.com

Subject: Re: Malt and Hops/Dispensing Pressure/Beers and Headaches \*  
THEORY\*

Chuck writes:

> 1. What is the difference between caramel and crystal malt. When  
> would I use/not use them.

They are the two names for the same type of malt, one that, while still wet from germination, has been warmed into the saccharification temperatures and effectively "mashed in the husk." Crystal (or caramel) malts add some residual sweetness (via the added unfermentable sugars that they provide)

, some caramel-like flavor, some color (depending on the darkness of the malt) add a bit of body and increase your head retention a bit. There are certain styles for which a lot of crystal malt is not appropriate (like IPA) and some that require it (like Bitter). In general, consider the style you are trying to target with a batch and think about whether it has some caramel-like sweetness. If it does, add 1/2 to 2 lbs of crystal malt. Crystal malts come in various darknesses, the lighter ones, of course add less color and caramel flavor, the darker ones more.

> 2. The lower leaves of my Centennial (and Mt. Hood to an extent)  
> hop vines are turning a yellowish color. Can anyone help out  
> here as to what is happening, is it bad, and how do I stop it.  
> I live in the Boston area.

Check a general gardening book (I don't have mine here and I don't recall what yellowing leaves indicates). However, hops are one of the few plants that require Magnesium, a shortage of which will cause the hop leaves to turn lighter green between the veins, then yellow, then eventually brown. I've been using MgSO4 (Epsom Salts) for adding Mg, but I don't know if this is the best thing to use. I've been adding about 1/2 tablespoon to each hill every two weeks.

\*\*\*\*\*

Cisco writes:

>Subject: Calculating Proper Dispensing Pressure

>One last point is that you should keep your CO2 tank at room  
>temperature - not in your cooler. If you keep the CO2 tank in the  
>cooler the CO2 can not form a gas and remains in a liquid state  
>feeding into your beer and eventually it will overcarbonate it. Read  
>the dial that states internal tank pressure and when it is stored in  
>a cooler you'll notice that the dial indicator is in the red zone,  
>take it out and let it sit at room temperature and the dial will move  
>above the red zone indicating that the CO2 is allowing gas to form  
>from the liquid.

First of all, I'd like to say, that was great post. Secondly, I'd like to mention that I've had no problems with keeping my CO2 tank in the cooler. Sure, the high-pressure side is considerably lower than if I leave the tank out at room temperature, but who cares if the high-pressure side of the regulator is getting 200psi or 400psi?



As long as the the low-pressure side is at 13.5 or whatever, we're happy.

\*\*\*\*\*

Jonathan writes:

>The other reason I don't want to do this - and the reason I stopped after two  
>Extra Golds - was that I got something I don't remember getting in a long  
>time: a headache! Now, I normally just have one homebrew a night. Helps me  
>sleep well, and makes me get up on time when I have to go to the bathroom.  
>On occasion I have indulged in two or more homebrews at a time, and I have  
>gotten warm fuzzies, or even been a little drunk - but no headaches. (I  
>don't think I can compare my experiences with really "good" commercial beer,  
>because it tends to be so expensive I consider it a waste to overindulge in  
>it - I hardly ever have more than one at a time).  
>  
>Does anyone else have experience comparable to this? Anyone get headaches  
>from homebrew? Is my non-headachy homebrew due to my use of the blow-off

I have a theory on this. Just for the record, the first (and last) time I had Coors Extra Gold, I got a splitting headache. I've never gotten one from my own homebrew. I had thought that certain beers gave me headaches and certain ones didn't. Then, after a long break from a particular Belgian beer that I had often enjoyed without a headache, I had one, just one and I got a headache from it. Beers that have given me headaches include Bud, Lowenbrau (US), Leinenkugel and Samuel(tm) Adams(tm) Boston(tm) Lager (tm).

Here's my theory: Each brand of beer has a considerable amount of ethanol and smaller amounts of higher alcohols, in different proportions. I theorize, that if the human body has not dealt with a particular higher alcohol for a while, it has trouble with it and you get a headache. Once you get used to it, it doesn't bother you, unless you don't have any for a while.

Comments?

Al.

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Date: Wed, 09 Jun 93 12:34:00 PDT  
From: "Goodman, John" <Goodmjo@hvsmtpl1.mdc.com>  
Subject: hbd subscription

I would like to receive the hbd. My address is: goodmjo@hvsmtpl1.  
mdc.com

Thank you,

John O. Goodman

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Date: Wed, 9 Jun 1993 10:37:49 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Headaches from Industrial Brew

In HBD # 1159, Jonathan G Knight <KNIGHTJ@GRIN.EDU> writes about getting headaches from industrial beer of the Bud/Miller (or in Canada, Molson/Labatt's) variety. I can only say yes, yes, yes, I concur exactly.

It's one of the best reasons to go for natural brews, either homebrewed or commercial. Another thing that I find happens with industrial beer is that

I always get stuffed up after a few bottles. Anybody else find that? And of course, there's no comparison in the hangover department: industrial brew is a virtual death-sentence for the morning after a bout of extreme indulgence. I truly do not think these are placebo effects, but I would be

perfectly willing to participate in a properly conducted double-blind experiment if someone is willing to buy the beer!

- -----  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Wed, 9 Jun 93 12:10:52 PDT  
From: John Cotterill <johnc@hprpcd.rose.hp.com>  
Subject: How Long do Hops Float?

I currently dry hop during secondary fermentation in a soda keg. My hops are placed into a hop bag that is dropped into the keg. I want to get away from using the bag. However, since I do not have a filter in the bottom of the keg, and don't want to add one, I am concerned that the hops will clog the dip tube in the keg. This assumes, however, that they sink to the bottom of the keg during the 7-10 days they spend in the secondary. So how long will they float?

Thanks,  
JC  
johnc@hprpcd.rose.hp.com

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Date: 10 Jun 1993 03:03:02 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: Source of Hop Util. Numbers

If I remember correctly, the data given by Rager in Zymurgy (Special Hop Issue) as base hop utilization was actually derived from Eckhart's Essentials of beer Style. Rager merely sketched a line through the three broad ranges of time and temperature given by Eckhart, and said as much in his article. So, really, most of the blame for the current numbers should go to Eckhart. In any event, we still need to have some one get some real utilization data from actual small scale runs.

I don't think the source of the gravity adjustment equation in Rager's article was given, though. Glenn Tinseth's catalog (Thanks, Glenn, nice job!) gives a different equation. The reference gravity is 1.040 vs 1.050, and the adjustment is not a function of the base utilization (boil time) as is Rager's. Maybe Glenn (and/or Mark Garetz) could shed some light on the sources and differences between these adjustment factors.

Also on this subject, I would like to coin a new unit, the EIBU, for Estimated IBU. Since IBU's, strictly speaking, must be measured in the finished product, what we are doing with calculations like the above is estimating what (we hope) the IBU's will be. Presently, recipes which give bitterness in IBU's are stretching the truth a little.

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Date: Wed, 9 Jun 93 15:42:37 -0400  
From: jpgareri@acs.bu.edu (Joseph Gareri)  
Subject: Wheat Berry Review

Monday night, I bottled Tom Childers' Wheat Berry that appeared in HBD 1144.

This is one of the nicest tasting beers I've ever had. It has a nice assertive berry taste to it and a good balance with the hop bitterness. The wheat is evident, but is definitely taking a back seat to the berries.

I had to modify the recipe a little because I was unable to get light wheat

DME. For those who missed it, here is the recipe again.

for 5 gallons:

5.5 lb light dried wheat malt extract \*  
1.5 oz Hallertauer or Northern Brewer (boiling), 7 HBU  
.5 oz Halleertauer Hersbrucker (finishing), 2-3 HBU  
24-36 oz frozen raspberries  
16 oz frozen blackberries \*\*  
1 tsp vanilla extract  
Belgian ale yeast (Wyeast 1214)  
\* I used 7lb Briess Weizen extract (65% wheat/35% barley)  
\*\* I used 1 pint fresh blackberries

Thanks Tom again for a great recipe.

Does anyone have any other recipes using fruit? Last summer, Boston (no TM)

Beer Works had a great watermelon ale that I was thinking of giving a try.

I'm considering doing a peach something later in the summer when the peaches are ready. Any recipes would be greatly appreciated.

Joe

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Date: Wed, 9 Jun 93 13:35:58 PDT  
From: "jhutchin.US1" <jhutchin@us.oracle.com>  
Subject: Texas Microbreweries

GF & HBD

I am a recent Texas transplant from the Milwaukee and Chicago area. I started homebrewing when I moved since good micro beer is not available and pub brews are not legal in Texas.

I buy (when my homebrew is gone) Celis bock and Westend Aussie lager but Texans need ALE!!

Is there a "grassroots" organization lobbying Texas legislature to change the awful anti PUB BREW laws? Sign me up.

J.Hutchinson  
jhutchin@us.oracle.com

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Date: Wed, 9 Jun 93 13:42:25 PDT  
From: "jhutchin.US1" <jhutchin@us.oracle.com>  
Subject: Best San Fran pub brews

HBD

I will be traveling to San Francisco and want to know the BEST brew pubs  
and/or  
microbrewers in Northern CA. Also how does noe get a tour of Anchor Steam  
Brewer (a real tour) during the months of June and July?

J.Hutchinson  
jhutchin@us.oracle.com

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Date: Wed, 09 Jun 93 18:21:11 EST  
From: Jonathan Crawshaw <UGU00029@vm.uoguelph.ca>  
Subject: Technical Brewer magazine

Greetings:

Does anyone have an address for Technical Brewer magazine, so that I can get a sample copy? Are there any other magazines out there that people feel are useful or interesting, or possibly both?

Spencer Thomas asked how he could collect yeast from his primary fermenter and keep it sterile or as uncontaminated as possible. I would suggest that he keep his yeast in a plastic container that can be sterilized with chlorine or something. Before he uses it, it can be acid-washed with food grade phosphoric acid. You take the ph down to 2-2.3 by adding acid to the yeast slurry. If you go too low, you can add water to buffer the ph back up again. Leave the yeast like this for two hours and then pitch it. Acid washing seems to be either liked or disliked by people, and can be controversial to some.

Hope that this helps.

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Date: Wed, 9 Jun 93 17:45 CDT  
From: fjdobner@ihlpb.att.com  
Subject: HEADACHES!

>Jonathan Knight writes:

>Does anyone else have experience comparable to this? Anyone get  
headaches  
>from homebrew? Is my non-headachy homebrew due to my use of the blow-  
off  
>method (that ought to be good for some lively dialogue!) or is it common  
for  
>homebrew not to cause headaches anyway? Could I be allergic to the  
>preservatives in commercial beer? At any rate, now I remember why back  
in my  
>youth (creek) I had such a hard time getting drunk on beer. Two or  
three  
>bumilloorses and that was about all I could stand. Of course, maybe  
even  
>back then my palate was crying out, "no, not that swill, please -- get  
me  
>some real beer you dolt!!"

I have very recent experience with this subject. Saturday night I was at  
a  
wedding in Bloomington, Illinois. Nothing but Bud and Miller Lite.  
Believe  
it or not, attendees at the wedding actually had preferences! I had way  
more  
than I usually do (about 7). The next morning when my one year old woke  
up at the usual 4:45 am my head was pounding like a pile driver. Two  
Tylenols  
helped but commercial jiz is what kept me from drinking a lot when I did  
not know any better. I do not always use a blowoff for my homebrew and  
still  
do not get as severe headaches. But I also do not drink 7 usually. Maybe  
the headaches were from the Pirodi cigars we were smoking. Who knows?

The palate pays dearly in this country of ours.

I love homebrew.

Frank Dobner

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Date: Wed, 9 Jun 93 21:31 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: NEW PRODUCT ANNOUNCEMENT

KEGVIEW (tm)

No, it's not a downscale housing development for Bubba but KEGVIEW is an easy to install level indicator for Cornelius type kegs.

Tired of a blast of gas, just when you get the C-P bottler all hooked up?  
Have to give that keg a little shake to see if there is enough left to take to that party?

With KEGVIEW installed on your kegs, you need not guess, shake or weigh your kegs to find out what is left.

Email for more info,

JSP

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Date: Wed, 9 Jun 93 18:18:23 PDT  
From: nexgen!bart@daver (Bart Thielges)  
Subject: Questions for the Oracle

I'm new to this forum, so please accept my apologies if my questions seem ignorant or redundant.

1) Is there an inexpensive source of malt extract in the USA ? Part of what

piqued my interest in homebrewing was the low price of canned malt extract in England (~\$5-7 USD). Prices are about double here. I'd be willing to purchase large (50 lbs. or so) bulk quantities. I realize that mashing from grain is the cheapest, but I'm not ready for that yet.

2) Is there a market for used small scale brewing and kegging equipment ?

I've checked our local newspaper want ads, the local home and microbrew newsletter ("The Celebrator"), and stores which sell used restaurant equipment with no luck. In particular, I'm looking for a used CO2 bottle, regulator, and hoses. Ultimately, SOMEONE must want to get rid of their old equipment.

3) I'd like to experiment with adding different sugars to my wort,

particularly brown sugar or molasses. Has anyone tried these ? Any recommendations on quantities to try ? How about other sugars and their effects ? Anyone tried dissolving a pack after dinner mints into their wort ? Just kidding about the last one !! You can stop grimacing now.

4) I realize that sterility is very important. All of the procedures

that I've read mention that during racking, a siphon should be used to transfer the fermented wort. However, I have yet to figure out how to start a siphon without getting my mouth on the end of the hose. One procedure even specified "suck on the open end of the hose until you get a mouthfull of beer." Even though I brush twice a day, I still worry that I might contaminate through this contact. Is there any way to start a siphon without risking the contamination ? Or am I just being too paranoid ? Will my batch be ruined ? And how do you know that the light in the fridge goes out when you close the door ?

OK, so now it must be obvious that I'm a neurotic miserly penny pinching flake. What variety of beer would best fit my personality ?

Bart Thielges  
daver!nexgen!bart

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Date: Wed, 9 Jun 1993 23:21:49 -0800  
From: adoval@stmarys-ca.edu  
Subject: Brewing Supplier in Fairbanks Alaska?

Could anyone out there inform me of what is available in the way of  
brewing  
supplies and/or advice, support groups, etc. in the vicinity of Fairbanks  
Alaska?  
Thanks!

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End of HOMEBREW Digest #1160, 06/10/93  
\*\*\*\*\*  
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Date: Thu, 10 Jun 1993 01:30:24 -0700  
From: Greg Wolodkin <wolo@cory.Berkeley.EDU>

Subject: Re: The stick I buried won't grow

>>buried a Rhizome an inch deep 2 weeks ago and nothing has peeped up yet.  
> Last year I planted a rather sickly looking Cascade rhizome. After  
> several weeks a couple of weak shoots appeared (while the Mt. Hood  
> hops, planted at the same time, were growing vigorously) and grew to  
> a whopping two feet tall. This year, my Cascade hops are still  
> weak looking, but have grown to 5 feet tall.

My Cascades have reached about 8 feet now, but the Chinook cuttings never appeared. I dug them up recently to find them rotted and full of little white worm-looking things. They were planted in the same soil and received the same attention, so I guess they are either more temperamental or just defective. So when do the hop cones appear?

- --

Subject: NEW PRODUCT ANNOUNCEMENT

> Tired of a blast of gas [...]  
Next to headaches, my second least favorite side effect ;-)

But seriously -- what's the consensus here? Useful information, or blatant misuse of the HBD as a low-cost form of advertising? I just hope that damned Ronco guy doesn't get into homebrew..

> 4) And how do you know that the light in the fridge goes out when you close the door ?

FRIDGEVIEW (tm).

Best wishes,  
Greg

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Date: Thu, 10 Jun 93 6:45:49 EDT  
From: grctechs!tmcguire@grctechs.grci.com (Terry McGuire)  
Subject: stuffed up head from industrial beers

In HBD #1160 Derrick Pohl writes:

> Another thing that I find happens with industrial beer is that I  
always  
> get stuffed up after a few bottles. Anybody else find that?

And all this time I thought I might be allergic to beer! I figured (of course) that I would have to live with it! I never got stuffed up from Bourbon (sorry, is that a bad word here?). Does anyone know the cause of this annoyance?  
thanks!

Terry McGuire  
tmcguire@grctechs.grci.com

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Date: Wed, 9 Jun 1993 22:56:11 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: sanitizers part 2

### 3. Ease of use

Both are easy to use but iodophor has two advantages.

Iodophor is colored due to the iodine. Iodine reacts (2 electron reduction) to form iodide ion which is colorless. Therefore its possible to know by the color of the solution when the stuff is spent. However, when used properly, its very difficult because the color is very faint due to dilution.

Bleach has the disadvantage of being unstable. Liquid bleach loses it's oxidizing strength with time after opening.

### 4. Flavor and odor and residue

So why are iodine sanitizers so much more popular than chlorine sanitizers in the food and beverage industry? It's all over the ads and bottles of iodophor.

"TASTELESS" "ODORLESS"

Chlorine can be detected at very small levels. Iodine thresholds are much higher. All of the other differences between the two are miniscule by comparison.

Bleach should be rinsed out to insure removal of the residual flavor.

It is not essential to rinse iodophor, but some do. There was an article in the New Brewer a couple of issues back in which a brewpub detailed their sanitation procedure. They rinse out the residual iodophor.

The two brands of iodophor I use do not contain detergent as was suggested a few days ago. Both are designed explicitly for the beer and beverage industry. Neither leaves a residue which will impair head retention etc.

### 5. Cost and availability

Household bleach costs about \$1/gallon. Iodophor is typically about \$10 per liter. Bleach has 5 times as much sanitizing strength ounce for ounce.

Therefore, bleach is about 200 times cheaper than iodophor.

Bleach is everywhere. Iodophor has much more limited availability.

### 6. Personal safety

Both oxidizers will kill cells including yours and mine. Both should be handled carefully. But bleach is a stronger oxidant so a little more dangerous on this point. More importantly though is the caustic nature of full strength bleach. This poses a more serious risk, particularly to eyes.

Iodophor is a safer product than household bleach.

So pick your poison :-) Both dilute iodophor and dilute bleach can and have been used as effective sanitizers. Bleach is cheaper. Iodophor is

safer to use, more stable, and is tasteless and odorless. Neither poses  
a  
threat to 304 stainless equipment.

And remember, you need less than 1 teaspoon of bleach in the  
entire 5 gallon keg to get the same level of sanitation that iodophor  
provides at its recommended dose.

Hope this clears up some of the confusion.

Best regards,  
Don

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Date: Thu, 10 Jun 1993 9:17:22 -0400 (EDT)  
From: P\_LABRIE@UNHH.UNH.EDU (Paul LaBrie)  
Subject: "Wines and Beers of Old New England" - book recommendation

Occasionally there have been some posts concerning old beer recipes, old-time ingredients such as spruce, nettles, etc. For those interested in such things, I have found the following book a delightful read; if you think you have problems with homebrewing...you should see what early New Englanders had to go through to craft beer (a beverage they dearly loved, BTW)! This is very much a "hands-on" type of book -- be prepared for some interesting recipes.

Here's the info on the book, courtesy of Dartmouth College Online Library system...(I think that Sanborn C. Brown, the book's author, was a faculty member at Dartmouth College). I do not know (definitely) if this book is still in print, however I think it is. Apologies if this has been posted before.

Search S1: FIND TITLE WINES AND BEERS OF OLD NEW ENGLAND  
Result S1: 2 items in the CATALOG file

Author: Brown, Sanborn Conner, 1913-  
Title: Wines & beers of old New England : a how-to-do-it history /  
Sanborn C. Brown ; drawings by Ed Lindlof.  
Collation: xxx, 157 p. : ill. ; 21 cm.  
Imprint: Hanover, N.H. : The University Press of New England, 1978.  
Notes: Bibliography: p.[149]-150.  
Includes index.  
Type: Book  
Language: eng  
Subjects: Brewing -- United States -- History.  
Brewing -- Amateurs' manuals.  
Wine and wine  
Wine and wine making -- Amateurs' manuals.

- paul -  
p\_labrie@unhh.unh.edu

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Date: Thu, 10 Jun 93 10:01:28 EDT  
From: <geotex@engin.umich.edu>  
Subject: Screw off bottles

I hope this question isn't too obvious. But I was wondering why most literature on homebrewing that I have read says "DO NOT USE TWIST OFF BOTTLES".

I have used twist offs for about 10 batches and have not had any problems.

BTW, I use Bud/Busch bottles.

Thanks  
Alex  
geotex@engin.umich.edu

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Date: Thu, 10 Jun 93 10:08:00 EDT  
From: <geotex@engin.umich.edu>  
Subject: Mail Order Supplies

Have people had good luck ordering supplies by mail?  
I have heard that some ingredients (yeast, hops) may be damaged by  
travelling in the mail.  
Is there a listing somewhere of suppliers?

Thanks  
Alex  
geotex@engin.umich.edu

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Date: 10 Jun 1993 10:40 EDT  
From: dab@cc.bellcore.com (dave ballard)  
Subject: 5 l mini kegs

hey now- there's a brew ha ha ad in Brewing Techniques for a 5 liter mini keggung system (\$40 for 4 5 l kegs and tap thingy). would anyone who's tried these things please drop me a not and let me know what you think?

thanks!  
dab

=====  
=  
dave ballard  
dab@cc.bellcore.com  
=====  
=

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Date: Thu, 10 Jun 93 09:59:16 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Evaporative Cooling

Here's an inexpensive alternative to those who want to do summertime brewing in hot climates but haven't got the \$ and/or space for an extra freezer w/Hunter Airstat etc.

Since my last post on this subject (See HBD#1147), I've done some more experimenting. This time I used a fan to blow air by my glass carboy wrapped in a wet towel. This allowed me to achieve the full wet-bulb depression in the fermenter.

    Lastest example:

        Dry-bulb temp, 78F

        Wet-bulb temp, 68F

        Beer in carboy, 68F

I use a lot more water than when using the fan. Before, when I used passive evaporation, I would have to add water to the pan every other day or so. Using the fan I have to add about a gallon of water \*every\* day.

As noted in my earlier post, I brew in a house with central airconditioning. The dry-bulb temp inside is generally 76-82F and the relative humidity is about 55-70%. In Austin the peak outside temps now are now 85-95F with relative humidity 75-90%.

Some of you have suggested I simply place the fermenter in front of an air duct and forget the evaporative cooling. I don't do this for two reasons:

- 1) My air ducts are in the cieling, making it difficult to place a 7 gal carboy 'in front' of one.
- 2) During the day my AC runs < 50% of the time and less than than at night. Without some insulating system this would lead to fairly large fluctuations in fermenter temp. Recall the ambient room temp is up to 80F.

In summary: Using inexpensive evaporative cooling to \*supplement\* the normal refridgerated cooling. I'm able to take my 76-82F, 55-70% RH house temps down to 68-72F in the fermenter. High but acceptable temps for ales. Those of you with basements in the low to mid 70s should be able to get fermenter temps down to 60-65F. To those of you with the \$ and space for a chest freezer, I'm jealous.

Sante', WAK

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Date: 10 Jun 93 11:54:29 EDT  
From: "Robert Haddad" <M-RHADDAD@bss1.umd.edu>  
Subject: Re: Molasses in Beer

> 3) I'd like to experiment with adding different sugars to my wort,  
> particularly brown sugar or molasses. Has anyone tried these ?

I have brewed with a combination of malt extract and Carob Molasses, which you can find in most Middle Eastern groceries. I have used, in 5 gal batches, a 16oz jar of the stuff. Its very dark, and sweet, and ferments out quite well. The carob, which (I think) is a fruit borne by trees does have a distinctive taste in the beer.

I have also used Mate instead of hops. Mate is an Argentinian tea (pronounced Ma tay) and can be bought in Latin groceries. It too has a distinctive and pleasant flavor.

> 4) I realize that sterility is very important. All of the procedures  
> that I've read mention that during racking, a siphon should  
> be used to transfer the fermented wort. However, I have  
> yet to figure out how to start a siphon without getting my  
> mouth on the end of the hose.

I grab a glass from the kitchen cupboard. I stick my siphon hose under the faucet, fill it with water, stick one finger on one end to stop water from running out, stick the other (open) end in my carboy, then drain the water which is in the hose into the sink. As the water drains out, I can see the beer replacing it in the hose. I then take my glass and fill it with a beer, then stick the hose in my secondary or my keg, or the bootles I am filling. No problem! no mess! no contamination!

With my glass-ful of beer, I check the specific gravity, and then relax and drink it all up.

Robert F. Haddad  
m-rhaddad@bss1.umd.edu

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Date: Thu, 10 Jun 93 10:08:52 -0500  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Garrett Hildebrand

Please forgive the brief use of bandwidth, but my e-mail to Garrett has been bouncing.

Garrett:

Diversity Chemical usually has a local office in all major cities. Look the one near you up in the yellow pages. It is best to buy iodophor in a gallon jug. Don't let them talk you into anything larger. Accord II was designed for breweries. The version in most homebrew shops (the one containing the detergent instead of phosphoric acid) was designed for dairies. If stored in a cool, dry location it will have a good shelf life. Use 1 oz. per 10 gallons (1 tbsp. per 5 gals.) Diversity claims 2 min. contact time is sufficient. I use 5-10 mins. The diluted solution should display a well defined red/yellow color. If it is white, then dump the solution and start over. This sometimes happens when attempting to sanitize equipment that has been cleaned with an alkaline based agent and not properly rinsed. I would not use iodophor on plastic tubing. Al Korzonas' recommendation to use bleach followed by a water rinse is a good one.

Take care.

George Fix

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Date: Thu, 10 Jun 93 9:09:11 PDT  
From: Mark Garetz <mgaretz@hopstech.com>  
Subject: Hop Utilization, Hop Bags

Bob Jones writes that he doesn't believe that yeast affects hop utilization, and would rather see the calculation split into two:

Well, if Bob is strictly referring to the extraction of alpha acids during the boil, then he's part right. I say "part right" because at what point would we measure the utilization? Right after you shut off the heat or after the wort has cooled? The amount of alpha acids in the beer will be drastically different at these two points, since the solubility varies widely with temperature.

But the issue of when we measure is the whole point. IBUs are measured in finished beer, not wort. Utilization is meaningless unless we relate it to the finished product. The point of the whole calculation is to predict what we will end up with in the final beer. So to my mind, it makes no difference whether we combine or separate the calculations for the effect of yeast on the beer. You're going to have to do both sets of calculations before you add the hops. If you really want to separate the two, use the "average" column from the table and then adjust your number up or down depending on your yeast's characteristics. I used a 20% adjustment factor, up or down from average, in the table.

John Cotterill writes that he wants to get rid of the bag he uses for dry hopping and wants to know how long the hops will float:

Firstly, I have never seen the hops sink if added loose, but some brewers have told me they will. I think that CO2 bubbles form on the petals and hoist them to the surface. Clogging of the lines may or may not be a problem, but better to assume that clogging is a potentiality. However, having the hops float on the surface is not the optimal way to get the hop aroma infused into the beer. Commercial brewers use a bag, and that's what we recommend. If you weight the bag so it sinks, that's a lot better than just tossing it in. I have also tied the bag to the dip tube, but this is difficult. We sell a hop bag/hop weight "system" that consists of a drawstring cotton bag and a solid teflon weight. The weight attaches to the free end of the drawstring and that accomplishes two things: 1) The weight doesn't take up any room in the bag, and 2) This allows the bag to float up and be suspended in the middle of the beer to get optimal extraction.

The reason for the teflon weight is it's inert properties, you can safely boil it to sterilize, but most important is that it is gentle on glass carboys and won't scratch them or plastic buckets or stainless tanks. We considered using a stainless weight (would have been much cheaper than teflon) but were concerned that it might break a carboy in the process of putting it in or getting it out. The other nice thing about our design is that to get the hop bag out of the carboy, you invert the carboy to get the weight to drop through the neck, grab the weight and pull the bag through.

One more tip: It helps to wet the bag of hops before putting it in the beer. This displaces a lot of the air and helps make sure the beer gets into/out of the bag quicker. Fritz Maytag also recommends wringing the bag out into the beer when you remove it. (If you remove it, I just leave mine in the serving keg)

Sheesh! This was a long post and I didn't mean it to be. Anyway, John, the bottom line is, IMHO, keep the bag.

Mark from HopTech

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Date: Thu, 10 Jun 93 09:04:10 PDT  
From: johng@adx.la.ca.us (John E. Greene)  
Subject: MI brewpubs and headaches.

My reason for making the distinction about brewpubs comes from when I toured Alpine Village Brewery here in Torrance CA. It is built adjacent to the Alpine Village Inn which has a huge bar with windows looking into the brewery. However, there is no door connecting the two. The Village Inn must buy the beer from the brewery and it is brought over by leaving the shipping dock of the brewery and entering the receiving dock of the Village Inn (basically the back door). Because of this however, the manager of the brewery was pretty clear about stating that is why it is not a brewpub. A minor difference I guess but a pretty big one when it comes to the law. It struck me as kind of odd at the time which is probably why I remember it.

WRT headaches and commercial beer. I have read a lot of different things about hangovers and the causes/cures and what seemed to be most common amongst the majority is two things.

1. the headache is usually caused by dehydration. Your brain has dried up and hurts because of it. My guess is that commercial beer tends to dehydrate more. My sinuses give me a lot of trouble and commercial beer will clog up my head in no time. The majority of a hangover headache for me is sinus related so a lot of water and some decongestants are the first thing I go for in the morning. Why homebrew would dehydrate less, I don't know.
2. Drinking alcohol does deplete your body of vitamin B. Homebrew has a lot of vitamin B contained in the yeast. However, I have read that vitamin B is used by your body to process food and/or alcohol and probably has very little to do with your headache. The lack of vitamin B I think has much to do with why after a night of drinking you eat some breakfast (or lunch) and 6 hours later you spew it back up literally unchanged. I find that with homebrew, I never have an upset stomach the next morning. I feel a bit groggy and that is about it.

These are nothing more than two theories that I have come up with after talking to many 'less-than-qualified' people in the medical field and various documents on the subject. Any comments, questions, and/or additions are more than welcome.

- --john

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Date: 11 Jun 1993 00:36:28 -0600

From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>

Subject: Phil's Mill Report

In HBD #1160, Mike Gildner asks about the Phil's mill. I have seen and used prototypes of Phil's Mill from Listermann Mfg., and submit this post not as an advertisement but as a consumer report.

This is a single roll mill, which has the grain pass between the knurled roll and a plate which curves partially around it. The gap between these two is adjustable by means of a machine screw and locknut.

The early prototype version I used seemed to work well, i.e. gave a good crush, and Dan (Listermann) has tested this observation by sifting the grist through a set of brewery screens, and comparing the (weight) percentages left on each to published data for 6-roll mills. The results showed that the Listermann mill could be adjusted to come close to the desired weight percentages, but this may or may not be the right thing to do, because the mechanics of the one roll mill crush are obviously much different than a 6-roll. Only more experience with the mill and brewing with it will tell. A Corona mill, adjusted to a nominal (compromise) setting gave far more large particles than desired, and a visual inspection of the particles revealed that the corona, to no one's surprise, damaged the husks much more. This could be observed both in the largest remaining husk particles and in the color of the fines at the bottom of the stack. In the case of the Corona, these were darker in color, perhaps indicating that some of the husks were ground into flour.

The early Listermann mill was faulted by those who tried it for being too slow.

The fancy-looking, nickel plated, pre-production prototype that I later saw was enlarged significantly, having a larger diameter and wider roll. I have not tried this version out first hand, but it looks like it will do the trick, with through-put and torque requirements (according to Listermann) similar to a Corona. Shipment of the first production models is imminent.

Martin Manning

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Date: Thu, 10 Jun 1993 11:32:26 CDT  
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>  
Subject: Siphon starters, headaches

To start a siphon, I have used with success a small clear plastic pump from an aquarium shop. Once the beer starts to flow, you unplug it from the tubing. They sell them for starting the siphon when you're cleaning out your fishtank but you don't want to put your fingers in there with Fang, your pet piranha. They're simple enough that you can sterilize them with your normal bleach solution procedure.

HEADACHES: Many theories have been espoused:

WORSE HEADACHES-----LESS HEADACHES

|                          |                                |
|--------------------------|--------------------------------|
| Heavier, Darker Beers    | Lighter, Clearer Beers         |
| Factory Made Beers       | Naturally Brewed Beers         |
| Adjuncts                 | All-Malt                       |
| Fire Brewed              | Steam-Heated Brew Kettles      |
| Fermentation By-products | Blow-off tube used             |
| Had a headache already   | Didn't have a headache already |

Yeah sure. Some of these may have a secondary effect. However, we are kidding ourselves if we ignore the primary cause of beer headaches:

|                    |                    |
|--------------------|--------------------|
| More total alcohol | Less total alcohol |
| in a session       | in a session       |

Remembering that the amount of alcohol in beer, especially homebrew, can vary widely, moderation will reliably reduce headaches better than any other method. Quit kidding.

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Date: Thu, 10 Jun 93 12:01:02 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: dry hopping/malt extract/siphoning

John Cotterill asked about hops floating during dry hopping. I have dry hopped successfully with pellets, although once I got what looked like a jump-strated fermentation, although I was advised by HBDers that it was really something else, having to do with CO2 bubbling out of solution (Sorry for the inept description - I'm a musician, not a chemist). One post in response to a question I had asked about dry hopping way back claimed that dry hopping with pellets can actually provide a sort of "fining" effect as the hop particles dissolve and sink through the beer. Don't know if that's true, but it's an interesting theory. Another response I got when I asked about dry hopping was to try leaf hops in a bag weighted down with sanitized marbles. I really like this idea but haven't tried it yet. However, it seems to me that one might be likely to get the best hop flavor this way, and zero problems with racking too.

Bart Thielges asks about inexpensive malt extracts. Since there is no homebrew supply shop in my neck o' the woods, I mail order all the time. William's Brewing in California and the Home Brewery (several outlets, I use the one in Missouri) both sell good quality brands of extract in 6 lb. pouches for \$12-14. Beats the hell out of the price we pay for those 3. 3 lb cans!

Also, about Bart's siphoning question: I personally use the turkey baster method. It fits right in the end of standard transfer tubing - I suck a couple of times, and away we go! I use this turkey baster ONLY for beer racking, and I sanitize before & after use. A friend of mine used to use the mouth method - and made kick-ass beer, by the way - and he used to rinse his mouth first with grain alcohol. Sounds like fun, but it's not for me. (The thought has ocured to me, though, that I ought to be quaffing a nice single-malt scotch while brewing, to cut down on the organisms from my mouth that I might be breathing into my beer, nudge, nudge, wink.)

Jonathan Knight  
Grinnell, Iowa

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Date: Thu, 10 Jun 1993 10:19:18 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: canned beer

>From: jlf@palm.cray.com (John Freeman)  
>Subject: canned beer  
>  
>Is there any good beer that comes in cans?

At the risk of reigniting a religious war, I'll recommend Draught Guinness in a Can. Of course, it's heresy to drink it from a plastic cup, but rugged fishermen make do with what they have, nicht wahr?

>My fishing buddies  
>showed up with Bud Lite and Pig's Eye last weekend. So it's either  
>bring the beer myself or get new friends...

Hmmm...tough call.

have fun  
gak

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewpub and hockey haven

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Date: Thu, 10 Jun 1993 12:54:33 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: excedrine headache #999

Hi there.

> In HBD#1159 Jonathan G Knight writes:  
>  
>>The other reason I don't want to do this - and the reason I stopped  
after two  
>>Extra Golds - was that I got something I don't remember getting in a  
long  
>>time: a headache!

Jim said;

> On the other hand, homebrew has plenty of nice, healthy yeast in it.  
One  
>of the reasons people get hangovers is the depletion of vitamin B that  
>occurs as the body processes alcohol. Yeast is a great source of  
vitamin B,  
>and I think that's one reason I don't get hangovers from drinking  
homebrew.  
> Comments? Anybody else noticed a homebrew/no hangover connection?

Same here. I read somewhere, I think Charlie P.'s book, that the  
vitamin B in yeast helps replace what is lost during a bout of  
drinking. I'm pretty sure this is a valid statment. As an  
experiment, I took a vitamin B complex before a night of drinking  
megabrews a few times. I did not have a hangover one single time.  
Amazing! So, you might give this a try, if you're feeling  
particularly spunky. Likewise, I never have any hangovers after  
homebrew or craftbrew.

scott

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Date: Thu, 10 Jun 1993 11:32:35 -0700  
From: marcil@amex-trs.com (Marci Levie)  
Subject: Fermentation Lock

I just started my first batch of homebrew, and it's happily bubbling along, but I have a newbie question about the fermentation lock. I know that you're supposed to add water, but how far should I fill it, and should I put the lid on it (the lid that covers the whole fermentation lock, not the inverted cap over the hole)?

Thanks,

Marci  
- - -  
Marci Levie  
marcil@cs90qaserv.csv-tgsc.amex-trs.com  
Analysts International Corporation  
Phoenix, Arizona  
- - -  
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Date: Thu, 10 Jun 93 13:58 CDT  
From: korz@iepubj.att.com  
Subject: PhilMill

Mike writes:

>I got my free issue of Brewing Techniques the other day and  
>I noticed an ad for a grain mill called Phil's Mill. The  
>ad was very sparse on information but it did say the price  
>was suprisingly low. It showed the mill clamped to a table  
>with a 2 liter bottle for a hopper. Has anyone seen or used  
>one of these mills?

Yes, I've seen and used the very first prototype. It seemed simply, but sturdily built and my only concern was with the way it was clamped to the edge of the table. In a recent conversation with Mr. Listerman himself, I've learned that the clamping portion of the mill has since been improved. The throughput is a bit lower than it's formidable competition. It has a single roller which crushes the malt against an adjustable, flat plate. The crush has been tested using standard screens and has been reported to be "textbook quality" and "comparable to commercial 4-roller mills."

The retail price should be between \$75 and \$85.

If you can't find it locally, email me and I think I can help you find a mailorder source ;^).

Al.

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Date: Thu, 10 Jun 93 14:12:54 -0600  
From: cbacco@ursa5.cs.utah.edu (Corby Bacco)  
Subject: Hop, Barley, and the Ale'ers...

Greetings all,

I'm moving to Colorado (Boulder area) next Teusday and would like some information on the Brew club in that area, "Hop, Barley, and the Ale'ers" if I'm not mistaken. Anyone in HBD land who is a member and can give info like who to contact and what the club is like. TIA

Also, thanks to HBD for all the great info over the last year that I've been reading. My brew ,and thus myself and my friends, have definitely bennifited from it. Hopefully I'll get back online when I get to Colorado or I'll be missing out on a LOT of good info.

Cheers,  
Corby

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Date: Thu, 10 Jun 93 16:23 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Liquid CO2

>From: korz@iepubj.att.com  
>Cisco writes:  
>One last point is that you should keep your CO2 tank at room  
>temperature - not in your cooler. If you keep the CO2 tank in the  
>cooler the CO2 can not form a gas and remains in a liquid state  
>feeding into your beer and eventually it will overcarbonate it.

I meant to comment on this in the original posting. There is no way a refrigerator will keep all the CO2 in a tank liquid. Furthermore, unless you have a siphon type tank or turn it upside down, there is no way you will get liquid out of it. There is always some space above the liquid level and this will always be gas.

js

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Date: Thu, 10 Jun 93 17:08:12 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: Brewpub legalization in God's Country (fwd)

Al Ford <allen@darwin.sfbr.org> gave me permission to forward this to the HBD:

> Brewpubs are finally legal in Texas! I just got a copy of the  
legislation  
> as passed by the State legislature (awaiting the Gov`s signature) and  
it is  
> quite generous. It allows sales for both on- and off-premise  
consumption  
> but does not allow for any off-premise distribution for resale (the  
> wholesale beer distributors lobby is too strong to allow that). Any  
> strength beer from low alcohol to barleywine may be produced. The  
annual  
> limit is 5000 bbl. per license. Serving may be from the bright beer  
tanks  
> as long as their capacity is in whole multiples of barrels (they had to  
> slip something completely nonsensical in there somewhere!). The  
brewpub  
> may be licensed for both beer production and beer, wine, and/or liquor  
> sales. Annual license fee (brewpub only) is \$500. The law will go  
> into effect 1 Sep.  
>  
> The primary person we have to thank for pushing the legislation through  
is  
> Billy Forrester, the owner of the Dog and Duck Pub in Austin. He has  
already  
> signed a lease on a suitable building in Austin. Someday I look  
forward to  
> hearing how much the process cost him and where the money went. State  
> Representative Glenn Maxie also deserves our gratitude for authoring  
and  
> sponsoring the bill.  
>  
> If you know anyone with about \$500K to spare, put them in touch with  
me.  
> I know just what to do with it.

- --  
Chuck Cox <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: Thu, 10 Jun 1993 18:40 EDT  
From: Kieran O'Connor <OCONNOR%SNYCORVA.bitnet@CUNYVM.CUNY.EDU>  
Subject: William's Info

Yesterday I put in a note about William's Brewing and the device they sell for regulating fridges. Since I got a few requests, here's the info:  
the price is \$49. Call (800) 283-2745, or (510) 895-2739. It is item # E26.

Kieran O'Connor

E-Mail Addresses:

Bitnet: oconnor@snycorva.bitnet  
Internet: oconnor@snycorva.cortland.edu

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Date: 10 Jun 1993 18:41:49 -0500 (EST)  
From: STBLEZA@grove.iup.edu  
Subject: HB in Western PA

Greetings all...

I'm currently living in western PA (Indiana, PA, to be exact), and was wondering if there are Micros, HB'ers, or ANYTHING HB related in the Indiana, Altoona, Johnstown, or even Pittsburgh area. If this type of request is no longer desired on the HBD, forgive, I've been away for awhile.  
Also, use the reply method you think will be most productive.

White Belts Motto: Weavles Wobble but they don't Fall Down  
+\*\*\*\*\*+  
\*\*\*\*\*+  
| |1,000,000 Lemmings Can't be Wrong! |  
| WARNING: Highly Toxic Mentallity |-----  
-|  
| The Surgeon General has determined that |Jacobus Jager Draake |  
| this E-Mail Poster has a state of mind |(AKA J. Hunter Heinlen) |  
| that could prove hazardous to even |(Bitnet:STBLEZA@IUP)|  
| casual Internetters. |(Internet:STBLEZA@GROVE.IUP.EDU) |  
+=====+  
=====+  
Yes, I know I exist, it's you that | The SCA... A Dream to Some,  
I'm worried about. | A Nightmare to Others!

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Date: 10 Jun 93 16:49:01 MDT (Thu)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: strawberries

Just for one data point, I recently made a mead with 12 lb strawberries in a 5 gallon batch. The strawberry character is reasonably strong, but could be stronger--if I do it again, I'll use 15 lb (i.e., 3 lb/gallon).

To put this in context, I was aiming to have strawberry be the dominant flavor. On the other hand, the mead was made with a relatively light honey, so there isn't a lot of other flavor fighting with the strawberry. But it does take more strawberries than other berries for comparable amounts of flavor.

---  
Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
...Simpler is better.

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Date: Thu, 10 Jun 1993 19:39 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Microwaves

The problem with sterilizing in the microwave is this: Microwaves do not heat a given volume of liquid evenly. The temperature can be at boiling in one part of your liquid, and well below it at another. This means that unless you boil for long enough that the liquid is thoroughly mixed by convection and by the bubbles rising through it, you can have living bugs still in there. This long boil takes just about as long as doing it on the stove, but when the stovetop boil is rolling, the WHOLE volume of the liquid is boiling.

However, I can confirm that the mini-mash in the microwave (M-MitM?TM?) works really well for preparing samples. I just need a mini-lauter tun and I can brew on the 1-bottle scale in no time flat! ;- ) P.

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Date: Thu, 10 Jun 93 18:43 CDT  
From: korz@iepubj.att.com  
Subject: Re: How Long do Hops Float?

JC writes:

>I currently dry hop during secondary fermentation in a soda keg. My hops are placed into a hop bag that is dropped into the keg. I want to get away from using the bag. However, since I do not have a filter in the bottom of the keg, and don't want to add one, I am concerned that the hops will clog the dip tube in the keg. This assumes, however, that they sink to the bottom of the keg during the 7-10 days they spend in the secondary. So how long do Hops float?

I've found that pelletized hops don't even float a week and thus have avoided them for dryhopping. I've had whole hops float for three weeks although I recommend dryhopping for only 7-10 days. If you're concerned about clogging, you could put a stainless steel scrubbing pad at the bottom of the keg, in the little dimple, and then position the liquid dip tube so that it pins the scrubbie in the dimple. It would sanitize along with the rest of the keg.

Al.

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Date: Thu, 10 Jun 1993 23:09:07 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: sanitizers, the middle section

## 2. Reactivity with 304 stainless

Chlorine by itself is really not the issue with respect to reaction with 304 stainless. If it were, then iodine would also be a problem because the chemistry of the two is so similar. It is the alkalinity (high pH) of bleach that poses the problem. Alkaline solutions are caustic, i.e., corrosive. For example, lye or soda ash (sodium hydroxide) in water are caustic.

In an indirect way, it actually is soda ash that gives bleach it's caustic effect. Sodium hypochlorite is made by bubbling chlorine gas through water to which soda ash has been added. (If it's neutral or acidic water it's called chlorine water and hypochlorous acid is formed which is a stronger oxidizer than hypochlorite ion.) In other words, sodium hypochlorite is made in a very caustic solution.

The caustic effect is due to the concentration of hydroxide ions which is directly related with pH. The higher the hydroxide concentration, the higher the pH. If the solution is diluted, the hydroxide concentration drops concomitantly with the pH and the solution becomes less and less caustic, eventually to the point where it poses no problem. For example, lye will burn your skin but if you dilute it sufficiently it will not. In the case of aqueous sodium hypochlorite with 304 stainless, it's simply a matter of dilution.

So what dilution is needed. Laboratory tests done with brewing in mind showed 250 ppm of chlorine at "normal pH" is safe. "Normal" is nonsensical with regard to pH. normal for water? whose water? normal for bleach solution? what concentration in what water? all pH values are 'normal'. If the test was done by simply diluting the bleach with distilled water then the pH would fall as the concentration of chlorine (as hypochlorite) fell. In fact, if you know the pH, you know the chlorine concentration and vice versa.

250 ppm is 70 times greater than what is needed for sanitizing. Therefore we can conclude that even the most careless homebrewer can confidently use household bleach for a single use without worry about damaging his 304 stainless keg.

How about repeated use? The arithmetic would seem to be pretty simple. Since laboratory tests show no effect with a single use, let's put an appropriate number on it: ZERO. Let's do the test 1 billion times (lots of beer). The total effect is then ZERO times 1 Billion equals ??? I'll leave this as a homework assignment:-) In addition we have the testimonial of John Isenhauer of having used bleach at 50 ppm for 15 years on the same kegs without effect. Therefore, reasonable people can

only conclude that dilute bleach can be used with 304 stainless repeatedly without worry.

Now what about the corrosive effect of iodophor on 304 stainless? Some who condemn bleach use an iodophor which contains phosphoric acid. Phosphoric acid will react with 304 stainless. (My laboratory tests have confirmed this.) This is due to the acidity (pH again). Ironically, the individual using this iodophor is faced with the same problem for which he condemns bleach. Fortunately, the solution for phosphoric acid sanitizer is the same as that for bleach: dilution.

The type of iodophor containing phosphoric acid was designed to be used for the dairy industry, not the beer industry. Furthermore, it's my understanding that it is used commercially in 140-160 F water. I suspect it works pretty well, but the other iodophors such as BEST and BTF were specifically designed for the beverage industry and are more suitable for our purposes. These iodophors pose no corrosive threat at any concentration.

(the last part of this post appeared last friday.)

i hope this clears up some of the confusion and lays to rest some of the needless worry.

take care, don

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End of HOMEBREW Digest #1161, 06/11/93

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Date: Fri, 11 Jun 93 05:05:27 EDT  
From: John Pedlow <TKSJJOHN@UBVM.CC.BUFFALO.EDU>  
Subject: headaches

NOT about post-overindulgence happenings.  
NOT scientific, either.

During the past 10 years, at 2 social functions, Michelob was the only beer available. On both occasions about 45 minutes after beginning the first Mic I developed a "pounding" headache.

Met a Budweiser rep. Mentioned foregoing to him and also explained regular Bud did not promote headaches. Bud-man said only difference between Bud & Mic is the hops: Mic uses imported hops and Bud uses domestic.

I am an allergy sufferer (became ill on beer during desensitization treatments 20 years ago and MD suggested switching to ale --- which treated me just fine). Maybe some headaches are related to allergy to something in the brew... but, maybe not... none of the preceding passes any scientific test.

John Pedlow

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Date: Fri, 11 Jun 1993 12:14:02 +0000  
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)  
Subject: Baird's Malt - data

Many HBDers have mentioned that they use Baird's Malt and have asked for info on it. I am one of the more fortunate on this list in being able to drive to the maltings at Witham in Essex and buy a few sacks nice and fresh.

When last there I asked for some information, which I now share (extracts of) with you.

"Hugh Baird & Sons Ltd. has been producing quality malt since 1823."  
"To ensure even modification and consistency ... we use only the finest 2-row barley specially selected..."  
"Production units for our white (unroasted) malts are based on the universally acknowledged Saladin system."

#### UNROASTED MALTS

At Witham (they also have a maltings in Pentcaltland near Edinburgh, Scotland) they produce 5 unroasted malts, namely: Pale Ale, Premium Pilsen, Standard Pilsen, Stout, and Wheat.

Analysis: [ composite symbol ^o used to denote degrees ]

|                    | PalePremiumStnd | StoutWheat |       |       |         |
|--------------------|-----------------|------------|-------|-------|---------|
| Moisture:          |                 |            |       |       |         |
| (%) max            | 3.0             | 4.5        | 4.5   | 4.0   | 5.5     |
| Extract: Dry       |                 |            |       |       |         |
| (L^o/Kg) min       |                 | 307        | 307   | 305   | 305 310 |
| Total Nitrogen:    |                 |            |       |       |         |
| (%) max            | 1.65            | 1.65       | 1.70  | 1.65  | 2.20    |
| Colour:            |                 |            |       |       |         |
| (^oEBC)            | 4-6             | 2-3        | 3-3.5 | 2-4   | 2-5     |
| S.N.R:             |                 |            |       |       |         |
| (%)                | 36-4235-40      | 36-41      | 36-40 | 36-45 |         |
| Diastatic Activity |                 |            |       |       |         |
| (^oL) min          | 45              | 6060       | 50    | 70    |         |

Does anyone know the conversion for extract from L^o/Kg to units most of us will relate to? What precisely is S.N.R? And what is this significance of the figures under Diastatic Activity?

If in the UK you buy a 'generic' lager malt and it is from Baird's, you will be getting the Standard Pilsen.

#### SPECIAL MALTS

"Our Roast House is one of the largest and most up-to-date in the world."  
...

Modern roasting cylinders are used ...."

CARAMALT (Carastan) [ Note that Carapils is a trade mark in the UK and cannot

be used commercially, but colloquially is used to  
to define product a) ]

Colour:

- a) 20 - 30 )
- b) 35 - 45 ) ^oEBC by IOB method
- c) 50 - 70 )

"These materials are manufactured from germinating malt. ... transferred  
to a

roasting cylinder and heated to 65^oC for one hour. ... then raised to  
150^oC

for varying periods. .. This produces a material which, after cooling,  
has a

glazed internal appearance, pale brown colour and caramel/toffe-like  
flavour."

CRYSTAL MALT, also kown as Caramel Malt

Colour: ^oEBC by IOB method

- a) 100 - 120
- b) 140 - 160
- c) 180 - 210
- d) 230 - 260
- e) 375 - 425

"The method of manufacture is basically the same as for Caramalt, using  
the

same starting material with longer and higher temperature roasting."

AMBER MALT, also known as Brown Malt

Colour 100 - 140 ^oEBC by IOB method

"This material is produced by roasting kilned malt....,"

CHOLATE MALT

Colour 900 - 1100 ^oEBC by IOB method

"This is produced by roasting kilned malt. ..."

ROASTED MALT, also know as Black Malt, Farbmalz.

Colour 1100 - 1300 ^oEBC by IOB method

"This is manufactured from kilned malt by roasting at temperatures up to  
250^oC

..."

ROAST BARLEY (When exported is described as Roast Material)

Colour 1100 - 1300 ^oEBC by IOB method

"This is manufactured from barley by roasting at temperatures up to 250^  
oC. .."

You will see that this also answers the question about what Baird's mean  
when they package a product labelled "Roast Material".

I hope that is of help to some, and I expect explanatory notes from those  
who can interpret that lot in homebrew terms better than I can.

Happy brewing

Geoff

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Date: Fri, 11 Jun 93 8:35:11 EDT  
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>  
Subject: Priming ingredients

Has anyone ever primed with confectioners sugar? If yes, is 4.5 oz.  
> the proper amount (ie. typical corn sugar amount). Is table sugar an  
appropriate primer? I've read that priming with a malt extract produces  
a  
smaller bubble, similar to a stout bubble, how does the processing of  
sugar  
effect the quality of the carbonate that results?

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sugar  
effect the quality of the carbonate that results?

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Date: Fri, 11 Jun 93 08:32:11 -0400  
From: Philip J Difalco <sxupjd@anubis.fnma.COM>  
Subject: Boston/Stamford Brewpubs?

I'll be in Boston, MA. for a week, and around Stamford, CT. for another.  
I'd like some recommendations of Brewpubs in those areas.  
Thanks.

[  
    For those destined for Las Vegas, NV. - I recommend the Holy Cow  
Casino  
    Cafe & Brewpub - great beers (a Pale Ale, Wheat Beer, Red Ale and  
    a Stout \$2.75/pint, \$1.75/10oz glass), great food (relatively  
inexpensive).  
]

- - - -  
email: sxupjd@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior Analyst, Advanced Technology  
FannieMae, 3900 Wisconsin Ave NW, Washington, DC 22016(202)752-2812

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Date: Fri, 11 Jun 93 09:20:10 CDT  
From: jay marshall <marshall@pat.mdc.com>  
Subject: Fuller ESB maize (was Miller Lite...)

George,

In HBD 1158 you made mention of Fullers adding flaked maize to their ESB.

I like the ESB I get on tap very much, and was taken aback when I tasted the bottled version - it was much stronger and really tasted quite different.

My question is, since you've evidently been to the source, which is closer to the product served at the brewery, the U.S. tap or the U.S. bottled?

Also, I got a recipe for a Fuller ESB clone from Rick Melkor (thanks Rick)

that goes as follows:

10# 2-row  
1/2# crystal, 60L - 90L  
1/2# carapils  
1# brown sugar, 60 minutes  
2 oz Fuggles, 60 minutes  
  .5 oz Kent Golding, 30 minutes  
  .5 oz Kent Golding, 5 minutes  
1.5 oz Kent Golding, dry hopped in secondary  
Yeast London Ale (1028) yeast

OG: 1048

FG: 1012

The resulting beer was very good, but not quite there (compared to the tap version, which I prefer). The flaked maize would obviously change the taste a bit - can you recommend the quantity to use? Any other comments on the grain or hop bill would also be appreciated.

thanks very much,

- - -

Jay  
marshall@pat.mdc.com

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Date: Fri, 11 Jun 93 10:26:52 -0400  
From: jpgareri@acs.bu.edu (Joseph Gareri)  
Subject: Dogbolter(R)

I was recently given a Dogbolter(R) kit as a present. I'm not a fan of kits, but I'm not inclined to throw something out either.

Has anyone had any experience with either this kit or the commercial product? The kit says it originated in 1979 when David Bruce first opened the GOOSE AND FIRKIN in Southwark UK. It is supposed to be brewed to an OG of 1060.

I am hesitant to use the yeast packet that came with the kit, but I'm not sure what I should replace it with. Also, the instructions say to add 2 1/2 lb. white sugar along with the extract. This seems like a lot of cane sugar for the amount of malt. I'm guessing the can is 3.3lb.

Any help? They classify Dogbolter(R) as a "strong ale".

Joe Gareri  
Boston, MA

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Date: Fri, 11 Jun 93 08:29:50 -0600  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Hop, Barley, and the Ale'ers...

I am a member of the "Hop, Barley, and the Ale'rs." The club president is John Bates and meetings are at 7:00pm at the University Inn in Boulder on the 4th Tuesday of every Month.

It's a GREAT club. Being situated in Boulder (the home of the AHA) and Colorado (the brewing capital of the world) we have some of the very best home and commerical brewing experts in the club.

Hope to see you at the June 22 meeting!

John Adams

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Date: Fri, 11 Jun 1993 07:32:15 -0700 (PDT)  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Hop Utilization

In the previous digest Mark paraphrased me as follows...

>Bob Jones writes that he doesn't believe that yeast affects  
>hop utilization, and would rather see the calculation split  
>into two..

I did not say "I don't believe you", I will repeat my suggestion that the calculations and measurements be seperated and give an example of why. If we assume this yeast flocculation vs hop IBU effect exists and we combine the two in a table or calculation, and later realize the phase of the moon effects the yeast side of the equation, then all the hop work is out the window. By keeping the effects seperate it allows each to be used, verified, updated, investigated, and argued independently. That's just plain old good scientific reasearch.

Bob Jones

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Date: Fri, 11 Jun 93 10:34:00 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: re twist-offs

twist-off caps are said to be put on by something more complicated than a simple crown capper; the argument (which I find plausible from comparing the bottles) is that an affordable capper can't be sure of making a reliable seal around the threads of a twist-top bottle. It's possible this is a momily---but good bottles aren't that hard to find (bar bottles of any of the major brands, Sam Adams bottles, ...).

I suspect that it's more important to have a bottle with a tall collar (the secondary line of glass around the neck, below the lip that the cap wraps around), so the capper can get a solid grip; the cap certainly /looks/ more secure in these cases.

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Date: Fri, 11 Jun 93 10:48:52 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: home/commercial brew and hangovers

johng@adx.la.ca.us suggests that homebrew may be less dehydrating than commercial beers; I don't think this is likely. My understanding (from long-ago physiology) is that alcohol is a diuretic; i.e. it causes the kidneys to increase their net extraction of water from the bloodstream (so Bob Shaw was qualitatively right when he observed that you piss five pints for every four you drink).

My very rough guess is that the average homebrew is, if anything, / more/ alcoholic than the average commercial beer in this country. My vague recollection is that standard commercial beers are ~4% w/w (~5%v/v) alcohol; homebrewers do light fruit beers, milds, and ordinary bitters which are ~4%v/v, but they also do lots of ESB's, IPA's, [,doppel,trippel]bocks, imperial stouts, bieres de garde, Belgians, ... all of which run over 5%v/v, sometimes much higher.

Certainly dehydration plays a part in hangovers; if you've binged one of the better protections is aspirin and lots of water /before/ you crash. But

I don't think it connects to lack of hangover in homebrews. Yeast may be part of the effect, since B vitamins are commonly claimed to be effective against hangovers; I don't know whether any sound research has been done on this. But how much yeast is still in suspension in homebrew, especially in kegged beers? And has anyone noticed a difference in hangovers between factory beers (aka American light, aka American swill) and commercial beers with yeast in them (Belgians, Sierra Nevada, ...)? More important, is anyone on this list willing to drink enough factory beer to test?

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Date: Fri, 11 Jun 93 10:22:58 CDT  
From: jay marshall <marshall@pat.mdc.com>  
Subject: brewpubs - Portland, IBS list

I've got a friend going to Portland soon who would like to know about brewpubs in that area. I would appreciate it if someone would email some info to me.

On a related note, in Oct 1991 Greg Pryzby made a full list of brewpubs and micros available. He had keyed it in from a March 1991 list from the Institute for Brewing Studies. Is there an updated list available?

thanks,

- - -

Jay  
marshall@pat.mdc.com

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Date: 11 Jun 93 07:42:00 PST  
From: John Fitzgerald <johnf@ccgate.SanDiegoCA.NCR.COM>  
Subject:

Let me start off by thanking the HBD'ers that responded to me about the beer fest in Temecula, CA, and all of the SS keg info. This digest sure is a great source of information!

With the recent talk about fruit beers, especially peaches, I thought I'd mention a 1 gallon experiment batch from last season. I added about 1.75 lbs. to the primary of a generic light lager, with fairly good results.

The result is a decent beer with a nice peachy aroma, and somewhat of a fruity taste, but my palate has trouble distinguishing it as a peach flavor.

What I did learn from this experiment was:

1. it is worth doing again (and I will as soon as I can harvest my mother-in-law's tree!) - 5 gallons if I get enough peaches
2. I won't put the peaches in the blender this year (what a mess trying to strain/siphon). I've heard that slicing the fruit thin enough should be sufficient for the yeast to get to the good stuff.
3. I will probably add more peaches this time (2 lbs/gal minimum?), and probably rack the beer onto them after primary fermentation subsides.
4. I have a lot more learning/experimenting to do.

On another note, I have a sufficient supply of 5 gallon cornelius tanks, but am having trouble finding a good source for used 3 gallons kegs. Local shops sell new ones for an outrageous amount, and I am told used ones are scarce. I have heard on this digest that BCI (Bev Con International?) is a good source, but I've given my name & address at least 3 times now to the nice person on the phone, but have never gotten a catalog from them. Is there anybody out there that might be in the reverse situation, that wouldn't mind trading a 3 gallon keg for a 5 gallon keg, for the cost of shipping?

oogy wa-wa,  
(for those of you who do not speak Zulu, you'll have to go the 'Brick' in the D.C. area for some good beer & a translation (great place, a beer drinker's candy store))

John Fitzgerald.

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Date: Fri, 11 Jun 93 11:35:09 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: Iodophor & Belgium headaches

I'm back from beer hunting and wanted to comment on a few items in the last digest.

In the last digest:

Date: Wed, 9 Jun 1993 22:56:11 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: sanitizers part 2

<5. Cost and availability

Household bleach costs about \$1/gallon. Iodophor is typically about \$10 per liter. Bleach has 5 times as much sanitizing strength ounce for ounce.

Therefore, bleach is about 200 times cheaper than iodophor.

Brewery cost is closer to \$25 per large jug (1-2 gallons?) or about 25 times

as expensive (I cant remember how big the jug is). This is not to dispute the

retail price, but it does differ by a degree of magnitude.

<6. Personal safety

Both oxidizers will kill cells including yours and mine. Both should be handled carefully. But bleach is a stronger oxidant so a little more dangerous on this point. More importantly though is the caustic nature of

full strength bleach. This poses a more serious risk, particularly to eyes.

Iodophor is a safer product than household bleach.

I think this has been covered before:

My container of Diversity Iodophor indicates irreversable eye damage.

With respect to the corrosive nature of Chlorine on SS I would like to point

out that many homebrewers are not fortunate enough to be using 304 (or better)

SS. When I began brewing years ago, I bought several 16 qt SS pots from a

local catalog store. These are the cheap korean products with riveted handles.

The rivets are aluminum. At one point I used one of these pots as a blowoff

recepticle with a splash of chlorine in the water. As the blowoff tube deposited trub and beer into the solution, the pH dropped and the bubble

layer actually corroded straight through the SS in several pin holes. Now this may not be an issue with 304 SS but it certainly occurred in a very short period with cheaper SS.

On another topic:

From: "Roger Deschner " <U52983@UICVM.UIC.EDU>

Subject: Siphon starters, headaches

<WORSE HEADACHES-----LESS HEADACHES

<Heavier, Darker Beers Lighter, Clearer Beers

<Factory Made Beers Naturally Brewed Beers

<Adjuncts All-Malt

<Fire Brewed Steam-Heated Brew Kettles

<Fermentation By-products Blow-off tube used

<Had a headache already Didn't have a headache already

<Yeah sure. Some of these may have a secondary effect. However, we are <kidding ourselves if we ignore the primary cause of beer headaches:

<More total alcohol Less total alcohol

in a session in a session

In general you are correct. I can personally note that some brewers like Rochefort do not conform to this rule. Just last Friday I had the pleasure of consuming too many Rochefort 10's at 11.3% ABV, as well as other high alcohol Belgium beers. Much to my delight there was not headache in the AM, just a well deserved cobweb effect. Just a data point that the Belgians do something different.

Good brewing,  
Jim Busch

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Date: Fri, 11 Jun 93 11:54:06 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re:CO2, Cherries & B vitamins

More comments on the last digest:

Re: B vitamin benefits of bottle conditioned beers. While it is true that one consumes vitamin B in these beers, I was under the impression that the alcohol also strips the body of these same nutrients, negating the positive effects. Does anyone know if this is true?

Re: CO2 tanks in fridge. What I have found is a problem with the tank in the fridge is the corrosive nature of the moisture in the fridge rusting and damaging the tank and regulator. For this reason all of my beer fridges have the CO2 line running through the side of the fridge. It is quite easy to buy CO2 tubing to fit the drill bit size and just push the tube through the drill hole. Its also well worth investing in the regulator cage to protect the regulator when the dog decides to chew through the Co2 line.

With respect to fruit additions to beer: Phil Seitz and I toured Liefmans brewery on June 2nd. We are compiling a detailed record of the trip and observations that will be forthcoming but FYI: the Liefmans Kriek contains 13 kilos of cherries into 100 Litres of beer. For the metric impaired, this is the equivalent of 28.6 Lbs per 26.4 gallons. Now this may or may not be applicable to the homebrewer mortals since I also believe it sits on the cherries for several years (Phil ,correct me if I am wrong here).

Good brewing & I'll post a review of the Stoudts Festival on Monday,

Jim Busch

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Date: Fri, 11 Jun 93 08:32:53 MDT  
From: pyle@intellistor.com (Norm Pyle)  
Subject: Commercial Beer side effects

Derrick Pohl writes about getting stuffed up from commercial beer, in addition to headaches. I have found this to be true as well, although I forgot about the effect since I started drinking only good beer. Sorry, I don't have any great theories but Al's seems as good as any I've heard.

BTW, Derrick the double blind test won't work very well. Do you think you won't be able to tell the difference between, say, a Ballard Bitter and a Coors Extra Bland?

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Date: Fri, 11 Jun 93 11:16:56 CDT  
From: greenbay@vnet.IBM.COM  
Subject: BrewPubs in Boca Raton, Florida

Hey, could anybody tell me if there are any good brew pubs in Boca Raton? I might be going there early next week for business and would be interested in checking them out if I have the time. Please send me private e-mail on Monday as I don't know if I'll be able to check this stuff on Tuesday.

Thank you very much,  
Bob Crowley (greenbay@vnet.ibm.com)

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Date: Fri, 11 Jun 1993 9:30:02 -0700 (MST)  
From: JLIDDIL@AZCC.Arizona.EDU (Jim Liddil)  
Subject: Iodophors Again?

% George Writes  
% Date: Thu, 10 Jun 93 10:08:52 -0500  
% From: gjfix@utamata.uta.edu (George J Fix)  
% Accord II was designed for breweries. The version in most homebrew  
% shops (the one containing the detergent instead of phosphoric acid)  
% was designed for dairies.

It is true Accord II is used in brweries but according to the technical  
rep for  
Diversity (George you know who he is) says that Accord II is made with a  
surfactant (detergent to the non-scientist) just like all iodophors. It  
also  
contains an excess of surfactant (detergent) to make sure all the iodine  
is  
bound up prperly and that there is not an excess of free iodine. It also  
contains phosphoric acid, but this is not for complexing the iodine.  
The technical rep went on to tell me that Accord II  
has the possibility to cause problems with head retention just as any  
product  
containing surfactants (detergent) does. The question is how much  
detergent  
can you tolerate before decreases in head retention become a problem.  
And Don writes

% The type of iodophor containing phosphoric acid was designed to be used  
% for the dairy industry, not the beer industry.

I have to disagree. I think a more correct statement is that the acid  
containing iodophors are designed for commercial industrial use and not  
home  
use. But the formulations usually contain 20% acid so by the time they  
are  
diluted out the amount of acid is small.

% Furthermore, it's my  
% understanding that it is used commercially in 140-160 F water.  
The ability of iodine to kill microorganisms is enhanced at higher  
temperatures  
and you can do this at home for steel but not plastics if you don not  
want them  
stained.

% These iodophors pose no corrosive threat at any  
% concentration.

But iodine can cause skin irritation in some individuals. And if  
absorbed  
through an open wound can lead to decreased thyroid function.

Jim Liddil

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Date: Fri, 11 Jun 93 09:17:51 PDT  
From: Bob.Clark@Eng.Sun.COM (Bob Clark)  
Subject: Re: stuffed up head from industrial beers

A friend of mine believes that he has an allergy to grains, and it is something from grains in beer that causes his head to stuff up.

My homebrew gave him a real dose of congestion.

Bob C.

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Date: Thu, 10 Jun 93 18:12:10 PDT  
From: nuke@reed.edu (Bill Newcomb)  
Subject: More help with tapping systems?

Cisco Writes:

> Believe it or not there is some logic to all this and your elevation  
> from sea level must also be taken into consideration.

Is there some sort of reference for this sort of thing? How can I make  
these  
calculations for my own personal system (which is really pretty boring:  
lame  
little plastic nozzle, pvc tubes I can change, good regulator, Cornelius  
(ball lock) keg)? It sounds as though a great deal of thought has gone  
into  
this, and I would like to be able to tap that (ouch!).

Thanks in advance...  
Bill (p.s., I'm near sea level)  
- - -

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Date: Fri, 11 Jun 1993 09:54:15 -0700

From: Richard Stueven <gak@wrs.com>

Subject: Re: sanitizers part 2

>From: donald oconnor <oconnor@ccwf.cc.utexas.edu>

>

>And remember, you need less than 1 teaspoon of bleach in the  
>entire 5 gallon keg to get the same level of sanitation that iodophor  
>provides at its recommended dose.

Eh? When I started brewing, it was a half-cup per five gallons. Then  
it was one ounce per five gallons. Now it's one teaspoon per five  
gallons.

Pretty soon, I'll get complete sanitation simply by waving the bleach  
bottle around in the brewery! (The Homeopathic Approach)

Seriously, what's the scoop? Erm...half-scoop?

have fun  
gak

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewpub and hockey haven

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Date: Fri, 11 Jun 1993 10:34:38 -0700 (PDT)

From: Eric Wade <ericwade@CLASS.ORG>

**Subject: Cornelius keg fittings**

I think I am finally getting to the point where I can no longer put off going to a keggng system. I asked Santa for a set up last Xmas but I must not have been a good enough boy. My question relates to the merits of the ball-lock vs. pin-lock fittings. Does anyone have an opinion

(gad,

what an open ended question that could turn out to be) on which system is better and why? Are used kegs more readily available in one type over the

other? I understand the kegs can be converted from pin to ball and vice versa, true?

Eric Wade

<ericwade@class.org>

If you like, please respond by private e-mail. If I get enough response I'll summarize for the HBD.

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Date: Fri, 11 Jun 1993 12:35:00 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: yeah, but...

Roger says:

>HEADACHES: Many theories have been espoused:  
>  
>WORSE HEADACHES-----LESS HEADACHES  
>  
>Heavier, Darker Beers   Lighter, Clearer Beers  
>Factory Made Beers Naturally Brewed Beers  
>Adjuncts All-Malt  
>Fire Brewed    Steam-Heated Brew Kettles  
>Fermentation By-productsBlow-off tube used  
>Had a headache already   Didn't have a headache already  
>  
>Yeah sure. Some of these may have a secondary effect. However, we are  
>kidding ourselves if we ignore the primary cause of beer headaches:  
>  
>More total alcohol   Less total alcohol  
>  in a session    in a session  
>  
>Remembering that the amount of alcohol in beer, especially homebrew, can  
>vary widely, moderation will reliably reduce headaches better than any  
>other method. Quit kidding.

I think this was assumed. I know it was by me. My comment, perhaps more clearly stated, was that in \*small\* amounts, commercial brew is more likely to yield headaches than homebrew. I was thinking quantities of 2 or less beers.

scott

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Date: Fri, 11 Jun 93 13:34:50 EDT  
From: Tom.Barstow@East.Sun.COM (Tom Barstow - Sun BOS Software)  
Subject: Starting a siphon

Bart Thielges asks:

>> 4) I realize that sterility is very important. All of the procedures  
>>that I've read mention that during racking, a siphon should  
>>be used to transfer the fermented wort. However, I have  
>>yet to figure out how to start a siphon without getting my  
>>mouth on the end of the hose. One procedure even specified  
>>"suck on the open end of the hose until you get a mouthfull  
>>of beer." Even though I brush twice a day, I still worry that  
>>I might contaminate through this contact. Is there any way to  
>>start a siphon without risking the contamination? Or am I  
>>just being too paranoid? Will my batch be ruined? And how  
>>do you know that the light in the fridge goes out when you close  
>>the door?

I bought a plastic stopcock that I use as my mouthpiece when starting  
a siphon. Sanitize both it and the siphon hose, stick the stopcock  
into the hose, open the valve, elevate the end of the hose, and  
suck. When the beer is within a few inches of the end of the tube,  
close the valve. Kink the hose near the end, remove the contaminated  
stopcock from the still-sanitized hose, and plunge the end of the hose  
in the target container. Works very well.

Tom

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Date: 11 Jun 1993 13:21:28 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@Lilly.com>  
Subject: solstice and wild yeasts

I recall reading somewhere that the almanac talks about the summer  
solstice  
being a bad time to start a batch of beer. As I faintly remember, it has  
something to do with lots of wild yeasts wafting through the breeze. The  
time  
listed was about a week following.  
Since that date is coming very shortly (June 21 or 22, I think), can  
anyone who  
is "up" on this kind of topic elaborate ?  
Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Fri, 11 Jun 93 14:56  
From: RON.admin@admin.creol.ucf.edu (RON)  
Subject: Hops Strawberrys and extracts

I have some questions I would like to put to your learned readership. I am currently residing in Central Florida. I am interested in trying to grow some of my own hops. Has anyone out there had any experience growing hops this far south? Where can I get hop rhizomes? Are there some heat resistant varieties that may have a better chance of surviving? Is there some recommended reading material available on the cultivation of hops?

I've read the last couple of issues of HBD(I've only just become aware of it's existence) and the articles on strawberry brews stuck out as I have just bottled a batch of strawberry ale. I added my mashed strawberries during the last ten minutes of the boil. If you add the strawberry to the cooled wort I agree you will enhance the strawberry flavoring but aren't you also taking a chance on adding any wild strains of yeast into the wort as well?

As to Bart Thielges inquiry about inexpensive malt extracts, I buy pure malt unhopped extract in 3 lb. cans for \$6.25 ea(you must buy by the case, 12 cans for \$75 shipping incl). I get it from a company called Specialty Products Inc. located in Chapel Hill, S Carolina. If he wants more specific information he can e-mail me.

ron@admin.creol.ucf.edu

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Date: Fri, 11 Jun 93 16:16:18 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Re: sanitizers and SS

The only thing worse than a lack of information is a plethora of misinformation. A recent posting contained some misinformation regarding sanitizers and corrosion. Although I am not an expert in these subjects, I would like to clear up some of the more obvious errors:

In HBD #1161, donald oconnor <oconnor@ccwf.cc.utexas.edu> says:

>Chlorine by itself is really not the issue with respect to reaction  
>with 304 stainless.

Chlorine (and its dissociation products) ARE the problem. The relative concentrations of these species are determined in part by pH.

>If it were, then iodine would also be a problem  
>because the chemistry of the two is so similar.

Similar, but by no means identical.

>It is the alkalinity (high pH) of bleach that poses the problem.

It is NOT the alkalinity that is the problem. SS is relatively inert in caustic solutions (I believe many breweries and other food processing plants use concentrated NaOH to clean/sterilize their SS equipment.)

> Alkaline solutions are caustic, i.e., corrosive. For example, lye or soda ash (sodium hydroxide) in water are caustic.

Caustic is not a synonym for corrosive.

>(stuff deleted, pretty much accurate)

>If the solution is diluted, the  
>hydroxide concentration drops concomitantly with the pH and the  
>solution becomes less and less caustic, eventually to the point  
>where it poses no problem. For example, lye will burn your skin but  
>if you dilute it sufficiently it will not. In the case of aqueous  
>sodium hypochlorite with 304 stainless, it's simply a matter of  
>dilution.

One must be careful when gauging the effects of dilution on pH. Many complex solutions (including bleach, and wort) are "buffered", thus dilution will not necessarily change the pH significantly.

>(more stuff deleted)

>How about repeated use? The arithmetic would seem to be pretty  
>simple. Since laboratory tests show no effect with a single use,  
>let's put an appropriate number on it: ZERO. Let's do the test 1  
>billion times (lots of beer). The total effect is then  
> ZERO times 1 Billion equals ??? I'll leave this as a  
>homework assignment:-)



This type of math, however simple, is very dangerous. No material has a corrosion rate of ZERO in any solution. It may be so small as to be unmeasurable, but it is not zero. Thus, the correct math would be:

(something very small) times (something very big (1 Billion?)) equals (something which is NOT zero, and may in fact be quite appreciable)

>Some who condemn bleach use an iodophor which contains phosphoric acid. Phosphoric acid will react with 304 stainless. (My laboratory tests have confirmed this.)

I have seen several references that indicate that phosphoric acid is corrosive to SS only at high (>40%?) concentrations. I am guessing that the concentration of phosphoric acid in Iodophors is much lower than this (I may be wrong.)

>This is due to the acidity (pH again).

It is NOT due to the pH, but the chemical species involved!!

>i hope this clears up some of the confusion and lays to rest some of the needless worry.

Please note that I agree with (what I believe is) don's bottom line: household bleach, when used at low concentrations, will not harm SS. Contrary to what don states, I have heard (sorry, I can't remember where) that hypochlorite in a HIGH ph (alkaline) solution is SAFER for SS. Most municipal water supplies are alkaline, this may explain why bleach in muni water solutions are OK on stainless. I have used 1 tsp in 5 gallons water with a 10 minute contact time to sterilize my Cornelius kegs for several years now, and have observed no pitting or other form of corrosion.

Perhaps it would be a good idea for posters to this forum to include  
(1) Their relevant education, training, experience, etc., and/or  
(2) References for their assertions.

In this spirit, I will state that my formal education includes a B.S. in Chemical Engineering, 1985

Information on Chlorine chemistry may be found in:  
Chlorine, its manufacture, properties, and uses, JS Sconce, Ed. 1962  
Information on corrosion of stainless steel:  
Corrosion of Stainless Steels, AJ Sedriks, 1979  
Corrosion Engineering, Fontana & Greene, 1967

(Geez... sorry I wrote so much!)

Kelly

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Date: Fri, 11 Jun 1993 16:57:00 -0700 (PDT)  
From: bmv@plaza.ds.adp.com (Brian M. Vandewettering)  
Subject: All Grain Systems

I'm trying to gather as much info as I can on all grain brewing systems before putting my own system together. I've read several books on the subject but haven't come to a decision on the following items:

- + Boiling Kettle - what are the disadvantages of cutting up an old keg? Is a false bottom necessary? For a 15 gallon capacity (10 gallon beer batch) what should I look for in material thickness and other features.
- + Propane burner - Is 35K BTU's big enough? How long to heat 12 gallons of wort?
- + Wort Chillers - Right now I'm using a homemade immersion type. What are the advantages of the other style?
- + Thermometers - Where do you find thermometers that are accurate to +/- 2 degrees?
- + Refrigeration/Fermenting - Ideally one would build a walk-in or two. How do persons of ordinary means accomodate large numbers of fermenters and kegs?

Thanks,

-Brian

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Brian Vandewettering (ADP Dealer Services R&D) Portland, OR  
bmv@plaza.ds.adp.com  
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Date: Sat, 12 Jun 93 1:36:20 PDT  
From: tinsethg@ucs.orst.edu (Glenn Tinseth)  
Subject: Hop Utilization (again???)

Sorry to beat a cheesy hop into the compost, but here are my two cents on the subject. Bob Jones is right in questioning Mark Garetz's publishing of utilization vs boil time data that differs with respect to the flocculant characteristics of the yeast. Yeast effects on overall alpha acid utilization have absolutely nothing to do with boil time.

My preliminary data show that although many things affect the overall util % (eg wort gravity, wort pH, kettle geometry, boil temp, divalent cation conc, yeast strain, whether or not the beer is fined, filtered, or lagered, and more), none of these things affect the shape of the utilization curve. The literature and my early data indicate that the isomerization of alpha acids in the boil is a first order reaction. Those of you familiar with kinetics know that this means that Rager's (Eckhardt's?) and Garetz's numbers are just not right as far as the shape of the curve goes. Maybe someone who is \*much\* better than I at ASCII graphics could post the shape of a first order curve for A -> B. Things like I mentioned above affect the final number (util%-max) and \*maybe\* the rate constant, but certainly not the order of the reaction.

As I mentioned in a previous posting, I hope to have something comprehensive re: hop utilization by the fall and at Bob Jones' urging will publish here first (at least a thumbnail version).

Now for an embarrassing moment. Due to my lack of UNIX expertise, several catalog requests were lost in the ether. If you sent me mail in the last week please resend it to tinsethg@ucs.orst.edu. I will be on vacation until the 22nd so please be patient. Roy Styan: sorry for the big delay but I will make it worth your while when I return!

Please hit me with further util questions (Edwards and Liddil, I got your mail and am working at responses to your questions) and I'll try to help.

Glenn

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Date: Sat, 12 Jun 93 9:30:34 EDT  
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>  
Subject: excellent mead yeast

Howdy,

With all the recent posts on the network regarding summer brewing and specifically the use of summer fruits in brewing, I felt compelled to share some info about the excellent results we've had on our last few batches of mead. In particular I've found that Lalvin 71B-1122 (s. cerevisiae) is a very good yeast for meads and melomels (mead with fruit). The reason I like this stuff so much is that the samples seem to be quite fresh (high apparent percentage of viable cells), the fermentation is active and very quick, and the strain is not overly attenuative so that a slight residual sweetness remains in the finished product (sorry but I dont have numbers on SG and FG). We've now made two batches of a spiced mead (no fruit) and both were completely clear and ready to bottle after spending 1 wk in the primary and only about 3 wks. in the secondary. Other yeasts I have tried (including Red Star Pasteur Champagne, and Eppernay 2) have taken much longer to clear out and have finished a bit dry for my taste. We also experienced very quick (about 5 wks.) clearing on our the one melomel we made using this strain (a Kiwi mead with 8lbs honey and 12lbs crushed kiwi fruit). A strawberry melomel (8-10lbs light honey and 15lbs frozen strawberries picked last weekend) is on the list for tomorrow. Here is the basic spiced mead recipie:

"Spicy Lemon-Ginger Mead"

10-15lbs light (clover, orange blossom etc) honey  
Bring to a boil with 2gal good brewing water

1/4 oz good flavor hops (I like cascade or hollertau)  
boil 15 min

4 oz grated fresh ginger  
1/4 oz good aroma hops (like hollertau, tettnang, or saaz)  
a strong tea made from 1 oz dried lemongrass, and several (5 or so) bags  
of your favorite blend (we have used chamomile and constant comment)  
Add these at the end of the boil and steep for 15 min

Cool to ca. 75F and dilute to 5gal

Add 1.25 tsp yeast energizer, and 2 pkgs (10g total) of Lalvin  
S. Cerevisiae rehydrated according to instructions.

When completely cleared in secondary, bottle with 3/4c glucose if a  
sparkling mead is desired

Believe it or not, this stuff tastes great after only a month or two in  
the

bottle. It has a mouthfeel that's not unlike a medium sweet champagne, but of course, the flavor is mead all the way.

For melomel, I generally cut back to about 8lbs of honey and replace the sugar with 8-15 lbs of crushed fruit. My best results, though done with different yeast, have been with black raspberries (fresh picked then frozen before use), and a combination of peaches and strawberries (yummy). I've heard of different techniques, but we've had good luck and no unwanted inoculations just adding the thawed and crushed fruit to the hot honey wort just at the end of the boil and steeping (read pasturizing) the fruit for 15min. Oh, BTW the spices should also be cut back or deleted all together to let the fruit character come through.

If anyone else has experience with this *Lalvin S. Cerevisiae* I'd like to know about it.

Mead is a wonderful drink for all seasons and is easy and inexpensive to make.

Cheers,  
Mark Fryling  
Dept. of Chemistry  
Ohio State Univ.  
<mfryling@magnus.acs.ohio-state.edu>

"Never let your sense of morality prevent you from doing what's right"

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End of HOMEBREW Digest #1162, 06/15/93  
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Date: Sat, 12 Jun 93 10:18:03 EDT  
From: drwho2959@aol.com  
Subject: Texas Micros & Brewpubs

In HBD1160 J.Hutchison<jhutchin@us.oracle.com> writes the following about Texas micros and brewpubs:

"...good micro beer is not available..."  
This is quite simply UNTRUE!! I live in Houston, and frequently visit several excellent beer bars with literally SCORES of micro draft taps, including Anchor, Sierra Nevada, August Schell, and Boston Beer Company products. The Gingerman in Houston was called "One of the best beer bars in America" by none other than the famed British beer-hunter, Michael Jackson, in his influential Pocket Guide to Beer.

Texas micros available include Celis products (the White won a GOLD MEDAL at the last GABF!), Texas Brewing Co, and (debatably) Shiner Bock. Several new micros are now in their final planning stages. The number of Texas micros is likely to double within the next year. Check the Southwest Brewing News for the latest news on micros.

"...and pub brews are not legal in Texas."  
This will become UNTRUE as of Sept. 1, 1993, thanks to the combined lobbying efforts of The Houston Public News, The Southwest Brewing News, my Home Brew University BBS system, and concerned homebrewers and beer lovers all over the state. Several brewpubs are quite far along in their planning. I expect to see at least 5 operating brewpubs in the Lone Star State by Jan. 1, 1994. Again, check the Southwest Brewing News for the latest brewpub news.

"I buy (when my homebrew is gone) Celis bock and Westend Aussie lager but Texans need ALE!!"  
Look around - we already HAVE ale!!

"Is there a 'grassroots' organization logging Texas legislature to change the awful anti PUB BREW laws? Sign me up."  
The law has already been changed. Next time, try looking around and finding out what's going on before you start complaining.

\*-----\*  
| Andrew Patrick |  
| SysOp, Houston Correspondent & Distrib. Mgr. |  
| Home Brew Univ. BBS Southwest Brewing News |  
| (713)465-0265,14.4kbps,V42bis Internet: andinator@delphi.com |  
\*-----\*

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Date: Sat, 12 Jun 1993 07:09:38 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Source needed for fritted glass disks

I have been developing a set of rubber stamps for marking beer caps (neat idea huh?) and I'm up against a sourcing problem. The optimum inks for marking metal are solvent-based and require special stamp pads. The pad is a small jar about 1" i.d. with a pad of heavy felt that serves as a reservoir covered by a fritted glass disk that evenly distributes the ink onto the stamp.

My problem is that these special pads are too expensive to be a good deal for people that want to use the stamps with the best inks, \$5 @ in quantity. I want folks to have the best for the least cost, and this is too much...

So: Can anybody out there in ScienceLand give me a lead for a source of fritted glass disks? They are used by glass-blowers for coarse filters and bubblers (like in gas washing bottles). All I need is an address or phone # of a supplier (like Corning) for lab glassware parts. If I can get these cheap enough, I'd like to just toss them in with stamps.

BTW, fritting is a process like sintering metal, but applied to glass. Powdered glass is heated and then pressed to loosely bond the granules. The result is a porous piece of glass, like an aquarium bubbler. There is a more exotic process by which soft soda-glass and quartz powder is sintered with more pressure and then the soft glass is etched away with hydrofloric acid yeilding a much finer porosity. The resulting part can then be slowly heated to fuse the quartz solid. The piece shirinks without distortion during the fusing and can yeild extremely high mechanical tolerances. I thought it was the neatest trick in the world.... There, know you may know something new. I need the crude fritted stuff in 1" disks.

Thanks for any help

Paul de Armond  
paulf@henson.cc.wvu.edu

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Date: Sun, 13 Jun 1993 11:14:07 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: sanitizers part I

sorry about the reverse order of the 3 parts.

During the ongoing debate about the relative merits of iodine vs chlorine based sanitizers there has been quite a lot of data provided, some of which was either misinterpreted or misunderstood. I'll summarize the relevant data, explain more carefully the misunderstandings, and present some additional technical information.

Here's a list of the criteria by which to judge a sanitizer for homebrewers.

1. Effectiveness in killing bacteria, etc.
2. Reactivity with materials such as 304 stainless
3. Ease of use
4. Flavor, odor, and other effects of residues
5. Expense, availability
6. Personal safety

The distinction between the 2 sanitizers is most blurry with regard to items 1 and 2. Making a case for one over the other is much easier when looking at the other factors.

1. Sanitizing strength

Both chlorine and iodine sanitizers kill bacteria as a result of their oxidizing power. A strong oxidizer is a good sanitizer. Chlorine in all its oxidation states (dichlorine, chlorite, hypochlorite, etc) is a stronger oxidant than the corresponding iodines. In chemical terms, it is said that the redox potential of chlorine is greater than iodine. Being a stronger oxidant, chlorine sanitizers are expected to be more effective at killing bacteria. However iodine is also a sufficiently strong oxidant to work very effectively in killing stuff and thus, in a practical sense, the two cannot be distinguished in this regard.

The recommended dose for iodophor, which contains molecular iodine, is 12.5 mg/l (ppm). Since each iodine atom weighs 4 times as much as chlorine and it's the number of atoms that is important, then a chlorine concentration of 3.5 mg/l will give the same sanitizing effect. Household bleach is about 5% sodium hypochlorite by weight. So how much bleach do we need in each gallon to get the same sanitizing effect as iodophor. Incredibly only 0.02 ounce! That's 50 times lower than 1 oz/gallon, 25 times lower than 1 tablespoon/gallon. For those more familiar with teaspoons, you need only add about 1/2 teaspoon of bleach in the entire 5 gallon keg to achieve the same level of sanitation that iodophor provides! Furthermore this concentration is about 70 times below the known safe level for reactivity with 304 stainless.

By the way, both bleach and iodophor need only be applied for 5 or 10 minutes for sanitizing.

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Date: Sun, 13 Jun 93 17:47 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: Maybe a stupid question, but...

Like many people I'm paying more attention these days to getting adequate oxygen levels in my wort prior to fermentation. Some people are using aquarium pumps and stones for this job, and the current issue of BREWING TECHNIQUES includes a proposed setup with activated carbon filter to remove plastic-type flavors that might be induced from the pump and tubing.

It would seem to me, though, that the primary concern would be the introduction of bacteria or wild yeasts, since these pumps are really just inducing a flow of unfiltered outside air. This leads me to two questions:

- 1) Among the people out there who are using the pump/stone arrangement, is there any sense that higher levels of infection are a problem?
- 2) Is there a good filter, say 2-micron, that can easily and cheaply be put into the tube line to filter out evil organisms?

I was pondering these yesterday when I happened to wander into my local Trak Auto. Yes, folks, this is probably a stupid idea, but would an in-line gasoline filter work for this purpose? They're certainly cheap enough, and come in a zillion varieties that could easily be attached to the various hoses.

Looking at a few of these I was impressed at how similar they are in structure to larger-scale brewing filters. However, none was labeled with the level of filtration provided, and there's always the possibility that some nasty chemicals might be involved.

Begin a truly non-handly type person, could the more ept (as opposed to inept) out there provide any comments? Also, do those of you with all those supply catalogs see any useful alternatives?

Finally, I might add an aside to those who haven't yet considered this method of aeration: it appears that a new aquarium pump, stone, and tubes can be had for under \$15. In other words, not a big investment for some potentially quite beneficial results.

Thanks in advance for any comments!

Phil Seitz  
PSEITZ@MCIMAIL.COM  
Arlington, Virginia

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Date: Sun, 13 Jun 1993 14:12 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Headaches

Certainly, the absolute amount of alcohol consumed is the #1 determinant of headaches and other unpleasant side effects. Nevertheless, I also have observed that commercial beers in EQUAL amounts produce much worse effects than homebrews. And, that the products of the large breweries are worse than those of certain microbreweries which do not add stuff to their products.

As I am a chemist by profession, I will NOT refer to this stuff as "C\*\*\*\*\*s". After all, every substance in everything in the entire universe is a "C\*\*\*\*\*". BUT, I know that several of the specific items added to commercial brews can have adverse effects on certain individuals - allergic reactions etc. So, I do not see anything odd in the reports of bad headaches from commercial product.

Don't consume much of THAT stuff myself, anyhow. Don't consume much at any one time, in fact. Probably better that way. P.

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Date: Sun, 13 Jun 1993 15:56:23 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: COPS in PORTLAND

Someone told me that she was watching COPS in PORTLAND as they busted some poor homebrewer for growing pot. Apparently this guy had an impressive set-up with lots of groovy stainless steel. As the camera panned over the equipment a friendly officer explained how lucky it was they caught this "creep" because probably hundreds of people were going blind from drinking his illegal moonshine. She said the last camera shot zoomed in on his copy of Papazian's book. Of course, they were confiscating everything.

so much for rush limberger's "Liberal Media."

Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Mon, 14 Jun 93 09:02:38 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Yeast and Acid Washes

A couple of questions.

- 1) John "Crazy Experimenter" McHarry figures that since seltzer is acidic from the CO<sub>2</sub> in solution (carbonic acid?), it would be useful for acid washing yeast (and should be reasonably sterile from the store). Any data points out there?
- 2) What about technical references in this area?

Thanks.

Fidonet: 1:109/131    Internet: jdecarlo@mitre.org

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Date: Monday, 14 June 93 09:07:09 CST

From: LLAPV@UTXDP.DP.UTEXAS.EDU

Subject: mangos & prickly pears

I've seen a lot of discussion on strawberries lately, but has anyone out there tried more exotic fruits in beer, such as mangos or prickly pears? From reading about using prickly pears in mead, I understand you can boil it with the wort. I'm interested, because mangos are real cheap right now (3 for a dollar), & it'd be a darned shame to let something as novel as this pass me by.

Hoping your closets stay cool this summer,

avd

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Date: Mon, 14 Jun 93 10:47:26 EDT  
From: Hal Laurent <laurent@tamdno.ENABLE.dec.com>  
Subject: Homebrew clubs in Baltimore MD

I'm looking for information on homebrew clubs in the Baltimore Maryland area. If anyone can help, please send me mail at laurent@tamdno.enet.dec.com.

Thanks,  
Hal Laurent

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Date: Mon, 14 Jun 93 09:54 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: FILTERING

Judging from my experience and that of a brewer who posted an article to rec.crafts.brewing, there seems to be a problem with the filters being sold to the homebrewing community.

I won't name my source or his, other than to say they are not the same, in order to give them an opportunity to rectify the problem. I told my source and he is looking into it.

I purchased a filter system with a .5 micron filter and was very disappointed with the results, viz. no visible change in the turbidity of the beer after filtering.

Not willing to accept these results, I purchased a known .5 micron filter cartridge from McMaster Carr and ran some tests on it which convinced me that the .5 micron cartridge that came with the filter, most assuridly was not.

I ran a gallon of water with one oz (by volume) of corn starch through both filters and the results were strikingly different. The filtrate from the McMaster cartridge was sparkingly clear and the other looked about like a beer I would want to filter.

I then ran a batch of stubbornly hazy red wine through the McMaster filter and it emerged dazzlingly clear.

From a physical standpoint, the McMaster cartridge is several ounces heavier than the other and takes about 5 times as long to dry out after use. Furthermore, it is darker in color and made of cotton.

The McMaster catalog has a wide variety of filters and cartridges but what is notable is that the only string type, submicron filter is cotton. All the synthetic fiber cartridges are 5 microns or larger.

So, if you are having problems getting what you expected from your submicron filter, I suggest you run the above cornstarch test on your filter and if it does not come out clear, complain to your supplier or order one from McMaster-Carr.

The part number is 4411K91 and costs \$11.82.

This is a 10" cartridge. If you have the smaller one, you will have to look elsewhere.

Phone number is (708) 833 0300

A note on filter use.... It seems assumed that the filter will be used from keg to keg and forced by CO2. The one I have works very well by gravity alone, simply inserted in a siphon line from the carboy on a table to the keg on the floor with the filter standing on the table.

I also find that mine has a very large and persistent bubble that, unless purged with CO2, could cause aeration if not eliminated. The simplest way to eliminate it is to just run the filter backwards... by running the beer into the "out" connector and out the "in" connector, the canister fills completely and the bubble never forms. The filter will clog up faster this way but for the batch sizes we run, it is not relevant. It is also presumed that one would backflush the filter after each batch, which in this case is running clean water through it the normal way.

js  
ZZ

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Date: 14 Jun 93 14:56:35 UT  
From: "Petrovsky Andrey "  
Subject: HOMEBREW Digest Distribution List

Hi,

Please add my name to your distribution list for HOMEBREW Digest .

andrey.petrovsky@gtepsc3.sprint.com

Thanks

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Date: Mon, 14 Jun 93 11:22:59 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Stoudts Festival

Here is my completely biased and subjective opinion of this weekends second annual eastern regional microbrewers festival (Stoudts Fest).

For this years event there were two major changes from the way things were conducted last year. Firstly, there were three sessions instead of one and this was an excellent and neccessary move. Secondly, the food distribution was moved into the Stoudts biergarten area, away from the beer serving area. Both of these changes resulted in a more efficient and orderly event, and made the task of getting some food much easier.

Each session had 1,000 tickets sold. The last session that was added later than the first two, was almost sold out (~950).

Working from memory, there were approximately 25 microbreweries and brewpubs in attendance, with most serving 2-3 styles of beer. Attendees received a Festival tasting glass and a meal ticket for kraut, german wersts and some of Ed Stoudts excellent fresh bread.

Each session lasted 4 hours. Attendees were allowed to sample beers at will without additional cost during this period. The breweries were not paid for thier beers, but each brewery did receive a complimentary hotel room and all brewers and helpers also were fed a prime rib dinner between the Saturday afternoon and evening sessions. I personnaly believe this festival combines the best aspects of the Oregon Brewers Fest with that of the GABF: one entry admission, no competition medals, as many beers as each brewery wants to bring, and the added Stoudts touch of a good meal included in the admission price.

The other great thing about this festival is that I love the surrounding countryside. It is a great place to camp, bike and do whatever.

My personal favorites from the fest:

McNeil's Brewpub, Brattleboro, Vermont:  
This is a hombrewers paradise. The brewery is a 4 BBl operation, and the beers are genuinely hand crafted, unfiltered and produced with quality ingrediants.  
My favorite was the Helles Bock. A 16P beer, it is made with Moravian malt, and german noble hops, hallertau & tettngang. This beer is a hoppier version

of Sierras Pale Bock. A very good hoppy american bock.

Zip City, NYC:

Despite some negative press in the past I believe Bob Berg is doing a good job of making some pretty tasty lagers. If you wrote off this brewery in the past, give it another try.

Arrowhead Brewing Co, Chambersburg, PA.

The makers of Red Feather Pale Ale, the brewhaus is a typical Peter Austin

Associates design, using ringwood ale yeast, torrefied wheat flakes, the Austin hop perculator, and of course open fermenters. I am not always a fan

of the ringwood family of beers, but each time I have another Red Feather,

I am impressed by the clean snappiness and great hoppiness of the beer.

Of

all the Austin breweries, Arrowhead seems to be the one that controls the yeasts tendency to throw diacetyl.

Stoudts Brewing Co:

The success of this brewery continues. Ed & Carol Stoudt run a tight ship,

with the brewery and GM? run by Tom Rupp. For the festival, Stoudts had a

Festival beer, a Double Honey Maibock and an Oatmeal Stout. The Maibock is

amazingly drinkable for about 9% ABV. The real winners from this brewery were only found in bottles or on draft on Sunday: Export/Gold, and Bock.

Tom

warned me that the bock is thier best effort yet and it was a truley delicious

traditional bock. Also of note is the Adamstown Amber, a amber lager with

great malt/hop balance. Tom reminded me that he leans toward balanced beers,

so I avoided pushing my 45 IBU pale ale on him. Tom is in the process of a

considerable brewery expansion with 90? BBl Unis due soon , a new cold box

and a 30 BBl brewhaus to replace the current 15 BBl. The new sudhaus will be

steam fired as opposed to the current direct fired one. Hopefully, the character of the beers will remain the same.

Baltimore Brewing Co:

Yes I am a bit biased here, as most of my labor was devoted to pouring and

explaining these beers to fest goers. But, from feedback during all three

sessions, the Baltimore Weizen (mit hefe) was terrific. The characteristic

Paulaner weizen/banana esters were evident, and the 5% ABV made it a nicely

poundable beer. For people who will be in the Baltimore area, this weizen

is still available and will be followed by a Weizen Bock.

Notable missing brewery from last year:

Great Lakes Brewing Co, Cleveland. I spoke with the brewer, Andy, who was in

attendance despite his beers absence. It appears that success has reared its

ugly head again, and the brewery was unable to sacrifice the required kegs and still supply the pub and its accounts.

Thanks to everyone who helped make this a great festival, especially the Stoudts, Tom Rupp and all of the helpers who carried kegs and trash cans of water. See ya next year!

Good brewing,  
Jim Busch

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Date: Mon, 14 Jun 1993 09:39:55 -0600  
From: Vincent Heuring <heuring@riker.cs.colorado.edu>  
Subject: Recipe for Jalapeno Beer

My wife wants me to brew up a batch of jalapeno beer!  
Yes, folks, it's true. We paid a visit to Fort Collins last week, to visit the \*three\* microbrewerys there, and to visit Coopersmiths, the local brewpub. Coopersmiths has, among their six always-available beers, a "Chili Beer," and my wife was wild about it. The beer \*was\* really good.

Extremely dry, light in color, with an immediately noticable pepper flavor.

No hop flavor at all that I could detect, just a very dry pepper bite.

Not

particularly hot, either.

Anyway, I thought that bringing a half-gallon home would satisfy her appetite, but no, we've polished it off, and she still wants me to brew up a batch.

So, does anyone have a partial mash or extract recipe for jalapeno pepper beer?

- - - -

Vincent Heuring Dep't of Electrical & Computer Engineering  
University of Colorado at Boulder Boulder CO 80309-0425  
heuring@cs.Colorado.EDU o) 303-492-8751 h) 303-449-8868

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Date: Mon, 14 Jun 93 11:17 PDT  
From: Daniel A Connors <Daniel\_A\_Connors%~WHC110@pnl.gov>  
Subject: Large Scale Recipies, Hop Utilization, & In-keg Carbination

NOTE: Please post your responses or reply to me at the following address: gj\_vargo@ccmail.pnl.gov Thanks.

I have been brewing in 6 finished keg batches for a few years. I seem to have fallen into a rut as my beers generally end up as either a Golgen Ale, Red Ale, or Stout. All are very drinkable, but I miss the Belgian styles and others [i.e. (Chimays), Ayingers, and Felinfoils (SP)]. Will anyone please post or E-Mail me "PROVEN" large scale batch recipies (part of my reluctance to vary significantly from the "standards" is the cost of failure - an unsatisfactory product deterrs my experimentation).

Any suggestions on how I may vary my process are also very welcome. The following is a very generic description of the process:

- \* Bring 125 gallons water to 180 degrees F (gypsum added)
- \* Transfer to hot water storage tanks
- \* Begin mash-in of ~220 lbs (mostly two-row) at a strike temperature of 172-174 F (water pumped to bottom of mash-tun)
- \* Complete mashing over a 20-30 minute period, cover grain with 1-2 inches of water
- \* Cover mash-tun, rest for 1:15 minutes (grain core temperature is ~140-145 F at finish)
- \* Sparge (by pumping into sparge ring) with remaining water (~150-160 F); valve out to Lauter-back and pump back to kettle (last of wort has little sweetness if any); balance flows in and out
- \* Add additional gypsum, citric acid, and table salt; heat to boil.
- \* Boil ~35 minutes add first hop pitch (usually 12-18 oz. of high alpha hop pellets - Centennials/Cascades/Fuggels)
- \* Continue boiling for ~40 minutes add finish hop pellets (usually 8-11 oz.) apply heat for 3-5 minutes to assure wort turnover and hop mixing (Tetenger, Willamette, Fuggels, Cascade, Centennial)
- \* Run thru tube and shell heat exchanger to get wort to 78 F maximum (prefer 68-72 F); pump to two sterile fermenters
- \* Grab two 1/2 quart samples for yeast rehydration; take hydrometer and temperature readings to determine O.G.
- \* Pitch rehydrated Whitbread Ale yeast, Batch 18 (usually 1-1/2 to 1-3/4 oz. per 1/2 quart starter) warmed to ~85 F
- \* Primary ends 3 days later, wort pumped up to elevated secondary fermenters; allow to work 10-20 days
- \* Gravity feed to 15.5 gallon kegs (Golden Gate style) and bung
- \* Force carbonate by slowly adding co2 to bottom shank and gradually increase pressure to ~25 psi at 60 degree F over 3 days
- \* Chill thoroughly, reduce keg pressure to dispensing



pressure

Any comments, suggestions, reprimands?

Secondly, I'm down to my last 8 oz of Whitbread yeast any suggestions on a new variety that would compliment the above process or a suggested improvement. How do the hop utilization tables I've seen on the Digest fit the larger batches? And lastly, has any one developed a set of co2 tables out to the 60-70 F range and up to ~30 psi. Obviously, the saturation rate is slow at my household temperatures (they were off scale of the tables published in "The New Brewer" a year or so ago. Carbination suggestions are also welcome. Thanks for the patience and the extra bandwidth.

Sincerely,  
Dan Connors

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Date: Mon, 14 Jun 93 13:48:46 CDT  
From: jlf@palm.cray.com (John Freeman)  
Subject: canned beer

Well, thanks to several who responded to me about palatable beer in cans. My fishing buddy showed up with Summit and Sam Adams this weekend. Here is a summary of what people told me.

beer recommend by

- ----  
Yuengling Black and Tan Rob Dobson, Timothy Sweet  
Miller special reserve amber ale (maybe) Chip Hitchcock  
Foster's Lager Fred Smith  
Guinness Stout Pub Draught Donald G. Scheidt and  
Bryan Kornreich and  
Richard Stueven and  
not Chip Hitchcock

Beck's Donald G. Scheidt  
Heineken Donald G. Scheidt, Bart Thielges  
Tsingtao Donald G. Scheidt  
Lowenbrau Donald G. Scheidt  
reuse a (some) cleaned plastic bottle(s) Donald G. Scheidt  
Holsten Bart Thielges  
Weinhard's Ale Bart Thielges  
Ballantine Dark Ale Bryan Kornreich  
drink cheap beer Bryan Kornreich

I hope I got the credits right, I got mixed up in the middle of making the list, and already deleted the mail. My apologies if I got it wrong.

This makes an excellent list to draw from. Again my thanks to you all.

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Date: Mon, 14 Jun 93 13:16 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Slugfest in the Sierras

It came to pass that the garden slugs had become too greedy. Peaceful coexistence was not working out. Plant damage was occurring at an accelerated rate and it wouldn't have been long until irreversible damage was inflicted. Granted, all creatures great and small have a place in the Grand Design but the time had come to give the slugs their walking papers.

For those who are not gardeners, beer is probably the cheapest and easiest slug countermeasure. The method is simple and effective. Submerge a small container into the ground so that the lip is level with the ground. Fill the container with beer. In effect you're making a lilliputian beer swimming pool. At night, the slugs are attracted to the beer (the malt me thinks). The slugs drink the beer, loose their sober composure and fall into the container. Having never taken swimming classes, the slugs drown. Are you listening, Kevorkian?

It was my intention to use homebrew because: 1) a bottle of homebrew was a small price to pay for slug abatement and 2) I don't have any Sam Adams(tm). Planning and executing the mass murder was easy until I opened the fridge. To my surprise there was no homebrew. None. Oh sure, there was Baderbrau Pils and Bock, Celis White, Edelweiss Dunkel, Sierra Nevada Pale Ale and Mackeson's Stout. But not one stinkin' bottle of homebrew. It seemed I was going to treat a bunch of freeloading gastropods to the good stuff after all. The question was which beer would be sacrificed. Choosing was going to be tough.

My mind quickly went into Beer Assessment Mode. OK, no way do the slugs get the Celis or the Mackeson's. Not the Edelweiss either. The Baderbrau Pils was exceptionally fresh and so was a keeper. Remaining was the Baderbrau Bock or the SNPA. The logical choice would have been the bock as it was getting old. But I was afraid some of the more un-adventuresome slugs, not unlike some humans I know, might not like "dark beer". So the poison of the day was to be SNPA. I felt this was a sound choice because if drowning didn't kill the slugs, the bitterness surely would.

chris campanelli

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Date: Mon, 14 Jun 93 16:04:39 MDT  
From: pjd@craycos.com (Phil Duclos)  
Subject: Kegging supplies

Some of you may not be aware of a recent pricing change by a supplier of kegging equipment and supplies. About a year ago Foxx Equipment Company of Denver & Kansas City sent a letter out to homebrew clubs inviting them to pool their member's orders and offering wholesale prices to clubs on quantities of 3 or more of any item. This policy has changed.

The Deep Wort homebrew club was one of the clubs which took Foxx up on this policy and placed orders for a variety small miscellaneous parts for kegging. Popular items included both large and small o-rings for the kegs, faucet parts, shanks, and keg connectors. One member agreed to act as a focal point and arrange the orders. The orders typically came to about \$200. Quantity savings were passed along to the members and a lot of hard to get items got supplied. Some people ordered 1 item just because it was readily available through this service and unavailable otherwise even though there was no price break. Nobody ordered complete kegging systems or kegs.

When our latest order arrived we were surprised to find that we had been charged retail prices on all items, even those of quantity 3 or more. A phone call revealed that Foxx's policy had changed. The conversation also revealed the reasons for this change. Apparently few homebrew clubs responded to Foxx's offer. Those that did got a good deal. Those that didn't continued to look elsewhere for those parts or just did without. Foxx was less than overwhelmed with the response. Also some big homebrew suppliers complained. Apparently they felt that Foxx was competing with them by offering wholesale prices to homebrew clubs.

Now I get a lot of homebrew catalogs and pretty much know what's on the shelf in the local homebrew stores and I have NEVER seen the parts that we order in either place. I see complete kegging systems, kegs, regulators, etc. But faucet knobs, shanks, 1/4" barb gas disconnects, dip tube o-rings and the like, NEVER. And I think that I understand why. The homebrew suppliers have limited shelf space and capital and feel that its better to stock stuff which has a higher turnover. OK, sounds like a good business decision to me. However, to then turn around and complain to the supplier of these parts that they are in competition with them is ridiculous!

Well, there are alternatives and probably the easiest is to simply knuckle under and pay the higher prices. However, no policy is ever set in stone and the better solution, I think, would be to convince Foxx that there really is a market for quantity sales to homebrew clubs and that they

demand wholesale prices for quantity purchases. The way to do this is to write to the owner of the company at the following address and express your opinion:

Ford Mauer - Owner  
Foxx Equipment Company  
421 Southwest Boulevard  
Kansas City, Missouri 64108

If you're not interested, don't use this stuff, don't care, like higher prices or whatever, OK, don't bother. I actually think that there is a sizeable demand out there that has been thwarted by lack of knowledge and frustrated by lack of availability. If I am wrong, OK. I also am not attacking homebrew suppliers. They are great and work on slim margins and have limited capital and lots of competition, etc. They also don't carry what I need, so I see no conflict. What I am trying to do is make people aware of a opportunity that they have lost. I think that if enough clubs respond, Foxx will change their policy.

This isn't an endorsement for Foxx Equipment Co either. There are other suppliers such as Rapids, Superior, etc. Foxx has just been the one we have been dealing with, that's all.

Thanks,

phil duclos

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Date: Mon, 14 Jun 93 20:15:24 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Not me in the picture

I just got my issue of Zymurgy today, and since a lot of you have already asked, no, that is not me in the picture. I don't know who it is.

Besides, if it was me I'd be face down! ;-)

Mark from HopTech

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Date: Mon, 14 Jun 93 20:12:44 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Oils

New Product Announcement

In my article in the Summer '93 Zymurgy (Boost Hop Bouquet with Dry Hopping)  
I talked about CO2 extracted hop oils. As the article stated, measuring the very tiny amounts of hop oil needed takes lab equipment and lab skills, beyond those of most homebrewers (but probably not beyond quite a few Digest readers). Anyway, the article states that I was working on a solution to the problem. It was supposed to have a P.O. Box where you could write me to keep informed of any progress. Unfortunately, they edited that part out.

To make a long story short, HopTech now has available CO2 extracted hop oils that have been formulated in a stable, water-based suspension that are easy to add to homebrew sized batches. It is calibrated so that 1 tsp of hop oil equals 1 ppm of hop oil in 5 gallons. Average usage, depending on the style of beer and your taste, runs between 1 and 3 ppm. We sell it in 2 oz bottles, enough to add 2 ppm to 30 gallons of beer.

We have three varieties available:

Premium British Blend, made with a carefully controlled blend of English and European hops that allows extremely consistent aroma characteristics from year to year. Very floral in character.

British Blend, very similar to the Premium British Blend, but the aroma characteristics are slightly less consistent from year-to-year, allowing a less expensive price.

Pure East Kent Goldings. Wow! The real thing. Very smooth and mellow hop aroma. Not nearly as floral as the two British Blends. This is rare, expensive and worth it. Limited supply.

For a HopTech catalog or to order, call 1-800-DRY-HOPS M-F or you can email mgaretz@hoptech.com. Fax is 510-736-7950. Or you can ask your favorite homebrew supplier to carry our products.

Mark from HopTech

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Date: Tue, 15 Jun 93 10:47:16 BST  
From: des@pandora.swindon.ingr.com (Desmond Mottram)  
Subject: Re: Dogbolter

Joseph Gareri writes

...  
> Subject: Dogbolter(R)  
>  
> I was recently given a Dogbolter(R) kit as a present. I'm not a  
> fan of kits, but I'm not inclined to throw something out either.  
>  
> Has anyone had any experience with either this kit or the commercial  
> product? The kit says it originated in 1979 when David Bruce first  
> opened  
> the GOOSE AND FIRKIN in Southwark UK. It is supposed to be brewed to  
> an  
> OG of 1060.

I've drunk the beer and brewed the kit. The beer is good and the kit is  
too,  
as kits go. Though it's a long way short of the original. The OG seems a  
bit  
high. I thought it was about 1055.

>  
> I am hesitant to use the yeast packet that came with the kit, but I'm  
not  
> sure what I should replace it with. Also, the instructions say to add  
> 2 1/2 lb. white sugar along with the extract. This seems like a lot of  
> cane sugar for the amount of malt. I'm guessing the can is 3.3lb.

The yeast will be OK but if you want to replace it I'd suggest something  
like a London Ale yeast - not sure of the yeasts you have available. 1kg  
of  
white sugar is a normal ingredient of UK beer kits. It's to keep costs  
down  
and does nothing to improve the beer. Many people use two kits instead or  
brew half the quantity without the sugar. The can is probably 1.8kg.

You could boil it up with 4 pints of water and then add about 2 gallons  
of  
cold water. Take an SG and temperature reading. Aim for an OG of about  
1055-1060 and a temperature about 20C. You could add small quantities of  
hot  
or cold water and/or sugar until you get there. Pitch the yeast and  
follow  
the rest of the instructions on the kit. You should get a pretty good  
beer.

>  
> Any help? They classify Dogbolter(R) as a "strong ale".  
>

Yes, it's strong for a British bitter, somewhere around 5.5% abv.

> Joe Gareri  
> Boston, MA  
>

Desmond Mottram  
Swindon, UK



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Date: Tue, 15 Jun 93 08:56:29 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: Refrigeration/Fermenting

>How do people of ordinary means accomodate large numbers of fermenters  
>and kegs?

Well, how do they \*acquire\* large numbers? <g>

There is an interesting article in one of the earliest books published  
("Beer and Brewing"?) with transcripts of the AHA Conference talks. It  
is  
how someone built a walk-in fermentation room. If I remember correctly,  
it  
was basically built with stiff insulation boards used in building houses,  
with an airconditioning unit inside. Pretty neat.

Fidonet: 1:109/131    Internet: jdecarlo@mitre.org

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Date: Tue, 15 Jun 93 9:37:33 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Fullers ESB

Jay,

I saw your fullers question in todays HBD and since I just returned from the brewery I cant resist answering the question:

<My question is, since you've evidently been to the source, which is closer to the product served at the brewery, the U.S. tap or the U.S. bottled?

Neither! In the brewery they serve Fullers ESB Cask Conditioned Ale. This is near the gravity of the draft US version but is cask hopped with K. Goldings Hop Plugs (just like homebrewers use).

An interesting point is that the UK bottles/cans and polypins are packaged with hop oil and therefore do not have hop parts floating.

Also, the London Pride Cask is 4.0 ABV while the canned/bottled version is 4.7. This is fairly typical in that you are expected to pound 20 oz pints in the pub.

<10# 2-row  
1/2# crystal, 60L - 90L  
1/2# carapils  
1# brown sugar, 60 minutes  
2 oz Fuggles, 60 minutes  
.5 oz Kent Golding, 30 minutes  
.5 oz Kent Golding, 5 minutes  
1.5 oz Kent Golding, dry hopped in secondary  
Yweast London Ale (1028) yeast

OG: 1048  
FG: 1012

There is no Fuggles in ESB or any of the Fullers beers. They use English Target, Challenger and Northdown. EKG is in the finish & cask hopping of both Chiswick Bitter (very good bitter) and ESB. BTW the kettle hops are Lupofresh( challenger, 91) pellets from Kent and Worscester. They "Burtonize" the brewing water using mineral salts. A single temp infusion is employed. The ESB is 1.052 OG (apparently this was reduced for the US market, according to a brewer I was drinking with in the Pub next door)

I was told they used to use sugar but this is no longer required with the new mash tuns. I missed out on the Maize part so I do not know, but I assume George has this correct. Try 5- 10 % in the mash. Skip the sugar, use caramel malts to get the color and sweetness.

Good brewing,  
Jim Busch

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Date: Tue, 15 Jun 1993 7:23:39 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: fermentation?...no not yet.

Hi all

I've got a question about fermentation. Specifically about Wyeast American #1056 fermentation. I pitched some of this stuff about, oh, 3pm on Sunday (~40 hours ago). So far, nada. Nothing but this sorta scummy looking growth on the beer surface. What the hell's going on here? I've used Wyeast in the past, but not the American Ale. The package swelled just fine and all that. Anyone got any ideas?

scott

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Date: Tue, 15 Jun 93 10:03:23 EDT  
From: ethan.mason@mail.trincoll.edu (Ethan Mason)  
Subject: Belgian Beers and Brewpubs-any favorites?

I am going to Belgium next week and would like to know what the really good beers are so I can keep a lookout for them. I have been there before, but was so amazed with the quantity of types, that I just drank all the different types I could find. This time, however I would like to be a little more selective and sniff out the better beers and brewpubs. Any personal favorites?  
Thank you in advance for your time,

Ethan Mason enroute to beer heaven.

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Date: Tue, 15 Jun 93 10:13:52 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Beer resources on Long Island

I'm making a day trip to Cold Spring Harbor (NE corner of Nassau county) via JFK on Thursday (6/17). I'm looking for info on brewpubs, dinner places with a good beer list, and/or good beer stores somewhere between the two (CSH and JFK) or not too far out of the way. (Yes, I checked the pub list!) Please respond by e-mail. Thanks.

Spencer.W.Thomas@med.umich.edu

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End of HOMEBREW Digest #1163, 06/16/93  
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Date: Tue, 15 Jun 93 09:51 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Phillmill

>From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
>Subject: Phil's Mill Report

>The early prototype version I used seemed to work well, i.e. gave a good crush, and Dan (Listermann) has tested this observation by sifting the grist through a set of brewery screens, and comparing the (weight) percentages left on each to published data for 6-roll mills.

I won't argue that he may have improved on the Corona grind but I have his published "data" at hand and am a bit annoyed at his attempt to claim that it is far superior to the crush that is achieved by the MALTMILL (tm).

His bar charts show that the MM and Corona are just about identical (bad) and the Phillmill and the large commercial mill are identical (good). Considering the source, I would suggest a less than unbiased evaluation was done here. His chart also shows that an improperly adjusted PM looks just like the Corona and the MM. This would lead one to the obvious conclusion that you can prove anything you want by diddling around with them.

I have never seen a PM but, having only one roller working against a fixed plate, would seem to be only a nominal improvement over a rotating plate working against a fixed plate as in the Corona. I won't argue with his claims about it but I would be more inclined to believe what Geroge Fix said about the MM than what a competitor says about it, viz....

.....

I received Jack's mill in Jan., 1992. Shortly thereafter it was taken to the Dallas Brewing Co. (DBC) for the test. The latter was done with a standard and well established screen sieving procedure. This is described for example in DeClerck, Vol. 2, pages 321-323. It in effect consists weighing out the grain fractions that are retained on screen meshes of diminishing width. The following is what we measured:

|    | ASBCscreengrains retained, % by wt. |            |
|----|-------------------------------------|------------|
|    | screen no.                          | width, mm. |
|    | MM                                  | DBC Mill   |
| 10 | 2.000                               | 1413       |
| 14 | 1.410                               | 1820       |
| 18 | 1.000                               | 3332       |

|      |              |      |     |
|------|--------------|------|-----|
| 30   | .590         | 2525 |     |
| 60   | .250         | 5 5  |     |
|      | 100          | .149 | 3 2 |
|      | Not Retained |      | 2 3 |
| ---- | ----         |      |     |
| 100  | 100          |      |     |

George Fix

.....

For the record, Listerman's published data shows the MM retains about 45% on the 10 mesh screen and about 50% for the Corona and 10% for his. I would think that any grinding type mill (PM/Corona), as opposed to a true roller mill, could be adjusted so that zero is retained on #10 screen.

I have no problem with healthy competition and it's nice to know that our hobby can support this kind of growth but telling fibs about someone else's products is not a good idea.

js

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Date: Tue, 15 Jun 93 11:24:23 EDT  
From: magdek@LONEXA.ADMIN.RL.AF.MIL (Kevin M. Madge)  
Subject: Dogbolter

In digest #1162 Joseph Gareri asks for some info on the Dogbolter homebrew kit. I've brewed the kit using malt extract instead of corn sugar. It's definitely a strong ale. An excellent brew; I recommend it. A friend of mine (Franz Haas) has had the real stuff in England. His comments are:

I tasted the homebrew version five years after my last long night at the Pheasant and Firkin (I believe it is on Goswell Ave, London) where I was a regular. The homebrew reactivated those long dormant neurons - this WAS the beer of my favorite local pub!! True to form and taste. We used 3lbs of malt extract instead of the 2.5lb of sugar. Good luck.

Franz and I have brewed with the package yeast.

Kevin Magde  
magdek@lonex.rl.af.mil

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Date: Tue, 15 Jun 1993 10:24:46 -0600  
From: Paul Boor <PBOOR@beach.utmb.edu>  
Subject: CDC sterilant

Yo all you high intensity Microbiology types out there in academia/  
industry --  
Here's a thread to tie one on with:

The Center for Disease Control (CDC) in Atlanta recently reviewed its  
guidelines for sanitizing IV needles (reviewed in the Morbidity and  
Mortality  
Weekly Report of two weeks ago). Several large urban areas have tried to  
get  
drug addicts to sterilize needles to decrease AIDS, despite the screams  
of the  
likes of Jesse Helms that fed funds should not be used for such projects.

..  
Anyway, CDC recommends 1/4 cup/gallon water for sterilizing surfaces,  
so I'm with the recent comment of R. Stueven: Why has the bleach  
concentration  
been plummeting? Who really knows, like percent kill of E. coli? I  
can't  
believe that 1 tsp in a keg will do it; that seems about like most urban  
water  
supplies.

But more importantly, should we be using two different bleach  
concentrations for our needles and our Kegs? Are homebrewers out there  
secretly sharing kegs? How effective are condoms in preventing the  
spread of  
keg-associated STDs??

Think about it, but right now I gotta run out to the kitchen to make  
sure my refrigerator light is still on.

pboor

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Date: Tue, 15 Jun 1993 08:28:05 -0800

From: adoval@stmarys-ca.edu

**Subject: Siphons**

Since the basic technique in siphoning is to get the tube filled with liquid (free of air) before it will flow freely, \_first\_ fill the tube with water, pinch one end, place the other end in the wort, lower the pinched end into a small container and release the water, which will draw out the wort behind it; pinch again when the water has passed through, and you're ready to bottle.

adoval@stmarys-ca.edu

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Date: Tue, 15 Jun 93 11:19:09 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Opinions, Facts, and References

In HBD #1162 Kelly Jones <k-jones@ee.utah.edu> write:

[snip]

>Perhaps it would be a good idea for posters to this forum to include  
>(1) Their relevant education, training, experience, etc., and/or  
>(2) References for their assertions.

[snip]

YES YES! I heartly concur especially with (2) above. Please post your references. A lot of \*published\* stuff on homebrewing is contratdictory it helps tremendously if folks cite the original sources. This way one can go read the original source and form one's own opion (which can then be posted on HBD). This in not to say that opinions an anectdotal evidence are not import. They are and should be posted but should also be clearly marked as such!

Sante' WAK

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Date: Tue, 15 Jun 93 09:40:49 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: All Grain Systems

Hi Brian,

I've been doing all grain since about Christmas, and have recently gone through several of your questions myself.

> + Boiling Kettle - what are the disadvantages of cutting up an old  
keg?  
> Is a false bottom necessary? For a 15 gallon capacity (10 gallon  
> beer batch) what should I look for in material thickness and other  
> features.

An old keg is the cheapest way to get 15 gallon capacity. The false bottom is not a requirement, but 10-15 gallons of wort or mash is \*very\* heavy, and you don't want to pick it up. Therefore, some kind of bottom outflow is nice, and will require some kind of filtering to prevent clogging. Also note that the barrel shaped kegs as opposed to the cylindrical Sankey kegs are harder to fabricate a false bottom for. If you want maximum capacity, and just cut off the very top of the keg, the hole resulting is smaller than the desired diameter of the false bottom. I am currently struggling with this problem. My first attempt at a false bottom failed miserably last Sunday.

> + Propane burner - Is 35K BTU's big enough? How long to heat 12  
gallons  
> of wort?

It will work, but more is better, to a point. If you already own this burner, go ahead and use it, and only replace it if it is insufficient. There are basically two main types of burner: 1) multiflame and 2) single flame. Type 1 usually has the best adjustability and gas efficiency and the lowest total heat output. Type 2 can approach 200K btu, has very poor adjustability and poor gas efficiency at a low heat level. What I recommend is actually a hybrid of the two made by King Kooker (KK does make all three types). It has about 20 individual flames, is nicely adjustable, and puts out 145k btu max. This is what I have, it will bring 12 gallons to a boil in 15-20 minutes.

Drew

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Date: 16 Jun 1993 02:13:18 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: Dispensing with Foam

I sent this post last Friday, but it seems to have gotten lost. Excuse me if it appears twice.

I have solved the problem of getting the right amount of foam when dispensing beer from soda kegs through a cobra tap in a unique way. As always, the trick is to get the pressure at the tap to down to just above ambient by matching the losses in the delivery line to within about 1 psi of the gauge pressure in the keg. You can size the line such that this happens, but what about resizing part of it by putting in a restriction? You can't place the restriction at the end (by regulating the flow at the tap), because the pressure drop is too abrupt. I have found, however, that you can place a restriction at the quick disconnect, to get part of the pressure drop, and let the line take care of the rest.

My Cobra tap has the usual 1/4-in ID tubing, with a 1/4-in flare nut on the end, which attaches to a ball lock connector. I placed a short piece of 1/4-in ID copper tube between the cobra tap hose and the connector using a 1/4-in flare union and two flare nuts. I then squashed the tube (nearly) flat to create a restriction. The flattened section is about 5/8-in long, and the flow passage inside is only about 0.020 in or so. With the regulator set for the desired volumes of CO<sub>2</sub>, usually 10 to 15 psi for me, it works fine. In fact, I adjusted the restriction by trial and error to get it to work properly. One could try using an adjustable restrictor (needle valve?) to accommodate various tank pressures. Maybe one of the entrepreneurs out there could make a killing supplying such a thing to the mechanically disinclined.

Martin Manning

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Date: Tue, 15 Jun 93 13:29 CDT  
From: korz@iepubj.att.com  
Subject: Basics/Twist-off Bottles/Bleach, Iodophor & Stainless

Sorry about some of this being a bit dated, but I've been very busy (and still am).

Bart writes:

>1) Is there an inexpensive source of malt extract in the USA ? Part of what

Yes, \$6.25/3.3# or \$11/6# in single quantities (email me for the source)

.

>2) Is there a market for used small scale brewing and kegging equipment ?

> looking for a used CO2 bottle, regulator, and hoses. Ultimately, > SOMEONE must want to get rid of their old equipment.

Not really. Most of us are in this for the long haul. There are low-cost solutions. Kegs can be purchased used and reconditioned (don't forget the poppets!). CO2 tanks are CO2 tanks and can be purchased from yard sales, fire extinguisher places, etc. Hoses and regulators are best bought new from either a homebrew supplier or from a beverage supplier -- see your yellow pages.

>3) I'd like to experiment with adding different sugars to my wort, > particularly brown sugar or molasses. Has anyone tried these ? > Any recommendations on quantities to try ? How about other > sugars and their effects ? Anyone tried dissolving a pack > after dinner mints into their wort ? Just kidding about > the last one !! You can stop grimacing now.

Hey, whatever floats your boat. There's been beer made from roosters (yes, male chickens). Molasses is pretty strong flavored and thus only really appropriate in any quantity in a dark beer. I used 8 fl oz in my last Imperial Stout and I could have added twice that. For a lighter stout, I think that 4floz to 8floz is about right. Brown sugar is just white (cane) sugar with molasses added back. You can use 1/2# to 1# in Pale Ales for interesting flavors. In a recent IPA, I added 2# of Raw Sugar from C&H. It was too much -- there is an underlying cidery tone to the beer which I hope will go away. This is from the sucrose and not from the "rawness" or "molasses" in the sugar. I'm planning to try some experiments with Sucanat(tm) as soon as I have the time. Given that there's a lot of sucrose in it, I would suspect that it's use should also be limited.

>4) I realize that sterility is very important. All of the procedures > that I've read mention that during racking, a siphon should > be used to transfer the fermented wort. However, I have > yet to figure out how to start a siphon without getting my > mouth on the end of the hose. One procedure even specified > "suck on the open end of the hose until you get a mouthfull > of beer." Even though I brush twice a day, I still worry that > I might contaminate through this contact. Is there any way to > start a siphon without risking the contamination ? Or am I > just being too paranoid ? Will my batch be ruined ? And how > do you know that the light in the fridge goes out when you close

> the door ?

Don't worry about the fridge light, but do be concerned about sanitation. Poor sanitation is the only think (just about) that will make your beer undrinkable. Here's how I siphon:

1. Fill carboy or bucket with 5 gallons of water and 5 tablespoons of Household Bleach.
2. Hold the end of the siphon hose (which, by the way, was cleaned and rinsed thoroughly after the last use) up against the faucet and fill the hose with tapwater.
3. Shut off the plastic hose clamp (these is really make it easier and they only cost about \$.25) or pinch off the hose to keep the water from running out.
4. Stick the in-end of the hose in the Bleach water and let the water running out of the hose start the siphon of the Bleach water.
5. Pinch off the hose and stick both ends in the Bleach water to sanitize the outside as well as the inside.
6. Let this sit for about 10 minutes.
7. Dump out the carboy or bucket into another bucket for later use if you need it. While you are doing this, you need to keep the hose in a sanitary place -- I either hang it from the ceiling by a string or hand it to an assistant if I've got one.
8. Rinse the carboy or bucket well (this is the vessel you will be siphoning into) and rinse the outside of the hose -- don't let the Bleach solution run out of it... keep it pinched off! Larger diameter hoses siphon faster, but don't hold water well... I use a 5/16" OG hose. Put a gallon or so of clean water in the vessel -- if your tapwater is not sanitary, final rinse in boiled water or industrial beer and use a gallon of that in the vessel instead of tapwater).
9. Dip the rinsed hose (or racking tube, which is what I use -- it's just easier to keep the end of it at the bottom of the vessel) into the vessel and use the Bleach water to start the siphon of water through the hose. Let it run for a minute or so, but don't let it run out!
10. Shut off the hoseclamp or pinch off the tube and move it to the beer you want to siphon.
11. Use the water or industrial beer to start the siphon of the real beer. Let the first cup or so go down the drain, cause it's mixed with what you had in the hose.
12. The above was sort of the "siphon from one carboy to another" instructions. After you're done siphoning into the bottling bucket on top of the priming solution, don't let all the beer run out of the hose! Stop it right before the end and then you can use this liquid to start the siphon for the bottling too.

>OK, so now it must be obvious that I'm a neurotic miserly penny pinching >flake. What variety of beer would best fit my personality ?

All of them.

\*\*\*\*\*

Alex writes:

>I hope this question isn't too obvious. But I was wondering why most  
>literature on homebrewing that I have read says "DO NOT USE TWIST OFF  
>BOTTLES".

>I have used twist offs for about 10 batches and have not had any  
problems.

Twist off bottles are made for a different kind of capping machine than  
we use. In fact you can buy twist-off caps. The two reasons that I  
would  
recommend not using twist-off bottles are:

1. they are thinner glass at the top and are more likely to shatter  
during  
capping, and

2. the press-on cappers that we use are not the right kind for this type  
of bottle and there's a chance that the cap won't seat properly and there  
will be a leak (flat beer).

\*\*\*\*\*

There's been a lot of conflicting information posted regarding Bleach,  
Iodophor and Stainless Steel. I'm in the process of thoroughly  
researching  
the "bottom line" and will post (what I hope will be) the definitive  
answer  
when I have collected all the data from experts in the appropriate  
fields.

Stay tuned.

Al.

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Date: Tue, 15 Jun 1993 11:37:45 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Hangovers

In HBD #1162, cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock) writes:

> Certainly dehydration plays a part in hangovers; if you've binged one  
> of  
> the better protection is aspirin and lots of water /before/ you crash.  
But  
> I don't think it connects to lack of hangover in homebrews. Yeast may be  
> part of the effect, since B vitamins are commonly claimed to be  
effective  
> against hangovers; I don't know whether any sound research has been done  
on  
> this

This inspires me. Having been an early contributor to the recent  
headache/industrial brew thread, no doubt a frequently arising topic of  
discussion, let me launch what is probably another recurring thread:  
hangover cures. Here's mine: it's common sense, and works wonders. In  
order of importance:

1) Water. Lots of it. As much as you can stomach before bed (at least a  
pint), put a pint beside the bed for when you wake up, and drink more  
(water, that is) after you wake up.

2) Sleep. As much as you can get away with. An extra hour or two will  
make a world of difference.

3) Acetaminophen/Caffeine/Codeine (8 mg) compound tablets. These are  
available over the counter in Canada. You have to ask the pharmacist for  
them. Generic brands are way cheaper than the Tylenol version. Take 2  
or  
3 upon wakening. The acetaminophen is easier on the stomach than  
aspirin,  
the codeine makes life much more pleasant (but can cause nausea in large  
amounts, so don't pop those Tylenol 3's you've been saving from your  
wisdom  
tooth operation - they have 30 mg codeine apiece), and as for the  
caffeine,  
see below.

4) Caffeine. Not only does caffeine have analgesic properties of its  
own,  
it also increases the analgesic power of acetaminophen and aspirin by  
something like a factor of two. Put on the coffee pot immediately upon  
awakening.

5) Cannabis. Seriously. Really helps take the edge off things. An  
effective analgesic, anti-nauseant, and appetite stimulant (see below).

6) Food. Don't starve yourself, cuz low blood sugar will only make  
matters  
worse.

Of course, there's always the hair-of-the-dog-that-bit-you school.... I  
haven't mentioned vitamin B, but I think it's pretty important too. I've  
found I get more of a headache from commercial natural brews that have  
had  
the yeast filtered out than I do from bottle-conditioned beer, be it

commercial or homebrewed.

Happy quaffin'!

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Derrick Pohl (pohl@unixg.ubc.ca)  
Vancouver, B.C.

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Date: Tue, 15 Jun 93 14:28:16 -0500  
From: caudill@crss.com (Patrick Caudill)  
Subject: HELP FOR BEGINNERS

My friend and I just got started with a kit (yes, real newbies here) and we were wondering about good stores in the Oklahoma/Texas/Arkansas/Kansas area that carry homebrew supplies. We'd appreciate any pointers that you experts could give. Also, suggestions for a good, simple beginners' book would also be appreciated. Please e-mail to the following addresses

caudill@crss.com  
phcaudil@midway.ecn.uoknor.edu  
RYAN@rmg.pge.uoknor.edu

Thanks!

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Date: 15 Jun 1993 15:49:43 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: brewing capitol of the world

Every so often I see proclamations in this forum or others that make statements such as "Portland is Beer Heaven" or (as in yesterday's HBD) "Colorado (the brewing capital of the world)".

Please, let's not be so provincial.

It is very easy in the current renaissance-in-brewing atmosphere in the US to get wrapped up in our own little corner of the world and think that we sit on top of the best beer. But the truth is that we're not even close. There is high quality brew in this country, but there is also a \*lot\* more mediocre beer being made, whether you're talking the East Coast, the West Coast, or somewhere in between.

Beer Heaven (and the Brewing Capitol of the World) is undoubtedly located in Europe. I'd nominate Belgium for Heaven, Bavaria for the Capitol, with the British Isles and the rest of Germany as close also-rans. The USA is hardly in the race.

If you've been to Europe, you know what I mean. If you haven't been there, what are you waiting for?

Steve

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Date: Tue, 15 Jun 93 15:14:06 CDT  
From: jay marshall <marshall@pat.mdc.com>  
Subject: counter pressure fillers

I'm looking for a counter-pressure filler and was wondering if anybody has used the one made by Benjamine Machine Products (Modesto CA) that is advertised in Zymurgy occasionally. Also, I have heard that the CPF made by Foxx doesn't work as well as it should. Can anybody comment?

thanks,

- - -  
Jay  
marshall@pat.mdc.com

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Date: Tue, 15 Jun 93 13:55  
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)  
Subject: Re: Dogbolter

Joseph Gareri asked about Dogbolter. I have used it twice and have been quite satisfied both times. The first time I made it almost according to the instructions. (I was curious what it tasted like, never having been to any of David Bruce's pubs.)

The first attempt was:

4 lbs Dogbolter hopped malt extract syrup  
2-1/2 lbs corn sugar  
1 tsp Irish moss  
Brewer's Choice 1098 (British Ale) liquid yeast  
(in at least a pint of starter)

yield: 3 gallons

Bring 3 gallons of water to a boil. Add syrup and sugar, stirring vigorously until dissolved to avoid scorching. Boil for 15 minutes, adding Irish moss for final 5 minutes. Cool. Strain into carboy. Pitch yeast. Rack to secondary after about a week. After two weeks in the secondary, rack to a 3-gallon keg. Force carbonate. (I was in a hurry.) Chill to cellar temperature and serve.

This makes a Strong Pale or Amber Ale. I took this to a friend's Christmas party along with a 3 gallon keg of an all-grain stout. Both were completely consumed, but EVERYONE liked this as opposed to the slightly smaller group that liked the stout.

For my second attempt, I thought that I'd try a "Winter Warmer". I thought about using some specialty malts, but figured anything they might add would be overwhelmed by the malt and alcohol.

Winter Warmer

8 lbs Dogbolter hopped malt extract syrup  
3 lbs rice syrup  
1 tsp Irish moss  
Brewer's Choice 1056 (American Ale) liquid yeast  
(in at least a pint of starter)

yield: 5 gallons

Bring 5 gallons of water to a boil. Add syrups, stirring vigorously until dissolved to avoid scorching. Boil for 15 minutes, adding Irish moss for final 5 minutes. Cool. Strain into carboy. Pitch yeast. Rack to secondary after about a week. After two weeks, rack to 5-gallon keg. Force carbonate. Chill to cellar temperature and serve.

This makes a very dark Strong Ale. I took this to the same friend's Christmas party this past year along with an extract/specialty malt Christmas ale (spices, oranges, etc.) Once again, both were emptied. However, those who had thought the stout was too dark/heavy/chewy had no problem drinking this dark strong ale, which was quite dark and very potent!

Cheers.  
Charles Castellow ccastell@eldec.com

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Date: Tue, 15 Jun 93 18:00:52 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Utilization

Glenn Tinseth and Bob Jones write about my hop utilization table. Bob would still like to see the yeast calculation separated from the boil time utilization, and Glenn basically agrees. Glenn goes on to say that the boil time has no effect on the yeast's absorption of alpha acids.

I agree perfectly with Glenn's statement. I was not meaning to imply with the table that there was a direct relationship between the effect of the yeast and \*the amount of alpha acid isomerized per minute of boil time\*. However, the table is NOT a table of percent alpha isomerized, but is a UTILIZATION FACTOR table. The utilization as it relates to IBUs in the finished beer. Just because Rager only put boil time in the table, doesn't change what it attempts to accomplish (I verified this by checking Rager's article just now). I have simply added another dimension to the table, for yeast effects. There is no special magic here, the yeast calculation is a straight percentage reduction or increase from the "average" value in the table (20% either way). Since you multiply this percentage times the "average" value, it makes no difference in the final calculation whether you combine the steps as I did, or do them separately as Glenn and Bob suggest. I was simply trying to make the IBU calculations easier by combining the step. (It also keeps Rager's formula the same).

I can see Bob's point that if the yeast adjustment value is wrong, the table will need to be updated. But as Glenn points out, that is inevitable anyway as we get closer to better utilization curves. Also as Glenn points out, there are many more factors to be considered other than boil time, gravity and yeast. Eventually, I'm convinced that the whole table will be thrown out in favor of a much more complicated formula that will take a lot of these other factors into account. If one wishes to separate the yeast adjustment factor out, then use the "average" value in the table and adjust your utilization up or down to account for the effect of yeast.

BTW, Rager credits not only Eckhardt for the calculations, but also Byron Burch and Dave Miller. Eckhardt only gets sole credit for the table of beer styles vs. IBUs.

Mark from HopTech

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Date: Tue, 15 Jun 93 22:50:50 -0400  
From: jxs58@po.CWRU.Edu (J. David Stepp)  
Subject: Re: Dogbolter

Joe Gareri asks about Dogbolter. I've brewed this kit twice in the past few years and really enjoy the end result. Both times I used 2 cans (8 lbs. total) + 3 lbs. M&F light dry malt. My OG's were 1.054 and 1.059. It is definitely a strong ale (5-6% EtOH) with a full flavor and dark amber color. I used their yeast both times. I've since cultured and plated out some of the yeast and found no bacterial contamination (on YEPD plates). I vote yes, spark it up! (By the way, I'm an extract/specialty grain brewer with about 4 years/40 batches under my belt, and a graduate student in a yeast lab.)

Dave

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Dave Stepp  
Department of Molecular Biology and Microbiology  
Case Western Reserve University  
Cleve-berg, OH

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Date: Tue, 15 Jun 93 21:49 CDT  
From: fjdobner@ihlpb.att.com  
Subject: How Long On Fruit

Brewers of Fruit,

I am interested in the experience of those having brewed with cherries. I brewed a Cherry Weiss with limited success last summer and am attempting at doing it better this year. I am using very tart cherries of which I pitted and froze about 30 lbs. last year.

In my current creation, I am using about 11 lbs. for a 5 gallon batch. The question that I have is how long a period time is it recommended to let the fruit sit on the beer?

I have already gone through primary fermentation and have racked the fermented weiss onto the cherries and would like to know how long it is that I must now wait. I am sure the answers will be all over the board but so be it. This is my wife's beer so I wanna do good.

I will post the recipe. I sought a sweeter end product so I it incorporates  
1 lb of crystal and 5 oz of lactose.

Frank Dobner

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Date: Tue, 15 Jun 1993 20:00:14 -0700 (PDT)  
From: Thomas Feller <thomasf@ursula.ee.pdx.edu>  
Subject: French Oak

This is a post for a friend of mine.

Help! I'm making a French Biere de Garde for the upcoming AHA convention in Portland. I would like to use some French Oak, but I'm not sure how much to use. Anyone have any ideas?

Thanks Kevan and Tom

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Date:16 Jun 93 08:34:08  
From: "Rafael Busto" <SUPERVISOR@bnk1.bnkst.edu>  
Subject: Rotten egg smell

Help! after two days of fermentation a rotten egg smell is coming out of my bucket. It is a continental light beer, nothing special.  
Should I discarded and start over or should I wait a little longer?  
I think that the response is obvious but I need some inputs.  
Thanks in advance

Rafael Busto      rafael@bnk2.bnkst.edu

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Date: Wed, 16 Jun 93 08:31:13 -0500  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Brewing Calculations

The June issue of Brewprint, the newsletter of the Boston Wort Processors, had a article by Bob Jones and one by myself containing numbers relating to the use of chlorine. I have got some e-mail asking how these numbers were derived, and the following is an explanation of the ones that appeared in my article.

The particular bleach I use has "Active ingredient: 5.25% sodium hypochlorite" on the label. The first term is clear, but the last ones are potentially ambiguous. I contacted a rep, and was told that the hydrated form of sodium hypochlorite is used to make this product. Referring to the CRC Handbook of Chemistry and Physics, one can see this is  $\text{NaOCl}\cdot 5\text{H}_2\text{O}$ . (Sorry folks I can not do subscripts!) The relevant molecular wts. are (in rounded form):

$\text{Na} = 23; \text{Cl} = 35.5; \text{O} = 16; 5\text{H}_2\text{O} \text{ (water of hydration)} = 90.$

This form of sodium hypochlorite thus has a mole. wt. of 164. The Cl fraction is  $35.5/164 = .217$ , and the OCl fraction is  $51.5/164 = .314$ . (I can not do superscripts either so valences are missing!)

I was also told that the term "5.25%" could be taken in the sense of vol/vol. Therefore, my bleach contains 52500 ppm in the sense of vols. The rep concurred with this number, although it must be said that storage of bleach at elevated temperatures can lead to lower values.

If one dilutes bleach by adding 1 ounce in 1 gallon of water, one will get a sodium hypochlorite concentration of

$52500/128 = 410.2 \text{ ppm},$

and a Cl concentration of

$410.2 \cdot .217 = 89 \text{ ppm}.$

(The OCl concentration is 128.8 ppm). Data published by Siebel suggests at these levels, 15 min. contact time is sufficient for bacteria relevant to beer.

In an earlier post I mentioned that I do not choose to use this type of soln. with ss eqpt. I meant this as a statement of personal brewing style, and did not put it forward as a scientific principle. The same can be said for iodophor. As a brewer I am sensitive to the active ingredients in these

products, which fortunately are always listed on the label. The products  
I  
feel comfortable with have iodine (1.75%) and phosphoric acid (18.75%) as  
the only active ingredients. They are widely used in commercial brewing.  
I can  
see how a toxicologist might feel more comfortable with a version where  
the  
phosphoric acid is replaced with fatty constituents used in soaps, but I  
see  
that too as simply an opinion and not a basic principle.

Roger Bergin, an award winning brewer and full time brewing consultant,  
is  
preparing an article on sanitation that is aimed at small commercial  
operations  
and serious homebrewers as well. He will bring the perspective of a hands  
on  
brewer, something this topic badly needs. This paper will appear in Vol.  
3 of  
Brewing Techniques. By the way, Vol. 2 will have an article by Martin  
Lodahl,  
which could turn into the most widely read and discussed article in the  
history  
of brewing. He deals with malt extracts.

To head off anticipated flames, let me state that I get paid \$0 for being  
an  
editor of BT, and authors get the same compensation.

George Fix

P.S. I talked on the phone with Mark Carpenter of Anchor yesterday, and  
found  
out that Diversity Chem. is not the only one making brewery grade  
iodophor.  
Bergin's article will contain a list of the relevant players for this and  
other compounds.

P.P.S. Cushing Hamlen > I still can get through via e-mail. Call me at  
817-561-1781.

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Date: Wed, 16 Jun 1993 9:46:55 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: ppm -> IBU

Mark the hop guy,

How does the ppm of the hops oil relate to IBU? Or is the oil designed for finishing only, not bittering?

Russ Gelinias  
esp/opal  
unh

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Date: Wed, 16 Jun 93 13:48:26 GMT  
From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)  
Subject: Subscription Problems // Japanese Beer Club

Fellow Brewers,  
First, and foremost, has anyone else out there been mysteriously dropped from the HBD distribution list for no apparant reason? I stopped receiving the Digest with issue #1158, Tuesday 8 June. For about 4 issues prior to that, I would receive 2 copies of the day's digest, then on the 8th, they just stopped coming all together.

I have been FTPing daily to keep current, but the procedure is getting tedious fast. Can someone who is "e-mail smart", or involved with the Digest's publication/distribution help me get straightened out again please, or is the solution just to re-subscribe and hope I don't get multiple copies daily?

Thanks in advance.

... Secondly ...

A colleague at work clipped out an article from a magazine and gave it to me the other day, I found it worth sharing. I don't know what publication it came from, or its date. So, obviously it is reprinted here without permission.

Japanese Pay \$23,000 to Drink Beer at \$78 a Pop

Beer-loving Japanese businessmen shell out a whopping \$23,000 just to become members of a club where they guzzle foreign brews--for nearly \$80 a bottle!

Beer made in Japan tastes so dreadful that big-wigs eagerly pour into Tokyo's Club Knox, where they can sip beer shipped in from Britain, Switzerland and Belgium.

In the ritzy club, the vintage beer from overseas is treated like fine wine, stored in a wine cellar and served in crystal glasses.

The oldest vintage in the club's massive collection is 1983 Samischlaus. The fancy Swiss beer is brewed just once a year in December.

The most expensive is a 1985 bottle of the British brew Gales Prize Old Ale-- which goes for \$78 a pop.

- -----End of Article-----

Sure glad we don't have to pay prices like that.  
Noch einmal, bitte!! Mark

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Markham R. Elliott u4imdmre@cpc41.cpc.usace.army.mil  
Information Technology Laboratory (601) 634-2921  
Waterways Experiment Station

Vicksburg, Mississippi USA

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Date: Wed, 16 Jun 93 10:40:29 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: RE:filtering with cotton

In the last digest, Jack comments on filters:

snip snip  
<Furthermore, it is darker in color and made of cotton.

It would seem to me that despite the improvement in performance that Jack found with this cartridge, the reusability of a cotton based filter would be low. What do you do to clean and store a cotton filter? I am not sure I would want to spend \$11+ on a filter that I would have to discard or watch get moldy. If you want a cotton filter, my local HW store sells one for \$5 and I used it successfully on a cask hopped barley wine and then discarded it.

I would also point out what I posted on rec.crafts.brewing: One must be careful of the point of conditioning that you filter. A period of cold conditioning helps to remove the bulk of yeast in suspension, and results in better filtration. Other important factors are the % efficiency of the filter used, and the flow rate. Too high a flow rate results in poor filtration with the cartridge filters.

I bought a 5 micron polypro filter from the filter store and it is a good filter for a polished beer, not a sterile filtered or crystal beer. Note I said 5, not .5!! Micro filtered beer is stripped of important beer constituents, that I definitely want in my beer.

<Not willing to accept these results, I purchased a known .5 micron filter cartridge from McMaster Carr and ran some tests on it which convinced me that the .5 micron cartridge that came with the filter, most absurdly was not.

I am not of the opinion that the Filter Store is misleading brewers as to the size of the cartridge. Why is the McMaster Carr filter a "known" size and the other not??

Good brewing (flame suit on),  
Jim Busch

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Date: Wed, 16 Jun 1993 10:56:07 -0600  
From: mgerard@caen.engin.umich.edu  
Subject: Liquid Yeasts

I have a question about GW Kent's liquid yeast. I have been trying to use this liquid yeast recently because it's not expensive and readily available (at least in Ann Arbor,MI). Here's my question:

How big of a starter do you need and what is a "normal" lag time at 75 degrees? Also should I start with one big starter or should I start with a small starter (12 ounces) and then transfer to a larger starter (1.5 liters)?

I've used their yeast in four different batches now and it seems like I need to make about a 1-1.5 liter starter and let it ferment for 4-5 days before pitching to get a lag time shorter than 12 hours.

Any advice would be appreciated. Thanks,

Mike

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Date: Wed, 16 Jun 1993 10:56:20 -0400  
From: an982@yfn.ysu.edu (Steven Zabarnick)  
Subject: Full wort boil

I finally took the plunge -- I did my first full wort boil this past weekend. I used a new 33 qt ceramic-on-steel kettle and a new Brinkman propane burner. The burner provided excellent control for the boil. I was able to bring 5 gals to boil in 30 mins, and I was VERY conservative about turning the flame up high.

My new immersion wort chiller (50 ft of 3/8 inch copper tubing) also worked well; it brought the wort to pitching temperature in <30 minutes.

I do have some comments and questions about the process, though. With 5 gals of water and 6 lbs of DME at a rolling boil, the 33 qt kettle was quite close to full. How does one do an all-grain boil in a kettle this size, where one needs to boil about 7 gals?

As I boiled out on the porch and set up to chill in the kitchen, I had to carry the full, hot kettle with copper tubing protruding. This was much more challenging than expected. Do most people avoid carrying the hot wort by chilling in place (using a garden hose)? During chilling the kettle cover does not completely seal due to the copper tubing; should I have used plastic wrap to keep out the nasties?

Steve Zabarnick

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Date: Wed, 16 Jun 93 10:58:49 -0400

From: polstra!norm@uunet.UU.NET

Subject: Homebrewing in Germany

IMHO there is no need to homebrew in the kingdom in heaven, this meaning  
a  
anywhere in Germany. The variety and quality are amazing.

Use the time in Germany to recalibrate your taste buds, watch some  
soccer,  
enjoy the life styles, join the anti-nazi protest marches, etc, etc.

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Date: Wed, 16 Jun 1993 08:49:58 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: Texas Micros & Brewpubs

>From: drwho2959@aol.com

>

>I live in Houston, and frequently  
>visit several excellent beer bars with literally SCORES of micro  
>draft taps, including Anchor, Sierra Nevada, August Schell, and  
>Boston Beer Company products.

Well...three out of four ain't bad...

have fun  
gak

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewpub and hockey haven

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Date: Wed, 16 Jun 93 11:01:42 -0500  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Extract - Gravity Conversion

I have been working on a sequel to my book on brewing science, one that is more practical and quantitative in its orientation. A particular problem that I am facing is the need to find an alternative to listing the complete Plato/Balling tables relating specific gravity SG to extract E (i.e., % extract by wt. or if you like degree Plato). What I am looking for are formulas that can give a digit or so more accuracy than the "factor of 4" rule. Quite by chance I came across one. I have no idea where it came from, and in particular can not take credit (or blame!) for it. I mention it in the forum to solicit reactions. In any case here it is:

$$E = 668.72*SG - 463.37 - 206.347*SG*SG.$$

This one smells like a curve fit. I bet (this needs to be checked) that a linear fit of the Plato tables gives the factor of 4 rule, and the above is a quadratic fit of the data. Presumably it was introduced to capture the first nonlinear effects.

Example 1. Let SG =1.010. Then the above gives

$$E = 668.72*1.01 - 463.37 - 205.347*1.01*1.01 = 2.563.$$

The Plato Tables (17.5 C version) give 2.562.

Example 2. Let SG = 1.080. Then

$$E = 668.72*1.08 - 463.37 - 205.347*1.08*1.08 = 19.331.$$

The Plato Tables give 19.311.

One can use the quadratic formula to solve the above for SG as a function of E. Since we are only concerned about the first three significant figures in E, one step of Newton's method should give a reasonable result not involving square roots nor choice of sign. This gives the following:

$$SG = 1. + E/( 258.6 - .8796*E).$$

Example 3. Let E =20 P. Then

$$SG = 1. + 20/(258.6 - .8796*20) = 1. + .083 = 1.083.$$

This is the value quoted in the Plato tables.

Has anyone seen any of the formulas before? I am sure that at one point in brewing history they must have been "well known".

George Fix

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End of HOMEBREW Digest #1164, 06/17/93

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Date: Wed, 16 Jun 93 09:20 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Miller Amber Ale

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 06/16/93 11:22:59  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Miller Amber Ale

I recently had the opportunity to try a Miller Amber Ale and I would like to pass on a few thoughts: Get a freezing cold one and drink it as fast as you can. The beer tasted great while cold with slight fruitiness and some hop and malt flavor. I mistakenly thought the Amber Ale would taste better if a little warmer. As the beer warmed, I was treated to a rather chemical-like fuzziness on the palate that I could only describe as sucking on batteries. A homebrew buddy said that's the hop oil they use. Damn shame.

At our last homebrew club meeting, we had a rep from Miller come and present the Amber in full marketing glitz. Lots of FS and free beer. I got a small pamphlet entitled "AMBER ALE: Guidebook to Ales." This has got to be one of the most inane pieces of misinformation I have ever read. I'll pass on a few examples:

"You've probably heard that ales should be served at warmer temperature than other beers. Not true. The tradition of warm beer is a cultural oddity of England than a taste issue. In fact, if you've seen the Queen frown, it's because she just had some warm ale....."

I think everyone has heard the joke "Why to Brits drink their beer warm? Because Lucas makes their refrigerators." but this cultural oddity thing is unbelievable!!! I can believe that the Amber Ale should be served ice cold because it tastes awful at real ale temps, but that is no reason to skew the facts. The pamphlet goes on to say that their masterbrewers recommend that the ale be served between 44 and 48 deg F. Hmm, "masterbrewers" said that, eh?

"Authentic ales differ form lagers and other beers in several ways. First, ale is made only from a special ale yeast. Ales are also brewed at higher temperature than other beers and have a greater hop content. These differences give ale its rich creamy head and full-bodied flavor. Ales are also the original beer of Europe."

I thought ale yeast was the common stuff and lager yeast was the special one.

At least that's the historical development. I think they meant to say "fermented" at higher temps and not "brewed". And they really go out on a limb

with the original beers of Europe thing. I guess the Sumerians and Egyptians

don't count in our mass-produced, Westerners-only society.

I'd love to go on about this but I've already given it more thought than it

deserves. There's a nice little jab on the last page about beers with English

or Irish sounding names not being "authentic ales". I'm just waiting for the

response from the rest of the factory beers: something like Coor's Copper and

Bud Bold, igniting a whole new series of ridiculous sport-related ads.

\*Insert Authentic Disclaimer here\*

Dennis B. Lewis \* (713) 244-7809 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Wed, 16 Jun 93 11:40:17 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: headaches, reprise; fridges & freezers; Chicago suppliers

Greetings!

One of the things I find most enjoyable about HBD is the way a discussion of some topic of common interest majestically spins itself out over several days! It's a lot more informative than those TV miniseries, and considerably less painful than sitting through Wagner's Ring cycle to boot.

Let me focus the discussion on headaches a bit, if I may, by returning to the original intent of my question about headaches, which may not have been clear

..... first, I am interested in the comparison between homebrew and Budmilloors (1) assuming relatively equal amounts and (2) in terms of immediate effect rather than hangovers. The headache I got from Coors last weekend hit me immediately after the second beer, and did not produce a hangover to speak of the next day (I did my drinking in the afternoon). My head hurts just from the memory of it! Anyway, it would be my assumption that in this case neither the alcohol itself nor a dehydration affect would be to blame, but I would rather suspect some kind of allergic or other physical reaction to the beer's ingredients. I have never known 24 oz. of homebrew to give me a blinding headache, and it seems to soon after drinking to blame vitamin B depletion, dehydration, etc. Sound right to you?

Second, I have been interested in recent discussions of refer/freezer equipment. I am planning on haunting garage sales in the near future to pick something up for my basement so that I can begin brewing a lager here and there. I gather that a chest freezer with a temp controller is ideal for this since you can sit carboys right down in it. However, I might also like a place to store fresh whole hops, and for this I would like a plain ole freezer set at plain ole freezing temps. I don't see any way around the necessity of getting two units, but do any of you techno-wizards out there have another suggestion (for a not-very-techno-person?)

Finally, a friend of mine who lives in Skokie and does not have e-mail access wants to start brewing. Would anyone in the Windy City care to e-mail me vital stats of supply stores in the area (Alt. Garden Supply, Al's store, any others I don't know about), and TIA.

Jonathan Knight  
Grinnell, Iowa

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Date: Wed, 16 Jun 1993 09:53:30 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Chili Beer

One of the advantages of running the Oregon State Fair competition has been access to winning recipes -- and the permission to reproduce them at will. The following beer took 1st Place in the Specialty Beer category, and is, I thought, a really tasty item. Ken Kane, of Portland, seems to brew nothing but spiced and fruit beers, and has gotten quite innovative and skillful at it. If memory serves, he's won this category repeatedly (including a pumpernickel beer and a sage beer).

"Green Chili Beeritio" -- 5 gallons

7# Alexander's Pale extract  
1# Dextrin malt  
1# Vienna (presumably Briess)

1/4 oz Kent Golding & 1/4 oz. Clusters after 5 min.  
1/4 oz KG & 1/4 oz. Clusters after 20 & 40 min.  
1/2 oz. Mt Hood after 58 min.

the grains are mashed at 122F for 30 min; 152F for 10 min; 158F for 20 min.

2 tsp. gypsum in 60 min. boil

2 whole, roasted Hatch Chilis & 2 oz. chopped New Mexico chilis  
(presumably in boil)

fermented at 65F for 10 days with Whitbred Lager yeast

===I realize there's a little information missing, but it ought to provide a good start -- and it was a really tasty beer, for those who like chili beers.

- --Jeff Frane

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Date: Wed, 16 Jun 93 11:58:41 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: building in brewing facilities

We are looking at constructing a house in the near future (9-12 mos.) and I have recently become an enthusiastic brewer (not yet fanatical enough for full mash recipes ). But I acknowledge that I would like to have facilities available so that, if I get the mash bug, I can do mash recipes as easily as possible. Question is: Does anyone out there have any designs/ideas/hints for building in homebrew equipment (small scale) into a house? This equipment might include: range-top modifications, tap lines for immersion chillers/heat exchangers, built in shelves for storing etc. If anyone has made such modifications and has hints, please let me know before the fact.....

(Thanks and all that)  
Thanks in advance for any comments.

A big Texas howdy and thanks to Rob Gardner for providing the opportunity, support etc. for this Digest.

Thanks to the Texas Legislature for finally issuing (sp?) a decent law - HB 1445 legalizing brewpubs (come on September 1st!).

Chris Pencis

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Date: Wed, 16 Jun 93 11:04 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: chili beer

Vincent Heuring <heuring@riker.cs.colorado.edu> wants to brew a chili beer.  
I'd always thought that I'd like to do the same, until I tasted one!! Just a week ago, I tried Ed's chili beer, each bottle with a whole Jalapeno in it. According to the label, Ed's is a microbrewery somewhere in Arizona (can't remember where), but the beer was actually made by a contract brewer in Indiana.(?) Anyway, I was excited to try this brew. I really like spicy food, and I'm not above eating Jalapeno's with a meal. However, this beer was so intensely hot that I couldn't get past the first sip!! What a surprise!!

Good luck with the pepper beer Vincent, but, as with any new spice, start off slowly, and increase the peppers with successive batches until you get a beer you like.

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On another note, I recently took a trip to Phoenix. While there, I made a special point of obtaining various microbrews not available in Utah. (Except for Wasatch ales, the list of microbrews not available in Utah is identical to the list of microbrews. Utah is the real wasteland of beer!;-) There's a shop called Sportsman's, and browsing through there I felt like a kid in a candy store. The beer I liked most is Celis White. Wow!! What a cornucopia of flavors. I've been reading reviews of this beer on the HBD, and it was great to be able to confirm them personally.

Cheers,  
Chuck

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Date: Wed, 16 Jun 1993 11:10:47 -0600 (MDT)

From: Mark Taratoot <SLNDW@CC.USU.EDU>

**Subject: headaches**

Greetings.

There has been some discussion lately about headaches from commercial beer. Here is yet another data point. I don't buy beer very often anymore, but my housemate does. (I have gotten him into homebrewing, but he does not show as much enthusiasm as I). Well, he no longer buys beer in cans. He says he gets heacaches from canned beer. At first I thought that he just meant cheap beer. But it turns out that Busch in the bottle does not give him a headache but Busch in the can does. He thinks it has something to do with aluminum. Go figure.

-toot

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Date: Wed, 16 Jun 1993 10:11:02 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: The Untouchables

Tuesday night on KTVU-20's presentation of The Untouchables (the real ones, with Robert Stack and Walter Winchell)... "The Cooker In The Sky", an episode from 1962.

See, these BadGuys got the idea to build a brewery on the sixth floor of this warehouse in Chicago, because nobody would ever look for a brewery on the sixth floor of a warehouse. They picked up three disassembled tanks at an auction for \$2500, after the previous bidder bid \$300. (These guys were serious!)

They got their "rice, malt, and grain" from a local grain mill, and they got an "in man" at the Water Commission.

Eliot Ness (Our Hero (feh!)) got wind of this operation, and watched some of the construction through the building's windows. He guessed the brewery's capacity would be "two thousand gallons a day", and that it would cost "two, maybe three hundred thousand dollars before he's finished". It would be the largest illegal brewery ever constructed.

The brewery was short on pipe, so Ness got them some through legal channels in order to help catch Mr. Big. Washington heard about this (by means of Ness sending in an expense voucher for the pipe...Your Tax Dollars At Work) and was not at all pleased.

The brewery was built in exactly thirty days, and the proud owner gave his cohorts a tour. When will the beer be ready? "Tomorrow, maybe two days." Apparently their products would be keg-conditioned.

To my delight, the tour was fairly detailed. Rice and malt flour were kept in two bins in the rafters. The grains were delivered pre-ground to minimize dust, and were mixed with water on their way to a steam-heated vat, where the beer was "cooked". After cooking, the beer was pumped to another vat, and hops were added while the beer cooled to room temperature. It then was pumped through a "chiller" into the fermenters, where the yeast was added. After fermentation, barrels were three-quarters filled with beer, and "the yeast foams to fill the rest", ensuring minimal spillage. (So I was right about the keg-conditioning!)

They had brewed a test batch in preparation for this tour, and they got ready to draw a pint just as Ness raided! (Holy cow, this is exciting!) Ness took the mug of pale beer, held it up to the light. "Good color," he said, and took a sip. "Green but good!" Then he opened the tap, and all the beer ran onto the floor. "Expensive beer...a quarter-million for one glass."

The punch line (read this in your best Walter Winchell voice): Five days later, Franklin Delano Roosevelt was sworn in as the President of the United States. The seventeenth plank of his platform: the repeal of Prohibition.

have fun  
gak

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewpub and hockey haven

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Date: Wed, 16 Jun 93 10:33:57 PDT

From: eurquhar@sfu.ca

Subject: bill ridgely/ mail problems

Hi Bill,

got your note but couldn't send you a return message as it was always returned as wrong address. Please send me your new address e-mail or snail-mail.

Thanks for the space Eric Urquhart (eurquhar@sfu.ca)

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Date: 16 Jun 1993 10:48:10 PST  
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>  
Subject: yesst & motorized maltmills

A while back, I posted about an idea I had for holding yeast in a cornelius keg until brew-day and pitching the sludge in the bottom into the wort. I bottled it (an amber wheat ale) last Sunday and noticed a mild but very definite cloviness. Once before, I had done this, the only difference being that I forced the sludge under pressure thru my tapper (which had been sitting in the fridge for weeks) That beer was VERY clovy and because I had a gaping hole in my sanitation, i.e. the tapper, I wrote it off to that  
My question is; are those cornelius cans as sterile as i thought? I noticed the bottom is very rough and the lids have lots of crevices. Until recently, I just sloshed chlorine water thru them and rinsed with tap water with no problems ... now I pour boiling water in them and seal em' up but didn't for this cornelius-can starter.

Recently, a freind & neighboor bought a JS Maltmill <tm>. It's a WONDERFUL device and I definitely intend purchasing one.... but ONLY after I figure out how to motorize it. Any ideas? I'm the kinda guy who grabs the correct end of a screwdriver about 50% of the time so it's got to be an easy, off-the-shelf kind of solution.  
Thanx in advance.

| If it's good for ancient druids runnin naked thru the woods |  
| drinkin strange fermented fluids then it's good enough for me. |  
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

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Date: Wed, 16 Jun 1993 11:36:39 -0700 (PDT)  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Air filters, yeast filters

On the subject of air filtration when using an air pump, plain old cotton will filter out all airborne critters. Just make the path length through the cotton long. People that use these aeration stones, how do you clean them? Someone posted several months ago a source to a SS stone, a much better choice.

Jack S. experiments with filters is very interesting. Micah claims he has seen no problems with head retention using the supposed .5um filter and I have seen poor clarity with it as well when pushing some beers through it.

I have attributed the poor clearing primarily to the quality of the malt I was using. Fix has recommended against this small (.5um) a filtration. Well maybe the .5um is really 5um and just what we want. To pull those hazes out (if protein) one should chill for about a week at about 35 deg f. Now those hazes that pass through the filter, they are from poor malt. I'd say switch malt manufacturers.

Jack, I would worry about cleaning and reuse of the cotton filter. The poly filters seem much better in this regard.

Bob Jones

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Date: Wed, 16 Jun 93 11:41:28 PDT  
From: rush@xanadu.llnl.gov (Alan Edwards)  
Subject: Pasteurizing Fruit

Hello brewmates,

What temperature is required for pasteurization and for how long?

I'm making a few fruit beers this summer and I want to pasteurize the fruit and add it to the secondary.

I was told that holding the fruit at 160F for 15 minutes will work; but I have also heard 140F for 10 minutes. Does anyone have the "real" numbers. I know there has been much research on pasteurization, but I haven't seen many references in brewing texts. (But then again, I don't have many brewing texts.)

Any chemists or food industry people out there who can help me out?

Thanks for any help,

-Alan

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| Alan Edwards: rush@xanadu.llnl.gov | Member: The Hoppy Cappers  
| or: Alan-Edwards@llnl.gov | homebrew club, Modesto, CA  
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Date: Wed, 16 Jun 1993 12:11:54 -0700 (PDT)  
From: Eric Wade <ericwade@CLASS.ORG>  
Subject: Cornelius fittings, Air filters

#### PIN-LOCK VS. BALL-LOCK CORNELIUS KEGS

At the risk of starting a ball v. pin fight (sounds like bowling), I offer the following summary of the (sometimes contradictory) information I received to my request on cornelius kegs.

Ball-lock kegs are sometimes referred to as Pepsi type and pin-lock as coke. The price for the kegs is about the same for both. Fittings are interchangeable but the pin-lock fittings are more expensive.

Some respondents said that the ball-lock fitting required a special tool for removal while others said the pin-lock required the special tool. I invite clarifications by e-mail.

Some found advantage in the shorter pin-lock kegs (more head-space in the fridge), some liked the taller thinner ball-lock kegs.

Ball-lock fittings might be forced onto the wrong in/outlets on the keg, not so with the pin-locks. While both fittings might get gummed-up, the pin-locks are less likely to break if forced. Pin-lock fittings are also more secure when attached.

Ball-lock kegs are more easily vented, easier to dismantle, and might be more readily available than pin-locks.

To keep S/N level low I'll accept any further information, clarifications and arguments with the above by e-mail and will summarize for the Digest.

To all who responded to my initial request, many thanks. If I didn't include all of the information you sent me, don't think I didn't find it extremely valuable. I just wanted to summarize the pin/ball info.

#### AIR FILTERS

In HBD 1163 Philip Seitz inquired about aeration/oxygenation systems and filters. While I intuitively think the filter is a good idea (and the set-up illustrated in BT mentions filtering out pump stink), why would one be any more concerned with organisms from pumped air than from sloshing headspace air? Is it simply the larger quantities of outside air passing through the wort from the pump? Does the filtered and pumped air offer a cleaner source of oxygen than sloshing headspace air?

As far as sources of filters, Heartland Hydroponics' (800-354-4769) ad in the current Zymurgy offers "point 22 u.m." filters that fit aquarium tubing (stand. disclaim.). Does anyone know anything about these? Is this ".22 u.m." and is this a reasonable air filtration size?

I have read about the use of hospital oxygen filters for use in these type of aeration systems (Zymurgy gadget issue?) but that they are usually sold only in bulk. Any sources (homebrew mailorder, etc.) for smaller quantities of quality filters would be appreciated (Philip, please forward any useful leads!).

Finally, given a relatively dust-free environment, how often would these filters need to be changed?

Eric  
<ericwade@class.org>  
Oakland, CA

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Date: 16 Jun 93 12:55:39  
From: Jeff Griffin <jgriffin@ag.uidaho.edu>  
Subject: Wyeast Bavarian Wheat

I just received a packet of a new Wyeast, #3068, which is described as a single-strain Bavarian Wheat yeast (this is distinct from the #3056, which has two strains). Does anyone have more information on this strain?

I also have the #3056; is there a way to reliably separate and maintain the two strains, or is this just one that I should buy whenever I decide to brew with it?

Jeff Griffin jgriffin@ag.uidaho.edu  
Department of Plant, Soil, and Entomological Sciences  
University of Idaho 208-885-7549

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Date: Wed, 16 Jun 1993 16:01:19 EST  
From: Kristof\_Mueller@voyager.umeres.maine.edu  
Subject: Recipes....wanted

Hello.....I have very recently become interested in homebrewing, in fact I have yet to brew my first batch. However I have read Papazian's book, and am eagerly awaiting my first beer. If anyone has a special recipe that they love, or one they haven't tried, but look interesting or exotic, I would really appreciate if they would sent it to me. Thank you all very much.....

Kris

Kristof\_Mueller@voyager.umeres.maine.edu

BEER-BEER: Starts with a B, ends with an R....and has two E's.

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Date: Wed, 16 Jun 93 13:21:00 PST  
From: John F Myers <John\_F\_Myers@ccm.hf.intel.com>  
Subject: Starting a Siphon

I've been reading the HBD for a few years. Over that time I've read and experimented with a number of ways to start a siphon without the worry of infecting my beer.

Mouthwash  
Wiskey  
Blood pressure bulbs  
CO2  
Water in siphon hose  
Just do it  
etc...

Then a year ago, by accident I broke my bottling wand and ... A mouthpiece was born! Just sanitize and mark one end you plan to suck on (for multiple transfers, it's easy to forget which end you used when you set it down), start the siphon and bend the siphon hose 180 degrees when fluid reaches near the end of the siphon hose. At this point simply pull off the mouthpiece, add bottling wand or what ever. IT'S SIMPLE, CLEAN AND WORKS GREAT!

One question I would like someone to answer.

Why does geletin lose it's clearing properties once it is boiled???

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Date: Wed, 16 Jun 93 15:25:34 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Re: sanitizers part I

Date: Sun, 13 Jun 1993 11:14:07 -0500

>From:

Subject: Re: sanitizers part I

Once again, many of the statements made by donald oconnor <oconnor@ccwf.cc.utexas.edu> just didn't sound right to me. As I'm no expert on the matter (and by now it's obvious that neither is don) I referred to an excellent text on the matter, "Disinfection, Sterilization, and Preservation", by SS Block. (Many thanks to whomever first recommended this book here.) With this in hand, I would like to correct some of the errors which were posted here.

1. Sanitizing strength

>Both chlorine and iodine sanitizers kill bacteria as a result of their >oxidizing power. A strong oxidizer is a good sanitizer. Chlorine in all >its oxidation states (dichlorine, chlorite, hypochlorite, etc) is a >stronger oxidant than the corresponding iodines. In chemical >terms, it is said that the redox potential of chlorine is greater >than iodine. Being a stronger oxidant, chlorine sanitizers are >expected to be more effective at killing bacteria. However >iodine is also a sufficiently strong oxidant to work very >effectively in killing stuff and thus, in a practical sense, >the two cannot be distinguished in this regard.

Sanitizing can occur by many mechanisms, only one of which is oxidizing. The sanitizing mechanism for Iodine and Chlorine are somewhat different, thus we simply cannot compare their relative sanitizing power by just comparing redox potentials. The only way to do it is empirically. Empirical comparisons show that Iodine has 3-6 times the sanitizing power of chlorine. However, the sanitizing power of chlorine (and to a lesser extent iodine) is dependant upon pH (being greater at lower pH), so even this must be taken with a grain of salt. Also, iodine is not deactivated by organic matter to the extent that chlorine is. Thus, when sanitizing 'dirty' equipment, chlorine may be quickly rendered useless, while the iodine will have much more "staying power".

>The recommended dose for iodophor, which contains molecular iodine, is >12.5 mg/l (ppm). Since each iodine atom weighs 4 times as much as >chlorine and it's the number of atoms that is important, then a chlorine >concentration of 3.5 mg/l will give the same sanitizing effect.

Household

>bleach is about 5% sodium hypochlorite by weight. So how much bleach >do we need in each gallon to get the same sanitizing effect as >iodophor. Incredibly only 0.02 ounce! That's 50 times lower than >1 oz/gallon, 25 times lower than 1 tablespoon/gallon. For those more >familiar with teaspoons, you need only add about 1/2 teaspoon of >bleach in the entire 5 gallon keg to achieve the same level of sanitation >that iodophor provides! Furthermore this concentration is about 70 >times below the known safe level for reactivity with 304 stainless.

Different studies will show different doses for "effective" sanitizing. For iodophor, I have seen the 12.5 ppm number, but 25 ppm is also used often. However, to get a sanitizing power from chlorine equivalent to 12.5 ppm of iodophor, 50 ppm of chlorine is generally recommended. (NOT 3.5 ppm.) 50 ppm would be about equal to 20 ml of Chlorox bleach per 20 liters of water. (4 tsp. per 5 gal).

We often talk about the S/N ratio here, but we owe it to ourselves to keep the "Fact/Fallacy" ratio as high as possible as well.

Keep on Brewin',

Kelly <k-jones@ee.utah.edu>

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Date: Wed, 16 Jun 1993 15:02:26 -0600  
From: Michael Howe <howe@gwl.com>  
Subject: Colorado Micro Brewers Festival

To all Coloradans,

The Colorado Micro Brewers Festival is coming up on June 26,27 in Fort Collins. This is the first year that it has been extended out to two days.

I went last year and had quite a good time. The beers and crowds are plentiful.

There are also a few good brewpubs nearby at which you may take in a meal while quaffing. I don't have many details handy (other than to show up in

Ft Collins on those days with your drinking hat on). If there is enough (any)

interest, I can dig around in my morass (sp?) of brewing info and produce some helpful information. If memory serves, there are about 15-20

brewpubs

and micros represented (if not more), each of which has at least two of their

brews in tow. Simple math will tell you that there will be quite a lot of

variety represented.

Perhaps someone out there would like to sink a few with a few fellow HBD'er. Let me know. I'll be the one with rosy cheeks, glossy eyes, and a big grin:-).

P.S. - I am not connected in any way with the Festival or it's organizers. I am, however, one hell of a satisfied patron:-).

Michael Howee-mail : howe@gwl.com

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Date: Wed, 16 Jun 1993 18:12:06 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: How much bleach for sanitation?

Re the recent HBD exchange on how much bleach you need for sanitation:

Papazian in The Complete Joy of Home-Brewing says you can actually get by with as little as 1/3 of a tsp. in 5 gallons cold water (minimum contact time 30 minutes). I use a teaspoon or a little less of bleach per 5 gallon carboy and a similar concentration for bottles, bungs, hoses, etc., and have never had a sanitation problem in over two years of brewing (over 15 batches, all with closed primary & secondary fermentation and liquid yeasts). Now all this assumes the equipment is spotless to begin with: organic matter (i.e. dirt and stains) uses up the free chlorine. To get things clean I use a solution of 2 heaping tbsp. baking soda per 5 gallons hot water for the fermentation residue in carboys, bungs and blowoff tubes, using a brush for any persistent mung (which there rarely is). The other equipment I just rinse with hot water after use, occasionally giving them the baking soda treatment. For truly stubborn stains and mold (which most often appear in the bottom of improperly rinsed bottles), I use that pinkish-purple chlorinated detergent that goes by various names: Choriclean, Diversol (I think).... It's the same stuff I used to use in the dishwasher when I worked at a restaurant during high school. It truly kicks butt, cleaning and sanitizing in one go, but is much nastier and more expensive than bleach and baking soda.

Just one set of beer-addled observations for your consideration....

- -----  
Derrick Pohl (pohl@unixg.ubc.ca)  
Vancouver, B.C.

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Date: Wed, 16 Jun 1993 21:27:22 -0700 (PDT)

From: jimt@techbook.com (Jim Titus)

**Subject: Heifeweizen**

Does anyone out there have a good recipe (to include any special techniques) for heifeweizen? i enjoy the local micro version (from Widmere in Portland, OR) but want to try making a batch.

The stuff looks like greywater from an RV holding tank but it tastes wonderful!

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Date: Wed, 16 Jun 93 21:30:38 PDT  
From: bill@oilsystems.com (Bill Vaughan)  
Subject: Jalapeno beer

Two years ago, Mary and I were visiting Phoenix and stopped at the Cave Creek brewery, where one of the specialties is chili beer. (It was jalapenos then, but I'm told they've gone to Serranos since.) We tried the jalapeno beer and found it quite mild, and absolutely wonderful with hamburgers.

Four days later, before returning to the Bay area, we went back and found the beer was substantially more spicy. On inquiring, I was told that the amount of spice was related to how long the beer had been in the bottles, because they use their ordinary golden lager and add a jalapeno in the bottle.

So how long had it been? The batch had been bottled on Tuesday, which made Friday's (which we liked a lot) 3 days old. They also said the heat continued to increase until the beer had been in the bottle about 60 days.

I brought some home. Sure enough, after a couple of months it was real killer beer. So bad you had to have another beer! (Without chile.)

I resolved to make some, but NO WAY was I going to put a pepper in the bottle, no matter how nice it looked. So I took a wild stab, guessing that

the effect might be linear (!): let's see, 1 jalapeno, 12 ounces, 3 days =

16 jalapenos, 5 gallons, 3 weeks. And that's what I did. Used my plain-jane

ale recipe, didn't hop it as much as usual, and threw 16 jalapenos into the

secondary for 3 weeks. (Blanched the peppers with boiling water to sterilize,

but did not cook them or cut them open. I would cut them open next time because they insisted on floating for the whole 3 weeks.)

After 3 weeks, I bottled the beer, and as a bonus had a dish of jalapenos pickled in beer. I would have saved them in the fridge but they didn't last that long.

The beer turned out very good. Mild heat, jalapeno flavor just right. The only problem is that the bottles tend to gush. Not infected, (the commercial bottles gush too), just some weird effect of the oils or proteins from the peppers. But gushing isn't a problem if you chill the bottles first, and this is not a beer to be drunk at cellar temp anyway.

So to answer Vincent Heuring's question, just use any light ale or lager recipe, and put 16 jalapenos per 5 gallons into the secondary for 3 weeks.

Or 32 jalapenos for a week and a half, if it's <really> linear, a hypothesis

I did not test.

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Date: Thu, 17 Jun 1993 08:56:16 -0400 (EDT)  
From: bickham@msc.cornell.edu  
Subject: Re: Philmill

Jack writes:

> I have no problem with healthy competition and it's nice to know that  
> our  
> hobby can support this kind of growth but telling fibs about someone  
> else's  
> products is not a good idea.

I have to agree with Jack - while I object to some of his political  
and philosophical stands, he does make a fine roller mill at a reasonable  
price. I was skeptical at first, but the yields speak for themselves.  
With a grain bill of 95% Munton and Fison Pale Ale malt and the rest  
crystal malt, I get an efficiency of 32, which is very close to the  
theoretical maximum of 34. For a typical weizen grain bill, my  
efficiency  
was 34, which again compares well with the maximum of 36 for malted  
wheat.

My only objection is that due to the high yields, I've been having  
problems overshooting my desired original gravities, but I think I  
can find a way to live with the extra maltiness ;-)

Scott  
- --

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Scott Bickham |  
LASSP and Materials Science Center | bickham@msc.cornell.edu  
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Date: Wed, 16 Jun 93 16:43:00 +0000  
From: ron\_hall%80@hp6400.desk.hp.com  
Subject: JALAPENO BEER

Item Subject: Jalapeno Beer

In HBD 1163, Vincent Heuring (heuring@riker.cs.colorado.edu) asks:  
"Does anyone have a partial mash or extract recipe for jalapeno  
pepper beer?"

Well, following the advice of the HBD community, I have made  
two batches in the last year in which I put slices of jalapeno in  
a dozen or so bottles at bottling time. The first batch was  
a partial mash-based pale ale, in which I tried both 1/4" thick  
slices and 1/8" thick slices. The 1/4" slices were WAY too hot,  
and I happen to like spicy food (and drink) alot. The 1/8" slices  
were just right. I tried the 1/8" slices in a mash-based Steam beer  
recently and the spicing was about right. Use fat peppers so that the  
slices stick in the neck of the bottle when pouring, and try to  
leave out the seeds.

One problem I have had with this method is that I have had several  
"gushers". I am not sure if this is due to contamination on the  
peppers, or some reaction from the peppers themselves. I did not  
sterilize the peppers the first time, just rinsed them in hot water.  
On the second batch, I gave them a quick dunk in a bleach water,  
but did not want to get a bleach flavor in them so I kept it short.  
I would probably try a little longer soak in a very weak bleach  
or bisulfite solution. Any ideas out there?

The gushers do not have any off-flavors, just seem over-carbonated.  
By the way, Crazy Ed's in Cave Creek, AZ makes a very good chili  
beer using a whole pepper in each bottle. They are not jalapenos,  
something a little weaker.

Good luck.

Ron Hall, Corvallis, Oregon  
(ron\_hall@hp6400.desk.hp.com)

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Date: 17 Jun 1993 09:43:28 U  
From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
Subject: CP fillers

Jay marshall <marshall@pat.mdc.com> writes:

> I'm looking for a counter-pressure filler and was wondering if anybody  
> has used the one made by Benjamine Machine Products (Modesto CA) that  
> is advertised in Zymurgy occasionally. Also, I have heard that the  
> CPF made by Foxx doesn't work as well as it should. Can anybody  
comment?

Definitely!

I started with the Foxx CP filler, and after cutting my fingers to shreds, deforming the valve handles, finding the need for 4 or 5 hands at once, and generally becoming exasperated, I gave it up. I still wanted to do CP bottle filling, so I bought one from a very reputable homebrew supply store. Similar to the Foxx model, with similar results. Finally, I bought the BMP model and have been absolutely delighted with it. It's far easier and more convenient to use, does a superb job (OK, you have to get the knack of using it, but that only takes 2 or 3 bottles), and is well worth the price. It's also easier to clean. Incidentally, it was designed by Micah Millspaw, formerly a regular here. After demonstrating the BMP filler to two of my friends, they were both sufficiently impressed to buy one themselves. FWIW, I have heard that the CP filler sold by DeFalco is also excellent, but I have never seen it and can't vouch for it. All others I have seen are not worth much, IMHO.

++ Ed Westemeier ++ Cincinnati, Ohio ++  
++ westemeier@delphi.com ++

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Date: Thu, 17 Jun 1993 09:54:12 -0400  
From: Nick Zentena <zen%hophead@canrem.com>  
Subject: Re: Fud,cherries and kettle handles

>Date: Tue, 15 Jun 93 09:51 CDT  
>From: arf@genesis.mcs.com (Jack Schmidling)  
>Subject: Phillmill

> I have never seen a PM but, having only one roller working against a fixed

If you've never seen it then your post sure sounds like FUD! Why don't you ask someone who has seen both mills to compare? Na that would have cut down on your chance to advertise.--(

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>Date: Tue, 15 Jun 93 21:49 CDT  
>From: fjdobner@ihlpb.att.com  
>Subject: How Long On Fruit

>Brewers of Fruit,

>I am interested in the experience of those having brewed with cherries.  
>I brewed a Cherry Weiss with limited success last summer and am  
>attempting at doing it better this year. I am using very tart cherries  
>of which I pitted and froze about 30 lbs. last year.

IMHO you should not have pitted the cherries. The pits themselves add an interesting not to the beer.

>In my current creation, I am using about 11 lbs. for a 5 gallon batch.  
>The question that I have is how long a period time is it recommended  
>to let the fruit sit on the beer?

Well if you are going to follow what the lambic brewers do then you are looking at around 6months. The pKriek I made last fall spent almost 6months on the fruit the flavour,aroma and colour were perfect[Well at least the cherry part-)] Give it time.

>Date: Wed, 16 Jun 1993 10:56:20 -0400  
>From: an982@yfn.ysu.edu (Steven Zabarnick)  
>Subject: Full wort boil

>As I boiled out on the porch and set up to chill in the  
>kitchen, I had to carry the full, hot kettle with copper  
>tubing protruding. This was much more challenging then  
>expected. Do most people avoid carrying the hot wort by  
>chilling in place (using a garden hose)? During chilling  
>the kettle cover does not completely seal due to the  
>copper tubing; should I have used plastic wrap to keep out  
>the nasties?

Do not move a full kettle. I lost the handle on mine

and endup with some interesting burns-(). Chill first  
and then shipon. The weight isn't that bad but the  
handles aren't up to doing it too many times.

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I drink Beer I don't collect cute bottles!  
zen%hophead@canrem.com  
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Date: Thu, 17 Jun 1993 07:33:55 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: Thanks for fritted glass leads

Thanks to everyone who sent me information on sources for fritted glass.  
I'm impressed (as always) by the kind and helpful nature of this forum.

If you're coming to Portland, stop by and see me at my booth at the  
Jambeeree. I'll be in #3, way in the back.

Paul.

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Special to Greg Kelly: I'm getting bounces from fourcroy.chem:  
>User unknown: Socket operation on non-socket  
Must be one of those metric/SAE things...

Thanks again.

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End of HOMEBREW Digest #1165, 06/18/93  
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Date: Thu, 17 Jun 93 11:00:20 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: Yeast pitching amounts

In the last digest Mike inquires about one of the most important issues in brewing, yeast growth/pitching quantity:

<From: mgerard@caen.engin.umich.edu  
Subject: Liquid Yeasts

<How big of a starter do you need and what is a "normal" lag time at 75 degrees? Also should I start with one big starter or should I start with a small starter (12 ounces) and then transfer to a larger starter (1.5 liters)?

The "professional" technique is to pitch a known quantity of cells, usually 12 million cells per ml for a 12P wort. Add 1 million for each degree P, especially with high gravity worts. Some Ale brewers pitch 1/2 this amount. Most of us have no convenient method of counting cells, nor is it required.

The practical method for homebrewing mortals is to step up the amount in a 10-1 ratio until an adequate amount of slurry is produced. If the yeast source is 30 ml of slurry, this can be directly pitched into 300ml of boiled/cooled wort. The 300 ml should probably be stepped up once more to result in 1-3 Litres of pitching yeast. With this amount, you are still only pitching in a 1-20 (or 3-10 litres) quantity for a 20L batch. With a healthy yeast, this will result in minimum lag time of say 3 - 8 hours. Remember that lag time is also a function of oxygen amounts in the wort. For this reason, many brewers inject oxygen to increase the yeast growth during the respiration phase (yeasts will absorb oxygen through the cell wall, using the oxygen, lipids and carbohydrates/sugars in a process called sterol synthesis).

If you are culturing yeast, start with a loop of yeast and pitch into about 1.5 ml of wort. Grow one day, pitch into 15 -50 ml of wort, wait one day, pitch into 500ml to 1 liter and wait until visible fermentation has begun to brew (1-2 days).

Some brewers prefer to wait until the starter has finished fermenting and pour off the still beer, pitching the slurry only. I have not found this to be necessary but many swear by it and have very good results with it.

When pitching slurry, the rule of thumb is to pitch between 1/2 and 1 pound of slurry per Bbl of wort, 8-16 oz into 31 gallons. When I use fresh slurry off a unitank, I have 2-3 hour lags when pitching this amount. If you can befriend a local brewery who makes \*clean\* beers, this method is unbeatable.

Good brewing,  
Jim Busch

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Date: Thu, 17 Jun 93 07:56:42 PDT  
From: mills 17-Jun-1993 0920 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Grain Mills: opinions

I'm eventually going to be interested in getting a grain mill as I move closer to all-grain. One homebrew supply place I go to has a "corn mill" selling for about USD\$41.00 or so. It has a hopper (2# capacity) and a crank. Looking into the hopper is a rod that looks like a giant screw. It is easy to adapt an electric drill to this mill, which is a feature I'm looking for. This mill does let you adjust the crush.

I've heard a lot of talk lately on roller-type mills. I don't reckon that the one I saw was a roller mill. What are the pros and cons of different types of mills? Also, I've seen talk about the PhilMill and the Maltmill, what do these sell for?

Thanks,

JC FERGUSON  
Digital  
LITTLETON MA USA

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Date: Thu, 17 Jun 93 12:14:50 -0400  
From: aew@spitfire.unh.edu  
Subject: Amber Wheat Beer

I've been enjoying the HBD for about two years now and have always wanted to post one of my original recipes, but until now I wasn't sure that I had any that were up to the high quality standards that have been displayed herein the past. I think this one is finally good enough.

This recipe produces an excellent summer beer. Light in body, but with a nice hop Flavor and nose to make it enjoyable to drink. I also use this as the base for my fruit beers. With 5 lbs. of blueberries added to the secondary it is truly special!

Al's Amber Wheat Beer

Ingredients (5 or 6 gallon batch):

- 3.3# Can Mutton and Fisson Light Unhopped Extract
- 2.0# Bag of Unhopped Wheat Dry malt
- 1.0 oz. Cascade Leaf Hops (Boil)
- 0.25 oz. Cascade Leaf Hops (Flavor) Homebrew DigestH
- 0.25 oz. Cascade Leaf Hops (Aroma)
- 1 tsp. Irish moss
- 2 Packages Mutton and Fisson Ale Yeast

Procedure:

Remove 1 1/4 cup of wheat malt and save in zip-lock bag for priming.

Bring 1.5 Gallons water and Malts to a boil. When boil starts fully set your stove timer (watch, hourglass, whatever) to 45 mins. For leaf hops I don't use a hop bag, you can if it makes you feel good.

- 45 Mins: Add Boil Hops - 1.0 oz.
- 15 Mins: Add Irish moss - 1 tsp.
- 10 Mins: Add Flavor Hops - .25 oz.
- 2 Mins: Add Aroma Hops - .25 oz.
- 0 Mins: Pour through strainer and funnel (with strainer) directly into carboy with 2+ gallons of cold water as quickly as possible.

Fill to top with more cold tap water. swirl carboy to mix hot and cold evenly. Pitch yeast.

Notes. This could also be a blonde wheat ale if M+F malt was replaced with a lighter colored malt - say mountmellick unhopped light. Also, If you buy hops in 1 oz. packages you could boost the aroma and flavor hops to .5 oz. each. This shouldn't be too much. Or save the extra .5 oz. and make Papazians Avigadro's Expeditious Old Ale which needs exactly .5 oz of cascade hops!

Enjoy!  
Al

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Allan Wright Jr. | Pole-Vaulters Get a Natural High! | GO Celtics!  
University of New Hampshire +-----  
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Research Computing Center | You keep using that word. I do not think it means

Internet: AEW@UNH.EDU | what you think it means. -The Princess Bride

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Date: Thu, 17 Jun 93 11:34 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Filters, Plato

>From: Jim Busch <busch@daacdev1.stx.com>

>It would seem to me that despite the improvement in performance that Jack found with this cartridge, the reusability of a cotton based filter would be low. What do you do to clean and store a cotton filter?

I let it drip for a day and then put it in the oven with just the pilot light and it dries completely in a couple of days. If kept dry, it is not much harder to care for than a cotton undershirt. Some folks have suggested just keeping it in the freezer but I would rather dry it.

> I am not sure I would want to spend \$11+ on a filter that I would have to discard or watch get moldy.

Neither would I and I suspect that I will get a lot of use out of it if properly taken care of but only time will tell.

On the other hand, I do not want to pay any price for any filter that does not do what it is supposed to do.

> If you want a cotton filter, my local HW store sells one for \$5...

I doubt that it is a .5 micron filter.

>I would also point out what I posted on rec.crafts.brewing: One must be careful of the point of conditioning that you filter. A period of cold conditioning helps to remove the bulk of yeast in suspension, and results in better filtration.

I took that under advisement but it does not affect the results of my cornstarch test. I was trying to evaluate two filters and as long as the conditions were the same, the results were valid.

>Micro filtered beer is stripped of important beer constituents, that I definitely want in my beer.

I am sure that is true but I do not consider these string wound filters to be absolute in any sense. My guess is that it just might stop more small stuff than a coarser filter but to believe that nothing over .5 microns gets through is wishful thinking.

<Not willing to accept these results, I purchased a known .5 micron filter cartridge from McMaster Carr and ran some tests on it which convinced me that

the .5 micron cartridge that came with the filter, most assuridly was not.

>I am not of the opinion that the Filter Store is misleading brewers as to the size of the cartridge.

First of all, who said anything about the Filter Store and who suggested anyone was misleading brewers? I specifically stated that I was leaving out the names to give them an opportunity to look into the problem.

For the record, I did not purchase mine from the Filter Store but I do not recall the source for the one in the article. It is my understanding that the Filter Store sells pleated filters and are therefore not relevant to this discussion about string wound filters.

I was simply reporting on the fact that I received the wrong cartridge with the filter I bought and laid out the method by which anyone can determine if he/she has what is expected.

> Why is the McMaster Carr filter a "known" size and the other not??

For the simple reason that the catalog listed it as .5 micron and the one that came with the filter was unmarked and I had not a clue other than the supplier's word that it was .5 micron.

He has since sent me two more that are marked .5 micron but they are exactly the same as the one that came with the original and hence, I do not believe the marking is correct.

>From: gjfix@utamata.uta.edu (George J Fix)

> A particular problem that I am facing is the need to find an alternative to listing the complete Plato/Balling tables relating specific gravity SG to extract E (i.e., % extract by wt. or if you like degree Plato).

>  $E = 668.72 * SG - 463.37 - 206.347 * SG * SG.$

>One can use the quadratic formula to solve the above for SG...

Perhaps I am missing something but it seems that if we all spoke the same language, this problem would go away.

If it is necessary or useful to brew in Plato or Balling, why not just suggest that whoever makes the ubiquitous homebrew hydrometer simply tune in and make a cheap instrument that reads in Plato or whatever is more useful.

As a matter of fact, it seems no more complicated than changing the cal chart inside the instrument and it could read all three scales.

js

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Date: 18 Jun 1993 00:42:10 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: Re: Phil Mill Report

I was well aware of the circumstances and results of the testing done by Listermann comparing the Phil Mill's output to the Corona and the Maltmill, which I obtained from Listermann over the phone. I have not seen any sales literature from Listermann, except magazine ads. Y'all will note, please, that I did not attempt to compare the Phil Mill to the Maltmill in my recent post, because the testing done was obviously not rigorous. The Maltmill used was not the adjustable type, and hence could not be tuned to match anything, right or wrong. The Corona, however, is a known entity, and it is well understood that a compromise between damaged husks and poorly crushed grains must be accepted. I therefore chose to include that portion of the test results.

The data given by Fix comparing the Maltmill to a commercial mill is impressive, but it did not state (in the excerpt) whether the Maltmill used was the adjustable type or not, which would be useful information for any one contemplating a purchase. However, to restate the point I made previously, trying to match the particle distribution of multiple roll machines with single roll types may not be the best course of action because the mechanics of the crushing process are different. This is borne out by the Corona- the thing to worry about is the quality of the beer that results.

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Date: Thu, 17 Jun 93 11:37 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: siphoning sanitation

Lately there's been quite a lot of talk in the digest regarding the use of proper sanitation while siphoning. I'd like to be the guy who says "Hey don't be so paranoid, keep it in perspective". I always start my siphon by sucking with my mouth, and have yet to discover an infection (knock on plastic keyboard).

Sanitation is relatively unimportant at bottling time. Relative to racking off trub, etc. before yeast is pitched, that is. The best way to prevent an infection problem is to pitch a large yeast starter. I'm not saying that it's OK to use dirty equipment, etc., just keep it in perspective. I'll bet that most of us would agree that you don't need to wash your hands with bleach while brewing, right? For me, the trouble of starting a siphon by any method other than sucking on it outweighs the benefit of increased sanitation.

Relaxing too much,  
Chuck

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Date: Thu, 17 Jun 93 11:40:45 -0600  
From: LPD1002%NYSHESCV.bitnet@UACSC2.ALBANY.EDU  
Subject: Cooling extract wort

Here's another one of those naive questions from a somewhat inexperienced brewer. I am an extract/spec. grain brewer. Usually after the boil, I would sparge the 1 1/2 gallons of hot wort into 3 1/2 gallons of cold water. This would still leave me with a temp too high for pitching. After reading the ongoing thread about a month ago on wort chillers, I started to wonder. Was my beer spending too much time at DMS temps? So for my last batch I took the brew pot off of the stove and put it into a sink that had been filled with very cold water and ice. I covered it and stirred the cold water around it for 10 minutes or so. Then I sparged into my 3 1/2 gallons of cold water. The beer turned out pretty tasty, so it wasn't infected. A little chill haze though.

Are there any problems doing this? Is it a waste of time for such a small quantity of wort? Should I just wait 1/2 hour before pitching or should I really not worry and do whatever I feel like doing that day?

Steve Septer

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Date: Thu, 17 Jun 93 10:50 EDT  
From: LYONS@adc2.adc.ray.com  
Subject: RE: Subscription Problems

Experiencing HBD subscription problems,

... yes I have also experienced speratic deliveries lately. In my situation I have only missed HBD #'s 1158 & 1163.

Chris,  
LYONS@ADC3.ADC.RAY.COM

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Date: Thu, 17 Jun 1993 14:09:13 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: New Homebrew Store in Pittsburgh?

Hi There,

If you would like to see a new homebrew store in the Pittsburgh area, please reply to this message. If you don't mind, please also include the area of the city that is the most convenient for you.

Steve Peters = sp2q@andrew.cmu.edu

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Date: Thu, 17 Jun 93 13:13 CDT  
From: korz@iepubj.att.com  
Subject: Re: Keg Dispensing/How Long on Fruit/Sulfury Aromas

Martin writes:

>I have solved the problem of getting the right amount of foam when dispensing beer from soda kegs through a cobra tap in a unique way. As always, the trick is to get the pressure at the tap to down to just above ambient by matching the losses in the delivery line to within about 1 psi of the gauge pressure in the keg. You can size the line such that this happens, but what about resizing part of it by putting in a restriction? You can't place the restriction at the end (by regulating the flow at the tap), because the pressure drop is too abrupt. I have found, however, that you can place a restriction at the quick disconnect, to get part of the pressure drop, and let the line take care of the rest.

>  
>My Cobra tap has the usual 1/4-in ID tubing, with a 1/4-in flare nut on the end, which attaches to a ball lock connector. I placed a short piece of 1/4-in ID copper tube between the cobra tap hose and the connector using a 1/4-in flare union and two flare nuts. I then squashed the tube (nearly) flat to create a restriction. The flattened section is about 5/8-in long, and the flow passage inside is only about 0.020 in or so. With the regulator set for the desired volumes of CO2, usually 10 to 15 psi for me, it works fine. In fact, I adjusted the restriction by trial and error to get it to work properly. One could try using an adjustable restrictor (needle valve?) to accommodate various tank pressures. Maybe one of the entrepreneurs out there could make a killing supplying such a thing to the mechanically disinclined.

Well, it's a good idea, but then again, not really. The additional fittings and copper tubing are more areas for bacteria to hide and spoil your beer. The simplest solution is to slip some kind of pinch-type hose valve onto the beer line near the keg end of it. These are the plastic siphon hose shutoff clamps that most of us have on our siphon hoses. There are fancier ones with little wheels (like a rack and pinion) that are even more adjustable or the stainless steel ones that are used in labs. As Martin said, though, it needs quite a bit of hose so the restriction is not too close to the faucet so

it doesn't foam all over the place.

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Frank writes:

>In my current creation, I am using about 11 lbs. for a 5 gallon batch.  
>The question that I have is how long a period time is it recommended  
>to let the fruit sit on the beer?

First of all, that's a good amount of Cherries -- you will get a decidedly  
Cherry aroma and flavor. I used 12 or 13 (I forget) pounds to make a  
5 gallon batch (actually it was 3.75 gallons of beer on 12 or 13 lbs of  
cherries WITH the pits) and it worked out very well (won a couple of  
awards  
even). In any event, I let them sit in the brew for three weeks in my  
fruit beer, but it's been something like 8 months for my pKriek  
(pure-cultureKreik). For a regular fruit beer, I think that 3 to 4 weeks  
(from my experience) at 65F is the proper amount of time.

>I will post the recipe. I sought a sweeter end product so I it  
incorporates  
>1 lb of crystal and 5 oz of lactose.

I used a couple of pounds of Belgian Caramel Pils and 8 ounces of Lactose  
in 15 gallons of finished beer and it turned out pleasantly sweet.

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Rafael writes:

>Help! after two days of fermentation a rotten egg smell is  
>coming out of my bucket. It is a continental light beer, nothing  
>special.  
>Should I discarded and start over or should I wait a little  
>longer?

Some strains of yeast have a tendency to produce sulfury aromas during  
fermentation. There have been quite a few reports of this from Lager  
yeasts especially, but I'm sure that some Ale yeasts are capable of  
producing sulfury smells and still making great beer. Give it some  
time. I've had smells go away in the bottle too, but personally, I  
feel a lot better when the smell goes away in the ferementer.

Al.

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Date: Thu, 17 Jun 93 14:36:39 EDT  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Rotten eggs, Fruit, Siphon

In HBD1164 Rafael Bussto asks:

>Help! after two days of fermentation a rotten egg smell is  
>coming out of my bucket. It is a continental light beer, nothing  
>special.  
>Should I discarded and start over or should I wait a little  
>longer?

Don't dump it yet! Sulphur compounds giving off a rotten egg smell can be a natural byproduct of the yeast during early stages of fermentation. If this is the case, just wait a few days and the rotten egg smell will go away. (I've noticed a rotten egg smell during early fermentation stages of a weitzen and with starters I've used with lager yeasts. In each case the smell went away after the primary fermentation and the beers turned out fine with no detectable sulphury aroma or flavor.) If the rotten egg smell is still strong after active fermentation has ceased, then consider dumping the batch, or using it as slug bait.

Also, Frank Dobner asks:

>In my current creation, I am using about 11 lbs. for a 5 gallon batch.  
>The question that I have is how long a period time is it recommended  
>to let the fruit sit on the beer?

>I have already gone through primary fermentation and have racked the  
>fermented weiss onto the cherries and would like to know how long it  
>is that I must now wait. I am sure the answers will be all over the  
>board but so be it. This is my wife's beer so I wanna do good.

Why not simply wait until the sugars in the cherries ferment out, which should take from 2 days to a week depending on your yeast and the fermentation temperature. Currently, I've been fermenting a strawberry-rhubarb ale (10 lbs strawberries + 1.2 lbs rhubarb) in which I used a similar process as you, (froze the strawberries, blanched in boiling water for a few seconds, dumped into a 6.7 gal carboy, boiled the rhubarb with 1/4 lbs DME and added on top of the partially frozen strawberries, shook, then racked from primary onto the fruit). You may not have as vigorous a secondary as me since I added a little DME, (my small blowoff tube clogged and I nearly had an explosion). Active secondary fermentation stopped after 3 days, (WYEAST 1056, 68F) but I didn't get to rack off the fruit until 7 days. I plan on letting it sit in tertiary a week or so to let the pulp which got through the siphon settle out.

Finally, on starting siphons, I have been using the following method when siphoning into a carboy. I use one of those orange carboy caps with the two tubes sticking out. In the shorter tube (where the air lock is suppose to fit) insert a piece of copper tubing (3/8 OD, about 1 foot long) so that some remains outside and some is inside the carboy. (If you are rereacking place a 5/16 ID plastic hose on the bottom of the copper pipe, which is long enough to reach the bottom of the carboy, to avoid aeration.) A section of plastic tubing is used to connect the top of the pipe sticking out of the carboy to a racking cane (I also use copper tubing for the racking cane). Insert the racking cane into the kettle with wort, or primary carboy with the



beer to be racked. Connect a 3/8" ID plastic hose to the smaller tube (blowoff) extending out of the orange carboy cap. The siphon can be started by either sucking on this hose, or attaching it to a hand pump (as I do).

I sterilize my copper tubing by baking in the oven at 350F for about 1/2 hour and let cool in the oven with the door shut. The carboy is sanitized using 1 oz bleach / gallon of water, and is rinse by twice adding about 1/2 gallon of pre boiled water, shaking and dumping. The plastic tubing is sanitized also by soaking in the bleach solution and rinsing with pre-boiled water.

Bill Szymczak

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Date: Thu, 17 Jun 93 11:34 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Eric Warner's Wheat beer book

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 06/17/93 13:37:06  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Eric Warner's Wheat beer book

I recently purchased Eric Warner's book \_German Wheat Beers\_ and have found it to be a tremendous help in quantifying the mysterious tastes of German wheat beers. I have a question for anyone out there (maybe someone knows Eric..)  
about the recipe formulations in the back of the book. I calculated the extract required from the grain recipes to achieve the desired SG. In almost every recipe I came up with an extraction of 40 pts/lb/gal!

I think that these sound more like malt extract (heavy liquid or light dry) numbers. This is not a big problem, but I think the community should be aware of this and make corrections to their own grain bills before starting. One point of help for corrections is that Eric says the recipes are based on 83% extraction from the wheat malt (1.039 max) and 78% from the barley malt (1.035 max). (numbers in parens are mine)

Or maybe there is some super German malts that yield 40 pts!

Dennis B. Lewis \* (713) 244-7809 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Wed, 16 Jun 93 18:06:36 PDT  
From: grumpy!cr@uunet.UU.NET (C.R. Saikley)  
Subject: On the Road Again

Greetings All,

Next month, I'll be heading to the Czech Republic.  
Does anyone know if they make good beer there?  
If so, any recommendations?  
Please respond via private email.

Thanks,  
CR

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Date: Thu, 17 Jun 93 15:01:11 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: maltmill vs. phillmill

>  
>arf@genesis.mcs.com (Jack Schmidling) writes:  
> >The early prototype version I used seemed to work well, i.e. gave a  
good  
> crush, and Dan (Listermann) has tested this observation by sifting the  
grist  
> through a set of brewery screens, and comparing the (weight)  
percentages left  
> on each to published data for 6-roll mills.  
>  
> His bar charts show that the MM and Corona are just about identical  
(bad) and  
> the Phillmill and the large commercial mill are identical (good).  
>  
>George Fix earlier wrote (and jack re-posts):  
> I received Jack's mill in Jan., 1992. Shortly thereafter it was taken  
to the  
> Dallas Brewing Co. (DBC) for the test. The latter was done with a  
standard  
> and well established screen sieving procedure. This is described for  
example  
> in DeClerck, Vol. 2, pages 321-323. It in effect consists weighing out  
the  
> grain fractions that are retained on screen meshes of diminishing  
width. The  
> following is what we measured:  
>  
> ASBCscreengrains retained, % by wt.  
> screen no.width, mm. MM DBC Mill  
> -----  
>10 2.000 1413  
>14 1.410 1820  
>18 1.000 3332  
>30 .590 2525  
>60 .250 5 5  
> 100 .149 3 2  
> Not Retained 2 3  
> ---- ----  
> 100 100  
>  
> George Fix  
>

I think we're missing the point here. The Data posted by george  
measures by weight the amount of grain passing through sucessively  
finer screens. It is a measure of the consistency of the crush  
of the kernel itself, which is important as far a stuck sparge go.

What is more important is how badly the mill shredded the husk  
material, and the analyses do not measure that. husk material is  
light, and will not show up (relatively) in the results, which  
are by weight. A well shredded husk can also be retained by  
the medium screens - it is the grain dust which falls though  
the finer screens.

The presence of extra grain dust does not cause extra tannin extraction,  
the big factor. It can make your sparge stick.

As far as the maltmill goes, I'm a satisfied customer.

bb

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Date: Thu, 17 Jun 93 16:11  
From: RON.admin@admin.creol.ucf.edu (RON)  
**Subject: Great Falls**

A friend recently moved to Great Falls Montana and was hoping to find a local brew supply store. Anywhere in the state of Montana for that matter.

ron@admin.creol.ucf.edu

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Date: Thu, 17 Jun 93 13:16:59 PDT  
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>  
Subject: A Few Observations

In HOMEBREW Digest #1164 there were several items that "spoke to me." First, William A. Kitch seconded Kelly Jones' call for references in postings (with which I heartily concur), adding:

> ... This is not to say that opinions and anecdotal  
> evidence are not important. They are and should be posted but should also  
> be clearly marked as such!

I couldn't agree more. Opinion and speculation are grand precursors to knowledge, but aren't themselves knowledge.

Then Dr. George J. Fix caught my attention:

> ... Brewing Techniques. By the way, Vol. 2 will have an article by  
> Martin Lodahl, which could turn into the most widely read and  
> discussed article in the history of brewing. He deals with malt  
> extracts.

Wow! Well, I hope someone finds it helpful. At the moment I'm not sure if it will be discussed, or just dissed and cussed. We'll see, pretty soon.

> To head off anticipated flames, let me state that I get paid \$0  
> for being an editor of BT, and authors get the same compensation.

The compensation is getting to do the research the articles are based on, and getting to work with the people involved with the magazine, including Steve Mallery, a truly extraordinary editor-in-chief.

Finally, Steven Zabarnick set off my alarm bells:

> I finally took the plunge -- I did my first full wort boil  
> this past weekend. I used a new 33 qt ceramic-on-steel  
> kettle ...

This is the same kind of kettle I use, and I think it falls into the "best buy" category. They work great.

> I do have some comments and questions about the process,  
> though. With 5 gals of water and 6 lbs of DME at a rolling  
> boil, the 33 qt kettle was quite close to full. How does one  
> do an all-grain boil in a kettle this size, where one needs to  
> boil about 7 gals?

Very carefully. The tip that someone offered here about tossing a few hop strobiles or a couple of pellets into the wort before it begins to boil is a good one, and especially as boil approaches, the kettle must be watched closely. I always partially uncover the kettle at that point, both to avoid boilovers and control the mechanical action of the boil. If it becomes too vigorous, it will splash over the sides.

> As I boiled out on the porch and set up to chill in the  
> kitchen, I had to carry the full, hot kettle with copper  
> tubing protruding. This was much more challenging than  
> expected.

Dangerous, too. Remember, you're carrying a considerable quantity of boiling-hot, sugar-laden liquid, in a kettle whose handles are none-too-strongly attached. I suspect they're there for handling the kettle when it's empty, not when it's full. I had one handle come off of my kettle, at the best possible time: I was mashing in it, and as I began to lift it from the insulated box there was a sudden \*tink!\* ... Total fall was a couple of inches, and while the mash sloshed around a bit, none spilled. But it got me to thinking ...

> ... Do most people avoid carrying the hot wort by  
> chilling in place (using a garden hose)?

That's exactly what I do. I brew in the kitchen (to my wife's increasing annoyance), and have a quick-disconnect fitting on the faucet. I attach a short (10') hose to that, then to the inflow-side of the immersion chiller. The outflow I direct into the carboy I'm going to use as a primary, to which I've added some <insert favorite sanitizer>. After collecting that 6.5 gallons, I rearrange the hoses to use a small Teel pump to recirculate icewater, to do the rest of the chilling.

> ... During chilling  
> the kettle cover does not completely seal due to the  
> copper tubing; should I have used plastic wrap to keep out  
> the nasties?

This has bothered me since my first batch using an immersion chiller, but I've never done anything more constructive than fit the lid on the best way I could, nor have I seen evidence of infection because of it.

= Martin A. Lodahl Pacific\*Bell Systems Analyst =  
= malodah@Pacbell.COMSacramento, CA 916.972.4821 =  
= If it's good for ancient Druids, runnin' nekkid through the wuids, =  
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

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Date: Thu, 17 Jun 93 13:54:35 -0500  
From: gjfix@utam.uta.edu (George J Fix)  
Subject: Units

I made an assumption in my chlorine calculations I forgot to mention. In particular, I assumed that a liter of solution weighed approximately one kilogram. This is not exact, but for chlorine solutions I believe it is reasonable. I was forced into this assumption because the Siebel data was presented in mg/l (units I prefer), while the best I could get from my bleach friends was liters per million liters. A sentence that was inadvertently left out of my post was " Lets assume that the 52500 ppm figure can be taken as 52500 mg/l". Sorry for the omission, and the confusion it caused.

I used 1 oz. per gallon bleach rate simply as a numerical example. This is what I have been using (on tubing), but I am very interest in the success John has been getting with half that rate. This is something I am going to check out in terms of my system.

George Fix

P.S. Takes to Anthony Johnson and Greg Troxel for asking about the units I was using.

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Date: Thu, 17 Jun 93 15:29:05 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: data point on molasses

Al's comments on molasses being better for dark beer are worth noting. I recently put 8 fl. oz. in a ginger beer with 6 lbs. Telford's Extra Pale extract syrup. It's too much! Hopefully more bottle conditioning will improve things. However, thinking back a number of HBD issues to the suggestion someone made that brown sugars and molasses have desirable aromatics that might be lost during a full boil, I put the molasses in for only the last 15 minutes. A couple of years ago I made another ginger beer with 8 fl. oz. molasses and only 4 lbs. of an amber extract. The molasses was virtually undetectable even by experienced palates. So I guess my limited experience suggests that when using molasses, if you want the aromatics, use VERY LITTLE during the last part of the boil; if you want a certain je-ne-say-kwa, dump it in for an hour and you can use more. And Al's probably right about sticking to darker beers anyway.

On the aromatic side, though, I used some "demarara" sugar - 1 lb. with 6 lbs. of a light extract - in a British ale last year which was really wonderful. I would not hesitate to accent the qualities imparted by that sugar by moving its addition closer to the end of the boil next time!

Jonathan Knight  
Grinnell, Iowa

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Date: Thu, 17 Jun 93 16:34  
From: RON.admin@admin.creol.ucf.edu (RON)  
Subject: malt

Due to numerous requests for inexpensive extracts.....

Heres an extract that I've had good results with:

Specialty Products International Ltd.  
820 North 14th St.  
Erwin North Carolina 28339  
919 - 929 - 4277

Pricing for mix and match; hopped or unhopped,  
Amber, Light, and Dark, or Canadian Lager.  
Shipped with yeast.

\$80 / 12 cans east of mississippi  
\$90 / 12 cans west of mississippi

other products available from free catalog

ps....I'm not a salesman with the company, just always  
looking for inexpensive supplies

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Date: Thu, 17 Jun 1993 16:19:33 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: The Great Grain Mill Saga

I recently bought a JS MaltMill(r), the adjustable model, and have got a few things to say about using it for two batches. The first thing I notice is that the quality of the crush you will get is very sensitive to roller spacing.

When I got it from a local homebrew shop, the rollers weren't adjusted well at all, and the crush was MUCH too fine. Didn't look any better than a Corona, what with all that dust and small pieces of husk. Turns out the rollers were way too close together. I adjusted it to the recommended .060" spacing by using automotive feeler gauges. Which brings up a good point: you will not get repeatable results unless you use a metal gague for setting the gap. More on this later. Ayway, I was crushing DeWolf Two-Row, which of course came from a particular bag, and a particular lot-number. The .060" spacing was too loose -- many grains were just cracked in half, but not really crushed. I adjusted the mill, again with feeler gauges, to .057". This provided satisfactory results for the two-row, but was too loose for the CaraPils. I adjusted again to .055", and this provided great results for CaraPils as well as the two-row. But I think it'll be too loose for wheat malt, which I haven't tried yet. Just for fun, I tried .050, and .045 gaps, and the quality of the crush falls off (by visual inspection, no screens) pretty rapidly. Also gets real hard to turn the crank at these close gaps.

One big advantage I see to a mill like the MaltMill is that it trivial to reproduce roller spacings. You just turn the thing over, and stick in your feeler gauges. When I set the gaps, I placed the gauges in the center of the rollers, and turned the adjustemnt until there was just enough friction to hold the gauges in place. Then I tightened the set-screw, and checked to be sure the rollers hadn't gotten any tighter or looser. This takes about 30 seconds.

I tried using a drill to turn the MaltMill too. This absolves JSP of all liability associated with the machine, but I did it anyway. The drill is a very heavy-duty 1/2" drill, with 0 - 500 RPM speed. I figure I was running it at maybe 100 RPMs. The big thing is I think you get a better crush with a motor because the rollers are turning so smoothly. It IS easier to do, but I think the reason to do it is to get a better crush. I was told that Jack used to produce a motorized version.

Things that could stand improvement?? I think the hopper is WAY too small. But it'll be easy to make a bigger one from some scrap lumber. I was disappointed to find no bronze bushing in the eccentric "knob" that provides the adjustemnt. And the adjuster moves too easily when tightening the set-screw -- you have to be more careful than you might want to be. Some kind of metal clips that could fasten the mill to the top of the bucket would be good too.

My plans are to mount the MaltMill on a different base, add a permanent motor of some kind, build a bigger hopper, and come up with some kind of wire clip, like you may have seen on some shipping crates, to fasten the base to the pail. And then brew

LOTS of great beer. If the eccentric knob wears out, I trust that Jack will replace it. But I'd still like to see a bushing in it.

So, it seems there are now three price-points in the small-mill market now: \$40 gets you a Corona, \$80 get you a PhilMill, and \$120 gets you an adjustable MaltMill. Bottom line on the MaltMill?? From my point of view, I'd say if you don't mind the price, its a good machine, certainly better than a Corona Mill. There is even a certain retro-grouch homebrew supplier here in town who is impressed with the results I've gotten with the adjustable MaltMill. And you won't find a genuine roller mill anywhere near its price. ("Genuine" means "two rollers" IMHO) You can make great, award-winning beer with Corona-Crushed grain: I've seen it done. But its less ideal, for sure. The other homebrew supplier here in town has a PhilMill on order. I expect I'll go out and evaluate it, but I don't need two mills. And I'll bet I already have the Porsche.

Cheers,

t

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Date: Thu, 17 Jun 1993 12:26:17 -0400  
From: Bill Flowers <waflovers@qnx.com>  
Subject: John Bull barley wine kit - what to do with it?

I was just given a John Bull "Barley Wine" kit as a gift. I don't want to look a gift horse in the mouth, but the problem I see is that this won't make anything like a real barley wine. The kit is a 1.8Kg can of hopped malt extract. The instructions call for combining this with 1Kg of "sugar" (of course, I'd use DME) to make up 14L of wort.

By my calculations this would have an OG of 1.057+/-, unless the syrup in the can is almost a solid (a can of DME maybe? NOT!).

While this might be a wonderful ale, it isn't even in the ballpark for a barley wine. Does anyone have any experience with this kit?

What I'm thinking of doing is cutting down on the water (I have a 11.5L carboy I could do it in) and increasing the fermentables to at least get it up to 1.085 (still low for a barley wine from what I understand, but it would be better), and some extra hops. Perhaps 1Kg of DME, 500g raw (whole) sugar and 20g Goldings. Do the initial fermentation with a good ale yeast and continue the fermentation with a (well started) champagne yeast.

Comments?

- - - -  
W.A. (Bill) Flowers email: waflovers@qnx.com  
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)  
(613) 591-0931 (voice) mail: 175 Terrence Matthews  
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(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

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Date: Thu, 17 Jun 93 17:47:04 -0400  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: All Grain Systems

In HBD#1162,

>I'm trying to gather as much info as I can on all grain brewing  
>systems before putting my own system together. I've read several  
>books on the subject but haven't come to a decision on the following  
>items:

>  
>+ Boiling Kettle - what are the disadvantages of cutting up an old keg?  
> Is a false bottom necessary? For a 15 gallon capacity (10 gallon  
> beer batch) what should I look for in material thickness and other  
> features.

Sanke keg works great. I find it hard to believe that false bottoms work well with bottom heat systems (e.g. propane burners) so I made a copper ring out of some 1/2"od tubing, ran it out the side of the keg through a compression fitting silver soldered as a bulkhead fitting. I did this twice: one with a large ring around the inner circumference of the keg, for the kettle: the slotted ring filters out whole leaf hops fine and for pellets, swirling leaves all the trub and pellet crud in a pile in the dome of the keg. I get all but about a quart of liquid out. The second one is an 8" ring centered in the keg and resting on the bottom. I use that for mashing and lautering. Again the slotted ring filters just dandy and I get excellent extract (100% of expected yeild on my second try). The kegs cost me \$10/ea at a recycling yard and I cut 10" holes in the top with a jig saw and a bi-metal blade (make sure you get bi-metal or you will be frustrated!).

>  
>+ Propane burner - Is 35K BTU's big enough? How long to heat 12 gallons  
> of wort?

In spite of what you hear people say, 35kbtu is more than enough. Bigger burners are just blowing heat around the side of your keg and wasting propane. A better solution is to make a heat shield that fits over your keg. I made mine out of some 24" flashing. The shield is about 4" bigger in diameter than the keg and the top is folded over to seal. With that in place it takes very little flame to keep 14gal at a roiling boil.

>  
>+ Wort Chillers - Right now I'm using a homemade immersion type. What  
> are the advantages of the other style?

>  
>+ Thermometers - Where do you find thermometers that are accurate to +/-  
> 2 degrees?

Go to a kitchen supply and get a digital one for about \$19. Fast, accurate and easy to read.

>  
>+ Refrigeration/Fermenting - Ideally one would build a walk-in or two.  
> How do persons of ordinary means accomodate large numbers of fermenters  
> and kegs?

>  
My regular refer can handle 1 fermenter and four kegs at one time.

Gotta run.

Cheers!  
>Thanks,  
>  
> -Brian  
>

>- -----  
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>Brian Vandewettering (ADP Dealer Services R&D) Portland, OR  
>bmv@plaza.ds.adp.com  
>- -----  
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>  
>

- --  
Larry Barello    uunet!polstra!larryba

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End of HOMEBREW Digest #1166, 06/21/93  
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Date: Thu, 17 Jun 1993 18:04 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Acetaminophen and Hangovers

Derrick Pohl suggests taking a tab of Acetaminophen (the active ingred in Tylenol and several other similar products) as a pre-treatment for potential headaches.

This is probably not wise. One of the side-effects of acetaminophen is a certain degree of liver toxicity. This toxic effect is especially emphasized when taken in conjunction with alcohol. The studies I saw (several years back, sorry can't give the reference) suggested that in extreme cases (ie: heavy drinkers) the toxicity was sufficiently severe to produce more rapid liver failure than would otherwise be expected.

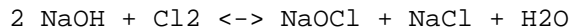
I personally have no problem with acetaminophen in general, but I don't think taking it for drink-related troubles is really advisable. P.

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Date: Thu, 17 Jun 1993 18:27 EDT  
From: Phil Hultin <HULTINP@QUCDN.QUEENSU.CA>  
Subject: Bleach and Free Chlorine

George Fix discusses the amount of free chlorine produced in solutions of standard bleach. However, his assumption that the percent by weight of "Cl" in NaOCl can be used to give the amount of dissolved Cl<sub>2</sub> (no subs or supers on my machine either) is false.

The release of elemental chlorine from sodium hypochlorite is described by the equation:



Where I use <-> to represent the back-and-forth arrows symbolizing and equilibrium process.

Now, this equilibrium lies far to the right, which is to say, that comparatively little NaOCl reverts to free Cl<sub>2</sub> and NaOH in solution. Unfortunately, I don't have the equilibrium constant available at the moment, but consultation of "The Merck Index" 10th ed. entry #8463 reveals the statement:

"The hypochlorite ion in solution is remarkably stable."

Which is essentially saying the same thing I put in the preceding paragraph.

So, when George estimates the amount of Cl<sub>2</sub> in solution in his posting, he is grossly overestimating. The calculation of the true Cl<sub>2</sub> content is simple, if one has in hand the relevant equilibrium constant. The disinfectant action of bleach is largely due to the power of OCl<sup>-</sup> ion as a disinfectant, while the "chlorine" smell of bleach is a consequence of the extreme sensitivity of the human nose to Cl<sub>2</sub>: threshold for detection is 0.2-0.4 ppm.

P.

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Date: Thu, 17 Jun 93 16:47:29 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Re: CDC sterilant

In HBD #1164, Paul Boor <PBOOR@beach.utmb.edu> asks:

> The Center for Disease Control (CDC) in Atlanta recently  
> reviewed its guidelines for sanitizing IV needles (reviewed in the  
(stuff deleted)  
> Anyway, CDC recommends 1/4 cup/gallon water for sterilizing  
> surfaces, so I'm with the recent comment of R. Stueven: Why has the  
> bleach concentration been plummeting? Who really knows, like  
(stuff deleted)  
> But more importantly, should we be using two different bleach  
> concentrations for our needles and our Kegs? Are homebrewers out  
(stuff deleted)

I would guess that something you are going to stick directly into your vein, you would want to be PDS (pretty damn sterile). On the other hand, brewing equipment probably need not be quite as sterile, since it will soon contain an alcoholic, low pH substance overwhelmed by yeast. Controlling gross infections is probably good enough. In "Disinfection, Sterilization, Preservation" (SS Block), a concentration of 50-200 ppm available Chlorine is mentioned for sanitizing food contact surfaces. This works out to 20-80 ml Chlorox per 20 liters water (4-16 tsp per 5 gal). I'm not sure what the appropriate contact time would be.

> Think about it, but right now I gotta run out to the kitchen  
> to make sure my refrigerator light is still on.

More importantly, does your airlock really bubble when you're not watching it?

Kelly <k-jones@ee.utah.edu>

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Date: Thu, 17 Jun 1993 19:57:27 -0400 (EDT)  
From: WESTEMEIER@delphi.com  
Subject: Mill results

Due to the interest in the introduction of the Philmill, I thought it would be useful to provide a bit of extra data.

First, a disclaimer: I belong to the Bloatarian Brewing League, and Dan Listermann, creator of the Philmill, is a fellow member.

Our club did a comparison, using standard sieves, of the crush produced by the Corona (properly adjusted), a MALTMILL (tm) (non-adjustable model), and a Philmill prototype (properly adjusted). The results differed rather substantially from the MM sieve results posted here in May by George Fix, but they tended to point to the PM as being somewhat superior. I am personally a satisfied owner of the MM, and I use it often. I have also been very impressed by the results I've seen throughout prototype testing of the PM. I believe they are both first-class, state-of-the-art examples of homebrew equipment. I've tasted beers made with both, and I've very carefully examined the crush provided with both. I honestly believe that anyone would be happy with the purchase of either one.

However, for those who require more hard data, Dan Listermann has told me that he will be bringing his set of standard analytical sieves to Portland with him, and will offer to conduct a "crush-off" with all comers. Seeing the results first-hand should persuade any skeptics.

++ Ed Westemeier ++ Cincinnati, Ohio  
++ westemeier@delphi.com ++

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Date: Thu, 17 Jun 93 23:22:10 EDT

From: homebre973@aol.com

**Subject: barleywine**

Just a quick question to those knowledgeable about the alcohol tolerance of

yeast strain #1084 (Irish Ale). I've used this to make a barleywine with an s.g. of 1.098. After 3 days I racked it to a secondary with the gravity now at 1.037. Since I would like a relatively

sweet barleywine, does anyone know what the approximate finishing gravity would be? Is this strain of yeast fairly alcohol tolerant? Thanks.

Andy "Dr. K" not to be confused with Julius Erving!

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Date: Thu, 17 Jun 93 21:48:32 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Oil ppm vs. IBUs

Russ Gelinas asked (me specifically) if the ppm of hop oil had anything to do with IBUs.

No. IBUs are \*roughly\* equivalent to the milligrams/liter of isomerized alpha acids in beer. The alpha acids are responsible for the bitterness in the beer. The oils from the hops are responsible for the hop character and aroma in the beer. Hop character is imparted by late additions of hops in the kettle and/or by steeping hops while the wort cools. Some hop aroam is also imparted by this, but it is a totally different aroma than you get with dry hopping. The aroma imparted by dry hopping resembles the aroma of the fresh hops. But no bitterness is imparted by the hop oils, whether added directly as an oil, or by adding hops late in the boil or by dry hopping.

Mark from HopTech

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Date: Fri, 18 Jun 93 9:23:52 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Racking off trub, etc.

As promised earlier during the "should we rack off of the trub" thread, here are results based on two batches I have made, a Steam (tm) and a Stout:

Steam (racked off of trub) was pretty good, very bitter and highly hopped. The beer tht was left over the trub for the primary ferment seemed to have some phenolic overtones, but was still pretty good. In all other respects, the beers were treated identically. Also, the beer left over the trub didn't seem as clear as the racked beer. No clarifying agents were used. (I usually use polyclar (tm?).)

The stout (a new recipe I invented which has black walnuts in it :) ) was not significantly different between the two batches. Both are opaque deep brown, almost black. No noticeable difference in taste profiles, but the unracked batch has a much more noticeable walnut aroma, probably from sitting in the primary with them for so long.

The bottom line is that I will probably continue to rack my beers away from the trub, esp. for those with a lighter flavor profile. The heavy ones I probably won't fret over.

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About filtrations (esp. air filtration)

Has anyone out there in brewdom tried using Acrodiscs (tm)? These are disposable membrane catrtridges in a variety of porosities and sizes that are available through science supply houses (VWR, etc.) They are made to fit onto a syringe tip, but could probably be put inline with an air hose. Would not be suitable for liquid filtration, because they are only meant to filter small (several mL) volumes.

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About flames and commercialism

Let's be polite here in our criticisms, and lets leave the advertising to the pages of Zymurgy, etc. If you find something so nifty-difty that you've gotta tell or you'll burst, why not just describe it in generic terms, no specific copyrighted names, prices, ordering information, etc. and just field the private e-mail. If I wanted commercials, I would watch TV :( !!!!!

Sensibly yours,

Tony Johnston  
Tired Chemist, Inspired Homebrewer  
anthony@chemsun.chem.umn.edu

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Date: Fri, 18 Jun 93 10:20:53 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: Re: CP fillers

Ed Westemeier sez...

>

> FWIW, I have heard that the CP filler sold by DeFalco is also  
excellent, but

> I have never seen it and can't vouch for it.

I can. I've had one for a couple of years now.  
It is an excellent unit, all stainless, and very sturdy.  
Highly recommended, and reasonably priced.

- - -

Chuck Cox <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: Fri, 18 Jun 93 11:03:15 -0400  
From: jpgareri@acs.bu.edu (Joseph Gareri)  
Subject: Dogbolter Revisited

In Tuesday's HBD (1162), I wrote in with questions about what to do with a Dogbolter kit. The response was, to say the least, overwhelming. I received 14 responses at last count. Some folks have asked for a summary, so I thought it would be in the interest of many to post it here.

The comments were all favorable about Dogbolter being a beer worth making. Everyone who commented on the product said that it was quite close to the commercial product and very high in alcohol content (estimates of >8%.)

Many suggestions were received about the supplied yeast. A few folks said they have used the yeast and have had very favorable results. The favorite substitute was London Ale yeast (Wyeast 1028) with Whitbread a favorite for dried yeast.

Virtually no one suggested keeping with the recommended 2 1/2 lbs. white sugar. Although it was pointed out that some sugar is very common in English bitters. Suggestions ranged from 2 to 4 lbs. of either light or amber unhopped dry malt extract. The kit makes 3 gallons, but nearly everyone suggested making it into a five gallon recipe by adding additional malt or even an additional kit! Yikes!

Additional hops were suggested to maintain the balance. Kent Goldings were the odds on favorite with Fuggles a close second. The recommendations were for 1/2 oz. (3-4%) per ounce of additional malt for the boil (60 minute boil was the most popular), and 1/2 oz. for the finish.

Allen Wright suggested 2 tsp. Irish Moss thrown in during the last 15 minutes to help settle out the cold break.

Conditioning was recommended according to normal procedures.

I think that's about it. I hope I didn't miss too much of the valuable info.

Thanks to all the respondents. I have saved all the text into a file that I'll keep for a couple of weeks. If anyone would like to see the unedited text, I'll happily mail it off to you.

Joe Gareri  
Boston MA

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Date: Fri, 18 Jun 1993 08:13:55 -0700 (PDT)

From: gregb@amazon.SanDiego.NCR.COM

Subject: Pushing krauesen and cloudy beer issue

- You know that crud that sticks to the side of your primary fermenter after the krauesen dies down? I figure this contains goodies that would aid flavor and aroma. Would it be beneficial to push this stuff back down into the wort?

- With all this talk about clarifying agents, is really a big deal if your beer is cloudy or is this just an aesthetic issue?

Greg Bruno  
gregb@amazon.sandiego.ncr.com

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Date: Fri, 18 Jun 93 10:10:08 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: Aluminum cans

A brief article in the paper yesterday (Thurs, San Fran. Chronicle) mentioned a study done by a company in Austrailia. They found that the levels of aluminum from non-cola sodas in cans was six times higher than the levels found in those sodas from bottles. For cola sodas, the levels of Al were three times higher in the drinks from cans.

The sample size was something like 56 sodas, no absolute levels of Al were given although it said that the levels found were below acceptable health standards, and no other drinks were mentioned.

Is the "fear" of aluminum due to the possible relation with Alzheimers? Is this also the reason that all homebrewers recommend stainless steel pots and kegs rather than aluminum, or is there some heat distribution advantage to SS? Or non-corrosive advantage?

- Bryan

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Date: Fri, 18 Jun 93 10:40:08 PDT  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Re: Miller Amber Ale

In HOMEBREW Digest #1165, Fri 18 June 1993, it is written:

>Date: Wed, 16 Jun 93 09:20 PDT  
>From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
>Subject: Miller Amber Ale  
>  
> FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
> SUBJECT: Miller Amber Ale

< a very good article on Miller's Amber Ale deleted to save space...>

Now, after talking about local pride in our microbrewers, this is really something to behold. Think about these things. Remember when we couldn't get Munich Lowenbrau anymore, because Miller started producing it under license? (Poetic license, maybe, 'cause it ain't Lowenbrau, and I have some more of the Munich product at home to prove it!). Then there was Coors and its "Killian's Irish Red", licensed from a brewer that hadn't brewed in nearly three decades. Now, Miller's at it again, attempting to brew a "micro-killer". To give it due credit, it isn't bad, \*as long as it is kept fairly cold\* (cold ale?), but it does raise some questions.

This is a very curious product: a top-fermented ("special" yeast, har har) ale that tastes worse as it approaches what a lot of us, as somewhat educated brewers and beer-drinkers, regard as proper ale temperature. Is this a point of pride? I realise that many Americans have a predilection for ice-cold beverages, but if a product is pitched to an "upscale" market-segment, why not go for the authenticity?

The "Amber Ale" marketing pamphlet is so full of outright lies and falsehoods, it puts a certain Boston (tm) Beer (tm) brewer to shame. "Warm beer of England" is a misnomer. It isn't warm, it's at cellar temperature - I don't think of 55 to 60 degrees F as warm! So much for Miller's "master-brewers" (aka "marketing men" who have little or nothing to do with actual brewing).

>"Ales are also the original beer of Europe."

Hee hee hee. So when is Miller going to make gueuze-lambic, using locally-occurring wild yeasts? I can't wait to see their mass-market version of Ninkasi. :-)

As long as we have the likes of Miller continuing to "educate" the public, we Americans will have a long ways to go before we can be justified in proclaiming our respective regions to be "Beer Capitol of the Universe". Homebrewers excepted, of course, since our brew-cellars are, in fact, the center of the universe. :-)



Date: Fri, 18 Jun 93 09:27:38 PDT  
From: johng@adx.la.ca.us (John E. Greene)  
Subject: Miller ale.

It's a bit amusing to read about what miller has written about the differences between ale and lager. I was talking with the owner of a brewpub here in Manhattan beach and he said that when he took a tour of the Miller Brewery he noticed that their fermenting tanks for the lager were at 65 degrees. He tried to ask about this but they would not give him an answer. I think that in Miller's case the only true difference between an ale and a lager is if the yeast ferments at the top or the bottom.

- --john

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Date: 18 Jun 1993 14:54:24 -0400 (EDT)  
From: "PETER JUST, ANTHROPOLOGY, WILLIAMS COLLEGE" <Peter.Just@williams.edu>

**Subject: Downloading files from sierra.stanford.edu**

Forgive me if this an ignorant question, but:  
I have twice downloaded files via ftp from the /pub/homebrew directories of the sierra.stanford.edu server, specifically cats\_meow.2ed.ps.Z. I take it from the extensions that this is a PostScript file that has been compressed with PKZIP. Yet when I try to unzip the file, PKUNZIP (2.04g) tells me the file I have is probably not a .zip file. What am I doing wrong? How can I get hold of these files?

Thanks to one and all.

Peter Just Williams College  
internet: peter.just@williams.edu

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Date: Fri, 18 Jun 1993 15:32:01 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: mashing and other mysteries of homebrewing

Hi all

I have a question that's been nagging at me a while. Since I brew only using syrup extract, the job of mashing escapes me. I thought about mashing once, even tried it. My problem; how in the hell do you keep mash at a constant temp? This technique evades me. I tried my best to play spin the dial on my electric stove to "maintain the mash at 142 F for 7 minutes and raise to 151 F for 3 minutes" etc. etc. This was quite impossible I found, but I did the best I could. The resulting beer turned out ok, but I chalk it up to a stroke of luck rather than skill.

Would anyone out there like to enlighten me? Are these tuns I see for sale really worth it?

Oh yeah, thanks to everyone's help and consolation about my American Ale yeast problem. Things \*seem\* to be going nicely, but I won't really know until that first taste :)

cheers  
scott

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Date: Fri, 18 Jun 93 15:44:30 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: hop extraction

It is written that a high gravity boil will provide less hop bitterness in the finished beer than a low gravity boil. All the equations don't take this into account until you get up to 1.050 or so, presumably the loss of bitterness at lower gravity is not significant.

So what happens if you boil the hops in plain water? Do malt sugars or proteins or such provide something necessary for bitterness extraction (iso-alpha acid conversion)? For extract folks or folks with small pots (on a stovetop), it would be easier to boil the correct amount of hops in some water and just strain them into the cooled wort. It would even help some grain brewers who have problems siphoning off the hops (especially with pellets) into the primary.

Of course, it can't be this easy. I was just wondering why not!

- Bryan

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Date: Fri, 18 Jun 1993 17:00:52 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Weizen Yeast

Jeff Griffin wonders:

>  
> I just received a packet of a new Wyeast, #3068, which is described  
> as a single-strain Bavarian Wheat yeast (this is distinct from the  
> #3056, which has two strains). Does anyone have more information on  
> this strain?

>  
You are fortunate enough to live somewhere where WYeast is testmarketing this strain. It is not related to the 3056, but is a true weizenbier strain from Weinhenstephan. I have brewed with it once (got the yeast directly from Dave), and it is a truly exceptional weizen strain. If responses are good in the testing areas, I believe WYeast will add it to their regular list.

I have had uniformly good responses on the beer; one knowledgeable importer (and several of his staff, who have reason to know), said it was the spitting image of Schneiderweisse. I say this not to puff myself up, but to assure you that you have your hands on the real thing.

- --Jeff Frane

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Date: 19 Jun 93 11:52:03 EDT  
From: Jim Kirk II <70403.3157@CompuServe.COM>  
Subject: Hopping Rates

I have tasted beers in the past that were very bitter at first, but finished sweet afterwards. Ok, yes, I'll admit it. I'm a hophead. My beers start out bitter and finish bitter. Problem, the lady doesn't like this. Any idea how I can brew a beer that is bitter at the start, then has a sweeter aftertaste? <JK>

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Date: Sun, 20 Jun 93 07:50 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Business opportunity, Devils

>From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>

>Recently, a freind & neighbor bought a JS Maltmill <tm>. It's a  
WONDERFUL  
device and I definitely intend purchasing one.... but ONLY after I  
figure out  
how to motorize it. Any ideas? I'm the kinda guy who grabs the  
correct end  
of a screwdriver about 50% of the time so it's got to be an easy,  
off-the-shelf kind of solution.

I have responded in private but I see here a business opportunity for  
some  
budding entrepreneur out there.

For reasons of my I own, I have decided that I do not want to sell  
motorized  
mills. However, there is a substantial market out there for serious  
homebrewers and small breweries that would rather make beer than  
motorize  
mills. At the present time (see comments below), there is no viable  
alternative to the MM for the low budget operation and someone who  
wanted to  
repackage them could start a nice cottage industry.

>From: Nick Zentena <zen%hophead@canrem.com>

> If you've never seen it [Philmil] then your post sure sounds  
like FUD! Why don't you ask someone who has seen  
both mills to compare? Na that would have cut down  
on your chance to advertise.-()

I don't think that was called for. My post was based on published data.

However, I now own a Philmil and can speak from personal experience but  
I  
think it would be more prudent to let the market speak for itself while  
keeping in mind that one must drive a VW to appreciate a Porsche.

As Perot likes to say, the Devil's in the details, and there is one  
"detail"  
that I will point out in light of the above discussion on motorizing  
mills.  
The PM has NO BEARINGS. The steel roller turns in a 1.5" hole drilled  
in the  
steel support housing. The manufacturer's suggestions on how to  
motorize it  
must be taken with a large grain of salt.

BTW, what's a FUD?

>From: "Bob Jones" <bjones@novax.llnl.gov>

>Jack S. experiments with filters is very interesting. Micah claims he  
has

seen no problems with head retention using the supposed .5um filter and I have seen poor clarity with it as well when pushing some beers through it.

> Fix has recommended against this small (.5um) filtration.....

I wonder if we havn't got an apples and oranges problem here. I never asked

George what type of filter he was using. He gave me the manufactuere and part number but not the type but I bought something else.

As there are many differnt types of filters, pleated, string wound, ceramic, flat, plate, just to name a few, it seems that we need to know which type we are talking about to get any sense out of this discussion.

I have little confidence in the numbers quoted for string wound filters and have no experience with any other.

js

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Date: Sun, 20 Jun 1993 10:03:02 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: re: Headaches

There was a post-thread some time ago about headaches. There are some substances, not higher alcohols / fusel oils, that some people are allergic to and causes headaches. Cheap red wine frequently has a lot of this. Heck if I can remember the name. If anybody has the last year's HBD in grep-able form, look back there.

Anyway... I wonder if the headaches correlate to the brewers who do fast high gravity brews (the so-called "beer concentrate") and then dilute it for retail distribution. This could have all sorts of strange things going on in the fermenter...

Paul.

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Date: 21 Jun 1993 7:49 EDT  
From: dab@cc.bellcore.com (dave ballard)  
Subject: re: 5 liter kegs

hey now- most of the people who responded to my request for info about  
5 liter kegs (thanks guys) wanted me to forward anything else i found to  
the hbd. here is something from r.c.b:

later  
dab

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Article: 14753 of rec.crafts.brewing  
Path: walter!rutgers!uwm.edu!linac!att!bgsuvax!bear  
From: bear@andy.bgsu.edu (Michael D. Bear)  
Newsgroups: rec.crafts.brewing  
Subject: 5 Liter mini-kegging system  
Message-ID: <C8qE1n.E47@andy.bgsu.edu>

Date: 16 Jun 93 20:24:57 GMT

Organization: Bowling Green State University, Ohio 43403.

Subject: re: 5 liter kegs

I recently purchased the 5 liter mini-kegging system advertised by Brew Ha Ha in Pennsylvania. I received the kegs in a box that looked kinda like it was made for them. The kegs are essentially metal cans made to look like little barrels. The order taker said the cans are plastic lined and the best way to clean them is with a bottle brush bent like a carboy brush. The cans are painted up with a logo, government warning, etc. They were used by a microbrewer called Happy Valley. The tap is a plastic snap on piece that has a knob to control the CO2, a screw on cap for the CO2 cartridge and a spout with dispenser knob. The keg has a 1" hole in the top and you put a rubber stopper containing a plastic plug into it. When installing the tap, you use the end of the tap to push the plug into the keg. It just falls into the beer. You fish out the plastic plug when the keg is empty.

I just used the kegs for the first time early this week. I only used 2 of the kegs and bottled the rest because I wanted to test how they worked and compare them to the same beer in bottles. Also, I have another batch in secondary that I will do the same thing with.

They are used much like a large keg. Use half as much priming sugar as usual, fill and plug the kegs. Set them aside for conditioning for 2-3 weeks. They are conveniently sized to put in the fridge beside the milk weather they are tapped or not. They are about 13" high with the tap attached. This was a little too tall for my fridge. I had to remove a shelf.

I tried "Force carbonating" one of mine. I attached a cartridge, turned the pressure all the way up and then shook the keg every few minutes for about an hour. I then put it in the fridge with the pressure on. The next morning, the beer was carbonated and the cartridge was empty. I attached another one and was able to dispense carbonated beer immediately. The cartridges are 8g seltzer cartridges. The warn against using CO2 cartridges for guns because they contain oil. It comes with 10 8g cartridges and extra packages of 10 are \$4.95. They will also accomodate a larger 16g cartridge but I don't know where to get those.

I am quite happy with the system even though I haven't used it much yet. If anyone wants more info, just e-mail me.

- - -

Michael D. Bear    bear@andy.bgsu.edu  
Computer Technician    ..!osu-cis!bgsuvax!syrinx!root

Bowling Green State University    bear@bgusopie.bitnet  
(419) 372-2104

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Date: Mon, 21 Jun 1993 07:46:05 -0500 (CDT)  
From: dspalme@mke.ab.com (Diane Palme x2617)  
Subject: Hop Report and Apple Weiss

Howdy Y'all!

Well, as the month of June speeds by (and my e-mail box fills with requests), I thought I would throw a quick hop update onto the HBD. Bear with me, I only get to visit the plants about once a week.

If you will recall, I planted three varieties of rhizomes, Hallertau, Tettenanger, and Cascade. I am \*thoroughly\* amazed at the speed and vitality of the Hallertau plant. I am anxiously awaiting the frantic phone call from my parents saying that they are being held hostage by this vine. It is truly growing in leaps and bounds! The Cascade is running a close second and is just about ready to train to a horizontal wire. These plants are quite stupid, however, in that they refuse to wrap themselves around a horizontal wire. They seem to be much happier running up the poles sunk next to the root. Hmmm. Maybe they just need a good talking to! As for the Tett, well, I guess the operative word here is "runt." It is not more than 4" high and moving \*very\* slowly. It receives the same care and fertilizing as the other two, but it just seems like it doesn't want to come out and play with the other kids. Any suggestions? As for the weather up here, it has been remarkably cool and quite wet the past few weeks. The temperature has finally started to move toward the 80 degree mark (on a relatively consistent basis), so maybe that has something to do with it. Nevertheless, I look forward to some kind of harvest in a few months. As a quick side note (directed to those of you who have been growing/harvesting/brewing with hops for the past few seasons), how does one calculate the alpha acid content in these hops? Is trial-and-error (read: Newton-Raphson method of interpolation) the only way to go? Any advice will be appreciated.

[switching gears]

I was fortunate enough this past weekend to attend the Beer Festival in lovely Kenosha, Wisconsin, and sampled a beer from the Cherryland Brewery in Sturgeon Bay, WI. It was an Apple Ale and was absolutely superb! Being the cider fan that I am, I was wondering if any of you brewers out there could

give me some net.wisdom on how to brew a good apple beer. I am considering using a standard weiss base and adding copious amounts of apples to the ferment. Standard practice seems to recommend something on the order of 4# of apples (Macintosh, Granny Smith, Washington), I prefer Courtland, to the wort after the boil is complete, allow to steep ~15 minutes, dump the mess into a plastic fermenter (or carboy if one can get the apple pieces through the opening) and then rack off of the fruit once the primary ferment is complete. Does this sound plausible? Any better recommendations for a base? Once again, any info/suggestions will be appreciated and a summary will be posted if there is interest.

Well, this concludes the monthly Hop Report and CFD on Apple beers. I apologize for the length of the posting, maybe I should do this more often!  
:-)

Thanks in advance ...

Diane Palme (dspalme@mke.ab.com)  
Dept. Engineer, Central Inspection  
Allen-Bradley Co.

(414) 382-2617

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" God does not play dice "  
- Albert Einstein

" Nor is it our business to proscribe to God  
How he should run the world. "

- Neils Bohr

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Date: 21 Jun 1993 09:09:09 GMT  
From: "Tom Stolfi" <WAUTS@CWEMAIL.ceco.com>  
Subject: Request for Kegging Info

From: Tom Stolfi

I have received the ultimate gift for a combined Father's Day & Birthday, my beautiful wife has set aside enough \$\$ to get me a kegging setup. I have been reading the HBD for 6 months or so and have an idea of what I want. However, I am asking the experts on HBD for any advice on equipment, suppliers, setup or anything else to do with kegging. Thanks in advance.

Tom Stolfi  
wauts@cwemail.ceco.com

p.s. Please include your full email address, our reply feature is not working.

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Date: Mon, 21 Jun 93 09:56:31 -0500  
From: gjfix@utam.uta.edu (George J Fix)  
Subject: References on sanitation

The diversity of opinion regarding appropriate strengths to use for sanitizing solutions is reflected in the diversity of results found in the professional literature on this subject. For example, data that was produced for the general food industry (copies of which can be obtained from bleach producers) show that highly dilute sodium hypochlorite solutions can be very effective with selected bacteria. To cite an example, one study showed that a solution with a 5 mg/l OCl concentration yielded a total kill (sorry for the barbaric language!) of E. Coli with contact times ranging from 5 to 10 mins. With the bleach I use, a OCl fraction of 5 mg/l is achieved by diluting ~1 tsp. of bleach in 5gals., i.e., ~1/30 oz. per gal.

Different studies using different microbes found an altogether different situation. Permit me to cite the following, which appeared in a professionally peer reviewed journal devoted to brewing:

J. Sorenson, et al, "Pediococcus: Some Biocide Studies", Brewers Digest, January 1983.

This study looked at the effect of various halogens (chlorine, iodine, etc.) had on selected strains of pediococcus. The following is but one of their findings for P. pentosaceus, a highly feared brewery contaminant. They propagated this microbe, and then added sodium hypochlorite at various levels of OCl. Their criteria was very simple. They just observed if the microbes continued to grow (noted with a + in the below), or stop growing (noted with a -).

Exposure Time (mins.)

| OCl (mg/l) | .5 | 1. | 5. |
|------------|----|----|----|
| 75+        | +  | +  |    |
| 100+       | +  | -  |    |
| 150-       | -  | -  |    |

The condition of no growth is a minimal one, what we want is a complete kill. Nevertheless, I find the results interesting. It should also be pointed out that various strains of lactos and pedios vary greatly in their resistance to sanitizers. They also vary greatly in their effect on beer flavors. The very special lacto strain used by Celis yields a gentle and mellow sour, while P. pentosaceus produces, among other things, an extremely unpleasant acid flavor.

With all this diversity is it no wonder people disagree. BTW Brewing Techniques will carry two articles on sanitation. Vol. 2 is by Dr. Maribeth



Raines, and is oriented to beginning and intermediate homebrewers. Roger Bergin's article will appear in a later issue, and is oriented to advanced homebrewers as well as microbrewers. It should also be noted that all full length articles in BT are confidentially reviewed by professionals in brewing.

In a post that will come out, or already has come out, Phil Hultin argues that my chlorine calculations had a serious error. From the point of view of equilibrium chemistry he is absolutely right. In fact, this argument has been made to me a number of times in the past by professional chemists. The reason I do not accept it is that it is missing the biological connection. What is being asserted by me is not that OCl ions are completely disassociating, but rather as the calculated OCl fraction of the solution increases, so does the sanitizing power. Similar calculations were used in the reference cited above. Remarkably, while there is general agreement about the effect of chlorine being the oxidation of microbe cell walls, the actual mechanisms are still unclear. The observation that equivalent OCl fractions track strength is completely empirical. Thanks to Phil for interesting e-mail.

I find myself in the awkward position of having an embarrassing number of projects with late Aug. and early Sept. due dates that need an embarrassing amount of work if they are going to be successful. Thus I need to hide for a couple of months, and work my @\$% off. I hope everyone (especially Don O'Connor) has an eventful, fun, and rewarding summer. See you folks in Sept.

George Fix

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Date: Mon, 21 Jun 1993 09:03:15 -0700 (PDT)

From: "Bob Jones" <bjones@novax.llnl.gov>

**Subject: Hop utilization calculation credits**

I would like to comment on the following note from Mark Garetz:

>BTW, Rager credits not only Eckhardt for the calculations, but  
>also Byron Burch and Dave Miller. Eckhardt only gets sole credit  
>for the table of beer styles vs. IBUs.

I spoke with Byron about hop utilization calculations about 5-6 years ago.

He said he had just received a letter from Gary Bauer. He sent me a copy of this note. In that note Gary had very crude numbers for about 4 or 5 boil time with percent utilization. Byron's hop utilization numbers (essentially Gary's numbers) started appearing right after that. I wonder where Gary's numbers came from? I would suspect he is THE source for ALL the current guesstimates.

Bob Jones

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Date: Fri, 18 Jun 93 14:06:52 PDT  
From: hartman@varian.CSB.Varian.COM (John Hartman)  
Subject: Phone number for Dewolf-Cosyns?

Fellow Digesters--

I have a homebrew store in my area who'd like to carry Dewolf-Cosyns' Belgain malts. Does anyone have a phone number or address for them or their U.S. distributor?

Much thanks in advance,  
John

hartman@varian.varian.com

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Date: Mon, 21 Jun 1993 09:46:05 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Those Pesky Siphons

In regard to the discussion (more or less perpetual) about starting siphons, I have a STRONG recommendation. Although I was initially skeptical about the need for such a device (having always used a turkey baster), I had a succession of problems starting siphons and broke down and bought a Sucker (TM). Jeeze, I think I've got the nae right. At any rate, the device is based on a large syringe, with a y-connector and check valves that ensure the siphon flow continues in the proper direction. It is not only useful -- unbelievably so -- for starting siphons, but can also be used for pulling samples from carboys, transferring the sample directly into a graduated cylinder, for example, for taking hydrometer readings. Because it's entirely made of plastic, it's easy to sanitize (I use iodophor).

Best of all, you can get it by asking right here on the net: it's made by the never-advertising-in-the-Digest Russ Wigglesworth. Send your inquiries to: rad\_equipment@rad-ma1.ucsf.EDU

This is an unsolicited endorsement. Really. I can hear Russ blushing all the way up here in Portland.

- --Jeff Frane

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End of HOMEBREW Digest #1167, 06/22/93

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Date: Mon, 21 Jun 93 16:41 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: Mashing raw wheat for Belgian white beers

Some time back I posted a preliminary recipe for a Belgian white beer that I had brewed with some success. A number of other people went on to brew the same thing, and reported good results. That recipe called for 60% barley malt, 30% wheat malt, and 10% raw wheat in the mash, using a single protein rest prior to sacchrification. This works smoothly and the wheat requires no special preparation.

I can now report that I have successfully completed a mash of 50% Belgian pils malt and 50% raw hard red winter wheat (aka wheat berries). All grains were ground on a Corona mill, with no additional preparation. The mash schedule was as follows:

Mash type:Upward step mash

Water/grist ratio: 2 quarts/lb

Dough in: 95F for 10 minutes

Protein rests: 117F for 20 minutes  
122F for 20 minutes  
126F for 20 minutes

Sacchrification:150F for 10 minutes  
158F until complete

Technique:

1) All the water is added at dough-in. I should admit that my strike temperature was much too hot (115F), and that I overshot by about 8 degrees F. I therefore suggest using water that is 97-100F, which you can probably get straight from your tap. I used the dough-in period to adjust the pH, which required 3.5 teaspoons of gypsum. Usually I don't need any, but this is also the first time I've used a complete step mash instead of infusion, and I usually use less water per pound of grist.

2) Apply heat to raise temperature to first protein rest and let sit for 20 minutes.

3) Repeat for second and third protein rests.

4) Sacchrification temperatures were my choice--use what you want.

Astute readers will notice that this is exactly the mash schedule proposed by Eric Warner in his wheat beer book, but without the decoctions.

The most interesting thing about doing this was that I could actually feel the grist becoming less gummy with each rest. What started as a rather sticky, bottom-clinging mass that looked like wallpaper paste became a light, fluffy, easy-to-stir and clear mash of the usual type. I lautered with 175F water until the wort running out had dropped to 1.008, and collected 6.75 gallons @ 1.038, or about 27 points per pound overall from 10 lbs of grist. Lautering proceded with no problems at all, and may have produced a clearer-running wort than usual. There was plenty of

hot and cold break material in the kettle but I wouldn't say the quantities were unusually large.

Some warnings and comments:

1) Grinding 5 lbs of raw wheat on a Corona is the most effort-intensive thing I've done as a homebrewer. Like grinding putty. Think twice before planning a 10-gallon batch.

2) You will do a lot of stirring with this mash due to all the temperature steps. My brew day took an hour longer than usual, and lasted from 10 a.m. to 5 p.m. Effort-wise I'd say this is about equivalent to a single decoction mash.

3) While I'm not sure what an optimal crush for raw wheat might be, I was uncomfortable with the amount of flour produced when I set the Corona to grind chunks roughly similar to those from barley malt. I therefore used a grind that what I would consider somewhat coarser than optimal. Having seen what the protein rests can do, I'd grind finer next time, as the flour seems to take care of itself.

This batch included some variations in spicing from my previous effort, and most notably the use of some hand-imported curacao orange peel. Subsequent postings will deal with this, as it's too early to say what the results will be.

Thanks for assistance with this project go to Jim Busch, still the Sultan of Wheat Beers.

Phil Seitz  
PSEITZ@MCIMAIL.COM  
Arlington, VA

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Date: Mon, 21 Jun 93 13:05:10 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Eric Warner's Wheat beer book

Dennis Lewis writes:

- > I calculated the extract required from the grain recipes to
- > achieve the desired SG. In almost every recipe I came up with an
- > extraction of 40 pts/lb/gal!

Funny you should mention that. I tried his "Isar Hefe Weizen" last night. After coming up with a gravity closer to 1.045 than his 1.055, I did the same calculation, and got an overall expected extraction of 36.5 for his gravity. I actually got about 30. Maybe I should have sparged for 2 hours insted of 1!-) Ah well, next time.... (If I will ever spend the time required for that complex multi-step decoction recipe again!)

=S

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Date: 21 Jun 93 07:05:11 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Light (Lovibond) Extract

Message Creation Date was at 21-JUN-1993 10:27:00

Greetings,  
I have a question for those of you out there who do not consider Malt Extract to be too trivial for comment.

I wish to make a beer with the lightest possible color as is possible with extract. The style is somewhat uncertain at this point in time. I may use it as a base for fruit beers, or it may evolve into a "lawnmower" beer, but mainly it's just an experiment to see how light in color it is possible to get while using malt extracts. (Someday, if I get the time and brewing partners, I'll do it right & get my light color by going all-grain.) I would like to use only barley & wheat for my fermentable sugars - no sugar, rice, or similar adjuncts.  
What suggestions can you give me for both liquid extract (preferably unhopped) and DME?

TIA  
Andy A

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Date: Mon, 21 Jun 93 10:56:08 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: mark@hoptech.com's advertising on HBD

"Date: Mon, 14 Jun 93 20:12:44 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Oils

New Product Announcement

"In my article in the Summer '93 Zymurgy (Boost Hop Bouquet with Dry Hopping)  
I talked about CO2 extracted hop oils. As the article stated, measuring the  
very tiny amounts of hop oil needed takes lab equipment and lab skills, beyond those of most homebrewers (but probably not beyond quite a few Digest readers). Anyway, the article states that I was working on a solution  
to the problem. It was supposed to have a P.O. Box where you could write  
me to keep informed of any progress. Unfortunately, they edited that part out.

"To make a long story short, HopTech now has available CO2 extracted hop oils  
that have been formulated in a stable, water-based suspension that are easy to  
add to homebrew sized batches. It is calibrated that 1 tsp of hop oil equals  
1 ppm of hop oil in 5 gallons. Average usage, depending on the style of beer  
and your taste, runs between 1 and 3 ppm. We sell it in 2 oz bottles, enough to add 2 ppm to 30 gallons of beer.

"We have three varieties available:"

Look, Mark. You work, if I recall correctly, out of Emeryville, on the fringes  
of UC Berkeley, where programmers and users are as thick as grass. Surely you  
have absorbed, by now, the understanding that advertising on the Usenet, and  
through electronic media in general, is in bad taste.

Like bombarding every FAX you can find with an advertisement, it is, while  
economically attractive and technologically feasible, a shallow use of a media  
reserved for more important things than your worship of the almighty dollar.

Please stop advertising on the Home Brew Digest. Everyone knows you're there,  
if anyone wants information they can mail you.

Please note that I am, in general, as supportive of personal businesses, as  
anyone is. I've done it myself. But you are abusing this forum.

Has it occurred to you that, perhaps, Zymurgy dislikes covert advertising  
?

Cyberspace is relatively free of throwaways ( barring bounced email ).  
Let's  
all keep it that way.

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com  
Was someone saying "God is dead."  
The simple use of The Word  
Negates the second, and the third. ( Duke Ellington, \_Sacred Concert\_ )

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Date: 21 Jun 1993 13:05:05 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@Lilly.com>  
Subject: keg secrets

Does anyone have a neat trick for stabilizing a 3 gallon keg so you can tighten and untighten the fittings ? I have not figured out how to work on them. The 5 gallons with the double handles are easy, but the 3 gallons have me stymied.  
Thanks,  
Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Mon, 21 Jun 93 11:13:58 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: filtering - mechanisms & tolerances

Jack Schmidling notes :

"Judging from my experience and that of a brewer who posted an article to rec.crafts.brewing, there seems to be a problem with the filters being sold to the homebrewing community."

This does not surprise me ... there is considerable latitude in circumstances where one cannot directly verify the statements of the salesperson.

Recently I became interested in this topic, as a consequence of being introduced to a hand-pumped camping water filter ( in close proximity to some naturally-heated sulphur springs, the location of which must remain secret ) and became intrigued by the design of the filter.

Suffice it to say that, between the combination of poor design ( the filter came apart easily during regular use and did not have support for anything such as hoseclamps by which to secure it ), and questionable water contents ( giardia was the primary concern, but obviously other microflora and fauna exist, as well as sulphur and traces of human urine, since there's always an 'upsteam' )-:, I became intrigued with how much easier it might be to build and maintain one myself.

I haven't done anything tangible yet, but, noting that others have the same interest for similar reasons ( I had not overlooked the relevance of these filters to brewing, yeasts being a microflora ), I thought I'd point out to those interested, that the Fisher Company sells about fifty pages of filters, a wide range of architectures ( paper, cone, replaceable disks, cast plastic housings, etc ), pore sizes and tolerances ( some are tolerant of organic solvents but a few are not ).

The non-sterile versions are somewhat less expensive ( gamma ray radiation is a nontrivial procedure to maintain and administer, I'd guess ).

I've called Jack's source in Chicago for a catalog, I'm interested in seeing what they offer - the prices are much better - but given the question of if a filter of a given pore diameter is what it claims it is, dealing with a scientifically professional firm may be advantageous.

Incidentally, I'm not sure what the pore size of gas filters is, but it's

probably pretty big - those are intended to filter out grit, not biological entities. Petroleum macromolecules might very well be similar in size to microorganisms ( although, clearly, I am not knowledgeable in this realm ).

"I also find that mine has a very large and persistent bubble that, unless purged with CO2, could cause aeration if not eliminated."

Many of the Fisher Company filters have anti-bubble mechanisms built in.

Cole-Parmer might also have some good filters ...

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com  
Was someone saying "God is dead."  
The simple use of The Word  
Negates the second, and the third. ( Duke Ellington, \_Sacred Concert\_ )

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Date: Mon, 21 Jun 93 13:30 CDT  
From: "Michael Barre" <MBARRE@NOMVS.LSUMC.EDU>  
Subject: New brewer

I recently read Tom Kaltenbach's brewing notes from May 25 and as a newer brewer I found some helpful info therein( esp. the jug-aeration). Thanks for the notes, Tom.

I have finished my first batch, an Amber kit using Cascade hops and Superbrau malt extract from a supply shop here in New Orleans, and I am displeased with the results. The beer is very sharp with a metallic aftertaste, almost like a canned beer that has been cold, warm, and cold again. The shopkeeper tasted the beer and he says using liquid yeast instead of the dried (EDME brand) yeast, and pitching the yeast into cooler wort will take the bite out. My wort was 90 degrees.

Has anyone experienced this problem, beer with too much bite? What do you think of the remedies?

The beer fermented in a new, bleach-sanitized 5 gallon bucket; I think using a carboy so I could get some blow-off might also help. I will not be able to get fermentation temperatures below 75 degrees, at least not until November.

Thanks in advance.

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Date: Monday, 21 June 93 14:06:11 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: Miller PR

Howdy,

Just a comment on Dennis B. Lewis' comments about Miller's Amber Ale PR brochure. You have to wonder what the big brewer's know about beer that isn't yellow. Last Christmas, Coors' winter beer was labeled as a stout, which is very interesting for something that was about the same color as Bass Ale.

Well, at least it wasn't "clear".

Alan Van Dyke

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Date: Mon, 21 Jun 93 14:48 CDT  
From: korz@iepubj.att.com  
Subject: Sucking on siphon hoses

Over the years, several brewers have suggested that sanitation at bottling time is not very important and that sucking on the siphon hose with your mouth is an acceptable way to start a siphon.

I would like to again insist that this is very bad advise! Sanitation is important throughtout the brewing process. It is true that fermented-out beer is less prone to noticable amounts of infection, that does not mean that maintaining good sanitation is overkill. It is not.

Before I make the next few statements, I want to preface them by saying that I don't mean to put anyone down or to imply that any of these statements are directed towards any of the brewers who have recently or not so recently posted contrary to my advise on the subject.

The reasons that some brewers get by with less-than-ideal sanitation techniques include:

1. the beer is consumed quickly and an infection does not have enough time to produce detectable levels of off-flavors/aromas [this could not be done for some styles like Barleywine which require some aging.  
.. set a beer aside for a year and see if it gets overcarbonated or not]  
,
2. the brewer has been very lucky,
3. the pitching yeast is contaminated with bacteria and there is little sugar left for the bacteria introduced during the siphoning to eat and make off-flavors/aromas [a very dry, thin beer would indicate that there's an infection in there -- if each bottle was equally dry then that would indicate the infection was introduced early in the process: infected yeast, infected fermenter, etc. -- if some bottles are more dry than others, the infection was introduced later in the process: dirty bottles, infection introduced while bottling, etc.],
4. the brewer is unfamiliar with the off-flavors/aromas that can be produced and is actually enjoying infected beer, and/or
5. the brewer is not sensitive to the particular off-flavors/aromas (each person has a slightly different threshold for each flavor/aroma).

I'd like to add that during the 1st round judging in the national competition, I judged perhaps a dozen beers that had subtle off-aromas that were due to poor sanitation or infected yeast. This indicates to me that there are still a significant percentage of brewers who are lax in sanitation. These beers were not awful (actually only one was undrinkable) but the off-aromas were definately there, whether the brewer knew that they were or not.

If you like the beer you are making and are happy with your process, then great... more power to you. On the other hand, it's important to remember

that there are a lot of beginners reading and that it's best to not teach them anything except proper sanitation techniques. I've gotten quite comfortable with my fill-with-water technique and I would be willing to guess that it takes only 15 seconds longer than sucking on the hose (assuming that you were sanitizing the inside of your hose as I am).

Al.

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Date: Mon, 21 Jun 93 22:39:52 +0300  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
Subject: Anyone heard of BrewHeat?

I'm just back from the UK. The British seem not to mind using plastic in their homebrewing. They have a mashing apparatus made of a 20 lit polypropylene bucket with a 2400 watt heating element controlled by a thermostat which they call "BrewHeat" (forgot who makes it). You mash in it, sparge and boil (after the bucket is emptied). I guess you can also use it as your primary. I am about to construct one myself. Can anyone think of a good reason why such a bucket would not be such a great think to use???

Only problem for me right now is that they don't make 20 lit buckets here in Israel. Only 18 lit. I might have to resort to JS's EasyMasher tm in the end.

Nir.  
HolyLand Brewing Inc. (sometimes called Nir's Beer) [both temporary]  
Rehovot, Israel.

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Date: Mon, 21 Jun 93 13:26:42 PDT  
From: tlopez@alamo.cam1.unisys.com (Tito Lopez)  
**Subject: Brew Supply Store**

I'm looking for a brew supllly store in Ventura County. My closest one is in Woodland Hills, and that's an 80 miles round trip. I'm also in need of a 35-40 qt. brewing pot for my first full wort boil. I've checked restaurants & bar supply equipment, but no luck.

Tito  
tlopez@alt.cam1.unisys.com

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Date: Mon, 21 Jun 93 16:44 CDT  
From: korz@iepubj.att.com  
Subject: Re: Cooling extract wort

Steve writes:

>Here's another one of those naive questions from a somewhat  
>inexperienced brewer. I am an extract/spec. grain brewer. Usually  
>after the boil, I would sparge the 1 1/2 gallons of hot wort into  
>3 1/2 gallons of cold water. This would still leave me with a  
>temp too high for pitching. After reading the ongoing thread  
>about a month ago on wort chillers, I started to wonder. Was my  
>beer spending too much time at DMS temps? So for my last batch  
>I took the brew pot off of the stove and put it into a sink that  
>had been filled with very cold water and ice. I covered it and  
>stirred the cold water around it for 10 minutes or so. Then  
>I sparged into my 3 1/2 gallons of cold water. The beer turned  
>out pretty tasty, so it wasn't infected. A little chill haze though.

Chances are that you're right -- your beer is spending too much time  
at DMS-creation temperatures. 10 minutes is a bit short. I suggest  
you keep adding ice till the temperature of the wort drops to below  
140F and then add it to your 3.5 gallons of boiled-and-cooled-to-40F  
water.

This will give you a wort that is at about 70-75F and ready for pitching.

>Are there any problems doing this? Is it a waste of time for such  
>a small quantity of wort? Should I just wait 1/2 hour before  
>pitching or should I really not worry and do whatever I feel  
>like doing that day?

It's not a waste of time in my opinion. I'm a bit confused by your  
statement: "...after the boil, I would sparge the 1 1/2 gallons of hot  
wort..." Sparging is the rinsing of grains with hot (170F or so) water  
to extract the sugars out of them. Your statement implies that you  
have boiled your grains. This will not only give you chill haze, but  
also make your beer quite astringent (like chewing on grape skins).  
I suggest that you remove the grains when the water in the pot reaches  
170F and then add your extract. Also, when you are pouring the hot  
wort into the cool water in the fermenter, try to minimize splashing  
which will oxidize the beer. Once the temperature of the wort is below  
80F, you can then aerate the wort without significant oxidation.

Al.

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Date: Mon, 21 Jun 93 21:38:24 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject: Brewery's or Micro's in Dallas, Texas

I am traveling in the Dallas, Texas area this week. I just tried Cowboy Premium-A Special Amber, very nice beer. Does anyone know were some BrewPubs or Micro's are in the area. I recently read that brewpubs were not legal in Texas. Is this still true?

Please reply to [brucek@sig.sni-usa.com](mailto:brucek@sig.sni-usa.com)

Cheers,

Bruce

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Date: Mon, 21 Jun 93 23:00 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Wort chilling, Porsches

>From: LPD1002%NYSHESCV.bitnet@UACSC2.ALBANY.EDU

> After reading the ongoing thread about a month ago on wort chillers, I started to wonder. Was my beer spending too much time at DMS temps?

After re-reading Darryl Richman's detailed account of the brewing process at Pilsner Urquell, I started to wonder if anything at all that we believe about brewing is for real.

PU allows the beer to cool down naturally, in large open pans, in a building with "large louvered windows on one long wall". It takes four hours to cool down to a range given as 122F to 140F at which time it is then cooled down to pitching temp with a chiller.

If this extended period at "DMS temps" is harmful to beer, someone had better tell the brewmeister at PU.

>From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
>Subject: The Great Grain Mill Saga

I responded to this privately, not realizing that it was copied to the Digest so now I have to do it publicly but I will edit it for public consumption.

>I recently bought a JS MaltMill(r), the adjustable model, and have got a few things to say.....

> The .060" spacing was too loose many grains were just cracked in half, but not really crushed. I adjusted the mill, again with feeler gauges, to .057". This provided satisfactory results for the two-row, but was too loose for the CaraPils. I adjusted again to .055", and this provided great results for CaraPils as well as the two-row.

This whole discussion about a thousandth of an inch here or there is just too anal for my style and view of reality. I have not adjusted my mill for six months and I typically use 4 or 5 different malts in a batch.

I am glad to see a customer who likes his toy and has the flexibility he was looking for but, for the record, I sell roughly equal numbers of fixed and adjustable and can only recall two customers who saw the need to upgrade.

>I tried using a drill to turn the MaltMill too. This absolves JSP of all liability associated with the machine, but I did it



anyway. The drill is a very heavy-duty 1/2" drill, with 0 - 500 RPM speed. I figure I was running it at maybe 100 RPMs.

Not only do I absolve myself of liability but I would also like to point out that powerful electric drills are not a good choice for powering a mill. They have tremendous torque and will destroy rollers if stones or other objects find their way into the mill. If a drill must be used, I would suggest a light duty one that will stall on a foreign object.

The method of choice is a separate motor, pullies and a v-belt adjusted to stall at the proper torque.

>Things that could stand improvement?? I think the hopper is WAY too small.

That is more of a shipping problem than an engineering problem. Try hanging a 5 gal bucket from the ceiling with a hole in the bottom and just let it run into the existing hopper.

> I was disappointed to find no bronze bushing in the eccentric "knob" that provides the adjustemnt.

The bronze bushing is in the roller where the action is. The knob has a hardened steel shaft that rides in the bushing.

You ought to check out the new Philmill. It has no bearings at all. The 1.5" roller turns in 1.5" hole drilled in the steel housing. It sounds like a train hitting the breaks.

The knob is only an adjustment and not a bearing surface. Although not milspec, it works and is consistant with keeping the cost reasonable.

>And the adjuster moves too easily when tightening the set-screw -- you have to be more careful than you might want to be.

I have made improvements in the knob to minimize the movement but as you bought it from a dealer, I don't know what vintage it is. As a result of your mail, we are now assigning serial numbers to every MM as it is manufactured to keep track of mods and improvements.

>Some kind of metal clips that could fasten the mill to the top of the bucket would be good too.

The preferred way of using the mill is to clamp the base to the end of a table with the business end hanging over the edge and the grain falling into the bucket.

>My plans are to mount the MaltMill on a different base, add a permanent motor of some kind,...

Much better idea than a drill. You can also screw the board down to a larger board with the front hanging over to avoid having to cut the rectangular hole

in the new board.

>If the eccentric knob wears out, I trust that Jack will replace it.

Of course.

>So, it seems there are now three price-points in the small-mill market now:

\$40 gets you a Corona, \$80 get you a PhilMill, and \$120 gets you an adjustable MaltMill.

There are at least 500 people out there with fixed mills who would argue that

you should compare the \$80 PM against the \$99 MM.

js

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Date: Mon, 21 Jun 93 19:38:04 PDT  
From: nexgen!bart@daver (Bart Thielges)  
Subject: Free B and Punks on Swill

Is the "Brewer's Yeast" that can be bought at a health food store simply the sludge from the bottom of a fermenter ? If so, does it make sense at all to dry my sludge and save it as a source of vitamin B ? Or is there something magic about the store bought yeast ?

The thought of saving the yeast for vitamin B came from the recent discussion of headaches and whether they resulted from yeastless factory beer. This weekend I was at a rather rowdy (ahem) music event. The only beverage I saw consumed was malt liquor in 32 or 40 ounce bottles. Yeow ! Ugh ! I'd bet that there were many headaches the next morning. How do they make that stuff ? Is it truly brewed that way or is extra alcohol added to skanky beer ? Not that I want to make some myself ("Here, try my latest homebrew. Its supposed to taste like King Cobra !"), I'm just curious.

Thanks for all those who responded to my previous message !

Bart

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Date: Mon, 21 Jun 1993 23:55:26 -0400 (EDT)  
From: KLIGERMAN@herlvx.rtpnc.epa.gov  
Subject: Lubbock, texas

Help!

My wife is on work assignment in Lubbock, Texas and cannot find any good beer. If anyone is familiar with the area and can suggest a good package store, restaurant, or other establishment, I will sent her the info. ASAP.

Thanks-- reply by HBD or e-mail.  
Andy Kligerman

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Date: Tue, 22 Jun 93 00:34:54 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: Erix Warner's Wheat beer book

> FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
> SUBJECT: Eric Warner's Wheat beer book  
>  
> I recently purchased Eric Warner's book \_German Wheat Beers\_ and have  
found it  
> to be a tremendous help in quantifying the mysterious tastes of German  
wheat  
> beers. I have a question for anyone out there (maybe someone knows  
Eric...)  
> about the recipe formulations in the back of the book. I calculated the  
> extract required from the grain recipes to achieve the desired SG. In  
almost  
> every recipe I came up with an extraction of 40 pts/lb/gal!  
>  
> I think that these sound more like malt extract (heavy liquid or light  
dry)  
> numbers. This is not a big problem, but I think the community should be  
aware  
> of this and make corrections to their own grain bills before starting.  
One  
> point of help for corrections is that Eric says the recipes are based  
on 83%  
> extraction from the wheat malt (1.039 max) and 78% from the barley malt  
(1.035  
> max). (numbers in parens are mine)  
>  
> Or maybe there is some super German malts that yield 40 pts!

I look at Warner's numbers and see for the Isar Weizen recipe on page 105  
the following:

$(5 \text{ gallons}) * (55 \text{ SG pts}) / (7.525 \text{ lbs grain}) = 36.5 \text{ SG pts/lb.}$

I never see 36.5 SG pts/lb with my equipment. I brewed a Hefe Weizen a la  
Warner on 31 May, 1993. Three weeks after brewing, six days after  
bottling  
this beer took first in a local informally judged "light" beer contest. I  
was quite surprised that it was so well received. It even beat Jim  
Busch's  
Weizen and Wit. I voted for Phil Seitz's Wit (I think). So, I am happy  
with the  
quality of the advice found in Warner's book.

The recipe performed as expected for my set up with extraction of  
29 SG points/lb for a decoction. I use a 48 qt cooler with the copper  
slatted wort collector that we have all seen. I do not beleive that the  
geometry of the picnic cooler mash-tun (wider than tall) gives as good  
a grain bed, clarity, or extraction as I have gotten with the insulated  
Zap-Ap style (taller than wide). But, the cooler is more workable for  
14 gallon batches.

German Hefe Weizan

Goals:  
OG: 1.054  
IBU: 12

Yield: 14 gallons  
Color: light

Ingredients:

15 lbs Ireks Wheat Malt  
10.5 lbs DeWolf-Cosyns Pils Malt

2 oz 4.6% German Hallertauer Pellets (assume 25% utilization) 60 min  
Weiherstephan Weizen Yeast (96? 69?)

Results:

OG: 1.054  
FG: 1.010

Procedure:

- 1) Preboil all water, chill, and siphon off of sediment.
- 2) Mash in at 99F, hold for 15 minutes.
- 3) Boost to 122F, hold for 15 minutes.
- 4) Perform first decoction with thickest 40% of mash. Heat in 15 minutes to 160F, hold 15 minutes. Heat in 15 minutes to boiling. Boil for 20 minutes.  
Mix back into mash tun over 10 minutes.
- 5) Hold at 147F for 20 minutes.
- 6) Perform second decoction with 30% of mash. Heat in 15 minutes to 160F, hold 15 minutes. Heat in 15 minutes to boiling. Boil for 10 minutes. Mix back into mash tun over 10 minutes.
- 7) Sparge at 172F to collect 15 gallons.
- 8) Boil two hours.
- 9) After hot break occurs collect one gallon of speise (wort) for priming.
- 10) Add hops for last 60 minutes.
- 11) Pitch yeast at 58F. Allow temperature to rise to 65F over three days.
- 12) Bottle with 1 4/5 qts speise per 5 gallons.

This process took about 10 hours from start to clean up excluding pre-boiling the water. I am quite happy with this beer. It has a smoothnes that I have not tasted with my other Hefe Weizen's that I attribute to the unhopped speise. I found Eric Warner's book quite helpful and pretty much followed his guidelines verbatim. I was surprised at the very easy sparge. I did stir after one hour and recirc 1/2 gallon. The run-off was clear and I had no stuck mash problems.

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Tue, 22 Jun 93 09:02 PDT  
From: SOMAK%FITKJES2.BITNET@SEARN.SUNET.SE  
Subject: Homebrew shops in Philadelphia PA?

A friend of mine is going to Philadelphia in July and he would like to know if there are any homebrew shops in town. What about their prices? Of course he also likes drinking good beer. Which are the best brewpubs there?  
Please email me. Thanks in advance.

Markku Koivula  
Finland

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Date: Tue, 22 Jun 93 07:31:08 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: dogbolter, downloading, mashing, hop extraction & weizen yeast

boy, I feel talkative this morning...

Re: Dogbolter Revisited  
jpgareri@acs.bu.edu (Joseph Gareri) wrote:

> The recommendations were  
> for 1/2 oz. (3-4%) per ounce of additional malt for the boil (60 minute

No I like my hops as much as the next guy, and i've got some friends who might be called hop-heads and hop-sluts, but .5 oz hops per oz malt is going a bit too far! ;-)

=====

Re: Downloading files from sierra.stanford.edu  
"PETER JUST, ANTHROPOLOGY, WILLIAMS COLLEGE" <Peter.Just@williams.edu> wrote:

> of the sierra.stanford.edu server, specifically cats\_meow.2ed.ps.Z. I take  
> it from the extensions that this is a PostScript file that has been compressed  
> with PKZIP. Yet when I try to unzip the file, PKUNZIP (2.04g) tells me the  
> file I have is probably not a .zip file. What am I doing wrong? How can I

Nope...its compressed with the unix compress/decompress utility.  
zip files are .zip

=====

Re: mashing and other mysteries of homebrewing  
BadAssAstronomer <STOREY@fender.msfc.nasa.gov> wrote:

>My problem; how in the hell do  
>you keep mash at a constant temp?

First, a gas stove is much easier than an electric stove for mashing...you can turn the heat on and off immediately, without the long time lag associated with electric burners.

None of my mashes are ever isothermal. They slowly cool down, and I slowly warm them back up.

Some people put their mash tun inside an insulated box, or inside their over, that has been preheated (on the 'warm' setting) to keep it warm.

> Are these tuns I see for sale really worth it?  
Depends...do you want to do it manually or buy something to do it all for you...

=====

Re: hop extraction

bgros@sensitivity.berkeley.edu (Bryan L. Gros) writes:

> So what happens if you boil the hops in plain water? Do malt  
> sugars or proteins or such provide something necessary for  
> bitterness extraction (iso-alpha acid conversion)? For

I seem to recall that boiling the hops with the wort is necessary  
to get good protein coagulation in the boil.

=====

Re: Weizen Yeast

gummitch@techbook.com (Jeff Frane) writes:

> You are fortunate enough to live somewhere where WYeast is  
testmarketing  
> this strain. It is not related to the 3056, but is a true weizenbier  
> strain from Weinhenstephan. I have brewed with it once (got the yeast  
> directly from Dave), and it is a truly exceptional weizen strain. If  
> responses are good in the testing areas, I believe WYeast will add it  
to  
> their regular list.

That would be a *\*big\** improvement. Brewers resource has a single  
strain weissbier yeast too. Its about time for this improvement.

I've been lucky enough to get a sample of Weinhenstephan #66, a true  
weissbier yeast. The smell out of the primary was wonderful. And  
the taste of the spec. grav. sample had 4-vinyl guaiacol all over it.  
Even flat, it was delicious. This is a good yeast to use.

Tim

- ----

Timothy J. Dalton [daltontj@mit.edu](mailto:daltontj@mit.edu)

MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Tue, 22 Jun 93 08:50:36 EDT  
From: taylor@e5sf.hweng.syr.ge.com (taylor)  
Subject: hot yeast, brewpubs in minn??

Hi people,, I have a question about boiling an extract wort and throwing the yeast in when the wort is around 85 to 90 degrees. I was told that this accelerates the process, but will it hurt the beer in any way. I started a batch late at night and didn't have time to let it cool to 65, 70 degrees. This was an ale...????? Everything looks OK.....

Can anybody give me a list of brewpubs and supply stores for homebrewers in the Minneapolis/St. Paul area???

Todd.....

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Date: Tue, 22 Jun 93 08:40:49 -0400  
From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)  
Subject: iodophor, chili etc

Greetings fellow brewers;

I have been following the recent threads on sanitation and thought it was time to add my \$.02 to the discussion.

I recently made the switch to using iodophor instead of bleach and have been very happy with the results.

I became very discouraged about a year ago as I ended up with three infected batches in a row :- ( I finally traced the problem to some grunge left deep in my wort chiller and had to replace the entire system. I use a counterflow chiller (really a coil of copper in a 5 gallon plastic bucket) and have had some difficulty in keeping hops leaves out of it.

The chlorine solutions I was using were not able to get the organic components off the chiller and still keep the sanitizing ability.

In addition to the infections, I blew out two cornelious kegs by generating pin holes in them from the bleach. This just got to be too much as kegs are difficult to come by. (BTW I have found the best way to obtain kegs is to find a restaurant that has either just gone out of business or has just switched their soda system to bag in the box. You will usually find several kegs sitting in the dumpster. The soda companies are reluctant to pick them up and the restaurant owners have no patience for the clutter.)

After I switched to iodine, I have had no more problems with infections and my kegs are in pristine condition.

- - - - -

The recent discussion on chili beer has proven to be interesting. I have not tried to make one yet but I do have some experience with making pickled jalepenos. I harvested about eight plants worth last year from my garden and sliced them with a mandolin (gives uniform thickness) to about 1/4". The peppers were then placed in a vinegar/brine solution and left to sit in the refrigerator. After about three months they were hotter than any other pepper I have ever tasted. The acid in the brine solution apparently has a multiplicative effect on the capsicum(sp) oils in the pepper. I would imagine that beer would fo the same thing.

THanks for the forum and the ability to speak my peace. I have learned more here than I probably could have anywhere else.

- --S  
^

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Date: Tue, 22 Jun 93 08:28:30 -0500  
From: zentner@ecn.purdue.edu (Mike Zentner)  
Subject: Apple Bach Blechhh...

Has anyone else made the mistake of seeing "Apple Bach" in the store and buying it? Can anyone point out a redeeming feature of this brew? Maybe I'm missing something.

Mike Zentner (of hops?)

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Date: Tue, 22 Jun 93 9:53:47 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Cotton spun filters & efficiency

IN the last digest, jack comments more on filters:

>Jack S. experiments with filters is very interesting. Micah claims he has seen no problems with head retention using the supposed .5um filter and I have seen poor clarity with it as well when pushing some beers through it.

> Fix has recommended against this small (.5um) filtration.....

< I wonder if we havn't got an apples and oranges problem here. I never asked

< George what type of filter he was using. He gave me the manufactuere and

< part number but not the type but I bought something else.

George uses a 3 ucron, DE filter as he notes in the following mail:

Yeast cells vary from 5 to 10 microns. My own filter is a Zahm+Nagel cartridge which is precoated with DE. The cartiridges come in 3, 1, and .45 micron sizes. I use the 3 micron version for my own homebrew. We also use this size for BRD brew pubs.

< As there are many differnt types of filters, pleated, string wound, ceramic, flat, plate, just to name a few, it seems that we need to know which type we are talking about to get any sense out of this discussion.

And of course, DE!

>From more email: From tsand@helix.nih.gov Tue Mar 2 08:48:45 1993

I have been filtering my beers for about a year now and have pleased with the results.

There are two types of filter cartridges that are used for filtering beer.

The first type is a spun (woven) polypropelyne the other is a pleated polypropelyne. There is a big diference between the two. The spun polypropelyne has an efficiency rating of 90% (10% of the stuff you are trying to filter out will get through) the pleated plypropelyne has an efficiency rating of 99.9% (only 0.1% of the stuff you are trying to filter out will get through).

The spun cartridges also tend to leak due to the fact that the ends of the cartridge do not have a gasket on them. The pleated cartridges come with gaskets and don't leak. The spun cartridges also cannot not be reused as many times as the pleated because they tend to be harder to back flush. I have used both types and the pleated polypropelyne is far superior and is the one I would recommend.

< I have little confidence in the numbers quoted for string wound filters and

< have no experience with any other.

Exactly. They are not made for this purpose and as such I suggest using products intended for yeast removal.

Good brewing,  
Jim Busch

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Date: Tue, 22 Jun 93 09:21:25 CDT  
From: Paul Sovcik <U18183@UICVM.UIC.EDU>  
Subject: Re: Acetaminophen and hangovers

I have to reply to this, since I have extensive experience in acetaminophen toxicity (residency in an ER for 1 yr) and hangovers (used to drink Blatz)

Acetaminophen is OK to use for hangovers. It is toxic only in large amounts (over 5 gms/ingestion) and in hepatic failure (advanced cirrhosis). Avoid high dose long term use and suicide attempts and you'll be fine. In fact, it is better than aspirin or ibuprofen because you have less gastric upset, which is a significant part of a hangover. Don't take it before you go to bed, since its duration of action is only about six hours or so...

My remedy? Lots of water/OJ before bed. Enough sleep. Some kind of nutrition upon arising. More water. Tylenol 650mg. If its really bad, a Sausage McMuffin sandwich (grease is good-dunno why.)

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Paul Sovcik | Email- U18183@uicvm.uic.edu  
University of Illinois at Chicago |  
Department of Pharmacy Practice | "I Take Drugs Seriously..."  
Chicago, Il |

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Date: Tue, 22 Jun 93 09:53:20 CDT  
From: krueger@comm.mot.com (Kevin Krueger)  
Subject: Short Original Gravity ... why ??

I recently made the Imperial Stout listed in '92 Minnesota HB Champs recipe book (from the net) and did not nearly reach the original gravity listed for the recipe. I know you don't have to be dead nuts on the recipe, but I was a ways off. The recipe stated an OG of ~1.1 and I reached ~1.07. This recipe used d.m.e. (9#'s) and some specialty grains (1/2# each of chocolate and roasted barley) and 3 oz. of Williamette hops for boiling and some Cascade for finishing. As I am getting more brews under my belt (and it shows!), I am more inclined to ask why and I would like to know why I didn't get a higher OG. I steeped the specialty grains from cold water to something near 140, removed them, added the dme and hops and boiled for an hour. Should I have boiled longer or was it possibly a function of the dme ? Are there any other factors that would reduce my OG ??

Kevin

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End of HOMEBREW Digest #1168, 06/24/93  
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Date: Tue, 22 Jun 93 11:23:05 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: MALTMILLS - kegging pressures

I'm a VERY satisfied Maltmill owner. A recent HBDer mentioned the desire of motorizing his MM. If you brew 20 gallon batches this might be a good idea but for 5 gallon batches, why bother. The MM is very fast (much faster than the Corona) and besides, rocks are going to damage the rollers if you motorize it. When you hand crank you stop instantly when a pebble is encountered and no damage occurs. For large motorized batches, an occasional roller replacement might be a hit that you're willing to take.

Setting the MM adjustment with a feeler gauge to get consistent results is a very good idea. However, instead of measuring the spacing at the center of the roller I would suggest taking the measurement at the adjustable end of the roller instead for increased accuracy. Remember that only one end adjusts and the other end is fixed.

As for the small MM hopper capacity, this is the mill's only fault. Making a larger hopper is easy but I think that a mill of this caliber should have at least a hopper that can comfortably take 5 pounds of grain.

On another subject, a letter in "Brewing Techniques" stated that a keg saturated with 12 psi CO2 at 40F would contain 2.5 volumes (medium carbonation) of CO2. Can some one tell me that the pressure would have to be at 70F to contain the same 2.5 volumes?

- --Tony Verhulst

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Date: Tue, 22 Jun 93 08:24:56 -0700  
From: sag5004@yak.ca.boeing.com (Ford Prefect)  
Subject: Request for reading material/suppliers

I am interested in finding some information about how to design a small scale brew house (1-3bbl (1 bbl is ~ 33 US gallons?) I am really interested in information about desired geometry. eg. is a boiler about as tall as it is wide? what is the ideal... Ideally I would be able to build a system that would be flexible enough to make 1bbl batches as well as 2. I have looked around Seattle a little, and a local shop carries a nice 2bbl system, but he wants \$23.5K. Also information about people that could provide various vessels in a small range would be nice too.

Sorry for straying from the homebrew end of things, but I know there are a few out there that have large systems.

Thanks,

stuart galt boeing computer services  
sag5004@yak.boeing.com bellvue washington  
(206) 865-3764 or home (206) 361-0190  
#include <standard/disclaim.h>  
I don't know what they say, they don't know what I say...

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Date: Tue, 22 Jun 93 09:45:15 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Belgian Malts: Pils -vs- ale

A few weeks ago I did my first partial mash and made my best pale ale ever. So I'm jumping right into my first all grain batch. I could use a bit of advice from y'all.

In his book Belgian Ales, Pierre Rajotte implies that that the basic malt used for most Belgian ales is a pils malt not an pale ale malt. I recall him writing that the pale ale malts are used for British ale contract brewed in Belgium. However, his recipes simply say "pale malt". Any way, I'm going for a Belgium double with the following recipe for 5 gals.

- 9 lbs Belgian Pils malt
- 2 lbs Belgian special-B malt
- 1/2 lb glucose
- 1/2 lb Piloncillo (Mexican brown sugar)
- 7 HBUs Bitter Hops
- 1/2 oz American Saaz finishing hops
- OG 1.065 (I hope)
- Chimay yeast

Any comments would be appreciated. My specific questions are:

- 1) Should I do a protien rest esp. considering I'm using a Pils malt?
- 2) Will I have DMS problems from the Pils malt? If so how do I minimize them?
- 3) I want some malt flavor in the finished beer. What temp should I use for sacrfication (sp?)?

Sante' WAK

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Date: Tue, 22 Jun 1993 11:20:24 -0400  
From: Nick Zentena <zen%hophead@CANREM.COM>  
Subject: The Mills

>Date: Sun, 20 Jun 93 07:50 CDT  
>From: arf@genesis.mcs.com (Jack Schmidling)  
>Subject: Business opportunity, Devils

>From: Nick Zentena <zen%hophead@canrem.com>

> If you've never seen it [Philmil] then your post sure sounds like FUD! Why don't you ask someone who has seen both mills to compare? Na that would have cut down on your chance to advertise.-()

> I don't think that was called for. My post was based on published data.

Which part? Asking that you not criticize a product you had not seen or asking that an impartial person compare both?

I haven't seen any published data on the Philmil. If it's out there I apologize. But the fact remains you cannot be considered an impartial person when it comes to either mill. All the reports I've seen in the digest have been quite favourable of the mill. Including one from one of your customers stating the crush was better. What does this mean? Nothing yet. If your mill is truly better I'm sure that people will decide that. But for you to rip a competitors product won't help.

> BTW, what's a FUD?

Fear and uncertainty. There is no need to discuss the merits of a product if you can scare away your competitors customers.

Nick

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I drink Beer I don't collect cute bottles!  
zen%hophead@canrem.com  
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Date: Tue, 22 Jun 93 10:45:19 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: Wyeast 3068 Bavarian Wheat Source

I recently visited a supplier here in Austin who carries the Bavarian Wyeast mentioned by Jeff Frane and Jeff Griffin. She says that it is single strain - I tried a bit of a wheat that had been made with the yeast and it was very nice...(I'll probably try it sometime soon) I dont have the palate to go into details, but the point is I know where you can get it if you want it .... let me know.

Good luck and good beer,

Chris

=====  
|Chris Pencischips@coleslaw.me.utexas.edu|  
|University of Texas at Austin Robotics Research Group |  
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And in the very same Digest I commercialized the Sucker. Oooh, bad timing, Jeff. I also seemed to imply in my commercial that the Sucker was free. Dumb.

At any rate, I offered the "commercial" because I thought it was a great product; it would never have occurred to me to mention it vaguely and then spend the next three days answering e-mail requesting more specific information. Sorry, Tony, I don't have the time! I think it would have been tacky for Russ to advertise here, and I respect the Digest contributors like him who I know have useful items for sale and never mention them here -- shows a lot of mature restraint. But, frankly, if someone invents a better mousetrap I want to know about it.

- --Jeff

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Date: Tue, 22 Jun 93 11:37:05 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Grain Mill comparisons

In yesterday's HBD, Ed W. writes:

- - - -

Our club did a comparison, using standard sieves, of the crush produced by the Corona (properly adjusted), a MALTMILL (tm) (non-adjustable model) and a Philmill prototype (properly adjusted). The results differed rather substantially from the MM sieve results posted here in May by George Fix, but they tended to point to the PM as being somewhat superior.

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So, what's being said here, by a friend of Phil, is that the PhilMill is marginally better, when at it's best, than a non-adjustable MaltMill. No mention of what type of malt (standard size, that the non-adjustable MM is set for, or big wheat malt, or what?), and so on.

It looks like a case of running a test to get the desired results. To use an adjustable PhilMill, an adjustable Corona, and a fixed MaltMill on grain of an unspecified size seems like the "experiment" was designed to come out with skewed results.

For the record, I don't have a mill yet, but when I buy one it WILL be an adjustable MaltMill (hi Jack!), unless something better comes along. The test results posted seem to indicate to me that the PhilMill needs help from a faulty test to look better than MM, so apparently the PhilMill isn't the answer.

If PhilMill is truly better, then posting the above test was more of a dis-service to the product than anything else, as it has thrown doubt in at least my mind as to it's quality. Let's compare apples to apples, not apples to kumquats.

Dave "Not buying it" Hinz

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Date: Tue, 22 Jun 93 11:30:48 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: summer brewing

Brewsters,

I am wondering what people think about brewing in the summer, specifically regarding the increased danger of little airborne animals falling into your cooling beer.

I've only been brewing a couple of years. Two summers ago I just didn't brew because of the heat - my house does not have central air, and the thought of subjecting everyone to three or four gallons of boiling wort for an hour plus - well, I'm not sure I would want to no matter how thirsty I was and besides my wife would probably consider it grounds for divorce. Last summer I was away, so brewing was a moot point. However, last summer was unusually cool here, and although this summer seems to be warming up, we do occasionally get that nice cool evening that makes me think of all that beer in the basement that will be gone probably some time in August if I don't replenish the supply, stop having friends over, or somehow convince my wife that drinking is bad for her but not for me.

So, here is the question. If windows are kept closed during the wort-cooling period and I am otherwise extra-careful with sanitation, is this enough protection, or if my windows have been open at all that day, should I "worry" about the increased risk of infection? I should add that I do not have a wort chiller, but I have been using a pretty effective means of chilling which leaves the cooling wort exposed to air for maybe 30-45 minutes; also, I use liquid yeast in a starter solution and get strong starts in less than six hours.

TIA as usual for any scientific data, empirical observations, or momilies.

Jonathan Knigh  
t

Grinnell Iowa

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Date: Tue, 22 Jun 93 16:10:00 +0000  
From: SCHREMPP\_MIKE/HP4200\_42@hp-ptp.ptp.hp.com  
Subject: Hop growing

This is my second year for hop growing. I have one Cascade and one Tettenger.  
Last year the Cascade went wild and the Tett was a "runt". This year, the same thing is happening. I think the Tett is just a slow growing plant. Any others out there with the same experience?

As far as calculating the alpha acid content, I started with the typical content published in TCJOHB, then threw in an extra handful just to be sure. The beer turned out a little too bitter, so this year I'll stick with the published numbers. Anyone out there (like HopTech) have a curve of alpha acid content as a function of "ripeness" of the hops. ie: how important is it to not be a week early or a week late on the harvest.

On malt mills: I'm personally tired of the calims and counter-claims, factoid vs factoid, petty bullshit, cry baby, mine's bigger than your's, wanna bet, (tm), hocus pocus flim-flam. I don't see how we can stop it, but I sure am tired of it. Why don't you folks (and you ALL know who you are) give us a break?

Mike Schrempp  
freelance beer crafter

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Date: Tue, 22 Jun 93 10:09:26 -0700  
From: "Stephen Hansen" <hansen@gloworm.Stanford.EDU>  
Subject: Re: Downloading files from sierra.stanford.edu

In HBD 1167 "Peter Just" <Peter.Just@williams.edu> writes:  
> Forgive me if this an ignorant question, but:  
> I have twice downloaded files via ftp from the /pub/homebrew  
directories  
> of the sierra.stanford.edu server, specifically cats\_meow.2ed.ps.Z.  
> I take it from the extensions that this is a PostScript file that has  
> been compressed with PKZIP. Yet when I try to unzip the file, PKUNZIP  
> (2.04g) tells me the file I have is probably not a .zip file. What am I  
I  
> doing wrong? How can I get hold of these files?

The following is from the archive's index file.

Files with a .Z suffix are compressed with the "compress" program.  
To uncompress the .Z files, you'll need the "uncompress" program.  
If your system does not have "uncompress" there is a version  
available in pub/sources as 'compress.shar' (or via listserv by  
"get sources compress.shar").

Files with a .zip suffix are "zipped" with PKZIP or something  
compatible. You'll need the equivalent to "unzip" them.

Files with the .uu suffix are uuencoded binary files. They are  
usually files that have been compressed or zipped (e.g. \*.Z.uu, or  
\*.zip.uu). You will need the 'uudecode' program, available in  
pub/sources as 'uudecode.c' (or via listserv by "get sources uudecode.  
c").

Files with the .ps extension are PostScript files.

I hope that this helps.

Stephen E. Hansen  
Homebrewer, Archivist

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Stephen E. Hansen - hansen@sierra.Stanford.EDU | "The church is near,  
Electrical Engineering Computer Facility | but the road is icy.  
Applied Electronics Laboratory, Room 218 | The bar is far away,  
Stanford University, Stanford, CA 94305-4055 | but I will walk  
carefully."  
Phone: +1-415-723-1058 Fax: +1-415-725-7298 | -- Russian Proverb  
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Date: Tue, 22 Jun 93 11:23 PDT  
From: dougd@uts.amdahl.com (Douglas DeMers)  
Subject: Re: A Few Observations

In HOMEBREW Digest #1166, Martin Lodahl wrote:

>Finally, Steven Zabarnick set off my alarm bells:  
>> ... During chilling  
>> the kettle cover does not completely seal due to the  
>> copper tubing; should I have used plastic wrap to keep out  
>> the nasties?

>This has bothered me since my first batch using an immersion  
>chiller, but I've never done anything more constructive than fit the  
>lid on the best way I could, nor have I seen evidence of infection  
>because of it.

I've always had a similar concern. Here's what I do.

I use two fresh pieces of aluminum foil over the top of the kettle, arranged in the following manner. I set my chiller inlet/outlet tubing so that they stick up in the middle of the kettle. I put the first piece of foil so that more than half of the kettle is covered, and hand crimp the foil over the lip of the kettle. I then put the second piece of foil over the kettle and arrange it such that the edges overlap the first piece and that there is sufficient "slack" to do some hand crimping of the foil around the chiller tubes. Crimp the edges of the second sheet of foil around the kettle first, and then around the chiller tubes to make the best seal possible.

Certainly it's not perfect, but it makes me feel a lot better than if the kettle were open or partially covered by the lid.

Cheers!  
- - -

Douglas DeMers, | (408-746-8546) | dougd@uts.amdahl.com  
Amdahl Corporation | | [sun,uunet]!amdahl!dougd  
[It should be obvious that the opinions above are mine, not Amdahl's.]  
[Amdahl makes computers, not beer.]

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Date: Tue, 22 Jun 93 09:07:06 PDT  
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)  
Subject: Spruce Beer

A couple of weeks ago I asked about how to use spruce in beer. After getting some helpful hints, I brewed a batch of spruce beer. The recipe I ended up with is:

10 lbs american 2-row  
1/2 lb crystal 40l  
1/3 lb chocolate malt  
1 oz cascade hops (aa=7.6%, 60 min.)  
1 pint fresh spruce growths (30 min.)  
German Ale Yeast  
OG = 1.052  
FG = 1.010

I mashed all grains together and did a protein rest at 122 degrees for 30 minutes and then mashed at 148-152 degrees for 1 hour.

I bottled the beer last weekend and was able to sample a couple of glasses. You can definitely tell that there is something different about this beer, but if I didn't know that there was spruce in it I probably would not be able to guess that it was. Also, Papazian says that spruce beer tastes something like Pepsi, but I think that takes a big stretch of the imagination. There is no detectable hop flavor and very little bitterness in this beer. Next time I brew this beer, I will probably increase the hops a little. I think that I used the right amount of spruce.

One important lesson I learned is that the hops make a much better filter bed than the spruce needles. I brew in a keg with a copper manifold on the bottom for draining. Since I added the hops first, they settled first and made a nice filter bed. During clean up, I noticed that after I removed the hops, the needles kept clogging the copper manifold.

Here are some other things that may be of interest:

Scott Stihler says that you can also dry "hop" with spruce. He also says that he has frozen spruce growths to use later, but the flavor diminishes a little, so you need to use a little more.

Lisa St. Hilaire says she has also added white fir to spruce beer, which has a tangerine-like aroma, but says to avoid using white spruce.

So, that is about all I know about spruce beer. So far, it seems like a good beer that is definitely worth brewing.



Darren Aaberge

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Date: Tue, 22 Jun 1993 14:00:40 -0500 (UTC -05:00)

From: Tim LaBerge <LABERGE@kuhub.cc.ukans.edu>

**Subject: Trappist temp**

Hi all,

I'm contemplating brewing up a Trappist ale and was wondering what an appropriate fermentation temperature would be. I seem to recall that "Trappist ales are fermented above 72F", but can anybody be more specific?

Thanks,

Tim LaBerge

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Date: Tue, 22 Jun 1993 12:01:35 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Hangovers & acetaminophen

Phil writes:

>Derrick Pohl suggests taking a tab of Acetaminophen (the active ingred  
>in Tylenol and several other similar products) as a pre-treatment  
>for potential headaches.

>

>This is probably not wise. One of the side-effects of acetaminophen  
>is a certain degree of liver toxicity. This toxic effect is especially  
>emphasized when taken in conjunction with alcohol.

Acetaminophen, or any other drug, is indeed nothing to pop on a whim. But  
I didn't say take it before-hand for potential hangovers. Only take it  
if

you really do have an established, wicked, morning-after head full of  
pain.

All I would recommend by way of preventative, night-before precautions  
is

lots of water, don't drink on an empty stomach, and don't drink so darn  
much (I usually manage to follow at least 2 out of these 3). Cannabis,  
if

you're so inclined, can also be effective as a preventative. Heck, it's  
a

panacea - wear it, smoke it, write on it, cook with it.... (see alt.  
drugs  
for more).

If you're waking up with raging hangovers often enough to have to start  
worrying about the long-term toxicity of acetaminophen, it's possible  
that

you're drinking a little too much. Look for other tell-tale signs such  
as

memory blackouts, mysterious unexplained bruises, missing items of  
clothing, a compulsion to hide bottles in eavestroughs or behind the  
furnace, getting fired from your job, or delerium tremens in the absence  
of

drink. Any or all of these clues might mean you have a drinking problem  
(other than the perennial problem of not brewing often enough). For the  
occasional over-indulgence, I doubt acetaminophen presents a serious  
risk,

but you could always take a.s.a (aspirin) instead which is also available  
in a caffeine-codeine compound.

- -----

Derrick "Not hungover that often, really" Pohl  
Vancouver

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Date: Tue, 22 Jun 93 23:02:21 GMT  
From: sbsgrad%sdph.span@Sdsc.Edu  
Subject: Hot Cave Creek Beer, Microbrews

From: Steve Slade <sslade@ucsd.edu>  
Date sent: 22-JUN-1993 15:52:53 PT

Hi all

I was heartened to learn someone else thought the Cave Creek Chili Beer was too hot to handle. I proudly brought some to my brother's house for Memorial Day as an example of an unusual microbrewed beer. My brother, my wife, and I all tried this at the same time. Now, we all like hot foods, but this was way too much! I couldn't taste anything for a good 30 minutes after taking one sip. Maybe I got one of these 6 month old six-packs. Do they come with date cades?

<downshift>

Our next vacation will take us to the Seattle area. Microbrewery heaven at last! We'll be taking a side trip from Bellvue, WA (sp?) to Beaverton, OR. Any suggestions out there for a nice place to have lunch and good beer near the half-way point?

TIA,

Steve Slade  
reply to: sbsgrad%sdph.span@sdsc.edu or sslade@ucsd.edu

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Date: Tue, 22 Jun 93 17:29:17 PDT  
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)  
Subject: commericals, bleach disinfectant.

In HBD # 1167, Tony Johnston says,

>About flames and commercialism  
>  
>Let's be polite here in our criticisms, and lets leave the advertising  
>to the pages of Zymurgy, etc. If you find something so nifty-difty  
>that  
>you've gotta tell or you'll burst, why not just describe it in generic  
>terms, no specific copyrighted names, prices, ordering information,  
>etc.  
>and just field the private e-mail. If I wanted commercials, I would  
>watch TV :( !!!!!  
>  
>Sensibly yours,  
>  
>Tony Johnston  
>Tired Chemist, Inspired Homebrewer  
>anthony@chemsun.chem.umn.edu

My two cents on this one: Not only do I read HBD to find out about the mistakes that every one else is making (so I can avoid them :- ) ; not only do I read the HBD so I can try new recipies; not only do I read the HBD to see old ideas put to new uses, and new ideas for old problems, but I also read the HBD to get data and opinions on products which I might think about purchasing, and to hear about new things which are offered.

I'd prefer to let people use the real name of products they have tried, tested or given up on, and I prefer to hear about new offerings. So let us not get too hasty about getting so generic that we might as well go back to reading musty old textbooks and hyped-up advertisements which only indicate how much money was spent on them.

On the other hand, some restraint, as has previously been voiced, is nice. Infomercials and roastings we don't need.

More sterilization...

- - - - -  
In the same HBD, Kelly Jones responds to Paul Boor with the observation that needles need to be, "PDS (pretty damn sterile)," while brewing equipment need only be controlled for, "gross infections."

I note that Kelly states that the concentration of 4-16 tsp per gallon is sufficient, and I work this out to be in the range of slightly over one, and up to five, tablespoons per gallon (of bleach). I'll bet that the range could be accounted for by adding the time factor, as was suggested by George Fix in the same HBD.

I agree. Here is another data-point: at a local day-care center I saw a sign posted at the sink which directed employees to clean all food preparation surfaces with a sponge using a solution of one tablespoon Chlorox per gallon. They just let the damp surfaces evaporate after cleaning.

I personally use 1/3 cup per 5 gallons. That is around five tablespoons (it is actually 5.3333 tablespoons). It seems to work well enough

without corroding either me or the equipment. However, I am looking forward to the article mentioned by George Fix which is to appear in Vol. 2 of BTW Brewing Techniques.

Lastly, for fun, in another peek at Kelly's post (or should that be, "ripost?")...

>> Think about it, but right now I gotta run out to the kitchen  
>>to make sure my refrigerator light is still on.  
>  
>More importantly, does your airlock really bubble when you're not  
>watching it?

Or listening to it? ;-)

Garrett <uunet!mdcsc!gdh>

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Date: Wed, 23 Jun 93 7:58:29 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: Binghampton, NY

Re: Binghampton NY

I have a friend that will be moving to Binghampton, NY in the near future and is interested in knowing about the beer selection, location of any brewing stores, homebrew clubs, and cost of living in the area. Any information people have, please send to me via E-mail and I will forward the info to him.

Re: Fruit Beers

In response to an older thread about any interesting fruit beers being made in the industry. My vote (for originality) would have to go to the Tied House in Mountain View. Their Passion Fruit beer is a new twist. A good beer for those who enjoy fruit beers.

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Tue, 22 Jun 93 23:28:08 PDT  
From: mikel@netlink.cts.com (Mike Lemons)  
Subject: Iodine's Staying Power

I've recently started using iodophor sanitizer. I've experienced severe problems with the "staying power" of dilute iodine solutions.

I have some Blue Ridge iodine test paper that can be dipped into the iodine solution to determine the ppm of free iodine. I have found these test papers to be essentially useless. There are three gray circles on the vial that are used to compare the color of the test strips. The circles are composed of widely spaced dots, like a newspaper photo, and don't look very much like the color of the test strips after dipping in iodophor solution. The three circles correspond to 12.5, 25 and 50 ppm. The 12.5 ppm circle is so faint that wetting the paper strips with pure water will make them dark enough to match the circle. Using the other two circles, I cannot determine if a solution is closer to 25 or 50 ppm, only that it is in that range somewhere.

I have determined that the amber color change caused by the iodine itself is the best measure of how concentrated the sanitizing solution is. I have used the test papers to verify that when a solution turns clear, it is indeed free of iodine.

The first thing I did was to create a 12.5 ppm solution by mixing 5/8 tsp of iodophor solution with 1 gallon of water. In two weeks it had turned perfectly clear, just sitting in a closed glass bottle!

So I squirted some more iodophor into the bottle to take the concentration into the 25 to 50 ppm range. I have a clear plastic tub with a spring-loaded plunger that squirts sanitizing solution up inside of empty beer bottles. After doing 2 or 3 six-packs, the solution will turn totally clear. (I just rechecked some of the beer bottles and they look perfectly clean to me.) It's a real pain to have to keep stopping to look for a faint color change in your sanitizer to determine if it is still working. I don't think that dilute iodine solutions would last very long in an airlock, either.

I used to be able to sanitize all of the bottles for a five gallon batch with the same sanitizing solution when I used sulfites. To determine if the solution was still working, all you had to do was lean over it and take a breath. The coughing and searing pain in your nasal passages left no doubt as to its potency. (Yes, I've heard the rumors that sulfites are ineffective; That's why I switched to iodine.)

How do chlorine users test the concentration of their solutions?

Where does the iodine go? It can't evaporate because it's a solid at room temperature. Since I have to use higher than recommended concentrations to get it to last through a few bottles, I'm wondering if anyone has ever been able to taste iodine in finished beer?

- - -

INTERNET: mikel@netlink.cts.com (Mike Lemons)  
UUCP: ...!ryptyde!netlink!mikel  
NetLink Online Communications \* Public Access in San Diego, CA (619) 453-1115

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Date: Wed, 23 Jun 93 9:08:31 PDT  
From: sharp@cse.ogi.edu (Michael Sharp)  
Subject: Lambic Tasting III in Portland

Attention Belgian beer lovers:

This year's AHA conference in Portland will be the site of the third annual lambic tasting. The tasting will be run opposite the best of show judging so you won't miss any of the talks or social gatherings.

The 'menu' includes beers such as Frank Boon's Kriek, Framboise, Faro, and Gueuze, Cantillon Gueuze, Saison Dupont, Blanche de Brugge, and Rodenbach. I wouldn't be suprised if a homebrewed attempt or two showed up too.

For more information on the tasting send e-mail to  
sharp@cse.ogi.edu

--Mike

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Date: Wed, 23 Jun 93 09:11:37 PDT  
From: djackson@wv.MENTORG.COM (Darin Jackson)  
Subject: Foaming/Flat Kegged Beer

Hello all.

I recently purchased a keging system and made my own beer chiller. The chiller is 6' of 1/4" od copper tubing with 3/16" fittings on either end to connect in from the line out of the keg and to the line out to the cobra tap. I bent it into a shape that fits into my small cooler I dedicated to the task and was proud as hell of my \$6 portable chiller. Well, I'm having foaming/flat beer problems.

Over the last 2 years I have collected HBD wisdom regarding this phenomenon. This morning I read through it and my question was not answered, so here it is. When I connected the chiller to the line, I cut the 4' line connected to the cobra tap in half, half for the keg to chiller and half for the chiller to tap. I have 4' of 3/16 id hose and 6' of approximately the same id copper total, but the "smooth" part at the end by the tap is only 2'. I presume that there will be turbulence caused by the fittings from the copper to the hose. Is 2' enough to let the beer settle back down? I'm getting all head and almost no carbonation in the beer. I have tried dispensing with the gas disconnected, with 12 lbs of gas, with 10 lbs of gas and with 7 lbs of gas. And, of course, I drank all of the flat beer.

All suggestions will be appreciated.

Darin  
darin\_jackson@mentorg.com

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Date: Wed, 23 Jun 93 10:47:09 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: Protein rest

I generally make ales and do about a 10 min protein rest before heating the mash up to mash temps. I generally use 2-row from Briess with maybe a little dextrine malt or wheat and I add any other adjuncts with the mashout.

I bottled my last batch and the FG was about 1.009. OG was about 1.062. Talk about attenuation. One reason for the low FG was that about 30% of the fermentables came from honey in this batch. (I used "raw, wild mesquite" honey hoping it would not ferment completely and would leave a honey taste)

The other thing I'm wondering about is the protein rest. I was going to use a cooler to mash in this time, so I added the grains to some water so the result was a thick grist at about 53C. I ran to the store with a friend and one thing led to another and I came back in about two hours. The temp. had dropped a good bit, of course, so I went back to a stove-top mash (would have needed a lot of boiling water at this point to bring it up to 68C for mashing). What happens during the protein rest? If a lot of proteins were broken down or something, then there went my body and thus, the low FG.

I will wait a couple of weeks and taste it to see how it is.

Thanks for any help.  
- Bryan

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Date: Wed, 23 Jun 93 11:21:16 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: Anheuser-Busch buys Sierra Nevada

I was at the brew-pub in progress Bardo in Arlington, VA on Monday night. In speaking with Bill Stewart the owner (very wacky guy with bottle of Celis White in his hand) he asked if I had heard the rumor that Anheuser-Busch was in negotiations with Sierra Nevada Brewing Company for a take over. What!? He said that this rumor was completely unsubstantiated but came from someone in the industry.

I called SNBC today at 916-893-3520 and spoke with Peggy. She was surprised that the rumor had gotten to Washington, DC but she had heard it. She said that this was absolutely false. Now, our friends at the SEC do not like companies to deny these things if it is true. So, I beleive her.

Thank You God.

On a bad note, we have been getting some bad Sierra Nevada products on the east coast. I was given a 6 pack of SN Porter from State Line Liquors in Northern MD that had a metallic flavor. I also bought a 6 pack of SN Pale Ale in Alexandria, VA that had that exact flavor. Metallic flavors can have a number of causes (I am a AHA/HWBTA beer judge of 6 years) but I think that what I am tasting is beer that has been held at very high temperatures for long periods. Say, a railroad switch yard for 2 days in the sun. Now, this is just a guess. I hope that it is not a fermentation or process fault. Comments?

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Wed, 23 Jun 1993 13:45:33 -0500 (CDT)  
From: BIRMINGHAM@FNE683.FNAL.GOV (Phillip J. Birmingham)  
Subject: **Headhunters brewing club meeting (far west Chicago 'burbs)**

Y'all be sure to come to the July Headhunters meeting. It'll be at seven PM Friday, July 2 at Greg Lawrence's place, 4 S 245 Wiltshire Lane in Sugar Grove IL.

Bring beer or wine, homemade or otherwise, and some sort of munchies, homemade or otherwise. It should be fun.

Call Greg at (708) 557-2523 for details.

Phillip

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Phillip J. Birmingham    birmingham@fne683.fnal.gov  
BLOWOFF METHOD: brewing technique in which the brewer blows off bottling until an empty fermenter is needed for the next batch.

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Date: Wed, 23 Jun 93 14:57:42 EDT"  
From: Gary S. Kuyat <gsk@sagan.bellcore.com>  
**Subject: NJ Brepubs, Filters**  
Full-Name: Gary S. Kuyat

I wanted to give status on NJ's Brewpub legislation. It passed the Assembly unanously! The senate still hasn't voted on it, but with this kind of response from the Assembly, I can't see how it will fail. It turns out that you really can't tell when the Assembly or Senate will vote on a given bill, you just have to keep calling and asking. I will post again when I have more info.

On another subject: filters. I was reading about some not-so-good results with a so-called .5 micron filter. I purchased such a filter from the Braukunst, a mail order place (for me anyway). I want to start off by saying that the owner was VERY decent about the troubles I had, and offered to refund my money if I was dissatisfied. I would recommend him for all his other products but until he finds a new source for half micron filters, I would stay away.

I finally gave up after trying 4 filter elements. I ordered a similar kit from the Filter Store+. Their catalog shows the first element I used as 5 (that FIVE, not half) micron. The new element looked very different, and was rated at 99.99% efficiency. I believe that the Braukunst got shipped 5s instead of the .5s they ordered.

As I have said the owner of the Braukunst seemed to be TOTALLY HONEST and never attempted to blame me (and if he'd tried, I probably would have thought it was my fault!) He assured me that .5 microns would produce a crystal clear beer. He was right!

With the new element, the American Light Ale I filtered was COMPLETELY haze FREE! This was PERFECT! It didn't seem to filter out any taste, except a muddy, yeasty taste (probably from yeast!) The Filter Store filters were more expensive and the kit did not include disconnects for the keg. I think the Braukunst is worth calling, but make sure to ask if they have gotten new filter elements, from a different supplier.

If you have any question about the filter element you're using, I'd say it CAN'T be .5 microns. The beer should be totally, UNCLOUDY. Make sure to chill it to serving temp or lower before you filter it to get out any chill haze.

- - -  
-Gary Kuyat  
gsk@sagan.bellcore.com

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Date: Wed, 23 Jun 93 14:54:33 MST  
From: schiefferr@postoffice.agcs.com (Ron Schieffer)  
Subject: Mead recipe request

Anyone!

I have been searching the network in vane for a mead recipe using grapes. I have put a similar notice to this in the mead digest but did not get any response. I am hoping that there are more mead brewing people lurking in this digest.

If you do have a mead recipe using grapes, email the recipe directly as I do not generally read the HBD on a consistent basis. My grape plant is ready for picking (FLAME SEEDLESS) and some are beginning to dry up on the vine. I'd sure like to do something better with them than just eat them :-)

Your help is appreciated!

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Ron Schieffer @ AG Communication Systems.  
schiefferr@agcs.com .\_\_\_\_\_|\_\_\_\_\_.

If you do good every day, you will go to the spirit  $/(*)/$   
world and see other good people on the other side.  $o/ /o$   
If not, you will not see them. -Joe Flying Bye

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Date: Wed, 23 Jun 93 15:11:38 edt  
From: Barry\_Gillott@DGC.ceo.dg.com  
Subject: Zymurgy Skunk Article

Message:

Greetings all! I come to you for help. The manager of my local beer store is sincerely interested in my claim that fluorescent lights can produce skunkiness in some beers. I'd like him to read an article that appeared in Zymurgy some years back. I believe the year was 1989 or 1990, and the article was entitled something like, "Who Put The Skunk In My Beer?".

The problem is, I threw the issue out long ago and my AHA membership expired. I checked the local library and they weren't much help. It was unclear whether they'd do an inter-library loan on a periodical, especially if I didn't know exactly which issue.

Do any of you know the exact name of the article, and the exact date of issue? To really push my luck, would any of you be willing to fax me the article? I think it was around 4 or 5 pages.

If there are any takers out there, please contact me via email at my return address or [barry@wgn.ceo.dg.com](mailto:barry@wgn.ceo.dg.com) . Thanks very much.

Barry

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Date: Thu, 24 Jun 93 07:33:01 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Warner's Extractions / Advertising on the Net

Re: Eric Warner's Wheat beer book  
Spencer.W.Thomas@med.umich.edu writes:

> Dennis Lewis writes:  
> > I calculated the extract required from the grain recipes to  
> > achieve the desired SG. In almost every recipe I came up with an  
> > extraction of 40 pts/lb/gal!  
>  
> Funny you should mention that. I tried his "Isar Hefe Weizen" last  
> night. After coming up with a gravity closer to 1.045 than his  
> 1.055, I did the same calculation, and got an overall expected  
> extraction of 36.5 for his gravity. I actually got about 30. Maybe I  
> should have sparged for 2 hours insted of 1!-) Ah well, next time....  
> (If I will ever spend the time required for that complex multi-step  
> decoction recipe again!)

I found exactly the same thing a couple of weeks ago too.  
I got curious about his numbers after making a batch of weissbier that  
didn't come in to gravity specs (I usually get 29-31 pts/lb/gallon) and  
ended  
up quite a bit shy of Eric's numbers.

For my second batch (last weekend), I modified Eric's grain bill to  
1) use what I had laying around the house and 2) use a realistic  
extraction  
rate.

Eric Warner has a recipe for a winning weissbier published in Zymurgy  
from  
last year. I wonder what he gets for extraction on his  
5 or 10 gallon batches...

As for doing a double decoction mash to make weissbier, it seemed pretty  
easy to do. It was easier the second time and I'm sure it only  
gets easier from here...

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Re: mark@hoptech.com's advertising on HBD  
pascal@netcom.com (Richard Childers) writes:

> Look, Mark. You work, if I recall correctly, out of Emeryville, on the  
> fringes of UC Berkeley, where programmers and users are as thick as  
> grass.  
> Surely you have absorbed, by now, the understanding that advertising on  
the  
> Usenet, and through electronic media in general, is in bad taste.

I personally find Mark's posts on hops very informative.  
Plus his announcement of 'new products' keeps us up to date on the latest  
product offerings. I like being aware of what is going on.  
I have not seem any excessive use of the net in this case.

Maybe to appease you, a satisfied 3rd party should post about these  
things ?

But it seems to be an unnecessary step.  
I guess in the end, the digest admin. has the final word.

Tim

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Timothy J. Daltontjdalton@mit.edu

MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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End of HOMEBREW Digest #1169, 06/25/93

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Date: Thu, 24 Jun 93 10:53:31 EDT  
From: Bill Holman <jwh7k@uva.pcmail.virginia.edu>  
Subject: What valve/pipe fitting for SS keg?

After reading the HBD and rec.crafts.brewing for over a year, I have seen many interesting brewing processes/equipment picked to pieces. I must say that the information gained by this process has been both enlightening and helpful in improving my homebrews. Many thanks for the quality information found in this group! There is a topic that I have not seen picked apart yet, unless I missed it from an earlier time. What type of ball valve/pipe fittings can be used for a drain on a SS 15.5 gallon keg? What kind of metal can be used? I assume SS would be best, but what about brass or copper? What is the best inside diameter of the valve/pipe fitting? How long should the pipe fitting be? How high up should the valve/pipe fitting be placed on the keg? Basicly, I would like some input on what kind and how to attach the valve/pipe fitting to the keg. After extended use, what has worked for you?  
Thanks and hop until you drop.

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Bill Holman, Clinical Robotics Lab, jwh7k@virginia.edu, (804) 924-8109  
Box 168, UVa Health Sciences Center, Charlottesville, VA, 22908  
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Date: Thu, 24 Jun 93 09:35:57 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Aquarium Pump Airation ala Brewing Techniques

I would like to construct an airation unit similar to the one in Brewing Techniques magazine. The author of the article mentions using a charcoal filter to remove rubber odors produced by the pump. During a recent trip to a department store I discovered an array of pumps from \$5 to \$25 dollars but could not find an in line fliter, the did have boxes of activated charcoal so making on seems to be a minor issue. My question what makes one pump better than another? Given the short duty cycle required for brewing versus in an aquarium, durability and noise would be the least of my concerns. I would be most interested in the pump that produces the least odor.

Please post to the Net I have had problems with incoming mail.

RE: Imperial stout that was too thin. I suspect that the recipe published was not identical to what was brewed, acommon problem with published recipes, or the volume info was incorrect.  
A beer with an og of 100 sg points \* 5 gallons = 500 total sg points  
500 sg points / 9 lbs DME = 55.5 sg pts / lb no way do you get this from DME

70 sg points \* 5 gallons = 350 total sg points  
350 sg points / 9lbs DME = 38.8 sg pts / lb this is more realistic DME yeild  
The contribution of the . 5 lb barley and .5 lb specialty grain would be minimal on total gravity.

If you want 100 sg points from this recipe brew a 3.5 gallon batch  
9 lbs DME \* 38.88 sg pts/ lb = 350 sg pts  
350 sg pts / 100 pts/gallon = 3.5 gallons

Any one have a good all grain Belgian Double recipe?

lmenegoni@nectech.com

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Date: Thu, 24 Jun 93 11:15:12 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: More Weizen Stuff

Reading the last digest shows that summer is here and many of us are working hard on wheat beers. Having just brewed yet another Weizen broadly ala Warners Isar, and reading the posts, I thought I'd comment on some of my latest frustrations with Wheat beers. First some notes on yesterdays material:

>From Rick Garvin:  
<(5 gallons)\*(55 SG pts)/(7.525 lbs grain)= 36.5 SG pts/lb.

<I never see 36.5 SG pts/lb with my equipment. I brewed a Hefe Weizen a la  
<Warner on 31 May, 1993. Three weeks after brewing, six days after bottling  
<this beer took first in a local informally judged "light" beer contest. I  
<was quite surprised that it was so well received. It even beat Jim Busch's  
<Weizen and Wit. I voted for Phil Seitz's Wit (I think). So, I am happy with  
<the quality of the advice found in Warner's book.

I never see this either. The Weizen that Rick "beat out" (ouch!) only yielded just under 30 pts/lb. I increased the pale malt and added a bit of Munich and last nights yielded only 28. Both batches were single decoction.

Eric's book is certainly a great asset to brewers, and Eric notes that you should adjust all grain bills based on the performance of your system.

Now,  
if I can just figure out the performance of my system with wheat malt, \*\$!%.

FYI:

Hefe Weizen #123, 6/23/93:

59% De Wolf - Cosyns Wheat Malt

38% De Wolf - Cosyns Pils Malt

2.5% De Wolf - Cosyns Munich Malt

.5% De Wolf - Cosyns Cara Pils Malt

13 IBU Hops, Whole Domestic Perle, 1/2 at start of boil, 1/4 at 60 minutes

1/4 Hersbrucker Hallertau Pellets, 15 minutes to end

~21 oz Weihenstephan 66, Weizen Yeast

1/2 Tbls Gypsum in Sparge, 1/2 Tbls in mash

OG 12P

I use a shallow SS lauter tun, with a perforated sheet false bottom, and grain bed depth of about 1 to 1.5 feet. Lauters great.

A question for wheat brewers: what kind of grain mill do you use, and how far

(fine) do you grind the Wheat? I am beginning to wonder if my extract loss

is due to not pulverising the wheat enough. Pound for pound I should be getting a much higher extract from Wheat, and I dont. An equivalent Pale Ale

single infusion gives me at least 13P.



Hey, Rick: You better bring that weizen to next months contest where we can have "BJCP certified judges" pick the real winner :-)! I just hope they dont allow Phil's Wit beer in the contest, the competition is getting too stiff around here!

Good weizen brewing,  
Jim Busch

-----

Date: Thu, 24 Jun 93 11:16:11 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Belgium Tripple

Since my latest visit to Belgium last month, I am getting real anxious to brew an authentic Belgium Tripple. I thought I would consult the HBD for any tips or opinions on the matter. My goal is a simple one, reproduce Bruges Tripple. I am aiming for 9-9.5% ABV, light pale color, warming alcohol presence but not overtly evident alcohol.

So for say 10 gallons:  
Pils malt to result in an OG of ~18P (1.073/4)  
5-6 lbs glucose/sugar/candi mix (is this close?)  
~20-24 IBU Goldings/Saaz/hallertau/Perle/Liberty?  
Yeast???? LaChouffe, Westmalle, Duvel? Suggestions excluding Wyeast Belgium :-)  
A combination? I would assume a fresh bottling yeast is required.

So all you high gravity pBelgium brewers out there, what do you think?

Good brewing,  
Jim Busch

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Date: Thu, 24 Jun 93 11:16:55 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: High Gravity Brewing

In an attempt to start a subject that I dont recall reading here in the fairly recent timeframe I am asking for opinions on high gravity brewing. What I mean by this is similar to what the big boys do: Brew a high gravity wort and dilute with boiled/cooled water into the fermenter. Now before you get all upset that this is not the way to make "real" beer, let me point out that I talked to a few brewmasters in the UK who did just this. In particular, the brewer from the Larkins Brewery (located in Kent, took a medal in last years GBBF), told me he brews his ordinary bitter to an OG of 1.055 and dilutes it down to 1.035 in the fermenter. I realize one needs to take into account the additional caramelization in the kettle with the increased sugar content, but has anyone done much of this. I am especially interested in the idea of brewing pale ales of OG 1.065-1.070 and adding water to result in a 1.055 in the fermenter. The entire fermentation would be at the lower gravity. An obvious issue is the pH of the water pushing the wort toward the alkaline side, would the wort be able to buffer a 10-20% water charge? Would typical Sierra Nevada ale yeast be able to work at a slightly more basic pH than a normal wort? IT would seem to me that since kettle size is normally the limiting factor in batch size, this would be a great way to increase volume of finished product. I am fortunate in that I oversized/over engineered my lauter tun to accomadate high gravity brewing, so working with the extra grains is no problem.

Comments/experiances?

Good brewing,  
Jim Busch

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Date: Thu, 24 Jun 93 10:27:45 CDT  
From: serafin@epcot.spdc.ti.com (Mike Serafin)  
Subject: RE:

> From: KLIGERMAN@herlvx.rtpnc.epa.gov  
> Subject: Lubbock, texas  
>  
> Help!  
> My wife is on work assignment in Lubbock, Texas and cannot find any good  
> beer. If anyone is familiar with the area and can suggest a good  
package  
> store, restaurant, or other establishment, I will sent her the info.  
ASAP.  
> Thanks-- reply by HBD or e-mail.  
> Andy Kligerman

My condolences to your wife. The best place to look for beer is the  
"Strip",  
which is located on the Tahoka Hwy south of town, I don't remember the  
number  
of the highway, but if you take I-27? south Loop 289, you'll be on the  
Tahoka  
Hwy. I checked out the stores there my last few trips to Lubbock and the  
selection is pretty dismal. They do have a few imports, but not many.  
This is  
about the only place you can find package liquor/beer/wine there are a  
few  
other stores around the outskirts, but they are harder to find. You won't  
find  
any package liquor in the city itself. I do not know of any restaurants  
or  
bars that have a good selection of beer. Try to stay away from the  
"strip"  
Friday and Saturday evenings, the lines of cars going there can be a real  
pain  
in the A.

By the way, tell your wife there really is LIFE after Lubbock.

Mike Serafin

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Date: Thu, 24 Jun 93 10:55:18 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: metallic tastes

Michael Barre writes:

>I have finished my first batch, an Amber kit using Cascade hops and  
>Superbrau malt extract from a supply shop here in New Orleans, and I am  
>displeased with the results. The beer is very sharp with a metallic  
>aftertaste, almost like a canned beer that has been cold, warm, and cold  
>again. The shopkeeper tasted the beer and he says using liquid yeast  
>instead of the dried (EDME brand) yeast, and pitching the yeast into  
>cooler wort will take the bite out. My wort was 90 degrees.

Sounds like chlorine and/or extra-hard water to me.

Did you boil ALL the water used in the brew (before you added it),  
and siphon off the precipitate?

bb

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Date: Thu, 24 Jun 93 12:39:49 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 24-Jun-1993 1227  
<macneal@pate.enet.dec.com>  
Subject: Light extracts and "sparging"

>Date: 21 Jun 93 07:05:11 EST  
>From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
>Subject: Light (Lovibond) Extract

>I wish to make a beer with the lightest possible color as is possible with extract.  
>What suggestions can you give me for both liquid extract  
>(preferably unhopped) and DME?

>TIA  
>Andy A

Andy, from my experience and comments from my local supplier, American Eagle seems to be the lightest extract (both dry and syrup) on the market. Their amber DME seems to be the color of M&F et.al.'s light.

>Cyberspace is relatively free of throwaways ( barring bounced email ).  
Let's  
>all keep it that way.

>- -- richard

> richard childers, pascal@netcom.com

Seems to me you only helped the advertising cause by repeating the advertisement in it's entirety in an attempt to prove your point.

Speaking of Mark of Hoptech, I have a question about his recent Zymurgy article. The article says that dry hopping with pellets will take longer than dry hopping with whole hops. Why? I would think the opposite would be true since the lipulin glands are probably ruptured during the pelletizing process.

>Date: Mon, 21 Jun 93 16:44 CDT  
>From: korz@iepubj.att.com  
>Subject: Re: Cooling extract wort

>It's not a waste of time in my opinion. I'm a bit confused by your  
>statement: "...after the boil, I would sparge the 1 1/2 gallons of hot  
>wort..." Sparging is the rinsing of grains with hot (170F or so) water  
>to extract the sugars out of them.

Charlie Papazian in TCJOH refers to the dumping of the wort through a strainer into the fermenter to remove the hops and any other particulates as sparging. This might be the source of the confusion. He also recommends scooping out

the specialty grains just prior to the wort coming to a boil.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Thu, 24 Jun 1993 14:16:37 -0400  
From: Bill Flowers <waflovers@qnx.com>  
Subject: Re: Short Original Gravity

In HBD #1168, Kevin Krueger wrote:

> The recipe stated an OG of ~1.1 and I reached ~1.07. This recipe used  
> d.m.e. (9#'s) and some specialty grains (1/2# each of chocolate and  
> roasted barley) and 3 oz. of Willamette hops for boiling and some  
> Cascade for finishing. ... Are there any other factors that would  
reduce  
> my OG ??

I calculate that using that quantity of malt and grains to make 5 gallons  
would give you an OG of 1.075. However using the same quantity to make 4  
gallons would be 1.095, close enough to the ~1.1 the recipe quoted. And  
if  
you made 14L (just shy of 4 gallons), you'd get 1.102.

Perhaps this recipe wasn't for a "standard" volume?

- - - -

W.A. (Bill) Flowers email: waflovers@qnx.com  
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)  
(613) 591-0931 (voice) mail: 175 Terrence Matthews  
(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

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Date: 24 Jun 1993 15:16:26 -0600 (CST)  
From: CMACK@ssc.wisc.edu  
Subject: Brewtrip to Cally

Hi! I'm off to California for a week to visit my girlfriend's family, and was hoping to make the most of the trip by trying microbrews that aren't available on this side of the Mississippi. Could those in the know suggest brewpubs/other fine establishments, and beers that I just shouldn't miss? I'll be in San Francisco and San Diego in particular. TIA,

Chris Mack  
(CMACK@SSC.WISC.EDU)

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Date: 24 Jun 93 13:04:45 U  
From: "Michael Blongewicz" <esri!mailgate.boris!mblongewicz@uunet.UU.  
NET>

**Subject: Chipotle Ale**

Subject: Time:11:42 AM  
OFFICE MEMOChipotle Ale Date:6/24/93

In HBD 1176, Dale HIGgs talks about a Northwest Brewery that has brewed a chili beer with chipotles (that smoked and dried jalpeno). The only northwest brewery other than Blongewicz's Garage Brewery and Beer Joint (I'll get back to that later) that has brewed a beer with chipotles, that I know of, is Rogue. Their beer is called Mexicali Rose. In my garage brewery I used 2 oz of whole or partially crushed chipotles in the last 15 minutes of the boil. It came out quite well I thought (must have been okay, everyone at the Uno de Mayo party drank all 5 gallons of it). And the warm smokey taste at the very end is just right for drinking. I've had Ed's also, and its good, for one or two, but not much more after that.

Anyway if you want the detail on the Chipotle Ale, just ask

Michael  
mblongewicz@esri.com

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Date: Thu, 24 Jun 93 14:07 CDT  
From: korz@iepubj.att.com  
Subject: Raw wheat/Extra-light extract/Superbrau

I was just on the phone yesterday with a food industry wholesaler regarding unmalted wheat. I had read from Jean-Xavier Guinard's book, *Lambic*, that the raw wheat that they use for lambieks is soft, white, low-protein wheat. Furthermore, he said that the protein levels were typically 1.8 to 2.1 percent total dry weight.

Now, this did not go over well with the wholesaler -- their wheat typically has 11 to 14% protein. I looked up the protein levels in DeWolf-Cosyns Wheat MALT and they were "10.61% total protein as is" and "4.85% soluble protein."

Hmmm? I don't think the protein levels could be that much lower in unmalted wheat -- malting cannot CREATE proteins, can it? I suspect that somehow there was a mixup in the protein levels in Guinard's otherwise spectacular book -- perhaps a misunderstanding by the brewers? Perhaps they were quoting soluble protein and less is soluble before malting?

In any event, the reason I really posted this was to point out that the lambiek brewers are using SOFT, WHITE wheat not hard, red wheat.

Just a data point.

\*\*\*\*\*

Andy writes:

I wish to make a beer with the lightest possible color as is possible with extract.

I've found that the lightest of the extracts are Alexander's and Munton & Fison Extra-Light. Both are syrups. I'd like to add that I've never made a beer from all dry extract, so Light DME might be even lighter, but I don't have any personal experiences to report.

\*\*\*\*\*

Michael writes:

>I have finished my first batch, an Amber kit using Cascade hops and  
>Superbrau malt extract from a supply shop here in New Orleans, and I am  
>displeased with the results. The beer is very sharp with a metallic  
>aftertaste, almost like a canned beer that has been cold, warm, and cold  
>again. The shopkeeper tasted the beer and he says using liquid yeast  
>instead of the dried (EDME brand) yeast, and pitching the yeast into  
>cooler wort will take the bite out. My wort was 90 degrees.

Most often, metallic tastes come from your water. Not only iron is responsible for these flavors, but also a lot of Calcium and Magnesium salts in the water can give your beer a metallic flavor. Other possible culprits are metallic pots and (for all-grain brewers) poorly stored/old grain. I don't think that the yeast would make that much of a difference.

One other comment. I have heard that Superbrau brand extracts have a pretty high level of corn sugar in them. I have not been able to verify this from either of the two extract composition sources that I have (from old Zymurgy articles). I have brewed decent beer with Superbrau in the past, but if indeed there is corn sugar added, I would avoid the extract. You see, malt extract costs between \$2 and \$3 per pound. Corn sugar (dextrose) costs about \$.75 per pound. So

if you're paying full price, you might as well get all malt and add the sugar yourself if you want.

Al.

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Date: Thu, 24 Jun 93 14:10:00 PDT  
From: "SIMPSON, Mark (x-4378)" <Simpson@po2.rb.unisys.com>  
Subject: hbd startup

Hi HBDPerson!  
Could you please start a new subscription to "The Homebrew Digest" for  
me?  
Thank you very much.  
Mark

memmrs@rb.unisys.com

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Date: Thu, 24 Jun 93 16:30 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Crush-OfF, Filters

>From: WESTEMEIER@delphi.com

>However, for those who require more hard data, Dan Listermann has told me that he will be bringing his set of standard analytical sieves to Portland with him, and will offer to conduct a "crush-off" with all comers. Seeing the results first-hand should persuade any skeptics.

Hmm... Wasn't planning on going to Portland. Hate to make the trip just to keep him honest. Any volunteers to take a brand new MM for the GREAT CRUSH-OFF?

>From: pascal@netcom.com (Richard Childers)  
>Subject: filtering - mechanisms & tolerances

>Incidentally, I'm not sure what the pore size of gas filters is, but it's probably pretty big....

I think you hit on the key. There is no such thing as "pore size" on a string wound filter and I think they amount to nothing more than a lick and a promise and Jim Busch's comments seem to confirm my suspicion. They appear to be an attempt to turn a sow's ear into a silk purse.

js

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Date: Thu, 24 Jun 93 16:05 CDT  
From: korz@iepubj.att.com  
Subject: Polypropylene

Nir writes:

>I'm just back from the UK. The British seem not to mind using plastic in their  
>homebrewing. They have a mashing apparatus made of a 20 lit polypropylene bucket

I suspect that it is Polyethylene (PE), not Polypropylene (PP). I have yet to see anything that's been made of PP that is food grade, so I suspect that it is not food grade. Since we're on the subject of Polypropylene and food grade certification, if you buy yeast in plastic vials, check what kind of plastic it is. I've seen yeast sold in Polypropylene vials.

Al.

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Date: Thu, 24 Jun 93 16:42 CDT  
From: korz@iepubj.att.com  
Subject: Polypropylene correction...

Jim Busch's post reminded me of one instance of food-grade PP -- those pleated PP filters. Are you sure the spun ones are PP also? In any event, I looked around a lot and called a lot and could not find a PP food-grade vial. Why not HDPE, you ask? Well, I wanted to autoclave it -- PP is autoclavable as is PC (Polycarbonate -- also not food-grade)

.

I settled on glass vials with PP caps that have fiber/foil liners.

Al.

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Date: 25 Jun 93 04:05:50 GMT  
From: mkenny@bcmlg01.attmail.com (mkenny )  
Subject: RE: Keg Tricks

In HBD1168 Sandy Cockerham writes:

>

>Does anyone have a neat trick for stabilizing a 3 gallon keg so you can  
>tighten and untighten the fittings ? I have not figured out how to work  
>on them. The 5 gallons with the double handles are easy, but the 3  
gallons  
>have me stymied.

Try using the keg inertia. Firmly attach your wrench and give the end of  
it a good wack with a rubber mallet or such. Filling the keg with water  
will amplify this effect. Just like the old jank the table cloth trick.

Cheers,  
Mike Kenny

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Date: Thu, 24 Jun 1993 23:28:59 -0600 (MDT)  
From: J. Michael Diehl <mdiehl@triton.unm.edu>  
Subject: Help rescue my first batch!

Last sunday, I started my first batch, an extract. I'm using a Laaglander Dutch Dark Beer kit. But I think I'm in for some problems.

My initial Gravity was only 25; I was told to expect 45, on the scale that is. I also expected a bit more vigorous bubbling. I had times when it didn't bubble at all, other times it did pretty well. Anyway, 2 days after pitching, My girlfriend and I tasted a bit of the wort. It tasted like watered-down sour grapejuice. I figured that maybe I didn't stir it well enough so after 2 more days, I stired it up real good and took a gravity reading, a 20. It still tasted the same, but I bet you could catch a buzz of it! ;^) Now I suspect that all of the yeast is dead. What do I do now? Thanx in advance.

```
+-----+-----+
| J. Michael Diehl ;-)| I thought I was wrong once. | PGP KEY |
| mdiehl@triton.unm.edu | But, I was mistaken. |available|
| mike.diehl@fido.org | | Ask Me! |
| (505) 299-2282 | +-----+-----+
|
+-----"I'm just looking for the opportunity to be -----+
| Politically Incorrect!" <Me> |
+--The family that brews together drinks together. The family--+
| that drinks together, stays together. <Me> +
+-----If codes are outlawed, only criminals wil have codes.-----+
+-----Is Big Brother in your phone? If you don't know, ask me----+
+Key fingerprint=D5 35 15 4A 06 F9 F0 34 D8 EE 74 73 5A F5 9D 1A+
+-----+-----+
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Date: Fri, 25 Jun 93 01:34:22 PDT  
From: bill@oilsystems.com (Bill Vaughan)  
Subject: Miller amber ale

Well, I never thought I would be defending Miller (ick) but...

Dennis Lewis writes:

> This [Miller pamphlet] has got to be one of the most inane  
pieces of misinformation...

from Miller: "the tradition of warm beer is a cultural oddity  
of England rather than a taste issue."  
...This cultural oddity thing is unbelievable!!!

Belgian ale and altbier are both served much colder than English ale.  
When I lived in Belgium, no one could believe I liked English ales --  
they would all say "What! that flat, warm stuff!" These were NOT  
Americans talking -- they were Belgians, Dutch, Germans and one Swede.  
Continental Europeans do not share the British taste for cask-  
conditioned  
55 deg F ale. (Nor do they share the American taste for ultra-cold beer.  
)

> "Authentic ales differ from lagers... in several ways. First, ale  
is made only from a special ale yeast.'

I thought ale yeast was the common stuff and lager yeast the special  
one.

Gee, no doubt in my mind Americans would consider ale yeast special. Sure  
seems Wyeast considers it as special as their lager yeasts, or they might  
charge less. :-)

> "Ales are also the original beer of Europe."  
I guess the Sumerians and Egyptians don't count...

I don't know if they count, but they are respectively Asian and African,  
not European.

All in all, I suspect the Miller brochure is mostly factual, just watered  
down (like Lite beer) for the American public. And any facts are better  
than the kind of B.S. the public usually gets from our megabreweries.

- --Bill

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Date: Fri, 25 Jun 93 09:23:30 EDT  
From: Elaine <EBORIS@UGA.CC.UGA.EDU>  
Subject: RE commercials & SCOTCH ALE request

In HBD # 1167, Tony Johnston said,

>  
>... If I wanted commercials, I would watch TV :( !!!!!

about this in HBD # 1169, Garret Hildebrand says,

> ...but I also read the HBD to get data  
>and opinions on products which I might think about purchasing,  
>and to hear about new things which are offered.

I agree with Garret 100%! I LIKE hearing what people think about products and IMHO I don't think anything posted has even come near to being as annoying as TV ;-)

( change of subject)

Does anybody have a recipe that is similar in taste to McAndrews Scotch Ale? I do mostly extract brewing with added grains, but I have done an all grain brew that turned out nicely, so I wouldn't mind trying another. TIA --Elaine

Elaine Boris Student Information Systems  
Computer Services Specialist University of Georgia  
706 542-0484 Athens Georgia

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Date: Fri, 25 Jun 1993 07:42:57 -0700 (PDT)  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Wyeast 3068

Would someone who has used 3068 and feels qualified to describe it's fermentation characteristics please do so. What wheat beer style is it best used with? I assume it is German. Does this mean it is a big phenol and clove producer? Is ther some Brettanomyces critters in there?

I'm getting pretty tired of who's on first when it comes to mills!

Bob Jones

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Date: Fri, 25 Jun 93 09:51:34 CDT  
From: krueger@comm.mot.com (Kevin Krueger)  
Subject: Cherry Brew? from Door County

Since I am heading up to Door County (WI) this weekend for some S&R (surf and relaxation), my mind drifted back to last year when I had a chance to try a cherry beer from Door County called Cherry Rail. Has anyone else had this beer? Personally, it was a lame beer and it tasted like Miller with cherry flavoring.

After my first swallow, I knew something was up with this beer, so I really combed the beer label looking for any clues. Before I could even dip into my fish boil:@[, I found the problem. They brew the beer and then add cherry flavoring to the beer! What's up with that? Is that how they make their apple beer? In fact, I am curious if there any fruit beers on the market that actually use real fruit and not flavored extract.

Which leads me to my other question about bad beer. In our party, we all ordered the cherry beer and we all thought it was pretty lame. I was the only beer connoiseur (sp?) in the bunch, so that leads me to believe that it was truly bad. So how does a brewery stay afloat with beer that, IMO, was only drinkable because I had been in the sun all day?

BTW, I know it was brewed under contract at another house, but that doesn't make my questions not worth asking. The label said Door County Brewery and that was what I remember about it. That and the fact that I had to order a Dog Style to wash down my fish boil!

Kevin

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Date: Fri, 25 Jun 93 10:52:32 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: Belgian Malts: Pils -vs- ale

William Kitch published a recipe in HBD #1169 for a 5 gallon batch of Belgian Double that uses 2 lbs of Special B malt. Special B is over 200 Lovibond. I used 2 lbs in a 12 gallon batch of Brown Ale on Tuesday and it was VERY brown. I would recommend 1/2 or 1/3 lb of Special B. Maybe less.

I really do like the Special B. Tim Artz has gotten some weird comments back from contests using this malt. One suggested that his beer (Dunkel Weizen?) had orange peel in it when it had nothing but Special B as an addition to malt. It may take judges a while to get used to it.

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Fri, 25 Jun 1993 09:25:27 -0700 (MST)  
From: Cisco <FRANCISCO@lan.ccit.arizona.edu>  
Subject: foaming/flat kegged beer

I forgot to add that when you are dispensing through a coiled chiller that you not leave the CO2 connected overnight because it will eventaully cause more CO2 to go into solution. When using copper dispensing tubing make sure to thoroughly clean it after each use.

For those of you who like their ales served at traditional temperatures, my previous post several HBD's ago stated that the optimum dispensing pressure was 12 lbs (adjusted +1lb for every 2000 ft. above sea level) and the length of 3/16 id hose should be 4(1lb. drop for every four inches)\* compensated dispensing pressure. This is approximately 48 inches with a normal cobra tap or regular beer tap such as through a refrigerator door. A tower tap has a 3lb pressure drop across it and must be subtracted from the dispensing pressure before calculating tube length. All this info is for a dispensing temperature of 38 to 42 degrees. If you want your dispensing temperature warmer, say 45 to 55, there are two techniques that can be applied to adjust the dispensing pressure. Beer that is served warmer allows more CO2 to escape and increases the pressure in the keg. This increased pressure can be compensated for by 1).dropping approximately 2 lb in dispensing pressure or 2).adding another 8 in. of 3/16 id hose. You'll have to play around a little bit to get it just right but you should only have to adjust the pressure + or - 1lb. to tweek it in.

Hope this makes sense,  
John Francisco  
Francisco@lan.ccit.arizona.edu  
>

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Date: Fri, 25 Jun 1993 11:02:14 -0700 (MDT)  
From: walter@lamar.ColoState.EDU (Brian J Walter (Brewing Chemist))  
Subject: Portland

Howdy folks,

My wife and I are planning on going to Portland, but need to find someone to split a room with to keep costs down. If anyone is in a similar situation and wouldn't mind sharing let me know.

Good Day,

Brian

Brian J Walter |Science, like nature, must also be tamed| Relax,  
Chemistry Graduate Student|with a view towards its preservation. |Don't  
Worry  
Colorado State University |Given the same state of integrity, it | Have  
A  
walter@lamar.colostate.edu|will surely serve us well. -N. Peart |  
Homebrew!

-----

Date: Fri, 25 Jun 93 11:44:46 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: Re: Anheuser-Busch buys Sierra Nevada

Rick Garvin sez...

>  
> I was at the brew-pub in progress Bardo in Arlington, VA on Monday  
night.  
> In speaking with Bill Stewart the owner (very wacky guy with bottle of  
Celis  
> White in his hand) he asked if I had heard the rumor that Anheuser-  
Busch  
> was in negotiations with Sierra Nevada Brewing Company for a take over.  
> What!? He said that this rumor was completely unsubstantiated but came  
> from someone in the industry.  
>  
> I called SNBC today at 916-893-3520 and spoke with Peggy. She was  
surprised  
> that the rumor had gotten to Washington, DC but she had heard it. She  
said  
> that this was absolutely false. Now, our friends at the SEC do not like  
> companies to deny these things if it is true. So, I beleive her.  
>  
> Thank You God.

Hey! It's rumor time.

According to sources at the breweries, A-B did ask both Sierra Nevada  
and Anchor (and possibly others) what their selling price was, both  
declined.

According to sources in both the brewing and financial worlds, A-B is  
seriously considering buying Jim Koch's Boston Beer Litigation Company.

- --  
Chuck Cox <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: Fri, 25 Jun 93 12:46:51 EDT  
From: sdlsb.dnet!73410%sdlcc@swlvx2.msdlcc.com (Omega)  
Subject: Yeast culturing / Comments

I am interested in culturing yeast, but don't really know where to start.  
TIA  
for info/sources of info by private e-mail to "73410@sdlcc.msdlcc.com".

On to the commentary...

What is the point in posting notices of local club meetings here? 99  
percent  
(or more) of us do not live in your area!

To add my \$.02 to the advertising debate; it strikes me as highly  
inappropriate  
to advertise on this list. It is a waste of bandwidth for those of us  
who are  
looking for an informative forum on tips and techniques. It also does an  
injustice to those who voluntarily restrain themselves on the list and  
actually  
PAY for their advertising. If a product is good, we will hear about it  
from  
satisfied customers. 'Nuff said.

Carl Howes

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Date: Fri, 25 Jun 93 11:29:12 PDT

From: ghultin@sfu.ca

Subject: HBD advertising

I think the problem with online advertising is that it can't be avoided. When some HBD subscribers advertise their products and other don't, we all get to see the advertising, as we are, in a sense, a captive audience. I think this is where the feeling that computer nets. like HBD shouldn't contain advertising comes from/

For those who do use it to advertise products it is a cheap and effective means of communicating for business purposes. For those who use HBD to indulge their passion for homebrew, advertising can be a pain. Notice that some people have discriminated between the 'kinds' or 'degree' of blantancy in advertising. What we have here is a range of uses, and range of users, and no particular, spoken agreement of what constitutes acceptable use of a free medium.

The issue of advertising on computer nets. is similar to door-to-door sales--how much freedom do businesspeople have to talk to you.

some non-HB but definitely D thoughts for you

geoff.

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Date: Fri, 25 Jun 93 14:06:03 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: oops wrong email address

ok to those people who wanted info on the Wyeast single strain bavarian wheat yeast source but couldnt get mail to me (we've got a screwed up mail server) - my corrected signiture is listed below....so try again

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=====  
|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
=====
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Date: Fri, 25 Jun 93 15:29 CDT  
From: korz@iepubj.att.com  
Subject: DMS and PU

A few days ago, Jack wrote about his Pilsner Urquell clone that was brewed as closely as possible to Darryl Richman's description of the way Prazdroj Pilsenski (I think that's the spelling?) makes PU.

Well, last night, I had a chance to try some of this beer. A good attempt, I must say! The bitterness was right on, the hop flavor was clean and accurate (Czech Saaz hops used throughout) and the malty smoothness was very close. Amazingly pale for a four-decoction beer. On the down-side, the Saaz nose could have been stronger and the DMS level was a bit high. This is coincident with my assertion that a slow cooling would result in increased levels of dimethyl sulfide (DMS)

.  
It was not too bad, however, and small amounts of DMS are acceptable in Lagers (perhaps, and I'm just guessing here, because the cooler fermentation causes a less-vigorous production of CO<sub>2</sub>, which (we know for a fact) will scrub out excess O<sub>2</sub> and DMS from the beer).

The beer had been fermented and lagered at 40F for a while (I forgot to ask how long). Perhaps a longer lagering (and maybe if it was lagered at 32F as in Pilsen) the DMS level would be a bit lower? Does anyone know if DMS can be reduced via lagering? Can someone check DeKlerck and "Malting and Brewing Science?" I've already checked "The Biotechnology of Malting and Brewing" by Hough -- it's not mentioned in there.

Al.

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Date: Fri, 25 Jun 93 13:40:30 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop aroma, alapha acid questions





As far as the difference between hop aromas in late hop vs. dry hopping, this is not something I came up with out of the blue. This is well documented in brewing literature like Malting and Brewing Science by J. S.

Hough et al as well as by the professional brewers that I have interviewed.

I can also taste the difference quite distinctly, even if you can't. It is the heat of the process (in the late boil) that changes the aroma profile. I'm also not sure of your statement that "dry-hopping certainly produces more aroma per ounce of hops added." Aside from the issue that

I feel that late hopping produces more of a "hop character" and taste than aroma, (let's just change the wording to "hop effect" for purposes of discussion), the heat of the wort will certainly extract more oils than cool beer, but the heat will also cause a lot to evaporate, and there is the

time factor to consider: Dry hops are in the beer a lot longer than kettle

hops or those in a hop back. The whole subject is quite complicated, and I'm the first to admit I have no clue what the real answer is. It would be

interesting to run some experiments to see the relationship of quantity vs.

time of late hop additions. I imagine there is an optimal time where the maximum amount of oil is extracted, but hasn't boiled away yet. It probably

looks like a bell curve: the longer the hops are boiled, the more oil is extracted, but the more oil evaporates. Shorten the time, less evaporation,

but less extraction. Also, longer time = more aroma change. The speed of wort cooling is also a factor. Somewhere in the middle, there is probably

an optimum point.

Mike Schrempp asks if I have a curve that would show alpha acids vs. harvest

time. I'll look and I'll ask some hop growers if they have any data and report

back. Meanwhile, I don't know that I'd worry too much. Not all of the cones

on your plant budded at the same time, got the same amount of sun, etc. So

unless you're willing to harvest each cone individually, there is going to be

quite a bit of variation anyway. In the real hop world, alpha analysis for

each lot of hops has to be done by sampling many different bales and coming

up with an average for the lot. Cone to cone, alphas (and oils) vary quite

a bit, even from the same lot. So again, I'm not sure I'd worry too much.

Mark from HopTech

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Date: Fri, 25 Jun 93 15:15:26 PDT  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: re: Wort Chilling

A quick note about the brewing procedures at Pilsner Urquell brewery and the relationship between their cooling technique and DMS creation:

While it is true that the hot, bittered wort at PU is cooled slowly in a coolship, which could engender a great deal of DMS production and retention from latent S-Methyl Methionine (SMM), one must consider that the preceding boil is exceptionally long and it is likely that most of the SMM has already been converted to DMS and then evaporated off (see Fix's "Principle of Brewing Science" for a lot more detail here).

Also, consider that DMS levels of 0.1 mg/l or more are typically reported in lager beers (3 times the flavor threshold), while ales generally have DMS levels below the threshold. \*Some\* DMS flavor is, in fact, a defining character of lager beers, and adds to the crisp flavor profile.

--Darryl Richman

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End of HOMEBREW Digest #1170, 06/29/93  
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Date: Fri, 25 Jun 93 15:59:41 PDT  
From: Martin A. Lodahl <pbmoss!malodah@PacBell.COM>  
Subject: Advertising in HBD

Time to offer my own opinions concerning advertising in HBD.

The opinion has been advanced that advertising on HBD is a service, that it provides information brewers find useful. Where that argument fails with me is in the fundamental difference between information presented in the interest of profit, and information presented solely to share something useful or interesting. Having something to gain beyond good beer creates a conflict. A poster with a commercial interest in the question will find it quite difficult not to favor their own solution: when all you have is a hammer, everything looks like a nail. Some posters (Kinney Baughman, Glenn Tinseth, Russ Wigglesworth, Darryl Richman and others) have handled this extraordinarily well, from my point of view, and I read their postings with confidence. Others leave me with the uncomfortable feeling that at least some of their postings (and I can't always tell which ones) contain not real information, but its counterfeit. We've learned to expect advertising on the more conventional media to be less than completely reliable; for this quality to slip unannounced into this forum compromises the credibility of every scrap of information presented here, especially for the newer brewers who are less prepared to sort fact from factoid, and don't yet know who's selling what. The principle of "caveat lector" has always been useful here (mistakes, sometimes big ones, are made), but knowing that the posting you're reading could be an "infomercial" doesn't exactly enhance the forum's value.

Just one man's opinion.

= Martin A. Lodahl Pacific\*Bell Systems Analyst =  
= malodah@Pacbell.COMSacramento, CA 916.972.4821 =  
= If it's good for ancient Druids, runnin' nekkid through the wuids, =  
= Drinkin' strange fermented fluids, it's good enough for me! 8-) =

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Date: Fri, 25 Jun 1993 21:53:30 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: Mash Tun

I'm a kit brewer second in the feild ready for the grain. Please give me your best advice, I really would like to know how to construct the best system.

Please send me your simple systems ieas via private e-mail, care of:  
the person signed below.

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Everything you know is wrong.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: Sat, 26 Jun 93 07:47:51 EDT  
From: Al Gaspar <gaspar@STL-03SIMA.ARMY.MIL>  
Subject: Request for brewpub information

I am looking for information on starting a brewpub (the laws in Missouri are beginning to look more attractive). I would appreciate pointers to books and other publications that would discuss all the ins and outs of starting a brewpub. Thanks much.

Cheers--

Al

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Al Gaspar <gaspar@stl-17sima.army.mil>  
USAMC SIMA, ATTN: AMXSI-TTC, 1222 Spruce St., St. Louis, MO 63103-2834  
COMMERCIAL: (314) 331-4354 AUTOVON: 555-4354  
relay1.uu.net!stl-17sima.army.mil!gaspar

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Date: Sat, 26 Jun 1993 13:48:59 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast differences!

Hi-

I am a novice brewer. So far my friends and I have made three batches with different specialty grains, hops, and extracts. I have been pretty happy with the results we get, but there is an odd overtaste (not really unpleasant but noticeable) to the beer. We have used dry Whitbread Ale yeast for all three batches. I know that different yeasts can give different flavors and that liquid yeasts come highly recommended, so for my next batches I will be using Wyeast

American

Ale(#1056), which supposedly gives a cleaner taste.

My question is: Does anyone have a chart/table/list of what characteristics

the various common brewing yeasts (Wyeast, Whitbread, Edme, Red Star) have?

I know that no one yeast is "better" than the others just different. I also know that different yeasts work better with different styles. Any info would be appreciated--company propaganda sheets are fine too. Will summarize results and repost to digest if sufficient interest.

Hoppy brewing, y'all!

patrick <weix@swmed.edu>

p.s. Any other brewers at UT Southwestern? Phone x85050.

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Date: Sat, 26 Jun 1993 14:34:12 -800 (PDT)  
From: San Juan Island Lib <sanjuan@wln.com>  
Subject: root beer

I have a library patron who would like to make root beer from scratch, not using a commercial extract. We found a Mother Earth News article which lists sassafras, molasses and dandelion root as ingredients, but does not give the method or proportions. Can you help us out with a recipe?  
Theresa Gemmer E-mail address: sanjuan@wln.com

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Date: 26 Jun 93 22:21:01 MDT (Sat)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: random bizarre question

According to my notes, homebrewing was finally legalized in the USA on October 14, 1978. Does anyone know \*when\* (in that day) it was signed, and/or when (what time) the law took effect?

Email please; I'll summarize if I get >0 replies. Consider it a contest; the best reply wins an explanation of why I give a \*%\$@ about this trivium.

---  
Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
    ...Simpler is better.

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Date: Sun, 27 Jun 1993 11:37:12 -0400 (EDT)  
From: Edward Croft <CROFTE@delphi.com>  
Subject: Local packys/Why so technical?

Wow, shortly after I stated that our local packys only supply the Budmilloors types of beer, one local packy changed. What a smorgasborg. I can now select from Sierra Nevada, Schell, Anchor, and even Cave Creek. It seems they may have been reading HBD. They also started carrying limited homebrew supplies. It's great, now I am able to try some of the great beers that I have been reading about.

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Why so technical? I get HBD to get ideas on new brews, hear about taste tests, and get other peoples ideas on how to improve the process. What I have seen lately is more of a chemistry class on the properties of idophors(?) and chlorine. I can see relating the impact some of the chemicals have on our equipment, but don't you think it is getting a bit anal, when we start breaking down the composition of the chemicals so as to get the optimum cleaning for the least amount of chemical. Come on guys, I don't see the harm in a quarter cup of bleach to five gallons of water. It works for me. I don't need to know how or why. Why don't the chemistry majors come up with the proper amounts between them and then post the summary. I want to hear more about using wheat bases for fruit beers, or the proper way to prepare jalepenos for chili beer. I want to hear about the new mini-keg systems, and yes even malt mills. Though, we could lighten up a little with the advertising and sniping.

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Sorry about the flamette, but it has been bothering me of late. It's just that I think we need to see more of the types of input like Allan Wright's Amber Wheat Beer fruit base in HB1166. I have been contemplating a fruit beer, and this may do the trick. But, Allan, blueberries in beer? Let me know how that turns out. Thanks for letting me get it out of my system.

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Date: Mon, 28 Jun 93 8:31:15 EDT  
From: Jim Grady <grady@hpangrt.an.hp.com>  
Subject: step infusion mashes

I am making plans for my first all-grain batch and have a few questions about mash/lauter tuns. I am planning on using the slotted copper manifold for a combined mash & lauter tun. I seem to have 2 options. Put it in my mash kettle and make an insulated box to help maintain the temp. or put it in a 12 gal. rectangular cooler. Miller, in "The Complete Handbook of Home Brewing," recommends the insulated box because it allows you to do a step infusion mash. I believe I have read in these electronic pages that most of today's malts are so well modified that a single infusion mash is fine for most styles. Most discussion I have seen concerns whether decoction mashes are worth the effort and they can be done in a picnic cooler.

So, what's the verdict? Does anybody do step-infusion mashes? What are the benefits? Does anybody who does single-infusion mashes think their beers [would | would not] benefit from a step mash?

Thanks for your help!

- - -

Jim Grady | "Everybody thinks of changing humanity and  
Internet: grady@hp-mpg.an.hp.com | nobody thinks of changing himself."  
Phone: (508) 659-3409 | Leo Tolstoy

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Date: 28 Jun 1993 7:38 EDT  
From: dab@cc.bellcore.com (dave ballard)  
Subject: new brew shop in nj

hey now- good news for us central jersey homebrewers. rumor has it  
(from  
chris at old bay) that red bank brewing supply will soon be opening a  
shop in highland park called brunswick brewing supply. i don't have a  
date yet, but i'll let you know as soon as i get more info...

dab

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Date: Mon, 28 Jun 93 0:37:09 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Alpha Acids vs. Harvest

Mike Schrempp had asked if I (or anyone) had a curve showing the alpha acid content vs. harvest time, trying to find out if a week or two's early or late harvest would make a significant difference. I said in a previous post (which might be in this HBD, dunno since it's the weekend) that I would try and find out.

Looked in my books and literature and talked to a grower late last Friday. Despite the fact the most hop literature is oriented towards growing hops rather than using them. one would think the answer would be there. NOT! Neither did the grower have any enlightenment except to say "Why would you harvest your hops at the wrong time?" So it's like this: They don't harvest their hops before they're ready, so they don't care what the alphas are before they harvest them. And for this reason, no one seems to have studied it. They HAVE studied how the temperature of the growing season affects the alphas (with the only positive correlation being high temps in some month like May, well before harvest, but generally no conclusive results) and the effect of various fertilizers on alphas (too much nitrogen has a negative effect), but nothing I can find on harvest time. The literature also assumes that if you're a hop grower, you'll know when the correct time to harvest is, so they don't bother to mention how to tell when that time is.

Maybe Glenn Tinseth (who is on vacation, I seem to recall) can shed some light here because the folks that he has direct access to (like Gail Nickerson) are really hop breeders, not brewers. Let's hope he reads this when he gets back on-line.

Forgive me for a bit of a tangent here, but this is kind of like why there aren't really any good formulas for predicting bitterness based on all the variables. The reason is that commercial breweries don't change their process often, so that is in effect a constant. They also have a lab to measure (and tasting panels to confirm) the actual amount of bitterness they're getting for a given hop addition. They also have the luxury of blending batches to correct mistakes and get better consistency. So their "formulas" are based on a lot of trial and error with measurement and subsequent adjustment, with the knowledge that their yeast strain, fermentation temperature, etc. will all remain constant and can be tightly controlled. So do they care to have a formula that they can plug in lots of variables and get a reasonably accurate bitterness calculation? No. So we don't have one either (yet).

Mark from HopTech

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Date: Mon, 28 Jun 1993 02:16:52 -0400 (EDT)

From: waltman@BIX.com

Subject: Czech Budvar

Earlier this month there was some discussion of the Czech "Budweiser". A couple of years ago the NY Times had a long article about them and A-B. The gist of it was that Budvar and A-B had signed an agreement in the 1930's dividing the use of the Budweiser name: A-B got exclusive use in North America, Budvar on the European Continent and everywhere else (including UK) was open. One interesting factlet was the A-B was using the Budweiser name before the current brewry in Ceske Budejovice was opened. This was A-B's claim to use the name.

As for Samuel Adams in Germany, it is the only American beer I have ever come across. (I had one at the Bier Museum in Heidelberg which was a bit of a sacrifice since they had Budvar on tap.)

Fred Waltman  
waltman@bix.com

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Date: Sun, 27 Jun 93 13:20:38 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: AHA National First Round: Kingston, NY

Has anyone seen their judging sheets from the AHA first round at Kingston, NY? I sent in six entries (\$48 plus shipping) and have not seen anything back yet. I understand that there were a huge number of entries but I would like to drink my last four bottles of Cherry Trippel if it is a loser.

I bet the only people that have heard anything yet are people moving onto the second round.

Moping today, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Sun, 27 Jun 93 17:46:06 EDT  
From: brewerbob@aol.com  
Subject: Foaming beer from the keg!

From: BrewerBob@AOL.COM  
For: Mark Parshall  
Subj: Kegging - Foaming at the tap!  
Re: HBD1157

Mark,

I know this note is a bit after the fact, I've been away. Perhaps it will still be of some help to you with your foaming beer problem.

I think you may have two problems. The reason for the foam may be too high a dispensing pressure into too small a tube. A 1/4 inch ID tube will cause a loss of more than 1 PSI per foot so ten pounds at the tank will be about six pounds at the tap for a three foot hose. Smaller IDs will have even greater loss. A 3/16 will lose up to 3 PSI per foot.

The reason for low carbonation in your beer is improper method. You can not simply put the gauge at thirty pounds for three days. The guy that told you to shake was right about that. Try this: Be sure the beer is very cold. Attach your gas line and set the pressure to twenty-five pounds (for exact pressures for different styles of beer, see Miller's book). Now, with the line attached, you will hear bubbles in the tank when you tip it to it's side. After a few seconds, the bubbles stop. Now roll the tank on the floor and you will hear more bubbles! Keep doing this for about ten minutes or until the bubbles don't happen anymore or are very few with each roll. Now the beer has ABSORBED the CO2! With the pressure still at 25 PSI, disconnect the gas line and put the tank into the fridge for a day. Then bleed off all pressure, attach your gas line and set it at the serving pressure you need, about ten pounds for a three foot line. Oh, by the way, be careful with the CO2 tank when you do this. Do not set it on it's side! Be very careful that it remains upright or liquid CO2 may try to find it's way through your valve!

Good luck! BrewerBob

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Date: Mon, 28 Jun 93 16:21:08 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: selective growth media

Hello all,  
Here's just a quick note that DIFCO (  
Here's just a quick note that DIFCO (US Tel: 800 5210851)  
has come out with a growth medium that only  
supports the growth of yeasts and moulds.  
They sell it to people who want to check  
airborn organisms. I just thought some of  
you yeast breeders out there might be interested.  
I have no other info, as I was just browsing  
through a colleagues catalogue when I saw it.  
Rob. Thomas.  
P.S. usual disclaimers etc, etc, etc.  
P.P.S. I don't know if DIFCO will supply to  
private parties.

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Date: Mon, 28 Jun 93 10:34:11 EDT  
From: richer@desi.HQ.Ileaf.COM (Al Richer)  
Subject: Freezer conversion for keg storage

Greetings!

In my wanderings I've managed to pick up a large upright chest freezer for cooling my kegs, as well as eventually becoming a beer cooler. Unfortunately for me, the shelves are fixed, as they are actually the cooling elements..

I need an opinion.

I am considering putting the kegs in the freezer on the shelves on their sides, with the head end raised 2 or 3 inches to provide a bit of clearance for the CO2 dip tube. Has anyone tried this, or is there a reason that I shouldn't do it?

Inquiring minds want to know...

ajr  
richer@hq.ileaf.com

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Date: Mon, 28 Jun 1993 10:32:55 -0700 (MST)  
From: Jim Liddil <JLIDDIL@AZCC.Arizona.EDU>  
Subject: Keg Manifolds annd Fittings

I obtained a straight sided keg from the scrap metal yard this weekend.  
Now I  
want to turn it into a boiler/lauter tun. Has any one ever mounted an  
EasyMasher(TM) on a keg? What other manifold setups work well that can  
be  
easily removed? When one does large batches of 10 gallons does this mean  
one  
has to sparge for 2 hours. An suggestions public or private are welcome.

Jim

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Date: Mon, 28 Jun 93 17:27 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: 5 liter kegs--some complications

Like a number of people I recently purchased a set of 4 5-liter kegs from Brew Ha Ha (Pottstown, Pa, 1-800-243-2620). In general I have been happy with the set, finding it reasonably well made and easy to use. So far I've kegged one batch, a bitter. As with other kegs, Brew Ha Ha recommends using 1/3 to 1/2 cup priming sugar rather than the standard 3/4 cup for bottling.

When I kegged my batch I filled three kegs, and then reprimed and put the rest into bottles. The first two kegs worked fine, although the beer coming out was a bit cloudier than the bottled version. When I pulled out the third kegs several days ago, I noticed that one are of the top had bulged out, and that the corresponding area on the opposite side of the bottom had also bulged. The keg would no longer sit flat, and it was hard to get the dispensing mechanism hooked on.

This would seem to be a problem stemming from excessive pressure. However, the beer was a 1.037 bitter that I'd kegged at 1.006 using 10 grams of sugar, about 1/5 what Brew Ha Ha recommends for a standard beer. In fact, the beer itself seemed fine, and was not excessively carbonated. I could only conclude that there was a flaw in this particular can that was not visible, leading to a structural weakness.

I called Randy Martin, the proprietor of Brew Ha Ha, to see whether they'd be willing to supply a replacement. It appears there there have been some other, similar problems, although, none of these fit the description of my own. They are now recommending that all kegs be stored in a cool or cold place, that they be checked periodically (they say the plug will bulge out before a problem with the can itself develops), and that all kegs should be filled to within 1" of the top (not less, as more pressure develops). They also remind people not to use the standard 3/4 cup of priming sugar.

By the way, Randy said he's sending me a replacement. Assuming no additional problems develop I can still say that I'm happy with the system, and might even consider buying another regulator and possible another set of kegs.

Phil Seitz  
PSEITZ@MCIMAIL.COM  
Arlington, VA

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Date: Mon, 28 Jun 93 14:30  
From: RON.admin@admin.creol.ucf.edu (RON)  
Subject: Breckenridge

A friend will be passing through Breckenridge and Denver Colorado soon.  
He agreed to pick up some brew for sampling back here in Florida.  
Could someone out there send me info. and flavors of some of the  
local brewpubs in that area that sell their bottled beer  
for outside consumption.

- - -  
ron@admin.creol.ucf.edu

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Date: Mon, 28 Jun 93 12:08 PDT  
From: lfk@veritas.com (Lynn Kerby)  
Subject: Re: Short Original Gravity ... why ??

Well I would suspect that recipe. Simple math reveals that the only way that OG could be accurate given the ingredients is that the batch size was 3.5 gallons, not 5. Your numbers sound right (see below).

9# DME (@ 1.039 pt/lb/gal) yeilds 351 pts  
1# dark specialty grains yeilds 20 pts (if you are lucky)  
total 371 pts

371 / 5 ~~ 74 or 1.074 (probably very close to what you got)  
371 / 3.5 ~~ 106 or 1.106 (probably very close to what was expected)

NOTE: '~~' means approximately equal

Happy brewing.

PS - It always helps to sit down with a calculator for a few seconds before taking a recipe as gospel.

- - -

Lynn Kerby - [apple,amdahl]!veritas!lfk or lfk@veritas.com

Disclaimer: Any and all opinions expressed herein are my own and do not necessarily represent the views of anyone, especially my employer.

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Date: Mon, 28 Jun 93 19:13 GMT  
From: "Raj A. Upadhyaya" <RUPADHYA+aLIF1%Allstate\_Corp+p@mcimail.com>  
Subject: Dead beer (No more brewing action)

I am working on a Cherries in the Snow Ale from "The New complete joy of homebrewing" I used a Brewer's Choice german ale liquid yeast, and after three days of initial fermentation I have moved it to a secondary fermenter. After that time, the brewing activity has decreased significantly. Could the yeast be dead? Should I add more yeast? Should I wait more? It was pretty hot (around 90 degrees) all three days, could that have killed the yeast?

This is my third batch and would welcome any replies on this.

Raj Upadhyaya

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Date: Mon, 28 Jun 93 13:32:01 -0700  
From: ek@chem.UCSD.EDU (Ed Kesicki)  
Subject: IPA

At the recent Del Mar Fair, I overheard one of the judges talking about the I.P.A. class; He was saying that an IPA should be dryhopped to kingdom come, so that the first thing that registers in the taster's palate and brain is the dryhopping.

My question: Is this a generally accepted fact? Or is it just individual preference. I realize that IPA's should be strong and quite aggressively hopped, but I didn't know one way or the other about dryhopping. Anyone?

Ed Kesicki  
San Diego, CA

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Date: 28 Jun 93 11:46:00 +1300  
From: JORGENS\_DAVID@Tandem.COM  
Subject: Maple Syrup

Has anyone tried using "real" maple syrup in any recipes? Are the sugars fermentable? Does anyone have any recipes which call for maple syrup?  
How much per five gallon batch should be used?

replies can be sent to: (jorgens\_david@tandem.com)

Thanks in Advance

DJ

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Date: 28 Jun 1993 13:45:13 PST  
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>  
Subject: newsletter stuff

\*\*\* Resending note of 06/28/93 13:44  
SUBJECT: new beer options in SF

Two new developments have recently occurred on the San Francisco beer scene.

The first is a combination Japanese Dim-sum and microbrewery which recently opened in the Financial District, at 333 Bush (at Montgomery) called the Cafe Pacifica. The atmosphere can be best described as Japanese-corporate-yuppie. It's a small place, and the brewhouse is incredibly tiny. They produce three beers; a light ale which has a well-balanced malty sweetness and fragrant hop aroma reminiscent of Devil's mountain railroad Ale, an amber which is clean and kinda average, and a dark, which has a nice chocolate finish and is, I believe, an excellent porter. The food is good altho not traditional Chinese Dim-sum. Both the food and beer are reasonably priced, making it an excellent downtown lunchtime option.

Rumor has it that a wealthy Tokyo restaurateur wanted to serve micro-brewed beer in his restaurants, but the Japanese laws concerning brewing make it impossible for micro-breweries to operate there. Apparently, you must produce 50 kabillion barrels or more a year to brew in Japan, so he set his son up in San Francisco to begin brewing American beer for export to Japan (his restaurants anyway..). The pub is, apparently, a pilot brewery.

On another front, the new owners of the San Francisco Giants obviously appreciate good beer, because now in section 15 you can find a stand which specializes in micro-brewed beers. Anchor Steam and Anchor wheat are available on draught. SNPA, Anchor Porter, and Devil's Mountain Railroad and Devil's brew are available in the bottle. Section 15 is located roughly behind first base. While a bit pricey, it's not much more expensive than Schludweiler, and infinitely tastier.

| If it's good for ancient druids runnin naked thru the woods |  
| drinkin strange fermented fluids then it's good enough for me. |  
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

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Date: Mon, 28 Jun 93 14:51:54 PDT  
From: Gary Rich <garyrich@qdeck.com>  
Subject: Belgian Pils malt/ Dubble recipes

In HBD #1169 "William A Kitch" <kitchwa@bongo.cc.utexas.edu> queries:  
>Subject: Belgian Malts: Pils -vs- ale

>A few weeks ago I did my first partial mash and made my best pale ale  
>ever. So I'm jumping right into my first all grain batch. I could  
>use a bit of advice from y'all.

>In his book Belgian Ales, Pierre Rajotte implies that that the basic  
>malt used for most Belgian ales is a pils malt not an pale ale malt.  
>I recall him writing that the pale ale malts are used for British ale  
>contract brewed in Belgium. However, his recipes simply say "pale  
malt".

>Any way, I'm going for a Belgium double with the following recipe for  
>5 gals.

- > 9 lbs Belgian Pils malt
- > 2 lbs Belgian special-B malt
- > 1/2 lb glucose
- > 1/2 lb Piloncillo (Mexican brown sugar)
- > 7 HBUs Bitter Hops
- > 1/2 oz American Saaz finishing hops
- > OG 1.065 (I hope)
- > Chimay yeast

>Any comments would be appreciated.

For one, this beer is going to be \*way\* dark. Special-B is > 200  
lovibond.

This dubbel is going to come out darker than an inky stout (thumbnail  
says ~85 L). The Special-B is darn tasty, but 2 lbs may be overpowering.  
On the other hand, it might be delicious. What it won't be is a dubbel.

I've made a couple of all grain dubbels now, and have found a recipe that  
seems to be in the ballpark for the style.

- 8 lbs Belgian Pils
- 1 lb Belgian Cara-Munich
- 1 lb Belgian Aromatic
- 1 lb Munich
- ~1 lb Some kind of dark sugar (some day I'll find dark candi)

Hops are still under experimentation, but noble hops only. Saaz,  
Styr-Goldings, Hallertau.

>My specific questions are:

- > 1) Should I do a protien rest esp. considering I'm using a Pils  
malt?

I usually do with this malt, but a fairly short one. I hold it at ~123F  
until there is a layer of clear stuff floating on top. Usually this is  
about 15 minutes.

- > 2) Will I have DMS problems from the Pils malt? If so how do I  
> minimize them?

Dr. Fix wrote pretty extensively on the Pils malt in Brewing Techniques  
#1.

I have my copy at home but I seem to recall that this malt was low in DMS precursors for a European lager malt, but higher than a pale ale malt.  
I haven't experienced any noticeable DMS with it, but most of the beers that I've made with it have been pretty strongly flavored, maybe I missed it.

> 3) I want some malt flavor in the finished beer. What temp should  
> I use for saccharification (sp?)?

With 2 lbs of special-B, you are going to have lots of malt flavor, no matter what temp you use for starch conversion. In my recipe I use a fairly low temp rest (~30 minutes at 145F and ~60 minutes at 152) and count on the Munich/ Cara-Munich to make it nice and malty without being sweet or heavy.

We're both looking at 12lb/5gal recipes. In my (limited) experience this is the point where aerating the @#%@ out of it becomes really important. You can't begin to rely on splashing into the primary to do the job. Many methods have been discussed, but what I use is my son's little asthma medicine aerosolizing machine. Does an awesome job and has some built in filtration. I paid \$100 for the thing and my son uses it about once a month, so I get some use out of it too.

=====

A couple of thoughts of my own:  
In my continuing quest for the perfect substitute for Belgian dark candi sugar I thought about dark Karo Syrup <tm>. It's dark and almost all corn syrup, but what's the coloring from? If it's just partially caramelized corn syrup, it might be a good substitute? If it's just dye or molasses, I'm not interested in using it.

In the BT article on Belgian malts, Dr. Fix expresses concern about the differences between the fine and coarse grind extract amounts in the Aromatic.

What does this mean?

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Date: Mon, 28 Jun 93 13:57:58 PDT  
From: mikel@netlink.cts.com (Mike Lemons)  
Subject: Shake, shake, shake your wort!

I recently bought a 1 liter erlenmeyer flask to culture yeast in. I got two #9 rubber stoppers, one with a hole and one without. The stoppers nearly fall into the flask. A nine-and-a-half would fit better. I have always used sterilized cotton in empty wine bottles for yeast cultures, but the neck on this flask is too wide . . . I have to use an air lock.

First step: Break the internal seal on a packet of liquid yeast and sit it on top of an external modem, where it stays at 90 degrees F. When the packet swells up, make the starter.

I use 1/4 cup of dried malt extract. I fill the flask up with water to the 800 ml mark. (1000 ml tends to boil over.) I set it directly on my gas stove and turn the flame up pretty high. A long glass stirring rod would be useful for stirring, but I don't have one, so I use a plastic chopstick. I boil it for about ten minutes, put the solid stopper in it and set it in a sink full of cold water. (Isn't pyrex wonderful?)

After the mixture had cooled, I started to swirl it around to increase the dissolved oxygen in the liquid, when it dawned on me, "Why not shake it instead?" So I put my thumb over the stopper and just shook the hell out of it. I cut open the yeast packet and poured it in and attached the air lock.

The next day, I had a very vigorous culture with lots of bubbles. When I brewed my five gallon batch of beer, I cooled the wort and poured it into a plastic fermentation vessel with a tight-fitting lid. Since I have a solid stopper the size of the hole, I thought, "If it worked for the starter, why not the wort?" So I stuck the solid stopper in and shook up the whole five gallons! I poured the yeast starter in and eight hours later, it was bubbling like crazy. I've always had a problem with long lag times, even when using liquid yeast and starter cultures, but shaking the wort took care of it.

WARNING: Do not shake hot wort! It will oxidize into cardboard.

Repeat: Liquid yeast and starter cultures did not decrease my lag times.  
Wort Aeration did.

- - -

INTERNET: mikel@netlink.cts.com (Mike Lemons)  
UUCP: ...!ryptyde!netlink!mikel  
NetLink Online Communications \* Public Access in San Diego, CA (619) 453-1115

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Date: Mon, 28 Jun 93 18:17:28 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: Belgian pils, summer brewing

Hi All,

Lots o' good stuff in HBD#1169. William A Kitch writes:

>Any way, I'm going for a Belgium double with the following recipe for  
>5 gals.  
> 9 lbs Belgian Pils malt

>Any comments would be appreciated. My specific questions are:  
> 1) Should I do a protien rest esp. considering I'm using a Pils malt?

The Belgian pilsner malt is highly modified, a protein rest should not be necessary.

>2) Will I have DMS problems from the Pils malt? If so how do I  
> minimize them?

According to George Fix in his article on Belgian malts that appeared in Brewing Techniques, the Belgian pilsner malt is low in the precursor of DMS (can't remember offhand, SMM?), so this shouldn't be a problem, especially if you adhere to standard procedures for minimizing DMS.

The precursor of DMS is a gas that can be driven off during the boil. Use a vigorous boil, and leave the pot at least partly uncovered. When the boil is finished, chill the wort below 140F as quickly as possible. A wort chiller is very helpful here.

>3) I want some malt flavor in the finished beer. What temp should  
> I use for saccharification (sp?)?

Use a temperature at the high end of the sugar rest, say 158F or so, which favors alpha amylase activity and should give you a more dextrinous wort.

\*\*\*\*\*

Jonathan Knight writes:

>I am wondering what people think about brewing in the summer,  
>specifically  
>regarding the increased danger of little airborne animals falling into  
>your  
>cooling beer.

IMHO, this is far more problematic than controlling fermentation temperatures, which can be dealt with in a number of ways (fridge with external controller, wet t-shirt method).

>So, here is the question. If windows are kept closed during the wort-cooling  
>period and I am otherwise extra-careful with sanitation,

>I should add that I do not  
>have a wort chiller,

Jonathan, you've pretty much addressed the issues associated with warm

weather brewing. Pollen and wild yeast counts are higher in warmer weather, so being extra careful with sanitation and minimizing or eliminating air circulation during the wort cooling period are very important. Of course, using a wort chiller to get to pitching temperatures quickly is also very helpful. Also, if possible, try to brew on rainy days, when pollen and wild yeast counts are reduced.

>TIA as usual for any scientific data, empirical observations, or momilies.

I brewed about a dozen batches throughout last summer, with no infection problems at all.

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Douglas DeMers writes:

>I use two fresh pieces of aluminum foil over the top of the kettle, >arranged in the following manner. I set my chiller inlet/outlet tubing >so that they stick up in the middle of the kettle.

I built my chiller so that the inlet/outlet tubing are just inside the edge of the pot. With the lid on, there is only about 1/2" space left open, which I also cover with tinfoil.

>Certainly it's not perfect, but it makes me feel a lot better than if >the kettle were open or partially covered by the lid

Ditto. See eliminating air circulation during the wort cooling period above.

Cheers,  
Jim

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Date: Mon, 28 Jun 93 21:33:46 EDT  
From: rgarvin@btg.com (Rick Garvin)  
Subject: AHA National Contest

It was just yesterday that I was grouching about not having received my judging sheets back from the AHA yet. Well, today they arrived. I was pleased to find that three of my beers had been promoted to the second round: Barleywine, Imperial Stout, and Old Ale. The Old Ale won't impress anyone. I entered a fair 1.064 IPA in this category because it is a category that does not get many entries.

Overall the judges comments were consistent. This is something that has gotten better through the years. There was one style that had "xerox" comments. The two judges should have just signed the same sheet since the only difference between them was the name. As a judge I understand the balance that must be struck between collaboration and independent thinking. This problem was only apparent on one beer.

For each beer that was promoted a button was included that said "MY BREW KICKS BUTT" and "I'M A 2nd round Brewer." I can feel the beer snob in me preening. But, then I drank one of those Old Ales: "Too much hops" "Needs more malt" "Harsh Bitterness". And my favorite from judge Cliff Beringer "Good beer, harshness might prevent me from drinking more than 8 pints." Well, not a total loss.

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Tue, 29 Jun 1993 00:51:27 -0400 (EDT)

From: waltman@BIX.com

**Subject: Bringing Homebrew into Canada**

I have a family re-union this summer in Sault Ste. Marie, ONT., and I would like to bring some homebrew. Is there any particular problem with importing homebrew into Canada or should I bottle it all in old Coors bottles with the labels still on <grin>? I would assume that I would have to pay duty just as if it is store-bought beer.

Fred Waltman  
waltman@bix.com

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Date: Tue, 29 Jun 93 10:48:17 +0200  
From: dejonge@tekserv.geof.ruu.nl (Marc de Jonge)  
Subject: Tripel

In HBD 1170 Jim Busch writes:

>Since my latest visit to Belgium last month, I am getting real anxious  
>to brew  
>an authentic Belgium Tripple. I though I would consult the HBD for any  
>tips  
>or opinions on the matter. My goal is a simple one, reproduce Bruges  
>Tripple.  
>I am aiming for 9-9.5% ABV, light pale color, warming alcohol presence  
>but  
>not overtly evident alcohol.

Here are some data points (I haven't got a complete original recipe  
but I've made some pretty succesfull near misses)

Koningshoeven tripel has pilsner malt exclusively (for 8.5% Alc. by Vol.  
)  
don't know about their hops. This tripel is very similar to the  
Westmalle,  
perhaps just a little more body.

West Vleteren uses a large proportion of 'Record' hops, a Belgian  
Northern  
Brewer variety (which I believe is again related to Hallertau) and some  
Goldings.

The Brugge tripel contains somewhere around 20% wheat malt (From memory,  
I haven't got my notes here).

>So for say 10 gallons:  
>Pils malt to result in an OG of ~18P (1.073/4)  
>5-6 lbs glucose/sugar/candi mix (is this close?)  
>~20-24 IBU Goldings/Saaz/hallertau/Perle/Liberty?  
>Yeast???? LaChouffe, Westmalle, Duvel? Suggestions excluding Wyeast  
Belgium :-)  
>A combination? I would assume a fresh bottling yeast is required.

>So all you high gravity pBelgium brewers out there, what do you think?

One of my best attempts was made using the following (again from memory,  
but  
then there isn't that much to remember)

Pils malt, for an OG of 1090 (infusion mash)  
2/3 Belgian Northern brewer 1/3 Kent Goldings, for a bitterness about  
half that of traditional Pilsner  
yeast cultured from West Vleteren (the dark red caps, like a dubbel),  
I expect Westmalle will also do (I haven't tried it)  
Fermented somewhat cool, as I wanted the malt to dominate (I think 63F)  
Bottled with some of the original wort. No extra yeast added but  
next time I might, because carbonation took three weeks.

The result was very close to the Koningshoeven tripel both in flavour and  
appearance, definitely one of my best top fermenting brews..

Marc de Jonge (dejonge@geof.ruu.nl)

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Date: Tue, 29 Jun 1993 10:52:57 +0000  
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)  
Subject: Protein/Nitrogen in Wheat

Al <korz@iepubj.att.com> writes

>I was just on the phone yesterday with a food industry wholesaler  
>regarding unmalted wheat. I had read from Jean-Xavier Guinard's  
>book, Lambic, that the raw wheat that they use for lambieks is  
>soft, white, low-protein wheat. Furthermore, he said that the  
>protein levels were typically 1.8 to 2.1 percent total dry weight.  
>  
>Now, this did not go over well with the wholesaler -- their wheat  
>typically has 11 to 14% protein. I looked up the protein levels  
>in DeWolf-Cosyns Wheat MALT and they were "10.61% total protein as is"  
>and "4.85% soluble protein."  
>  
> ...I suspect  
>that somehow there was a mixup in the protein levels in Guinard's  
>otherwise spectacular book -- perhaps a misunderstanding by the  
>brewers? Perhaps they were quoting soluble protein and less is  
>soluble before malting?

Alternatively, someone is inadvertently quoting the Nitrogen content as  
protein - a plausible error given the correlation. The data I have on  
Baird's  
wheat malt is that it contains a maximum of 2.2% total Nitrogen.  
Remarkably  
close to your figures of "1.8 to 2.1". Just speculation though, but maybe  
worth checking.

Geoff

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Date: Tue, 29 Jun 1993 07:28:16 -0500 (CDT)  
From: dspalme@mke.ab.com (Diane Palme x2617)  
Subject: Door County Beers

Howdy All!

In yesterday's HBD, I happened to notice an article about the beers of Cherryland Brewing, Sturgeon Bay, WI. It talked about how the beer was brewed and a fruit juice was added at bottling time. Now, I had the opportunity to sample some of Cherryland's Apple Bach at the Kenosha Beer Festival two weeks ago and I was pleasantly surprised. This stuff was good! Being the cider fanatic that I am, I was to the point of hijacking the truck and doing some serious imbibing. I also resolved to make an apple beer and the net wisdom seems to hold that making a hard cider and a very light beer and combining the two at bottling time might be the way to go. I am currently in the process of making my first cider and if it doesn't turn out quite the way I want, I may consider the mix and mash thing. Regardless, I wanted to make one more point. I found some bottles of the apple bach in the cooler at my local home-brew supply store and promptly purchased a six-pack. The stuff was awful! Absolutely no flavor of apples (smelled like 'em tho) and none of the crisp sweetness that so overwhelmed me at the festival. :- ( Any input as to why this happened? The beer is in big, brown bottles and looks like it was stored at room temp. If I can manage to drink the beer, I will at least get a set of nice bottles for my cider. Oh, and one more thing: the rest of the beers from Cherryland are barely passable. The Gold and Silver Rails are not all that exciting and the cherry beer seems to go the same way as the apple bach.

Hmmmm. Enough rambling for one day!

Prosit!

Diane Palme  
Department Engineer, Central Inspection  
Allen-Bradley Co.  
(414) 382-2617

P.S>

The hops are huge! I am in fear for my parent's life! :-)

- - -

" God does not play dice "  
- Albert Einstein

" Nor is it our business to proscribe to God  
How he should run the world. "

- Neils Bohr

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End of HOMEBREW Digest #1171, 06/30/93  
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Date: Tue, 29 Jun 93 08:50:53 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Re: More Weizen Stuff

Jim Busch <busch@daacdev1.stx.com> wrote:

> I never see this either. The Weizen that Rick "beat out" (ouch!) only  
> yielded just under 30 pts/lb. I increased the pale malt and added a  
bit  
> of Munich and last nights yielded only 28.  
> Both batches were single decoction.  
> Eric's book is certainly a great asset to brewers, and Eric notes that  
you  
> should adjust all grain bills based on the performance of your system.  
Now,  
> if I can just figure out the performance of my system with wheat malt,  
\*\$!%.

My most recent Weissbier (actually a Dunkelweissbier) had a grain bill of  
6  
malted lbs wheat, 4 lbs munich and 1 lb pils, and yielded 30 pts/lb/gal  
with  
a double decoction. (OG 15.5P - 1.062) No where near Warner's numbers,  
but still acceptable.

> FYI:  
> Hefe Weizen #123, 6/23/93:  
> 59% De Wolf - Cosyns Wheat Malt  
> 38% De Wolf - Cosyns Pils Malt  
> 2.5% De Wolf - Cosyns Munich Malt  
> .5% De Wolf - Cosyns Cara Pils Malt  
> 13 IBU Hops, Whole Domestic Perle, 1/2 at start of boil, 1/4 at 60  
minutes  
> 1/4 Hersbrucker Hallertau Pellets, 15 minutes to end  
> ~21 oz Weihenstephan 66, Weizen Yeast  
> 1/2 Tbls Gypsum in Sparge, 1/2 Tbls in mash  
> OG 12P

I added about 13 IBU also, Hallertau Hersbrucker plugs and saaz pellets.  
The Weihenstephan #66 is a great yeast to use for a true weissbier!  
It really has the correct taste.

> A question for wheat brewers: what kind of grain mill do you use, and  
how far  
> (fine) do you grind the Wheat? I am beginning to wonder if my extract  
loss  
> is due to not pulverising the wheat enough. Pound for pound I should  
be  
> getting a much higher extract from Wheat, and I dont. An equivelent  
Pale Ale  
> single infusion gives me at least 13P.

Wheat should give a much higher yield. but it doesn't seem to in my case  
either. The xtractions using wheat are not very different from those  
with  
just 2 row pale. My previous batch had a poor wheat crush and the  
extraction  
suffered (low 20s). To avoid problems with the mills at homebrew stores,  
I just bought a MALTMILL (tm). Haven't gotten to use it yet.

For my next weissbier (maybe a weizenbock for the fall) I'm gonna try and crush the wheat very well and hope that I don't have lauter problems (I haven't had any so far using a double decoction)

Tim

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Timothy J. Dalton [tdalton@mit.edu](mailto:tdalton@mit.edu)  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Tue, 29 Jun 93 8:07:31 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: High Gravity Brewing

Jim Busch brings up an interesting topic: High Gravity brewing.

One concern that the big boys have is deaerating(sp?) the water before adding it to the beer but this is because they are adding the water at the end of the process instead of adding it to the fermenter.

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Tue, 29 Jun 93 09:08:52 EDT  
From: Elaine <EBORIS@UGA.CC.UGA.EDU>  
Subject: Half batches in Full size fermenter

I wanted to try making some cherry stout, but because I am unsure if I will really like the flavor (I have never tried any, it just sounds good) and because fresh cherries down here in Georgia are so expensive, I want to just make half a batch (3 GALS). My secondary fermenter is 6 gals and my question is, will having that large air space be a problem? Does anybody have an opinion about using fresh cherries versus canned ones?

TIA E.

Elaine Boris Student Information Systems  
Computer Services Specialist University of Georgia  
706 542-0484 Athens Georgia

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Date: Tue, 29 Jun 93 06:24:13 PDT  
From: R 29-Jun-1993 0918 -0400 <ferguson@zendia.enet.dec.com>  
Subject: interested in hi-gravity brews

>Date: Thu, 24 Jun 93 11:16:55 EDT  
>From: Jim Busch <busch@daacdev1.stx.com>  
>Subject: High Gravity Brewing

>  
>In an attempt to start a subject that I dont recall reading here in the  
fairly  
>recent timeframe I am asking for opinions on high gravity brewing. What  
I  
>mean by this is similar to what the big boys do: Brew a high gravity  
wort and  
>dilute with boiled/cooled water into the fermenter.

I'm very interested in any recipes that call for this method of brewing.  
I'm also interested in hearing any methods, procedures, gotchas, hints,  
etc. that people use for this method.

Currently, I only have a 5gal brew pot which is not sufficient enough to  
do all-grain brewing. I want to do all-grain with a 5 gallon yield, and  
the aforementioned method might be doable for me.

I'm interested, in particular, in wheat beer recipes. I've made myself a  
Zapap lauter-tun as explained in "the book" that works quite well. I've  
done  
a few partial mashes with decent success.

JC FERGUSON  
DIGITAL  
LITTLETON MA

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Date: Tue, 29 Jun 1993 10:59:58 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: polypropelene

Al Korz Writes:

>I suspect that it is Polyethylene (PE), not Polypropylene (PP). I have  
>yet to  
>see anything that's been made of PP that is food grade, so I suspect  
>that it  
>is not food grade. Since we're on the subject of Polypropylene and food  
>grade certification, if you buy yeast in plastic vials, check what kind  
>of  
>plastic it is. I've seen yeast sold in Polypropylene vials.  
>  
>Al.  
>  
>...

>Jim Busch's post reminded me of one instance of food-grade PP -- those  
>pleated PP filters. Are you sure the spun ones are PP also? In any  
>event, I looked around a lot and called a lot and could not find a PP  
>food-grade vial. Why not HDPE, you ask? Well, I wanted to autoclave  
>it -- PP is autoclavable as is PC (Polycarbonate -- also not food-  
>grade).  
>  
>I settled on glass vials with PP caps that have fiber/foil liners.  
>  
>Al.

A lot of food storage material is made of polypropelene. Much of  
the Tupperware(tm) like stuff, and juice jugs and so on. It's heat  
resistant and microwaveable. A lot of lab equipment is also PP, and one  
doesn't want plastic leaching into one's slant tubes...  
ed

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS

ech@ac.dal.ca +-----

+  
| I object to that comment! I know several pinheads |  
| and they are fully functional members of society! |  
+-----+

Eschew Labudmilloorsonhead

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Date: Tue, 29 Jun 93 10:09:49 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: Homebrew adventures #8725784509

Well, last nite was either homebrewer's paradise or nightmare, haven't quite figured out which yet.

I got home just after 7 after picking up the kids from Karate, slapped together some spaghetti, and put some water on to boil for beer and filled the #2 washtub with water, bleach, and bottles.

About 8, I added the malt extract and then the hops to the boil while I started siphoning off the latest batch of double-light from the primary fermenter. While the next batch ( 3-1/2 lbs M&F Light DME, ~ 2lbs honey, ~ 1 oz fresh Hollertau hops, EDME yeast) was boiling (cept for the honey)I bottled about 35 bottles of the aforementioned double-light, trying to leave about 2-3 gallons in the pan for making some fruit beer.

Well, in order to have something to put that beer + fruit IN, I needed to bottle the fruit mead that's been fermenting for the last week :

(3 weeks in primary, racked to secondary [ (2) one-gal apple juice bottles and a gallon winejug] with (a) 1 lb plums, (b) 1 12 oz package frozen raspberries, and (c) 1 pint fresh blackberries)

This proved to be a challenge, cause the siphon was still sitting (primed) in the beer and I didn't think i wanted to try to start a siphon in those 1 gal jugs, between the "line loss" and all that fruit pulp, it didnt seem a good idea. So, I just poured the mead from the respective jugs through a strainer and funnel into the beer bottles. Yes, I know it oxegenated the mead a lot, but hey, sue me, OK? If it comes out \*awful\* I have something to blame besides my (otherwise) ineptitude...

I sampled some of the fruit i strained off the mead - mmmmmmmmmmm

After getting the mead tucked safely into some bottles (and a bit drooled on the floor ;-), it was time to add the finishing hops and honey to the batch of beer on the stove and let it steep for a few minutes and dump it off to the primary and put it in the (pre-chilled with a coupla frozen gallon milk-jugs of water) water in the sink.

Well, now there are dirty pots and pans everywhere and about 50 or so bottles of various fuit meads and beer, empty bottles, the #2 washtub with chlorine water soaking those 3 gal jugs, an empty plastic fermenter, a bit of mead and beer, and who knows what else on the kitchen floor.....

Back to the original batch of double-light beer that's been patiently waiting for its fruit. Cherries were on sale for \$.99/lb raspberries for \$1.19/pint and strawberries for \$.59/lb; so that's what I got - ~2-1/2 lbs of cherries to be pitted, about 2 lbs of strawberries to (whatever you call removing the stem-thingie) and chop, and a pint of raspberrires to chop up.

So now we've got bits of cherries and strawberries on the table & floor to go with all that other stuff and a big cutting board covered with fruit. After squishing the fruit into the three (separate) gal jugs, i added a gal of beer to the cherries and 1/2 gal to the strawberries and 1/2 gal to the raspberries (and added a rubber



stopper and airlock).

There was enough beer left to bottle 2 more beers of that double-light, and then loads of clean-up.....

I finally got done about 1:30 AM. Cant wait to try the results!

jim

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Date: Tue, 29 Jun 1993 9:00:26 -0600 (MDT)  
From: 114067@INCDP1.LANL.GOV  
**Subject: mailing list**

would like to get on email list.  
address is 114067@incdp3.lanl.gov.  
thanks

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Date: Tue, 29 Jun 93 8:14:25 PDT  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Re: Anheuser-Busch buys Sierra Nevada (how about Tsingtao?)

In HOMEBREW Digest #1170, it is said:

>Date: Fri, 25 Jun 93 11:44:46 EDT  
>From: chuck@synchro.com (Chuck Cox)  
>Subject: Re: Anheuser-Busch buys Sierra Nevada  
>  
>Rick Garvin sez...  
>>  
>> I called SNBC today at 916-893-3520 and spoke with Peggy. She was surprised  
>> that the rumor had gotten to Washington, DC but she had heard it. She said  
>> that this was absolutely false. Now, our friends at the SEC do not like  
>> companies to deny these things if it is true. So, I beleive her.  
>  
>Hey! It's rumor time.  
>  
>According to sources at the breweries, A-B did ask both Sierra Nevada  
>and Anchor (and possibly others) what their selling price was, both  
>declined.  
>  
>According to sources in both the brewing and financial worlds, A-B is  
>seriously considering buying Jim Koch's Boston Beer Litigation Company.

Heh, heh. That would be a master stroke for J.K.: selling a brewery with virtually no brewing facilities (a virtual brewery?) to the mighty A-B. Considering that Miller has already shown us that it is perfectly capable of producing flavourful beer (it's just been holding back until the market was right, didn't you know that!? :-), I find it amusing to think that Budweiser, the master marketer of insipid pale lager, would consider buying Boston (tm) Beer (tm), something that is essentially a beer-marketing company.

Okay, enough with these rumours; I have something real. A-B has announced that it will purchase 5% of China's Tsingtao brewery, or 45 million shares, part of a semi-privatisation of Tsingtao. Source: Seattle Times business section, 28 June 1993, page 2. Seriously! Political repression may continue, but economic development and growth in the PRC continue to gallop along, and now the biggest American megabrewer is dipping its toes into the waters. Let's hope that this involvement with Tsingtao keeps them busy enough that they keep their hands off Budvar (aka the Budweiser with flavour). Look for even wider availability of Tsingtao in supermarkets across the land. (Didn't A-B already have some kind of interest in Denmark's Carlsberg, or was that import and marketing only?)

- - -

||  
/ / / | Don Scheidt | / / /  
/ / / | Boeing IASL, 777 Cab Development | / / /

/ / / / | dgs1300@aw101.ias1.ca.boeing.com | / / / /

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Date: Tue, 29 Jun 1993 08:25:18 -0700 (MST)  
From: Cisco <FRANCISCO@lan.ccit.arizona.edu>  
Subject: Foaming/Flat Kegged Beer

The second half of this post showed up in Teusday's digest so I'm guessing that the first half got lost, so I'm reposting the first half.

> From: djackson@wv.MENTORG.COM (Darin Jackson)  
> Subject: Foaming/Flat Kegged Beer  
>  
> I recently purchased a kegging system and made my own beer chiller.  
> The chiller is 6' of 1/4" od copper tubing with 3/16" fittings on  
> either end to connect in from the line out of the keg and to the line  
> out to the cobra tap. I bent it into a shape that fits into my small  
> cooler I dedicated to the task and was proud as hell of my \$6 portable  
> chiller. Well, I'm having foaming/flat beer problems.  
>  
> I have 4' of 3/16 id  
> hose and 6' of approximately the same id copper total, but the "smooth"  
> part at the end by the tap is only 2'. I presume that there will be  
> turbulence caused by the fittings from the copper to the hose. Is 2'  
> enough to let the beer settle back down? I'm getting all head and  
almost  
> no carbonation in the beer. I have tried dispensing with the gas  
> disconnected, with 12 lbs of gas, with 10 lbs of gas and with 7 lbs of  
> gas. And, of course, I drank all of the flat beer.  
> Darin

Your problem is your dispensing pressure does not match the inside diameter and length of your dispensing line. I posted an article about how to calculate this a few weeks ago, email me if you want it sent to you. To make it simple, an inside diameter of 3/16 has a pressure drop of 1 pound for every 4 inches. You have 6 ft. of copper tubing and 4 ft. of plastic tubing(all with 3/16 id according to you). This translate out to 10 feet of 3/16 id tubing or 120 in./4 in. = 30 lbs pressure that is required to push the beer through the lines without the carbonation leaving the liquid. The cobra tap does not essentially have a pressure drop across it that must be taken into account if you open it FULLY when pouring. If you open it slowly then you are definitely causing the tap to influence a greater pressure drop through your dispensing line and foaming will occur. So get used to opening it quickly and fully.

John Francisco  
Francisco@lan.ccit.arizona.edu  
>

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Date: Tue, 29 Jun 93 10:32 EDT  
From: LYONS@adc2.adc.ray.com  
Subject: Diluting beer ...

>Subject: High Gravity Brewing  
>  
>In an attempt to start a subject that I dont recall reading here in the fairly recent timeframe I am asking for opinions on high gravity brewing. What I mean by this is similar to what the big boys do: Brew a high gravity wort and dilute with boiled/cooled water into the fermenter. Now before you get all upset that this is not the way to make "real" beer, let me point out that I talked to a few brewmasters in the UK who did just this. In particular, the brewer from the Larkins Brewery (located in Kent, took a medal in last years GBBF), told me he brews his ordinary bitter to an OG of 1.055 and dilutes it down to 1.035 in the fermenter. I realize one needs to take into account the additional caramelization in the kettle with the increased sugar content, but has anyone done much of this. I am especially interested in the idea of brewing pale ales of OG 1.065-1.070 and adding water to result in a 1.055 in the fermenter. The entire fermentation would be at the lower gravity. An obvious issue is the pH of the water pushing the wort toward the alkaline side, would the wort be able to buffer a 10-20% water charge? Would typical Sierra Nevada ale yeast be able to work at a slightly more basic pH than a normal wort? IT would seem to me that since kettle size is normally the limiting factor in batch size, this would be a great way to increase volume of finished product. I am fortunate in that I oversized/over engineered my lauter tun to accomadate high gravity brewing, so working with the extra grains is no problem.  
>  
>Comments/experiances?

I'm not sure if many would recommend diluting a beer. However on a partial mash I was shooting for an OG of 58 and ended up with 90. I decided to bottle it and label it as an under hopped Imperial Stout. I did consider diluting it down to 58 but wondered when it would be best to dilute it. What would be the advantage of diluting the beer prior to active fermentation rather than during the secondary phase?

Chris  
LYONS@ADC2.ADC.RAY.COM

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Date: Tue, 29 Jun 1993 11:49:00 +0000  
From: "Bill (W.R.) Crick" <heybc@bnr.ca>  
Subject: High Gravity Brewing

Jim Busch asked about high gravity brewing:

We've tried it with good success. We originally did a batch with no sparge, and 4/3 the grain bill ala George Fix's maltiness article in HBD year or so back.

This created Pilsener Noel Premium (PNP), which is a offshoot of Normal Pilsener Noel (NPN). PNP definitely had all the maltiness George predicted. Almost too much. The PNP is more like a Mai Bock, than a pilsener? So we decided to run the same grain bill, that is 4/3 normal, do a sparge, and boil down to a normal batch size. We watered it down 50%, that is total of 150% of normal batch size. Tastes great. I can't detect any bad artifacts of the higher gravity brewing, or the "watering down". No one else has commented on anything unusual either.

Bill Crick Brewius, Ergo Sum!

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Date: Tue, 29 Jun 1993 11:52:00 +0000  
From: "Bill (W.R.) Crick" <heybc@bnr.ca>  
Subject: High Gravity Brewing

Sorry about the double post. I missed a critical point.  
THIS BEER WAS WATERD DOWN AT BOTTLING TIME!

Jim Busch asked about high gravity brewing:

We've tried it with good success. We originally did a batch with no sparge, and 4/3 the grain bill ala George Fix's maltiness article in HBD year or so back.

This created Pilsener Noel Premium (PNP), which is a offshoot of Normal Pilsener Noel (NPN). PNP definitely had all the maltiness George predicted. Almost too much. The PNP is more like a Mai Bock, than a pilsener? So we decided to run the same grain bill, that is 4/3 normal, do a sparge, and boil down to a normal batch size, for fermentation. We watered it down 50%, that is total of 150% of normal batch size, when we bottled it. Tastes great. I can't detect any bad artifacts of the higher gravity brewing, or the "watering down". No one else has commented on anything unusual either.

Bill Crick Brewius, Ergo Sum!

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Date: Tue, 29 Jun 1993 12:10:00 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Bits and pieces

Hi ya'll!

Keith mentions:

>Charlie Papazian in TCJOH refers to the dumping of the wort through a  
>strainer  
>into the fermenter to remove the hops and any other particulates as  
>sparging.

And I disagree with the esteemed CP on this. While I'm not one who  
thinks you need to rack off the cold break before fermentation begins,  
I do believe you need to get as clear a runoff as possible off the hot  
break when going to the fermenter.

>This might be the source of the confusion. He also recommends scooping  
>out  
>the specialty grains just prior to the wort coming to a boil.

Hmm... The conventional wisdom here is to remove the grains at 170  
degrees to avoid leaching tannins into the wort. Waiting until just  
before the boil is too long.

Jack says:

> Hmm... Wasn't planning on going to Portland. Hate to make the trip  
>just to  
>keep him honest. Any volunteers to take a brand new MM for the GREAT  
>CRUSH-OFF?

I'll try not to fall into the camp of the humor-impaired here but the  
casual reader and, I'm sure Mr. Listerman, would take offense at the  
insinuation that Dan is a dishonest person. This makes two such  
swipes at Dan in as many weeks. And since he isn't here to defend  
himself, don't you think we can refrain from comments like this?

Nir writes:

>>I'm just back from the UK. The British seem not to mind using plastic  
>>in their  
>>homebrewing. They have a mashing apparatus made of a 20 lit polypropylene  
>>bucket

To which Al responds:

>I suspect that it is Polyethylene (PE), not Polypropylene (PP). I have  
>yet to  
>see anything that's been made of PP that is food grade, so I suspect  
>that it  
>is not food grade.

Al corrected himself later but I've been brewing for years with a  
product that is constructed of HD Polypropylene and I'm still alive.  
:-)

Jim asks about high gravity brewing...

I've been doing some high-gravity brewing at Tumbleweed for the first  
time in my life. Our biggest problem with it is adjusting for hop  
utilization. We had much better hop character to our beers when we

did full gravity boils. The hop back helps but, again, I got better results from the full gravity brews. Suggestions, anyone?

And then Carl says:

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>To add my $.02 to the advertising debate; it strikes me as highly
inappropriate
>to advertise on this list. It is a waste of bandwidth for those of us
who are
>looking for an informative forum on tips and techniques. It also does
an
>injustice to those who voluntarily restrain themselves on the list and
actually
>PAY for their advertising. If a product is good, we will hear about it
from
>satisfied customers. 'Nuff said.
```

To which I say, "Amen, Brother". Discussion of products in this forum is expected and should be encouraged. But why not let the customers debate the various pros and cons of a product? I personally think the only time a manufacturer needs to say anything about his product publicly is AFTER a thread has run its course. At that point, one post addressing all the pressing issues would be appropriate. This endless harping, hyping, and mentioning of one's own products to keep threads running ad nauseum is in poor taste, to say the least.

But we've had this discussion before, haven't we?

Cheers!

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|      | Kinney Baughman |      |
|      | baughmankr@conrad.appstate.edu |      |
| / / / / |
|      | "Beer is my business and I'm late for work" |
|      |
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Date: Tue, 29 Jun 93 09:36:44 PDT  
From: rstya@mda.ca (Roy Styan)  
Subject: RE: More Weizen Stuff

The best I've done brewing weizen was to get a 34 pts/lb/gal yield. This was for a weizen bock, and was brewed with a triple decoction, including a 30 min. dough in and 20 min. acid rest. It was a loooooong day - about 11 hours. I now stick with a single decoction and my normal 30-31 pts/lb/gal, using the extra time to sample my wares.

My grain mill is a corona, powered by a 23 rpm motor. I think the low rpms give a better crush than one normally finds on these mills. It is left on the same setting for barley and wheat - breaking a kernel into five or six pieces. Although flour is evident, it does not caused problems with the sparge as long as I go through at least one decoction.

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Date: Tue, 29 Jun 93 11:41:38 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: BFD article 1 of 2

Dan: Please ACK getting this.

Competition Update:

There will be a HWBTA sanctioned competition at the Topsfield fair this September, entry deadline is September 8th. The cost is \$5 per entry or \$ 4 per entry if over five are entered. Prizes in the form of gift certificates and brewing opportunities at local micros will be awarded. Prizes will also be awarded to the first and second place club, a club must have at least five entries. This is a great opportunity to enter a competition, since entries can be dropped off in Topsfield there is no shipping cost. Lee Menegoni will be bringing entries to Topsfield for BFD members. If you have a brew your proud of bring it to the July or August meeting the judges in the club can help pick the appropriate category to enter it in. Remeber to save three for the competition.

Please contact Lee if interested he has entry forms and more details.  
Phone H: 603-881-5227 W: 508-635-6282

HWBTA is the Home Wine and Beer Trade Association.

Club Only competitions:

We need to set up a tasting date, entrants can submit more than one beer but only one per category.

August 9 entry deadline August 9

Weiss is Nice \*\* categories:

Berliner Weisse, Weizen/Weissbier, Dunkelweizen, Weizenbock

Its not too late, the BFD Yeast Bank has a few good cultures appropriate for the Fest style.

October 4 entry deadline October 4

Best of Fest \*\* categories:

Vienna- Amber to deep copper/light brown. Toasted malt aroma and flavor.

Low malt sweetness. Light to medium body. Hop bitterness "noble-type" low to medium. Low hop flavor and aroma, "noble-type" OK. No fruitness, esters. Low diacetyl OK.

Marzenn/Oktobertfest- Amber to deep copper/orange. Malty sweetness, toasted

malt aroma and flavor dominant. Medium body. Low to medium bitterness. Low

hop flavor and aroma, "noble-type" OK. No fruitness, esters

December 6 entry deadline December 6

Poignant Porter \*\* categories:

Robust Porter- Black. No roast barley character. Sharp bitterness of black

malt, without high burnt/charcoal-like flavor. Medium to full bodied.

Malty sweet. Hop bitterness medium to high. Hop flavor and aroma: none to

medium. Fruitness/esters OK. Low diacetyl OK.

Brown Porter- Medium to dark brown. No roast barley or strong burnt malt character. Light to medium body. Low to medium malt sweetness. Medium hop bitterness. Hop flavor and aroma: none to medium. Fruitiness/esters OK. Low diacetyl OK.

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Date: Tue, 29 Jun 93 11:53:33 EDT  
From: Lee=A.=Menegoni@necotech.com  
Subject: oops

Ooops. The competition info article was not intende to be sent to HBD.

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Date: Tue, 29 Jun 93 10:39:32 PDT  
From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)  
Subject: storing kegs and sanitizing fermeter lids

Here's a few of questions for the experts :

- 1) I haven't been able to find a good way to immerse my fermeter lid (a 5 gallon white plastic bucket with snap on lid) in the sanitizing solution. I can distort the bucket and jam the lid in part way, but this could scratch the sides of the bucket and besides does not totally immerse the lid. Also, I don't have any other vessel larger than the bucket. I've been splashing the sanitizing solution all over the lid in the hopes that the contact time is long enough. Is it ? Do I need to buy a larger soaking vessel ?
- 2) I've been kegging my beer (too lazy to clean bottles :-). So far, the one batch that I completed was consumed all at once during a party. However, I imagine that it would be nice to keep a keg around for longer periods of time. I use CO2 to pressurize so oxydation isn't a problem but I don't have enough `fridge space to keep the keg upright and cooled down for extended periods. Will repeated cycling between 45F and 80F spoil the flavor ? I'm not really concerned about any visual effects, only taste.
- 3) I bought a used and dirty Cornelius keg. I scrubbed the interior out as well as I could. Now, I'm worried whether there might be built up crud in the feeder tube or the hose fittings. Would you recommend disassembly and cleaning ? I've circulated sanitizing solution through all of these parts.

advTHANKSance,

Bart Thielges  
Expert Brewing Novice and Unambiguous Contradictor

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Date: Mon, 28 Jun 93 15:42 CDT  
From: korz@iepubj.att.com  
Subject: How not to make fruit beer...

I have the fortune of having married into fruit trees. What I mean is, that my new in-laws have two cherry trees in their yard and they haven't been bothering to pick them, so I can have them for the trouble of picking.

Last year, I watched half of the cherries get eaten by birds and plotted a way to keep all the cherries to myself this year. This last weekend, I decided to build a cage around the trees to keep the birds out. The cherries on one tree were almost ready but on the second tree they were still quite green. I decided to build a cage around one tree and then move it over the other one next weekend when the cherries on the first tree will be ready to pick.

The materials for this project (1-by-2s, nails, staples and netting) cost me about \$40. Early Sunday morning, I set out to build the cage. The cage was to be 16 feet long and 16 feet wide and 10 feet tall. Note that this is much too tall to lift over the trees, so that to move it, one side would have to be disassembled and then reattached after moving. Basically, the design was a box frame made of 1-by-2s with "Bird-X" netting stapled to five of the six sides.

11 hours and a hundred mosquito-bites later, I can only say this must have been my stupidest project ever! After 10.5 hours of baking in the sun and getting chewed upon by mosquitos, I determined that I was building a large death-trap for birds (while putting up the netting, several birds flew into the netting and it was a matter of time before one of them got caught in the net and died) and that the benefits were not worth the costs.

Costs:  
Consider that the frame was simply nailed together and therefore damage to the wood from disassembly subsequent reassembly means that the lumber would only be good for maybe three years. Therefore, the cage would cost about \$8 per year in lumber, nails and staples. It took 10.5 hours to assemble this cage, would take probably 4 hours to move it and then another 10.5 hours to disassemble for winter storage. A total of 25 hours. Even at, say \$5.00 per hour, my labor costs were \$125. (Sure, I like to build things, but heck, I could also spend that time brewing!) Total cost per year: \$133.

Benefits:



I estimate that there are about 60# of cherries on these two trees each year.  
The birds get about half, so that the cage gains me about 30# of cherries.

That means that I would be getting 60# of cherries for \$2.22/lb, but I would have to pick them too! Not to mention, I've still got 15# left in my freezer from last year that I didn't have time with which to brew.

I spent the last 1/2 hour tearing down the netting down from the frame and next weekend I'll be taking down the frame. Chalk one up for experience.

By the way, it looks like a good year for Michigan Cherries. They are already in the fruit markets and are priced quite a bit lower than last year: already-picked are running \$1/lb, whereas u-pick last year were \$1/lb.

Al.

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Date: Tue, 29 Jun 93 12:43 CDT  
From: korz@iepubj.att.com  
Subject: Specialty Products Intl. part 1

A number of weeks ago, someone posted the name of a supplier of inexpensive malt extract called: Specialty Products Intl. If you are like me, you called and recently got their booklet called "Home Beermakers Guide." This booklet was written "BY LEIGH P. BEADLE, AUTHOR OF THE BEST SELLER Brew\_It\_Yourself\_" a book that was "reviewed" (quite unfavorably) here on the HBD a few months ago.

First off, I'd like to post a disclaimer:

I am a homebrewing supply retailer and mailorder business owner which does not carry the products marketed by Specialty Products International, HOWEVER, these products are available to me for wholesale purchase, so it is by choice that I do not choose to stock them -- in other words, I am not really in competition with SPI. They would have my wholesale business if I felt they had a good product.

If you have received this booklet and are a relatively experienced brewer, then you probably got a few laughs out of it. If you are less-experienced, then you may have been confused by this book, which is the sole reason for my posting this review.

Pg1:  
"Hundreds of commercial breweries flourished in America around the turn of the century, and beer-lovers could choose from a variety of lagers and pilsners. There are now only 50 left and within a few short years there may be only five remaining."

Indeed, there were hundreds of breweries around 1900, but "lagers and pilsners" [sic] were not the only styles they brewed. Back then, ales were quite popular also and many styles of ale were available to the beer-lover. By the way, pilsners ARE lagers, just one specific style of lager. Fear not, the numbers of breweries in the US are growing, not shrinking.

"It takes only about thirty minutes to mix the ingredients, and a week later, another thirty minutes to bottle and cap, with nothing to do in between."

I'll address the boil time issue later, but unless you're not sanitizing and you're using 1/2 gallon bottles, bottling will take you over two hours.

Pg2:

"The single stage fermenter, developed since my previous books on home beer-making, is a great improvement in equipment. It is made of FDA food-grade polyethelene..."

Will the wonders of high-technology ever cease! Will you look at that! As a by-product of research done for the Space Shuttle project, single-stage fermenters are now available to us lowly homebrewers. By the way Leigh, that's "polyethylene."

Pg3:

"Since the fermenter is filled with CO2 gas the beer is protected against spoilage because spoilage organisms are air-bourne and cannot live in a CO2 environment."

Yes, unless you count Lactobacillus and Pediococcus and wild yeasts of perhaps 30 species from Hafnia to Bayanus, not to mention Cryptococcus which is water-bourne...

...seriously, molds and two species of acetobacter are the most common spoilage organisms that cannot live in a CO2 environment.

Pg5:

"Always let your equipment drain upside down to dry. After brewing your beer, rinse out your fermenter immediately after emptying it so that the beer does not have time to dry. The same applies to your siphon hose. This way, you will not have to sterilize your utensils each time you use them. It is a good idea to run a solution of Clorox and water through your siphon hose and also your fermenter after several batches, again using the above solution of one tablespoon of bleach to one gallon of cold water."

Well, I doubt even the beginners on the HBD can see what's wrong with this picture. Yes it's a good idea to rinse immediately and I feel that the concentration of bleach is right, but we all know very well that sanitation is the most important part of brewing good beer and everything that will come in contact with your beer should be sanitized (and rinsed in the case of bleach) immediately before use.

"If you rinse your bottles out with hot water immediately after emptying them, scrub them with the bottle brush and leave them to dry upside down and, finally, store them upside down in their carton, it will not be necessary to re-sterilize or re-clean them prior to the next brewing."

I would venture to guess that the author of this booklet has a gusher at least once in every ten bottles with these procedures. Again, it's great idea to rinse right away, but sanitation is required before use. By the way, that "sterilization" would require the equipment or bottles to be irradiated or autoclaved. What the author surely meant was "sanitized."

To be continued...

Al.

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Date: Tue, 29 Jun 1993 11:30:31 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Hangover prevention and treatment

Slightly suffering as I am at this moment from too much Barolo and Port (it wasn't a beer night), I thought I would share what I have learned from some decades of chronic overindulgence in various and varied fermentations.

Metabolism of ethyl alcohol (CH<sub>3</sub>-CH<sub>2</sub>OH) and the higher so-called fusel alcohols (CH<sub>3</sub>-(CH<sub>2</sub>)<sub>n</sub>-CH<sub>2</sub>OH) uses prodigious quantities of WATER and B-vitamins. If one arrives at an Emergency room dangerously intoxicated the first thing one receives is a mega-dose of B-vitamins in the butt or thigh. Since alcohol metabolism depletes one's store of B-vitamins it is very important for us steady imbibers to maintain high body stores of B-vitamins. This can be done through proper nutrition or through balanced, high quality, relatively high dose supplements. It is important that we watch our health because it may seriously affect our ability to drink! Maintaining good body stores of B-vitamins will reduce hangover severity by itself, but personally I pop a couple extra before bed on those nights when I've had a few.

For those of you who are serious physical exercisers (again, general good health increases one's ability to imbibe) know that dehydration leads to headache and nausea. In my opinion it is dehydration that causes these symptoms called "hangover". The solution is in fact a solution. Drink as much water as you can before you go to bed, and drink water through out the night. And I mean QUARTS! Now some of you may think that this would necessitate many nighttime excursions, and you are right. But it gives you the chance to drink more water, and given the choice would you rather be a little tired the next day (take a nap) or hungover?

Finally, Paul Sovcik recently mentioned a greasy breakfast will ameliorate a hangover. I also have found this to be true, though I take issue with the term "greasy". Let's just say "fat containing", such as an egg over medium with a thin slice of sharp cheddar on whole wheat toast.

In summary: serious drinking demands serious training and attention to general health and nutrition; take your B-vitamins; drink lots of water; have breakfast.

Domenick Venezia  
ZymoGenetics, Inc.

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Date: Tue, 29 Jun 93 12:37 CDT  
From: "Michael Barre" <MBARRE@NOMVS.LSUMC.EDU>  
Subject: Metallic first batch

Thanks Andy, Brian, and Al for your help. The water I used (tap water pulled from the Mississippi River) is definitely hard - 12 to 14 mg/l according to the spring water salesman.

Brian, I did not boil the water, but tried to remove the chlorine before adding the wort by filling the sanitized fermentation bucket with the 3.5 gallons of water two days before the brewing. I removed the lid from this bucket only two or three times during that time, to allow the evaporated chlorine to escape but keep the nasties out. I know two days in a bucket WITHOUT a lid is enough time to dechlorinate my water, from experience with fish tanks; but WITH a lid, I don't know.

Neither did I siphon off the precipitate. The s.g. had fallen from 1.048 to 1.010 (corrected to 60F) within 13 days, at which time I bottled it. I had a lot of precipitate (from hop pellets) in the fermentor. Do you think siphoning into a secondary fermentor would improve the flavor? Should I use a hop bag for the pellets?

Which reminds me, someone posted a question recently about shoving the flotsam back down into the wort. After a week of fermentation I uncovered the wort to scoop some out with my sterilized (boiled for 15 minutes) Pyrex measuring cup to test the s.g. At that time I pushed most of the scum from the sides of the bucket back into the liquid with my sterilized steel spoon. I don't know if that contributed to my problem, but I won't do it again.

When the Ozone man gets here next Monday, I will purchase a glass carboy with zero hardness (according to the salesman) spring water from him. I will use that water and use that carboy as a primary fermentor. I will purchase better (ale) yeast and extract. If I use pelletized hops, I will put them in a bag. I will jug-aerate the water. And, I will use the water-pan-towel-drape fermentator cooler.

I may or may not use liquid yeast, and may or may not siphon off into a secondary fermentor after the fermentation settles down.

Thanks again for the help.

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Date: Tue, 29 Jun 93 12:43 EDT  
From: LYONS@adc2.adc.ray.com  
Subject: Light (Lovibond) Extract

>>Subject: Light (Lovibond) Extract

>>

>>I wish to make a beer with the lightest possible color as is  
>>possible with extract.

>>What suggestions can you give me for both liquid extract

>>(preferably unhopped) and DME?

>>

>>TIA

>>Andy A

>

>Andy, from my experience and comments from my local supplier, American  
Eagle

>seems to be the lightest extract (both dry and syrup) on the market.

Their

>amber DME seems to be the color of M&F et.al.'s light.

>

I seem to recall some HBDers complaining that the American Eagle  
dry extract product had significant amounts of corn sugar mixed in  
with the malt. This would certainly make a light beer, but it may  
be better to stay with a quality extract, such as M&F or Laaglander,  
which claims to be all malt.

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Date: Tue, 29 Jun 93 12:46 EDT  
From: LYONS@adc2.adc.ray.com  
Subject: RE: Help rescue my first batch!

>From: J. Michael Diehl <mdiehl@triton.unm.edu>  
>Subject: Help rescue my first batch!  
>  
>Last sunday, I started my first batch, an extract. I'm using a  
Laaglander  
>Dutch Dark Beer kit. But I think I'm in for some problems.  
>  
>My initial Gravity was only 25; I was told to expect 45, on the scale  
that is.  
>I also expected a bit more vigorous bubbling. I had times when it  
didn't  
>buble at all, other times it did pretty well. Anyway, 2 days after  
pitching,  
>My girlfriend and I tasted a bit of the wort. It tasted like watered-  
down  
>sour grapejuice. I figured that maybe I didn't stir it well enough so  
after  
>2 more days, I stired it up real good and took a gravity reading, a 20.  
It  
>still tasted the same, but I bet you could catch a buzz of it! ;^) Now  
I  
>suspect that all of the yeast is dead. What do I do now? Thanx in  
advance.

An OG of 25 and FG of 20 would result in a beer with less than 1%A.  
I suspect that your first batch is okay and that you forgot to  
correct the OG for temperature. For example, an SG reading of 25  
measured at 185F would translate to a SG of ~55.5 at 60F.

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End of HOMEBREW Digest #1172, 07/01/93  
\*\*\*\*\*

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Date: Tue, 29 Jun 1993 14:20:15 -0500  
From: Todd Enders - WD0BCI <enders@plains.NoDak.edu>  
Subject: Crushing wheat & Belgian Tripple

Jim Busch writes:

>A question for wheat brewers: what kind of grain mill do you use, and  
how far  
>(fine) do you grind the Wheat? I am beginning to wonder if my extract  
loss  
>is due to not pulverising the wheat enough. Pound for pound I should be  
>getting a much higher extract from Wheat, and I dont. An equivelent Pale  
Ale  
>single infusion gives me at least 13P.

>  
Well, as a point of reference, I made a Belgian White with a grain bill  
as follows: 5# US 2-row, 2# Wheat malt, 1# Raw wheat. At the end of the  
boil  
I had 5.5 gal @ 1.047 which is approx. 32.3 pts/lb/gal. I crush the  
wheat  
rather more fine (+ 1/2 turn on the old Corona) than the barley. (no husk  
to worry about with wheat) Lots of small bits and a good quantity of  
flour.  
The flour pretty well seems to disappear during sacharification.

>Since my latest visit to Belgium last month, I am getting real anxious  
to brew  
>an authentic Belgium Tripple. I though I would consult the HBD for any  
tips  
>or opinions on the matter. My goal is a simple one, reproduce Bruges  
Tripple.  
>I am aiming for 9-9.5% ABV, light pale color, warming alcohol presence  
but  
>not overtly evident alcohol.

>  
Unless you employ a yeast that produces sufficient esters and finishes  
with enough maltiness, the task is not quite so simple. :-)

>So for say 10 gallons:  
>Pils malt to result in an OG of ~18P (1.073/4)  
>5-6 lbs glucose/sugar/candi mix (is this close?)  
>~20-24 IBU Goldings/Saaz/hallertau/Perle/Liberty?  
>Yeast???? LaChouffe, Westmalle, Duvel? Suggestions excluding Wyeast  
Belgium :-)  
>A combination? I would assume a fresh bottling yeast is required.

>  
I suspect the amount of sugar is too high by about a factor of 2. For  
10 gal., about 2-2.5# of straight candi sugar (if it's light candi), or  
50/50  
sucrose and dark candi would be just about right.

Yeast is a tricky subject. One needs a yeast that can tolerate the  
alcohol, but yet is not \*too\* attenuative. I've used Chimay yeast with  
some  
success (although I still haven't concocted a dubbel or trippel that I'm  
altogether happy with). The yeast was cultured dregs, not Wyeast Belgian  
(which may or may not be Chimay). I've gone as far as 9% with it,  
without  
having to employ fresh yeast at bottling (although your mileage may vary)

.

An acquaintence once tried to culture from the dregs of Duval. I strongly suspect one would have to plate it out, as the starter had a truly \*vile\* odour about it. He \*was\* careful, BTW. However, in a matter of a couple days the starter had a \*strong\* barnyard droppings odour. I've always wanted to try Wyeast European (1338?), but will defer to anyone who has employed it in a strong ale.

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=====
=====
Todd Enders - WD0BCI   ARPA: enders@plains.nodak.edu
Computer Center   UUCP: ...!uunet!plains!enders
Minot State University   or: ...!hplabs!hp-bsd!plains!enders
Minot, ND 58701 Bitnet: enders@plains
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Date: 29 Jun 1993 15:33:01 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: Belgian Tripel Discussion and recipe

Jim Busch asks about possible recipes for a tripel.

The Trappist abbey of Westmalle was the first to introduce the Dubbel and Tripel style. Their Dubbel (1060 OG, 6.5% alc. by volume) is a dark, amber-brown color with a rich maltiness and a hoppy dryness in the finish. A more impressive beer, and one that they are better known for, however, is their stronger beer called Westmalle Tripel. This is a very pale, strong (1080 OG, 8% alc.) ale, obtaining its fermentables from pilsner malts and candy sugar. It is hopped with English Fuggles, several German varieties, and Saaz. After several months warm maturation (50deg F) in tanks, it is re-yeasted and bottle conditioned, yielding a beer of great complexity.

Although Westmalle Tripel is the classic brew, other excellent varieties of Tripel include the Trappist-brewed Koningshoeven, and the abbey varieties from Leffe, Grimbergen, Isebart, and Bruges, among others. They all possess the similar Tripel characteristics of a pale colored, high-gravity, complex Belgian ale.

The exact recipes for the Trappist Tripels are generally a guarded secret. There are those who think that small amounts of herbs and spices are added as a flavor nuance. I know a person who thinks that camomile may be an ingredient, while Jan Knoop, owner of La Vierge, a specialist beer bar in Maastricht, Holland, suggested laurel leaves!

I had never seen a recipe for a tripel until a trip to Belgium & the Netherlands several years ago. There I found several copies of The National Beer Journal, a monthly newspaper published by the Nationaal Biermuseum 'De Boom' in Alkmaar, Holland. In the back of one of them was an article (in Dutch) about yeast, including a recipe for a Tripel.

The original recipe was in Dutch. Here is my translation:

\*\*\*\*\*

Tripel (2.6 gallon): Recipe by D. Walsh

35 oz munich malt  
53 oz pilsner malt  
1.2 oz amber malt  
10.6 oz brown sugar

2.5 oz light candy sugar  
1.4 oz hops (see varieties mentioned above)  
0.11 oz coriander seed  
0.07 oz dried orange peel  
yeast

Procedure: Make a thick mash at 131 deg. F and hold for 45 minutes. Add boiling water until the temperature is 145 deg. F and hold one hour. Raise the temperature to 162 deg. F and wait another hour. Hold at 172 deg. F for 15 minutes. Sparge to collect 3.6 gallons of wort. Bring to a boil and add most of the hops, boiling them for an hour. The sugar, coriander, orange peel and a handful of the hops are boiled the last 5 minutes. Starting gravity is about 1080.  
\*\*\*\*\*

Notes: I have made this beer a couple of times. It yields a beer of lovely complexity. This recipe makes a beer that is borderline too dark for style and I would simplify it by substituting all Pils malt for the darker grains. Also, use corn or candy sugar for the brown sugar if you wish. The hopping rate seems about right if you use low alpha noble hops like Saaz and EK Goldings. The number of IBU's that Jim suggested is somewhat lower than in the above recipe. Some experimentation here may be necessary for your own personal taste.

I think that the spicing is a necessary ingredient and adds interest to the final product. Note that it is used only at the nuance level and in quantities so small that you should use a gram scale for accurate measurement. Do NOT overdo the spices if you use them, you only want a subtle touch.

As for the yeast, you are somewhat limited to what you have available. I agree with Jim that Wyeast Belgian isn't appropriate (too banana-y). I have experimented with Westmalle yeast cultured out of a bottle brought back from Belgium, but it behaved as if it were a bottling yeast. Duvel is also reported to be a bottling yeast. I think that La Chouffe would be a good yeast to try, as might the Celis yeast if you can get your hands on some (they use it for their Grand Cru). Has anybody given the Corsendonk Monk's Pale Ale yeast a try?? The range of yeasts from the New Belgian Brewing Co. in Colorado might also be of interest if you can get your hands on them.

So a 10 gallon batch might look something like:

22.5 lb Belgian pilsner malt  
3.25 lb corn sugar  
2.8 oz Saaz leaf hops (alpha ~ 3)

2.8 oz EK Goldings (alpha ~4.5)  
12.5 grams coriander seed  
8 grams dried orange peel

Assuming 30 pts/lb for the malt and 44 pts/lb for the sugar, you should  
get an  
OG of ~1.080.

Good luck and let un know how it turns out.

Steve Stroud

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Date: Tue, 29 Jun 1993 15:53:26 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: AB Beer Company (tm)

>According to sources in both the brewing and financial worlds, A-B is  
>seriously considering buying Jim Koch's Boston Beer Litigation Company.

And he's the kind of person who would sell. Worse things could happen.

As a side note (heh) for those of you in New England, in the June 23-  
July 6  
edition of Face Magazine, a music-oriented newspaper published in  
Portland,  
Maine, there was a full page ad by Anheiser-Busch about "quality",  
"natural  
vs. artificial" ingredients, and "a major competitor ... willing ... to  
slander the entire brewing industry...". Of course, nowhere in the ad  
are the words malt, hops, yeast, water, grain, or anything else involved  
in the actual \*brewing\* of beer ever mentioned. Just a FYI.

Russ Gelinias  
Experimental Space Physics/Ocean Process Analysis Lab  
University of New Hampshire, Durham

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Date: Tue, 29 Jun 93 15:09 CDT  
From: korz@iepubj.att.com  
Subject: Re: AB buys SN

Chuck writes:

>Hey! It's rumor time.

>

>According to sources at the breweries, A-B did ask both Sierra Nevada  
>and Anchor (and possibly others) what their selling price was, both  
>declined.

>

>According to sources in both the brewing and financial worlds, A-B is  
>seriously considering buying Jim Koch's Boston Beer Litigation Company.

Perhaps the brewmasters and food chemists at Anheuser-Busch have worked so hard to remove all traces of beer flavor from their "beer" that they have forgotten how to brew real beer. Actually, the fact that the industrial megabrewers are taking notice of beer with flavor is a good sign. All we have to do now is to encourage the good brewers to keep giving A-B the finger.

Al.

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Date: Tue, 29 Jun 93 13:19:33 PDT  
From: macdonald@alvax.enet.dec.com  
Subject: Electrim Bin

A few years back I bought an Electrim Bin in Canada. It's a heat resistant plastic pail capable of holding about eight or nine U.S. Gallons, made in the UK. It has a built in heating element, with a thermostatic control with a scale of 1 through 10 I think, with a mark for "boil". I have used it with what I think of as "mixed success" in both mashing and in boiling the wort. In both cases the source of the problem seems to stem from the inability of the heating element to maintain a steady temp. For example, in boiling the wort, it will shut down for a minute or two, the wort will settle back, then it will start up, and the wort will froth and bubble furiously etc etc.

Now, the advantage is that, with the portable Electrim Bin, in the warmer weather I can do mashing and boiling out in my garage, away from the kitchen, where I get complaints from other family members about the odors associated with brewing. I love the odors; the rest of my family do not. They love the final result, just don't like the odors associated with brewing, particularly the hoppy stuff that goes with the boil.

The last brew I made with it was an extract "Canadian Ale" that had the target OG, fermented out in primary and secondary as expected over about 12 days total at normal temps, but wound up with a strong off taste that I can't identify in words, not bad enough to trash, but only good enough for me to drink, and then goes best with some other strong taste, like chile or a pizza with onions or some such.

Also, this batch is a suspect in the "headache" department, though I am still tracking that down as a try a few more bottles.

I haven't kept accurate records, but my sense is that brews I have made with the Electrim Bin have not been as good as stuff I have mashed and boiled on the stove where I seem to be able to keep a steadier temp.

I'd be interested in hearing of other people's experiences with the Electrim Bin.

I have just become a HBD reader in the last three months, so don't know if this is a topic covered somewhere already in the conference. In any case, your experiences would be helpful. I don't want to try using it again if others have also had bad experiences with it especially in boiling the wort.

Regards,  
Bruce MacDonald

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Date: Tue, 29 Jun 93 13:23:45 PDT  
From: Don\_Doyle@Novell.COM (Don Doyle)  
Subject: Lauter Tun Manifold

I have a question that I hope someone can answer. I am making a manifold for my lauter tun with copper pipe in which I will make small cuts with a hacksaw. The question I have is do I make the cuts face up or down or does it matter?

Also, what are the pro's and con's to a manifold type lauter tun. Any info would be greatly appreciated.

Thanks,

Don Doyle

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Date: Tue, 29 Jun 93 09:27 EDT  
From: gcw@granjon.att.com  
Subject: NJ Brewpub News

The bill (A-2354/S-614) to legalize brewpubs in the Peoples Republic of New Jersey has passed the Senate (35-1) and will now go to Gov. Jim (the tax man) Florio for final signature.

I do not know how the original bill was compromised to get through, but there were rumors of very low volumns, no distribution outside brewpub and

a copy of the Pennsylvania law where a brewpub can only serve what they make (ie no other beer, wine or hard booze). The public statement read "The measure (A-2354/S-614) would create a restricted brewing license for places where beer and ale may be produced and sold for consumption and would dedicate the tax proceeds to the prevention of alcohol and drug abuse".

I believe the license fee will be \$1000 and \$500 more for every 1000 barrels to a max of 3000 barrels. One person can only hold 2 licenses and the resident municipality can bar brewpubs, but the brewpub can appeal to the ABC (Alcohol Beverage Control) following a public hearing (ain't politics fun!).

NJ figures it will raise \$22,700 in annual fees based on the national averages of 5 brewpubs producing 950 barrels each.

Three cheers for the sponserers of the bill - John H. Ewing (he also sponsered the homebrew bill that passed last year and came down to NJ's first homebrew contest and had a couple), Walter Kavanaugh and Jack Penn all republicians from Somerset County.

Geoff Woods  
gcw@granjon.att.com

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Date: Tue, 29 Jun 93 14:09:33 PDT  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: re: High Gravity Brewing

Jim Busch asks about experiences with high OG brews that are diluted in the fermenter. This is what I do when I make Mild. I recently brewed 12 gallons of wort at about 1.068 gravity and then immediately boiled and cooled an additional 13 gallons of water, to make a total of 25 gallons of Mild at an adjusted OG of 1.032. Caramelization is one factor here, it allows more sweetness to be retained in the final beer (and a higher final gravity -- mine finished at 1.011). Along with caramelization comes increased melanoidin formation with the concentration of reducing sugars and amino acids. This will tend to emphasize the malt character in the beer. (Decoction mashing can have an even bigger role here.)

As Papazian notes in one of his recent columns in Zymurgy, going through the primary at a very high gravity can really enhance the production of esters, leading to a more characterful beer even when diluted in the secondary (or at packaging).

--Darryl Richman

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Date: Wed, 30 Jun 1993 00:28:33 -0400 (EDT)  
From: Jim Griggers <brew@devine.ColumbiaSC.NCR.COM>  
Subject: Re: Polypropylene

In HBD1170, Al writes:

>I have yet to see anything that's been made of PP that is food grade,  
>so I suspect that it is not food grade.

>Since we're on the subject of Polypropylene and food grade  
certification, if  
>you buy yeast in plastic vials, check what kind of plastic it is. I've  
>seen yeast sold in Polypropylene vials.

Al, Al, Al! Don't be so frightened of plastics. Plastics are our  
friends. :-)

Seriously, there is nothing that says that PP cannot be food grade. I am  
holding in my hand right now a drinking cup (actually a beer glass from  
a St. Pat's Day beer wagon) that is Polypropylene. It is made by Comet,  
item PF14, from Chelmsford, MA.

I also don't think that PP yeast vials are going to poison a 5 gallon  
batch.  
Even if the plastic had serious leaching problems (which I doubt), the  
dilution  
after several starter solutions in which the yeast slurry is pitched,  
would  
make the concentration extremely small.

>Jim Busch's post reminded me of one instance of food-grade PP -- those  
>pleated PP filters. Are you sure the spun ones are PP also? In any  
>event, I looked around a lot and called a lot and could not find a PP  
>food-grade vial. Why not HDPE, you ask? Well, I wanted to autoclave  
>it -- PP is autoclavable as is PC (Polycarbonate -- also not food-  
grade).

>Al.

So you bought a filter that was marked food-grade? Hmmmm. Mine from the  
Filter Store Plus was not marked in any way other than their part number.  
Maybe you bought from another source.

Anyway, polycarbonate, also known as Lexan (TM) can be food grade.  
Cuisinart  
food processor bowls are made out of it. Also check out the Superior  
Products Catalog. Many, many of their measuring cups, storage tubs, and  
beer pitchers are made of polycarbonate. The good thing about  
polycarbonate  
is that it is damn near impossible to break the stuff; it holds up much  
better  
than acrylic, and survives industrial type dishwashing.

-jim griggers brew@devine.columbiasc.ncr.com

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Date: Tue, 29 Jun 93 21:35:58 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Zymurgy Article Correction

Keith A. MacNeal asked why my article on dry hopping the recent Zymurgy stated that less hop aroma was extracted from pellets than whole hops. The sentence that probably caused the confusion reads (on page 45): "You will want to use whole hops as opposed to pellets, otherwise you'll still have to let the beer sit with the hops for about two weeks..."

I guess there was a typesetting mistake. The sentence was actually two sentences and should have read:

"You will want to use whole hops as opposed to pellets, otherwise you'll have hop particles in your beer as you drink it. If you force carbonate the beer, you'll still have to let the beer sit with the hops for about two weeks to allow the hop oil to be extracted into the beer."

Of course I wrote this before I discovered that there actually were hop bags that keep the pellet particles contained.

Also, later in the article I say, "Pellets give a better aroma yield because the lupulin glands have been crushed, releasing the hop oil."

I'm going to write to Zymurgy and have them print a correction. BTW, they don't believe in having their authors proof the galleys.

Mark from HopTech

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Date: Tuesday, 29 June 93 18:42:13 CST  
From: LLDSC@utxdp.dp.utexas.edu  
Subject: AUSTIN HOMEBREW NEWS

Howdy,

News from Austin. Texas finally passed the brewpub legislation. All Ann (big hair) Richards has to do is sign it and everything is set to go. September 1 is the date. A couple of brewpubs are already under construction here in town.

New beer: Celis Grand Cru. 7.5 % alcohol. They don't give any away free on their tours though because of the TABC.

Keep on rockin in the free world  
Scott Calonico

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Date: Wed, 30 Jun 93 01:01 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Spigots, PU

>From: Bill Holman <jwh7k@uva.pcmail.virginia.edu>  
>Subject: What valve/pipe fitting for SS keg?

> What type of ball valve/pipe fittings can be used for a drain on a SS 15.5 gallon keg? What kind of metal can be used? I assume SS would be best, but what about brass or copper?

I spent a lot of time thinking this one through both from the standpoint of the ideal for my own brewery and for something for sale to others with minimum tools or time.

The basic problem presented by everything available is that they are made with tapered pipe threads. Kegs, kettles, etc. are not heavy enough to provide reliable fittings to pipe threads so they must either be welded or a compressing fitting must somehow be arranged.

If one has the tools, this can easily be done by rethreading the parts with straight threads and the two pieces simply screwed together with the keg wall in between and a leakproof and structurally sound fitting results.

As re-threading is difficult enough, I have chosen brass parts over SS but either is appropriate. To further keep it simple, I use parts with 1/8" pipe size because people are more likely to have a 3/8" drill bit in their tool box than much larger ones.

My system consists of an aircock with a male thread that passes through the kettle and a female connector screws on this from the inside. To this is attached the removable copper tubing/ss screen via a compression fitting. For detailed info, email for "easymasher".

>From: Jim Busch <busch@daacdev1.stx.com>  
>Subject: High Gravity Brewing

>I realize one needs to take into account the additional caramelization in the kettle with the increased sugar content, but has anyone done much of this. I am especially interested in the idea of brewing pale ales of OG 1.065-1.070 and adding water to result in a 1.055 in the fermenter.

As I now have a ten gallon keg and only a ten gallon fermenter, I brew and



ferment 8-9 gallons and top off the keg with boiled water at keggling time.

The end gravity is easy enough to predict and adjust for. I don't see any reason to ferment the water and I need the head space in the fermenter.

I don't think this is quite the same as the infamous "beer concentrate" of previous discussions but it is dangerously close. The key lies in what went into the "concentrate" and if it is strictly Reinheitsgbot, when the water is added seems incidental.

>From: korz@iepubj.att.com  
>Subject: DMS and PU

>A few days ago, Jack wrote about his Pilsner Urquell clone that was brewed as closely as possible to Darryl Richman's description of the way Prazdroj Pilsenski (I think that's the spelling?) makes PU.

>Well, last night, I had a chance to try some of this beer. A good attempt, I must say!.....

>The beer had been fermented and lagered at 40F for a while (I forgot to ask how long).

Two weeks primary and two weeks secondary and about a week in the keg.

> Perhaps a longer lagering (and maybe if it was lagered at 32F as in Pilsen) the DMS level would be a bit lower?

I suspect that time is more important than temp but have no way of checking

both. I did bottle a sixpack for tasting in about three months which is what

I recall PU does before shipping.

>From: Darryl Richman <darrylri@microsoft.com>  
>Subject: re: Wort Chilling

>While it is true that the hot, bittered wort at PU is cooled slowly in a coolship, which could engender a great deal of DMS production and retention from latent S-Methyl Methionine (SMM), one must consider that the preceding boil is exceptionally long and it is likely that most of the SMM has already been converted to DMS and then evaporated off (see Fix's "Principle of Brewing Science" for a lot more detail here).

For the record, I boiled this beer for 4 hours just as in your article. I started with 16 gallons of wort and ended up with 7 gallons of beer.

> \*Some\* DMS flavor is, in fact, a defining character of lager beers, and adds to the crisp flavor profile.

As a sequel to the story, we had lunch Sunday with the Parsons from the Malt Shop at Edelweis where PU is on draft.

I bottled two bottles of my clone just before leaving and ordered 4 glasses of PU and two empty glasses and did a real live comparison.

The color was identical. My beer was a bit harsher (for lack of a better term) and the DMS became more obvious if a small amount was left to warm up in the bottom of the Pilsner glass.

We all agreed that the PU was at least marginally better but that repeating the experiment in three months would definitely be informative.

js

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Date: Tue, 29 Jun 93 12:50 EDT  
From: EBMiller@DOCKMASTER.NCSC.MIL  
Subject: Fruitiness

My partial mash brews are acceptable but lack the fruitiness of a Limerick or Brooklen Brown ale. To date I have only used dry yeast (Whitbread, Cooper's or Edme). Is the flavor I'm looking for yeast related. Will Wyeast London give me what I'm looking for?

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Date: Tue, 29 Jun 93 15:11:30 PDT  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Re: Japanese Beer Club

In HOMEBREW Digest #1164, Thu 17 June 1993, we see:  
>From: u4imdmre@cpc41.cpc.usace.army.mil (Markham R. Elliott)  
>Subject: Subscription Problems // Japanese Beer Club  
>  
>Japanese Pay \$23,000 to Drink Beer at \$78 a Pop  
> .....

> Beer made in Japan tastes so dreadful that big-wigs eagerly pour into Tokyo's  
>Club Knox, where they can sip beer shipped in from Britain, Switzerland and  
>Belgium.

(Bear in mind, especially Markham, that I know this is a quoted article, so I'm commenting on \*it\*. No flaming diatribe is intended. Thanks for the excerpt, Mark.)

Beer made in Japan tastes "dreadful"? Funny, it tastes like competently-made, lightly-hopped lager to me. There may be some quirky terminology, like "draft" for unpasteurised beer in bottles, or "stout" for pale lager beer with a bit more body than some, but hardly "dreadful", especially in comparison to some of the American industrial beerlike liquids. And then there's Sapporo's "Black Beer", which is most definitely \*not\* dreadful. Sounds like more brewing chauvinism at work here.

>Sure glad we don't have to pay prices like that.

Yeah, so am I. So are most Japanese, 'cause they don't always. I friend brought back a bottle of Budvar/Budweiser, bought at a specialty drinks-shop in Okinawa. He paid an obscenely high Y320 for it - an astonishing \$2.50 a bottle! Yow!

Seriously, the article was interesting, if for no other reason than to display a bit of good old Western cultural bias ("Gol durn, them Japanese sure pay high prices. How can they afford anything?"). The average consumer in Japan deals with high enough prices for many things, but beer is not usually that outrageous, and imports can be found, often in surprisingly good condition and at not-exactly-astronomical prices. On the other hand, a bunch of businessmen with a bit of extra money on their hands seem to have found a novel - and fun! - way of getting rid of it, and at least they're drinking some good beer - although I'm not sure about paying \$78 for a 'vintage' bottle of Gales Prize Old Ale! On the other hand, those entry dues sure are high. Not surprising in a country where business associations often blur the distinction between commercial and social interests, and where memberships in such associations are often perceived as being more valuable than gold.

ObHomeBrew: Because of the Japanese quirk of not letting one brew beer unless one is going to make at least two million hectoliters, an enterprising importer is selling homebrew equipment and kits, with instructions to heavily dilute the malt extract, or to only use a small amount, so it makes a legally "non-alcoholic" beer. Of course, anyone who

actually buys the kit receives subtle verbal advice to ignore the instructions if a proper batch of homemade beer is desired ^\_^.

- - -

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  / / / | | Don Scheidt | / / /
 / / / / | Boeing IASL, 777 Cab Development | / / /
 / / / / | dgs1300@aw101.iasl.ca.boeing.com | / / / /
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Date: Tue, 29 Jun 93 14:44:40 PDT  
From: Darryl Richman <darrylri@microsoft.com>  
Subject: re: Raw Wheat protein content

Al Korzonas asks about the correspondence between JX Guinard's quoting of unmalted wheat protein at 1.8 to 2.1 % and the reality that all wheat, malted or otherwise, has more than 10% protein. JX Guinard is apparently quoting the amount of "amino nitrogen," which is often interchanged with protein, and not the protein itself.

(In a very simple chemical assay, protein is made up of carbon, oxygen, hydrogen, and nitrogen. It is the last item that distinguishes it from a carbohydrate, so the nitrogen content of an (organic) substance is taken as a figure of merit of its protein content.)

The ratio of nitrogen to protein mass is reckoned to be 6.25, so the equivalent protein to 1.8-2.1% nitrogen is 11.25-13.75%.

--Darryl Richman

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Date: Wed, 30 Jun 1993 06:56:03 -0300

From: Ed Hitchcock <ECH@ac.dal.ca>

Subject: food grade PP again

Since the last note I sent I've been seeing PP on the bottom of cottage cheese containers, sour cream containers, and other household items. There is food grade polypropelene.

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca

+

| I object to that comment! I know several pinheads |  
| and they are fully functional members of society! |

+-----+

Eschew Labudmilloorsonhead

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Date: 30 Jun 93 03:27:36 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: "Belgian Ale" and Grand Cru

Message Creation Date was at 30-JUN-1993 08:02:00

Greetings,  
I just finished reading Pierre Rajotte's <Belgian Ale>. Great book, but it left me with some questions:

1. Where can I get "Candi" sugar in the US? Any mail order places? If I can't get any candi, any suggestions for suitable replacements? I suppose I could always plan a field trip to Belgium to buy my own 50 lb bag ...
2. It seems like the yeast selection is of paramount importance, yet the book just talks about using an alcohol-tolerant strain. Aside from the Wyeast strain, what recommendations does the net have for appropriate yeast strains?
3. How do I introduce a second yeast? In his Grand Cru recipe, Pierre states, "This recipe is great for two-yeast fermentation. First fermentation takes place with a weak attenuating yeast. In the secondary fermenter, add a second wild type, or different higher attenuating yeast." Aside from leaving my secondary fermentor outside in the hopes of pLambic fermentation, what should I use for a "wild type" yeast?  
How does the second yeast accomplish its aeration phase? Hasn't the first yeast already used up the available oxygen in the wort? Should I just pitch with a HUGE volume of yeast and not worry about yeast propagation?
4. It appears that primary fermentation temperatures are fairly high, while secondary fermentation takes place at relatively low temperatures (for ales). Any comments from people who've attempted these styles?
5. Finally, just how long will I be required to bottle condition my attempt at a Grand Cru? With all the sugar, I get the feeling it might take awhile to smooth out the flavors.

TIA

Andy A

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Date: 30 Jun 93 08:47:11 EST  
From: "John Shane" <JSHANE@clover.uvm.edu>  
Subject: maple in beer

Hi..

I tried to send this directly to the person who asked about maple in beer, but got an undeliverable mail return, so I thought I'd send it here:

I am a homebrewer and (note the state I live in) a maple syrup producer. YES you can brew with maple syrup. A good ballpark conversion is to remember that a gallon of syrup weighs 11 lbs with a solids concentration of 66% (66.5% in Vermont, ...God we're independent cusses) most of which is sugar of some sort, mostly sucrose. Essentially, you can assume 66% sugar, all of which is fermentable. Syrup gives an excellent flavor to all beers (in my opinion), but some basic advice concerning syrup grades: Fancy (Grade A Light Amber in all states but Vermont (did I mention that we do thing our own way?) is VERY delicately flavored, and will be overwhelmed in almost any beer; Grade A Medium Amber is darker and less delicate, probably good in most lightish recipes; Grade A Dark Amber is darker still, will leave a more perceptable flavor, Grade B is even darker, good for beers with more robust formulations. As a first try, you might want to consider brewing "Rocky Raccoon" in "THE BOOK", replacing the honey in the original recipe with an equivalent (by sugar content, not syrup volume or weight) amount of medium or dark amber syrup. Adjust further attempts to taste. NOTE: unless you spend every waking hour during spring at blast-furnace temperatures boiling sap (about 40 gals sap to 1 gal syrup) to get the liquid gold yourself, this will wind up being a very expensive habit. Good Luck (let me know what you think!).

John Shane (802) 656-2907  
University of Vermont jshane@clover.uvm.edu  
Forestry Department

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Date: Tue, 29 Jun 93 18:02:00 EST  
From: "Kogan, Michael D." <MDK1@NCH08A.EM.CDC.GOV>  
Subject: Home brew mailing list

I'd be interested in joining the home brew mailing list.  
Thank you, Michael Kogan

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Date: Wed, 30 Jun 1993 09:29:25 -0600  
From: gmeier@ncsa.uiuc.edu  
Subject: Use of Erlenmeyer flasks in brewing

Mike Lemons wrote on the subject of using a 1 liter Erlenmeyer flask and a solid # 9 stopper in yeast culturing:

>"I use 1/4 cup of dried malt extract. I fill the flask up with water to >the 800 ml mark. (1000 ml tends to boil over.) I set it directly on my >gas stove and turn the flame up pretty high. A long glass stirring rod >would be useful for stirring, but I don't have one, so I use a plastic >chopstick. I boil it for about ten minutes, put the solid stopper in it >and set it in a sink full of cold water. (Isn't pyrex wonderful?)"

Pyrex (tm) is wonderful all right, but it is still possible to break it by going from a flame to cold water too rapidly. I'd try to ease the temperature transitions a bit, air cooling the flask for a few minutes before moving it to not-too-cold water. What really concerns me is the practice of stoppering the flask hot and putting it into cold water. If the stopper fits tightly, that will create a partial vacuum in the flask, and standard thickness Erlenmeyer flasks (or any other glassware that has a flat bottom or flat sides) can't handle vacuum very well (you can get thick-walled filter flasks that look like an Erlenmeyer and are made for vacuum use, but they aren't meant to be heated, so that doesn't help). Better to let clean (filtered?) air into the flask as it cools than to run the risk of imploding a flask full of very hot solution. That WILL ruin your whole day.

Happy brewing, Gary Meier

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Date: Wed, 30 Jun 93 09:35:56 EDT  
From: rossini@hsph.harvard.edu (Anthony Rossini)  
Subject: Maple Syrup

>>>> JORGENS\_DAVID@Tandem.COM writes:

>> Has anyone tried using "real" maple syrup in any recipes?  
>> Are the sugars fermentable? Does anyone have any recipes which  
>> call for maple syrup? How much per five gallon batch should be  
>> used?

I made a batch using grade B maple syrup (about the same price as malt at a local coop food store), used about 3lbs, with 5.5lbs amber M&F malt syrup.

Used the generic 5 gallon beer recipe, except I messed up badly in hop choice/usage, and it was overhopped. That problem has mellowed out, and it

now tastes like a mildly sweeter sierra nevada pale ale, or (pick your favorite amber) hopped up with a nice maple after taste.

Some book (I think it was CJoHB) mentions not to use this much maple. Grade

B tastes similar to grade A (the standard stuff), but definitely doesn't compare well in a side to side comparison (a bit more water and a tad less sweet).

Don't overhop! hops + maple is an interesting combination, and probably isn't for everyone (some friends like it, and others start making gagging noises... typical.)

-tony

- --

Anthony Rossini - grad student/statistician/hacker  
rossini@biostat.harvard.edu  
Department of Biostatistics, Harvard School of Public Health  
677 Huntington Ave, Boston MA 02115 617-432-1056

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Date: Wed, 30 Jun 93 10:05:54 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Re: Why so technical?

Edward Croft <CROFTE@delphi.com> wrote:

> Why so technical? I get HBD to get ideas on new brews, hear about taste tests,  
> and get other peoples ideas on how to improve the process. What I have seen  
> lately is more of a chemistry class on the properties of idophors(?) and  
> chlorine.

Brewing is after all a science. It can be treated as an art, but for the best results, you must understand that it is a science and that things that you do at one step will have an impact on another step.

I see a mix of levels here in the HBD. There's nothing wrong with that. I prefer to see the technical side. There's a plethora of literature out there geared towards the general population and not enough good technical info, unless you get into the peer reviewed brewing journals.

> but don't you think it is getting a bit anal, when we start breaking  
> down the composition of the chemicals so as to get the optimum cleaning for  
> the least amount of chemical.

Not at all. These are important concerns if you scale up at all.

> I don't need to know how or why.  
Fine. But some of us do. Skip the articles you're not interested in. It works for me.

Tim

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Timothy J. Dalton <tjdalton@mit.edu>  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Wed, 30 Jun 93 09:41:38 EDT  
From: "John R. Calen - Contacting Systems - E.F., N.Y" <calen@vnet.IBM.COM>  
Subject: RE: AHA First Round at Kingston

Rick, ohhh yes!! The sheets of the non-advancers are out already. I got mine back monday, and it's the end of the trail for those brews.

FWIW, I got the sheets back from the cider judging a week earlier, directly from Boston in a plain envelope. The beer sheets came in the AHA oversized envelope with a cover letter, a bronze certificate (guess I didn't do too badly after all) and a survey questionnaire.

Come to think of it, the cider rated a silver certificate. Ciders must not count.

Regards,  
John R. Calen -- Hudson Valley HomeBrewers -- calen@vnet.IBM.COM

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Date: Wed, 30 Jun 93 07:08 PDT  
From: /O=vmspfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Yeast culturing slants

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 06/30/93 09:10:51  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Yeast culturing slants

I've had a bit of trouble with my slants recently. The poured and cooled tubes look great, but when I inoculate one, the solid wort begins to shrink and pulls away from the sides of the tube. In one case, some yeast got down in the bottom of the tube behind the wort plug and when I opened the cap to relieve some of the pressure, the pressure crammed the wort slug into the neck of the tube!

I don't have my notes, so I don't remember how much agar I put in the wort. (15 gm in 0.5L sounds vaguely familiar.) Could my problem be too much agar? Maybe I should fill my tubes more full so that there is a significant plug at the bottom of the tube. The tubes were clean, but maybe I should give them an acetone bath prior to filling and sterilizing to remove any trace of oils or dust. I'm open to any and all suggestions.

Dennis B. Lewis \* (713) 244-7809 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Wed, 30 Jun 93 11:13:02 EDT  
From: Jim McManus <jjm@Think.COM>  
Subject: Advertising on the HBD.

I have to agree with Martin A. Lodahl's message yesterday, but have to add one thing. People shouldn't be advertising for profit and the shouldn't be sending mail off bashing others to reduce profit. I kept quite during the whole Sam Adams/Koch mail, but what it comes down to is, who cares how people publicly advertise outside this list. It isn't effecting the way I'm brewing.

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\*

Jim McManus  
Special Systems Manager      Thinking Machines Corp.  
jjm@think.com245 First St  
617 234-2674Cambridge, MA 02142  
"A Rugger at heart, a beer drinker by dark"

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Date: Wed, 30 Jun 93 08:13:37 PDT  
From: djb@suned1.Nswses.Navy.Mil (Dan J Barnard)  
Subject: Hunter Airstat

Somehow I lost the directions for using the Hunter Airstat. If anyone could email them to me (weekly programming and how to program one temperature and whatever else it says) I would greatly appreciate it.

djb@suned1.nswses.navy.mil

Thanks,  
Dan

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Date: Wed, 30 Jun 93 10:16:31 MDT  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Blueberries, sparge setups

Edward Croft <CROFTE@delphi.com> says:

> Allan Wright's Amber Wheat Beer fruit base in HB1166. I have been  
> contemplating a fruit beer, and this may do the trick. But, Allan,  
> blueberries in beer? Let me know how that turns out.

Why not blueberries? I made a blueberry brown ale last year that turned out quite nicely. The berries gave the beer a subtle, wine-like character that was very pleasant. The recipe was posted in HBD #926 (July 18 '92) if you're interested.

Jim Liddil <JLIDDIL@AZCC.Arizona.EDU> and "Mark S. Nelson" <mnelson@eis.calstate.edu>, respectively, ask:

> I obtained a straight sided keg from the scrap metal yard this weekend.  
> Now I want to turn it into a boiler/lauter tun. Has any one ever  
> mounted an EasyMasher(TM) on a keg? What other manifold setups work  
> well that can be easily removed?

> I'm a kit brewer second in the feild ready for the grain. Please give me  
> your best advice, I really would like to know how to construct the best  
> system.

There are a number of different lautering options: an easymasher, a slotted copper pipe manifold, a false bottom, a separate double-bucket Zapap-type as described in Papazian. The subject has been covered at various times here, maybe it's time for a monthly FAQ?

Anyway, I favor the slotted pipe setup, since it's completely removable, doesn't require you to drill a hole in your pot, and can be disassembled for easy cleaning. I posted plans in HBD #1099 (Mar 17 '93). The description of the EasyMasher(tm) were originally posted by Jack Schmidling in HBD #754 (Nov 4 '91), and there was a lot of discussion and diagrams during March '93.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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End of HOMEBREW Digest #1173, 07/02/93  
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Date: Wed, 30 Jun 1993 10:23:57 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: WANTED: Fuller's, Full Sail recipes

I'm new to this list and generally new to home brewing, though I have much experience imbibing. I'm looking for recipes for two of my favorite beers, Fuller's Ale, and Full Sail Golden. There's a Full Sail Amber in Cat's Meow 2, and although it is an excellent beer (after at least a month in the bottle) it is pretty far from Full Sail Amber (except the color is right on). I would prefer all grain recipes, but I'll certainly take what I can get. I'm not sure whether posting your responses (I hope there are responses) to the list is appropriate or not, but you can always contact me directly.

So far I'm enjoying the list, though there is considerably more of it than I had anticipated. I have noted that a lot of requests for brewpubs in various locations are posted, and just for the record, I live in Seattle where there are many excellent brewpubs, microbreweries, and ale houses. I would be happy to recommend some if anyone is traveling through.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Wed, 30 Jun 1993 13:04 EST  
From: ROSS@mscf.med.upenn.edu  
Subject: Papazian Lambic

Date sent: 30-JUN-1993 13:03:56

I read the appendix concerning Lambic homebrewing in Papizian's new edition of the Joy of Homebrewing, and it sounded very interesting. Basically he suggests warming your dissolved malt extract, pouring into a fermenter, adding some crushed malted barley (to contribute bacteria), and allowing to stand overnight causing souring. The next day you put this back into your brewpot, and brew as normal. He suggests fermenting with regular ale yeast and then adding *Brettanomyces lambicus* and *bruxilles*.

Has anybody actually tried his method. I've been quite successful with many of his other methods. As I only have the time to do extract brewing, his method sounds interesting.

Does anybody know of any sources to purchase the lambic cultures? I know that Alternative Garden Supply (800-444-2837) has *Pediococcus cervisiae* and *Brettanomyces lambicus*. They sell for \$7.45 each plus shipping (I don't know how much the shipping costs). Is this a reasonable price or can I find a better price elsewhere.

Also, if I wanted to experiment and try some small batches, how long can I keep the unused portion of the cultures if kept in a refrigerator.

--- Andy Ross ---  
University of Pennsylvania

ross@mscf.med.upenn.edu

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Date: Wed, 30 Jun 93 16:53 GMT  
From: Edward Dotson <0003963467@mcimail.com>  
**Subject:**

UNSUBSCRIBE Edward Dotson

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Date: Wed, 30 Jun 1993 10:43:09 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: new beer options in SF

Jack Dawson sez:

>On another front, the new owners of the San Francisco Giants obviously  
>appreciate good beer, because now in section 15 you can find a stand  
which  
>specializes in micro-brewed beers. Anchor Steam and Anchor wheat are  
>available on draught. SNPA, Anchor Porter, and Devil's Mountain  
Railroad  
>and Devil's brew are available in the bottle.

I have it on good authority that Gordon Biersch beers will be available  
at the new San Jose Arena when it opens in September.

GO Sharks!

have fun  
gak  
Cow Palace Section 107/H/3&4  
Epicenter Section 209

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Date: Wed, 30 Jun 93 13:56:40 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 30-Jun-1993 1349  
<macneal@pate.enet.dec.com>  
**Subject: Pressure/temperature relationship**

Someone a couple of issues ago asked what would be the proper pressure to get the same volume of CO2 at a temperature of 70F.

At the risk of getting technical, there is an easy solution given by the ideal gas law. Holding volume and mass constant, the pressure is equal to the original pressure times the new temperature all divided by the original temperature. That is:

$$P2 = P1 * T2 / T1$$

This does not take into account the solubility of the CO2 in the beer, but it should be close enough for your needs.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Wed, 30 Jun 93 14:23:04 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject: Riverside Garage & Brewery

Over the last few weeks I've seen a number of postings from Chuck Cox <chuck@synchro.com> SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

Does anyone know who or what this is? Please reply to brucek@sig.sni-usa.com

Cheers,

Bruce

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Date: Wed, 30 Jun 93 14:01:28 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: HBD soul-searching

In response to Martin Lodahl's post on advertising (and the recent discussion on same), I find the HBD to be one of the best sources on homebrewing techniques, gadgetry, etc, largely because of the sheer amount of information as well as the varying backgrounds of the contributors and the give-and-take nature of the forum. I am not myself a terribly advanced brewer, and as such I wish to point out that Martin's concern for the new brewers taking HBD as gospel (with regard to infomercials etc.) is well worth noting but perhaps overemphasized. From the moment I started reading this forum it was perfectly obvious to me that not everyone knew what they were talking about (with all due respect, y'all). I would think it would be absolutely foolish to read one post on the HBD about any product and run right out and buy the thing. Personally, I prefer to wait for the same topic to recycle itself two or three times (an inevitability here) to consider the subject adequately before making any decisions involving the purchasing of equipment. In the meantime, I still make pretty good beer! Also, I personally don't mind having merchants and manufacturers as contributors, as I find their perspectives valuable; and I'd rather have a straight-out commercial than an insidious thinly-veiled info-mercial, as long as it is done BRIEFLY and IN GOOD TASTE. The taste issue seems to me to be the central one, and many of us obviously have differing ideas as to where the boundaries of good taste may be; but here I would say that if the digest is to continue to be successful, we should continue to be self-policing in this area. The bottom line? I have to throw my hat in the ring with those who do not favor a "ban" on any advertising in the HBD. At the same time, the "industrialists" among us have to understand that they need to make their comments here within the boundaries of brevity and good taste, or folks like me may be turned off and become quite uncharitable with respect to the leeway given to commercial considerations.

Regarding Edward Croft's complaints about overly-technical posts, I have to disagree, for reasons similar to those which cause me to be lenient toward the commercially-inclined. It has also been perfectly obvious to me since I

started reading the digest that there is FAR more information in here than I will ever use. So if some chemists want to get into an arcane discussion I don't understand very well, it's O.K. with me. I can either flip past the articles in question, or just scan for the conclusions without wading through all the data. No, I haven't seen anything to make me change my mind about 1/4 cup chlorine bleach per 5 gallons either, but I am happy that the recent discussion has made me re-think that aspect of my technique a bit. The bottom line? I am damn glad that there are a lot of people reading and posting to the HBD who know a lot more than I do! That's why asking questions to the combined wizardry of the HBD can be so fruitful. If the people who know more than I do (PWKMTID?) were to be constrained to talk down to my level all the time, what would be the point of their contributing to the digest? They are in it for their own edification as well as mine.

To summarize: for me, the more information in the HBD, the better. I don't care whether the info comes from those with commercial motives or those with Ph.D.'s in organic chemistry. In it's present format and tone, I find I can sort out the info I can use pretty well.

Jonathan Knight  
Grinnell, Iowa

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Date: 30 Jun 1993 14:58:14 GMT  
From: "Lee-Paul" <MSMAIL.LEEP@TSOD.lmig.com>  
Subject: Stainless spigots

I want to convert a Stainless steel keg to a boiling vessel. Does anyone know where I can pick up a stainless steel tap to weld into the bottom?

Private emails would be fine, I will consolidate a re post.

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Date: Wed, 30 Jun 93 14:05:47 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: freezers, maple syrup

For those of you who have chest-freezers with top-opening designs, how do  
get  
the full carboys in and out w/o breaking your backs?

\* \* \* \* \*

There seems to be an abiding interest in maple syrup in the HBD. I  
haven't  
done it, but have often thought of priming a light ale with it. I'm not  
crazy about using large amounts in the boil because of the cost and  
because  
it seems that such a delicate flavor would be destroyed that way. Can  
anybody report on how much maple character is imparted by priming, and  
how  
much syrup to use for this procedure?

Jonathan Knight  
Grinnell, Iowa

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Date: Wed, 30 Jun 93 12:21:02 PDT  
From: rush@xanadu.llnl.gov (Alan Edwards)  
Subject: Re: Freezer conversion for keg storage

Al Richer, in HBD #1171, wrote:

| In my wanderings I've managed to pick up a large upright chest freezer  
| for cooling my kegs, as well as eventually becoming a beer cooler.  
| Unfortunately for me, the shelves are fixed, as they are actually the  
| cooling elements..

I have a friend who was given an upright freezer with fixed shelves  
(cooling elements). What he did was remove the door and build an  
extension  
out of wood and insulation. It is now about 2.5 times as deep. The  
original shelves in the back of the freezer now hold beer and wine  
bottles  
and kegs and carboys are in the front extension part. I think he put  
one shelf in the middle of the extension so he could have two levels of  
kegs and carboys (I only looked in it once).

The original freezer has no trouble keeping the larger volume cool enough  
for fermenting (ales and lagers).

Total cost: \$100

-Alan

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| Alan Edwards: rush@xanadu.llnl.gov | Member: The Hoppy Cappers  
| or: Alan-Edwards@llnl.gov | homebrew club, Modesto, CA  
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Date:Wed, 30 Jun 93 15:20:27 EDT  
From: "David C. Skeldon" (CCAC-LAD) <dskeldon@PICA.ARMY.MIL>  
Subject: CO2 Regulator

I'm currently setting up a keggung system for my beer and I was wondering if there was any reason why I can't use my O2 regulator from my oxy/acetylene setup. If threads are the only problem then I could come up with an adapter but I don't know if there is any difference in the regulator itself.

I was also wondering how long a 5 lb CO2 bottle lasts. I picked up a catalog from superior and there was quite an array of different size bottles.

Thanks for all of the tips/suggestions/help that comes from this forum.

Dave Skeldon: Owner, Operator, and Brewmeister of Wooddale Brewing Co.  
(I'm really just a homebrewer with a fantasy)  
(and a label for my bottles)

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Date: Wed, 30 Jun 93 14:26:30 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: One more HBD ad comment...

Salutations!

I agree with Martin's Wed. posting about ads on the HBD. I further suggest anyone caught advertising here have their heads put through Phil's Malt Mill. Perhaps we could enter the evil doer in that "Crush Off" Or, better yet, we could get that guy from HopTech to give him a good talking to.

Tounge in cheek commentary by,  
Gene in Duluth (soon to be Laramie)

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Date: Wed, 30 Jun 93 12:36:53 PDT  
From: Jurassic Engineer <fecich@csoal.enet.dec.com>  
Subject: Homemade Bruheat/HB store in PGH/Advertising in HBD

I'm looking for suggestions from anyone who has tried to make a home-made

'Bru-heat' type mash-tun. I've located the parts (cooler, 1KW element, thermostat), but I still have a few questions....

>Should the heating element be separated from the grain with screen?

>I will place the thermostat near the element, but will there be a possibility

of wide temperature variations in the grain?

>Should I include some method of mixing/stirring the grain as I mash?

Thanks in advance for any suggestions or recommendations.

Also, there was a recent HBD post about someone opening a new HB store in the Pittsburgh area. I lost your address, please contact me at fecich@csoal.enet.dec.com or fecich@pfsvox.enet.dec.com

Re: advertising in the HBD.... I'm always looking for new sources of Homebrew type stuff. Maybe the owners of the HBD mailing list could allow a once-a-month 'advertising only' issue of the digest. This way people like me could see info on new products/sales/etc, and others could simply delete the whole issue. Oh well, its only a suggestion.....

Larry Fecich  
DEC Customer Service  
Pittsburgh,PA

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Date: Wed, 30 Jun 93 14:24 CDT

From: korz@iepubj.att.com

Subject: Re: Technical/Keg pressures/Flash Ferment/Hoppy IPA

Edward writes:

>Why so technical? I get HBD to get ideas on new brews, hear about taste tests,  
>and get other peoples ideas on how to improve the process. What I have seen  
>lately is more of a chemistry class on the properties of idophors(?) and  
>chlorine. I can see relating the impact some of the chemicals have on our

I personally enjoy all types of posts from the most basic beginner questions to the yeast metabolic pathway posts. Restricting posts to only practical information (i.e. excluding theoretical discussions or the science of brewing) would be a great loss to most of us. Some beginners will always be overwhelmed by highly technical discussions and some veterans will always be bored by questions like "why should I aerate my wort?" However, unless we continue to cater to both beginners and experts:

1. we'll lose the experts who answer the beginner and intermediate questions, &
2. we'll lose the beginners who will be tomorrow's experts.

>how or why. Why don't the chemistry majors come up with the proper amounts  
>between them and then post the summary. I want to hear more about using wheat

This is what should be done in all cases of high-tech disagreement. As soon as we see an issue getting to be debated on the digest, let's take the issue off-line, debate via email, come up with a resolution and then post that.

>bases for fruit beers, or the proper way to prepare jalepenos for chili beer.  
>I want to hear about the new mini-keg systems, and yes even malt mills. Though,  
>we could lighten up a little with the advertising and sniping.

All one needs to do is ask. If anyone wants to hear more about a particular subject, just post a question -- someone's bound to have some info.

\*\*\*\*\*

BrewerBob writes:

>I think you may have two problems. The reason for the foam may be too high a  
>dispensing pressure into too small a tube. A 1/4 inch ID tube will cause a  
>loss of

Yes, but I think you have it backwards. If the beer is foaming, then either the beer is overcarbonated, or there is too much pressure when the beer comes out of the tap -- you therefore need to INCREASE the pressure loss through the tube. Either increase the length of the hose or decrease the inside diameter. A very good writeup on this whole subject is in the 1992 AHA National Competition Transcripts by Dave Miller. Just to summarize his article, the proper way to design a kegging system is:

1. choose your beer temperature and the amount of carbonation you want,
2. read the proper CO2 pressure from the table in the article or from HBD backissues,
3. account for pressure drops across valves and set your CO2 regulator accordingly,
4. subtract the losses for faucets and towers from the keg pressure,
5. subtract the losses for keg-to-faucet head (the height difference),
6. subtract the losses for altitude (see HBD backissues), and finally
7. determine the proper size and length of hose so the total loss through the liquid line is equal to the keg pressure.

Another alternative is to do steps 1, 2 and 3 above and then use any hose length and diameter you want, but add an adjustable restriction in the liquid line (e.g. an plastic pinch clamp), near the keg, and use that to create the proper amount of loss in the liquid line.

Regarding force carbonation, you can begin at a higher pressure, but in eventually, you will need to use the tables to determine what pressure you need to use for the temperature you've chosen. Be careful when you lower the pressure at the gauge (release the pressure in the keg first) or you will get a lot of foam and some may travel back up your CO2 line towards the regulator.

\*\*\*\*\*

Raj writes:

>I am working on a Cherries in the Snow Ale from "The New complete  
>joy of homebrewing" I used a Brewer's Choice german ale liquid  
>yeast, and after three days of initial fermentation I have moved  
>it to a secondary fermenter. After that time, the brewing  
>activity has decreased significantly. Could the yeast be dead?  
>Should I add more yeast? Should I wait more? It was pretty hot  
>(around 90 degrees) all three days, could that have killed the  
>yeast?

At 90F, Wyeast #1007, German Ale, would probably have completed fermenting an average-gravity wort batch, which CITSnow is. 3 days is not an uncommon fermentation time for such a warm temperature. If you can, try to use a lower temperature since the likelihood of off-flavors is increased as the temperature increases. 90F will not kill your yeast unless it is a sudden increase from, say, 50F. By the way, a quick, violent fermentation has been called a "Flash Ferment."

\*\*\*\*\*

Ed writes:

>At the recent Del Mar Fair, I overheard one of the judges talking about the

>I.P.A. class; He was saying that an IPA should be dryhopped to kingdom  
come,  
>so that the first thing that registers in the taster's palate and brain  
is  
>the dryhopping.  
>  
>My question: Is this a generally accepted fact? Or is it just  
individual  
>preference. I realize that IPA's should be strong and quite  
aggressively  
>hopped, but I didn't know one way or the other about dryhopping. Anyone?

Every judge has their preferences, but the bottom line should be the  
style descriptions for the particular competition. Most competitions  
simply use the AHA guidelines. To the best of my memory, the AHA  
guidelines  
say that a hop nose is acceptable in an IPA, but not required.  
Personally,  
I like IPAs with a hop nose (within reason) and if I was judging two  
beers  
that were identical in every other way, I would score the one with hop  
nose a bit higher. In general, I feel that if a style says that hop nose  
is acceptable, the beer will score higher if it has a reasonable amount  
of  
hop bouquet.

Al.

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Date: Wed, 30 Jun 93 14:51:17 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Talk Techie!

Salutations!

I, for one, enjoy the input these scientists [create and share with the HBD. As an English and Comp Sci major, I don't have near the expertise to calculate flavor profiles or create/critique mathematical formulas for color. I remember once seeing a study someone did about UV rays being transmitted through different color glass. The author included a graph! Great stuff! It is said: Farmers make wine; Engineers make BEER! This is not simple sloppy work we are doing here. We are modern day alchemists!

Yes, I don't understand much of the Brew Techie stuff, but as I make an attempt to do so I learn more about what I am doing and therefore become better at my craft. Indeed, most everyone with access to this forum is in some way connected to some kind of technology--often people working in Universities.

In short, I like the Brew Techie stuff. Thank you and keep up the good work!

Gene

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Date: Wed, 30 Jun 1993 12:56:13 -0700 (PDT)  
From: Eric Wade <ericwade@CLASS.ORG>  
Subject: Legalizing Homebrew

In HBD 1171 Dick Dunn asked when (exactly) was homebrewing legalized. Although he asked for e-mail replies, I did the research so thought I'd take the credit;-).

26 United States Code sec.5053(e) reads, in part, "Beer for personal or family use.-- ... any adult may, without payment of tax, produce beer for personal or family use and not for sale." The section goes on to mention limits (essentially 100gal/person, 200/household). This was enacted as part of an excise tax amendment, Public Law 95-458, 92 Stat. 1255, sec.2(b)(1). The legislation was signed by President Carter on October 14, 1978 (124 congressional Record 38781). Although I don't have the exact time the President signed it, it essentially became effective retroactively to the first moment of the day he signed the legislation (see Sutherland, Statutory Construction, sec.33.10 and 1 USCA sec.106b, note 3).

Also in HBD 1171 Edward Croft calls for less technical postings. While much of the idophor/chlorine concentration thread was above my head, I have no objections. I like to see a variety of information at all levels.

If I don't want to read about blueberry wheatbeer maybe someone else does.

Finally, I'd like to second Martin Lodahl's comments regarding the commercial aspects of HBD postings. There are several contributors who have a financial stake in the homebrew market who manage to keep their postings limited to bettering the process of homebrewing without pushing their products. I, who have no financial interest, would feel comfortable recommending a product if I felt it improved my beer, but I might get a little squeemish about it if I was a close personal friend of the producer.

My \$.02 for the day.

Eric Wade, Law Librarian (US Court of Appeals) and Homebrewer  
San Francisco

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Date: Wed, 30 Jun 93 12:47:37 PDT  
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)  
Subject: advertising revisited

In HBD 1171, Martin Lodahl says,

>Time to offer my own opinions concerning advertising in HBD.  
>  
>The opinion has been advanced that advertising on HBD is a service,  
>that it provides information brewers find useful...

Whoa, pardner! Unless I missed something, the sentiment discussed was that it was OK to mention products by name, and to share information about them, perhaps even to announce the availability of a new product. I don't recall anyone saying that use of the HBD as a free advertising medium is an OK practice.

> ...argument fails with me is in the fundamental difference between  
>information presented in the interest of profit, and information  
>presented solely to share something useful or interesting. Having  
>something to gain beyond good beer creates a conflict.

Too true.

>... A poster  
>with a commercial interest in the question will find it quite  
>difficult not to favor their own solution: when all you have is a  
>hammer, everything looks like a nail.

I agree.

>... Some posters (Kinney  
>Baughman, Glenn Tinseth, Russ Wigglesworth, Darryl Richman and  
>others) have handled this extraordinarily well, from my point of  
>view, and I read their postings with confidence. Others leave me  
>with the uncomfortable feeling that at least some of their postings  
>(and I can't always tell which ones) contain not real information,  
>but its counterfeit.

Ok, how about this: allow the ones you like and roast the rest! :)

Garrett <uunet!mdcsc!gdh>

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Date: Wed, 30 Jun 93 14:26 CDT  
From: korz@iepubj.att.com  
Subject: Re: Westmalle yeast/Styrian Goldings/DMS/Nitrogen levels?

Jim Busch asked about the possibility of using Westmalle yeast.

Westmalle is bottled with a very unattenuative bottling strain and not the primary fermentation strain. It would not be usable for much else besides bottling.

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Someone else (sorry again) wrote:

>Hops are still under experimentation, but noble hops only. Saaz,  
> Styr-Goldings, Hallertau.

Styrian Goldings are neither noble nor are they Goldings, actually. The only three noble hops (this was confirmed from various sources in the Brewer's Forum) are Hallertauer, Tettnanger and Saaz. Styrian Goldings are actually a Slovenian variety of Fuggles. They are a distinct hop in every sense from both Fuggles and Goldings, but are not related to Goldings other than by name.

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Another Jim writes:

> According to George Fix in his article on Belgian malts that appeared  
>in Brewing Techniques, the Belgian pilsner malt is low in the precursor  
>of DMS (can't remember offhand, SMM?), so this should'nt be a problem,  
>especially if you adhere to standard procedures for minimizing DMS.  
> The precursor of DMS is a gas that can be driven off during the boil.  
>Use a vigorous boil, and leave the pot at least partly uncovered. When  
>the boil is finished, chill the wort below 140F as quickly as possible.  
>A wort chiller is very helpful here.

You are right in every sense except what is driven off (even your memory has not failed you -- it is SMM). It's the DMS that's created that is driven off in the boil and during the vigorous part of the ferment, although I don't think that either SMM or DMSO (the two compounds that DMS can come from) are gasses.

\*\*\*\*\*

Geoff writes:

>Alternatively, someone is inadvertently quoting the Nitrogen content as  
>protein - a plausible error given the correlation. The data I have on  
Baird's  
>wheat malt is that it contains a maximum of 2.2% total Nitrogen.  
Remarkably  
>close to your figures of "1.8 to 2.1". Just speculation though, but  
maybe  
>worth checking.

Yes, indeed. Is there someone here who can contact Jean-Xavier? Could you ask him about this?

Al.

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Date: Wed, 30 Jun 93 21:19:38 EST  
From: garrik%pun@sabbagh.com (Eric C. Garrison)  
Subject: pop bottles

I have seen postings here and in rec.crafts.brewing that mention using plastic 2-liter pop bottles for bottling beer instead of regular old glass bottles.

I bottled one 2 liter bottle worth of my latest, just for an experiment. If it works out, I may do it again.

My question is, how successful is this? When you pour out of the bottle, doesn't all the sediment get kicked up into the beer when you put it back? What can you do to avoid this? Also, doesn't the beer go flat after resealing like pop would? I have a pump gizmo that is supposed to keep pop from going flat (you screw it on instead of the cap and pump air in to pressurize the bottle). Is this gizmo necessary?

Eric

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Date: Thu, 1 Jul 93 08:10:55 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject: Consultant

I am in the process of going through the legal issues of opening up a microbrewery in the greater Boston area. Does anyone know of a professional consultant I can hire to work with me over the next few months?

Please reply to brucek@sig.sni-usa.com

Cheers,

Bruce

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Date: Thu, 1 Jul 93 14:59:01 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re : Belgian triples

Belgian triples are not a style I brew myself, but there is an interesting issue of when to add the sugar, if any. With my wines, I've got into the habit of adding a concentrated syrup on about day 5 of the ferment. I may be deluding myself, but I fancy that I get a smoother result that way (ie, fewer byproducts of fermentation). Of course, these byproducts could be just what you want with some styles of brew.

- - -

Conn V Copas  
Loughborough University of Technologytel : +44 509 263171 ext 4164  
Computer-Human Interaction Research Centrefax : +44 509 610815  
Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut  
G Britain (Internet):C.V.Copas@lut.ac.uk

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Date: Thu, 1 Jul 93 10:17:10 EDT  
From: kstiles@woomera.att.com  
Subject: Light (Lovibond) Extract

>>>I wish to make a beer with the lightest possible color as is  
>>>possible with extract.  
>>>What suggestions can you give me for both liquid extract  
>>>(preferably unhopped) and DME?  
>>>TIA  
>>>Andy A  
>>  
>>Andy, from my experience and comments from my local supplier, American  
Eagle  
>>seems to be the lightest extract (both dry and syrup) on the market.  
Their  
>>amber DME seems to be the color of M&F et.al.'s light.  
>>  
>I seem to recall some HBDers complaining that the American Eagle  
>dry extract product had significant amounts of corn sugar mixed in  
>with the malt. This would certainly make a light beer, but it may  
>be better to stay with a quality extract, such as M&F or Laaglander,  
>which claims to be all malt.  
Yes, I was the one who complained about American Eagle. But there  
were no follow-ups, so maybe it's just me. On the other hand,  
the yeast starter I used last had SG=1.040 and FG=1.000, or  
an amazing cidery 100% apparent attenuation (didn't even need  
my calculator for that one).

-Kevin Stiles

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Date: Thu, 01 Jul 93 11:09:25 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: kegging and temperature

Bart Thielges writes:

"....I don't have enough `fridge space to keep the keg upright and cooled down for extended periods. Will repeated cycling between 45F and 80F spoil the flavor ?"

I can't answer the flavor question but I do have a solution for the fridge space. I bought a small 1.7 cu. ft. (it's long past time for the U.S. to go metric) "dorm sized" fridge and a cold plate. A cold plate is a bunch of stainless steel tubing buried in about 15 pounds of casted aluminum. I keep the keg outside the fridge and have a 1/4" line going into the fridge which is hooked up to the cold plate. The out line from the cold plate is 8 feet of 3/16 tubing attached to a cobra tap mounted on the fridge door. The beer is cooled on demand.

Why 8 feet of 3/16 tubing? For a keg to maintain 2.5 volumes of CO2 (medium carbonation) at room temp requires about 29 psi of pressure. The long tubing is needed to drop the pressure to the proper dispensing pressure so that you don't get too much foam. 8 feet drops the pressure by 24 pounds and the cold plate and the tap drops the rest.

I want to thank John Francisco for his article of a few weeks ago recommending the use of 3/16 tubing to "gracefully" reduce pressure. I was skeptical but admit that it worked better than I could have imagined. It turned my glass of mostly foam into a proper glass of beer with a nice head.

Also, thanks to the 10 or so people who supplied me with CO2 saturation tables when I requested them on HBD. This is a GREAT forum.

- --Tony Verhulst

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Date: Thu, 1 Jul 93 9:02:06 EDT  
From: U-E68316-Scott Wisler <swisler@c0431.ae.ge.com>  
Subject: Defending your cherries

My parent's cherry tree bore fruit this year for the first time that I can remember. I also eagerly awaited the ripening, thinking of a nice cherry brew. I ran into my mom a couple weeks ago and she told me the tree was picked clean overnight - not a single cherry left. She was understandably angry and thought someone came and took them. She considered calling the police ( Please help me officer, someone picked my cherries in the backyard last night and I'm pretty darn upset about it), but couldn't decide how to phrase it so she would be taken seriously. A relative from Michigan said it was birds and draping the tree with cheescloth would do the trick. I'm glad the previous poster decided that 2x4's wasn't such a good idea. Sounds like an engineer with tunnel vision - it happens to the best of us.

On another note, regarding forced aeration. Any of you SCUBA divers out there might consider that dry, clean, and filtered air in your tank. Your low pressure bouyance control inflator attachment might be adapted. I wouldn't go buy a SCUBA tank to aerate your wort, but if you've got one...

Scott Wisler

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Date: 01 Jul 1993 08:18:08 PST  
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>  
Subject: high-gravity brewing

high-gravity brewing is, I think, very common to beginning brewers. For four years, I brewed 5 gal. batches in a 4 gal SS pot from Costco. I could boil up 3.5 gal of wort, but pre-boiled 2 gal. of water and added it to the fermentor prior to boiling the wort. My Barleywine is fine recipe in the current issue of Zymurgy is testament to the fact that you can brew perfectly good beer with this method. I have freinds who still brew this way (some with even smaller brewpots) and they are making very drinkable brew.

When I went all-grain, I bought an 8 gal. enameled pot and wouldn't go back. The old pot now boils mash & sparge water. The two biggest effects I've seen from high-gravity boils are increased carmelization and decreased hop utilization. But IMHO, high-gravity brewing is a perfectly acceptable way of getting by with a small brewpot or increasing the batch size without investing further in equipment.

| If it's good for ancient druids runnin naked thru the woods |  
| drinkin strange fermented fluids then it's good enough for me. |  
| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

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Date: Thu, 1 Jul 93 08:32 PDT  
From: /O=vmospfhou/S=dblewis/DD.SITE=JSCPROFS/@NASAmail.nasa.gov  
Subject: Weissbier yeast

\*\*\*\*\* PROFS Note \*\*\*\*\*  
From: DBLEWIS --VMSPFHOU Date and time 07/01/93 10:35:14  
To: POSTMAN --NASAMAIL

FROM: Dennis B. Lewis <dblewis@jscprofs.nasa.gov>  
SUBJECT: Weissbier yeast

I'm looking for a good weissbier yeast and I've seen Weihenstephan #66 mentioned several times on the digest. Where can I get a slant or packet of this yeast? And any other sources of true weissbier yeasts would be greatly appreciated. Please e-mail me directly and I'll post a compendium of weissbier yeast sources. Send me a description of the yeast profile if you can.

Dennis B. Lewis \* (713) 244-7809 \* NASA/JSC/DH6 Payload Ops  
Homebrew, The Final Frontier.

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Date: Thu, 1 Jul 1993 11:37:48 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: high gravity brewing

The question I have re. high gravity brewing is whether it is better to dilute before fermentation or after. The main difference as I see it is the effect of high gravity wort on the yeast, moreover on the yeast by-products. Maybe I have this wrong, but doesn't high gravity affect yeast in the same way as high temperature, ie. increased production of esters, phenols, etc., all those "fruity and spicy" things? Another factor is that alcohol level in the high gravity fermentation may kill the yeast, leaving a high final gravity. This may actually be a good thing, as the subsequent dilution will not result in a beer that is too dry.

As a data point, my last batch was a high gravity ferment, split between Belgian ale yeast and Wyeast steam beer yeast. Both fermented from 1.060+ down to 1.014. The Belgian was diluted with .5 gallons of water at kegging, the steam had 2 gallons added. Both were very favorably received. I think I posted the recipe in the HBD a week or 2 ago.

Russ Gelinias  
Experimental Space Physics/Ocean Process Analysis Lab  
University of New Hampshire, Durham, USA

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Date: Thu, 1 Jul 93 13:16 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Humor-Impaired

>From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>

>> Hmm... Wasn't planning on going to Portland. Hate to make the trip  
just  
to keep him honest. Any volunteers to take a brand new MM for the  
GREAT  
CRUSH-OFF?

>I'll try not to fall into the camp of the humor-impaired here but the  
casual reader and, I'm sure Mr. Listerman, would take offense at the  
insinuation that Dan is a dishonest person.

I humbly suggest that you didn't try very hard. Quite the contrary, you  
turned a humorous comment into an offensive one. You got into  
Listerman's  
head and you are telling others how they should interpret my words.

>This makes two such swipes at Dan in as many weeks. And since he isn't  
here  
to defend himself, don't you think we can refrain from comments like  
this?

Listerman is well represented by his friend who did indeed start the  
discussion. Furthermore, he is publishing data that misrepresents my  
product and I will "swipe" at it everytime I see it.

>This endless harping, hyping, and mentioning of one's own products to  
keep  
threads running ad nauseum is in poor taste, to say the least.

I suggest a little introspection on your above comments would be  
appropriate  
here. Up to this point, it has been a technical discussion and you have  
turned it into an ad hominem attack. Sort of like moving out after  
voting  
the county dry.

You certainly display will power by not jumping in with your Brew Heat  
when  
you could with justification but that does not give you the right to be  
unreasonable. Furthermore, if you were really concerned about "threads  
running ad nauseum", you should have tried email instead of forcing me  
to  
respond in public.

js

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Date: Thu, 1 Jul 93 13:46 CDT  
From: korz@iepubj.att.com  
Subject: high-gravity brewing/cherries/CRUSH-OFF

Glenn writes:

>Jim Busch brings up an interesting topic: High Gravity brewing.  
>  
>One concern that the big boys have is deaerating(sp?) the water before  
>adding it to the beer but this is because they are adding the water at  
the  
>end of the process instead of adding it to the fermenter.

Yes, Glenn, but you didn't mention how to do this... the easiest way is  
to boil and cool the water and then siphon it around as if it was beer  
(so you don't re-introduce the O2 you boiled out).

\*\*\*\*\*

Elaine writes:

>I wanted to try making some cherry stout, but because I am unsure if I  
>will really like the flavor (I have never tried any, it just sounds  
good)  
>and because fresh cherries down here in Georgia are so expensive, I want  
>to just make half a batch (3 GALS). My secondary fermenter is 6 gals and  
my  
>question is, will having that large air space be a problem?  
>Does anybody have an opinion about using fresh cherries versus canned  
ones?

I used canned cherries once and there was no aroma left in them. I think  
that fresh is the way to go. By the way, to make 15 gallons of  
raspberry/  
cherry beer, I made up 10 gallons of light ale and then added 5 lbs of  
blanched frozen cherries and 5 lbs of blanched frozen raspberries into  
each of three 5 gallon fermenters. I then siphoned 3.3 gallons of the  
light ale into the three fermenters. USE A 1.25" BLOWOFF TUBE OR YOU  
WILL HAVE AN EXPLOSION THAT IS NOT VERY PRETTY (RED GUNK ON THE CEILING)  
!  
Incedentally, raspberries are much more flavorful than cherries and the  
cherry flavor was not really noticable. 13# of cherries in a 5 gallon  
fermenter is what I used for my pKriek. So for cherries, I recommend  
about 3# per gallon of base beer and for raspberries, about 2# per gallon  
of base beer.

>> Hmm... Wasn't planning on going to Portland. Hate to make the trip  
just to  
>> keep him honest. Any volunteers to take a brand new MM for the GREAT  
>> CRUSH-OFF?  
>

>I'll try not to fall into the camp of the humor-impaired here but the  
>casual reader and, I'm sure Mr. Listerman, would take offense at the  
>insinuation that Dan is a dishonest person. This makes two such  
>swipes at Dan in as many weeks. And since he isn't here to defend  
>himself, don't you think we can refrain from comments like this?

I never thought I'd be disagreeing with Kinney and defending Jack, but  
I think that Dan took the first swipe at Jack when he started  
distributing  
a test that compares the Corona with the MaltMill and the Philmill.  
In the test, Dan uses a non-adjustable MaltMill and the results appear  
to show the MaltMill as being about par with the Corona and the Philmill

about par with a textbook crush. I don't think that Jack literally meant to say Dan was dishonest. I've spoken with both Dan and Jack about each other's mills and there is definately a rivalry going. The good part is that the consumer will be the ultimate victor in this battle -- more competition means either lower prices or better quality products or both.

[By the way, screen tests don't tell the whole story -- they don't measure how much pulverized husk material is in the flour.]

Al.

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End of HOMEBREW Digest #1174, 07/05/93  
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Date: Thu, 1 Jul 93 13:54 CDT  
From: korz@iepubj.att.com  
Subject: Specialty Products Intl. part 2 of 4

This is part 2 of my review of "Home Beermakers Guide" by Leigh P. Beadle.

Pg6 INGREDIENTS:

"The beer is made from six basic ingredients: water, malted barley, brewers corn syrup, bops, sugar and yeast."

Hmmm? I guess Leigh hasn't heard of Reinheitsgebot (or even Rheinheitsgebot ;^). The fact is that brewer's corn syrup is an adjunct which is quite a bit cheaper than malt extract (\$0.74/lb for dextrose versus \$1.77/lb to \$3/lb for 100% malt extract). Some brewers, most notably the Belgians, use it to make high-alcohol beers without excessive body. An all-malt beer with the alcohol level of Scaldis (Bush) would be like 10w40 motor oil! No, I'm afraid that in this case, it's just to lower the price and raise the profit margin. Excessive corn or cane sugar in a beer will make the beer taste cidery.

"Brewers corn syrup gives body and alcohol and aids in head and CO2 retention."

Typical dextrose-based corn syrup is 100% fermentable (it's all glucose) and thus will only add alcohol and a cidery flavor. It will actually reduce body and reduce head retention. I've never heard of CO2 retention -- perhaps something to do with flatulence. If the syrup does include some dextrans, it will increase body and head retention, but I would venture to guess that production of this type of syrup would be more expensive than malt extract production and thus plain dextrose is probably what is used.

"SUPERBRAU INGREDIENT MIX The malted barley, brewers corn syrup and hops are already blended in the correct proportions in the 3.1 lb can for a well balanced beer. The unique feature of this mix is that you can vary the flavor to exactly your own taste in beer. To do this, you simply extend the boil in Step 1 beyond the standard 2 minutes. A two minute boil will give the flavor of an American premium beer. If you prefer a more European flavor, I recommend a high boil for 10 minutes (watch for boil-over)."

Wow! What a concept?! Seriously, a two minute boil will not give the wort time to isomerize the hops (yes, those lumps in the syrup are hops!), boil off any chlorine in your boil water or coagulate proteins, which can result in hazy beer. I also suspect that they are Chinook hop pellets because that is the only hop pellet that they sell. Chinook hops have been reported here in HBD and other forums as having a harsh bitterness and flavor.



"SUGAR Note that the can mentions the use of either corn or cane sugar. Both give the exact same result so use ordinary cane sugar. It is cheaper and readily available. (For a low alcohol beer of 2%, simply leave out the 2 pounds of sugar in Step 1."

Note also, that in addition to the corn syrup in the can, your are also instructed to add another 2 lbs of cane sugar. I would venture to guess that this brings the maltose level of your wort well below 50%. I would also suspect that at this high a level of corn products, the yeast may have some nutritional trouble with this wort.

Stay tuned...  
Al.

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Date: Thu, 1 Jul 93 13:51 CDT  
From: korz@iepubj.att.com  
Subject: sanitng lids/warm kegs/reconditioned kegs/corrctn/2nd-aries/hop bags/  
frmnr scum

Bart writes:

>Here's a few of questions for the experts :

>

>1) I haven't been able to find a good way to immerse my fermeter lid (a  
> 5 gallon white plastic bucket with snap on lid) in the sanitizing  
> solution. I can distort the bucket and jam the lid in part way,

I have a sponge set aside for just sanitizing my fermenter lid when I use the plastic fermenter. With a rubber glove on, I use the sponge to sponge-down the lid. I do this for about 5 minutes then rinse. Actually, if you don't overfill your fermenter the kraeusen will not even reach the lid and if you keep the lid clean, you don't really need to do have it as sanitized as if it was going to be in contact with the beer.

>2) I've been kegging my beer (too lazy to clean bottles :-). So far, the

....

> upright and cooled down for extended periods. Will repeated cycling  
> between 45F and 80F spoil the flavor ? I'm not really concerned  
> about any visual effects, only taste.

The temperature changes are not really the problem once the beer is carbonated, but at higher temperatures, the yeast autolyse faster and you may get yeasty or sulphury flavors.

>3) I bought a used and dirty Cornelius keg. I scrubbed the interior out as  
> well as I could. Now, I'm worried whether there might be built up  
> crud in the feeder tube or the hose fittings. Would you recommend  
> disassembly and cleaning ? I've circulated sanitizing solution  
> through all of these parts.

I recommend replacing all the rubber in the keg. Most have 7 rubber parts:

the BIG O-RING, the two poppets, the two small o-rings you see on the outside and the two o-rings that slip over the two gas and liquid tubes and sit between the flare on the tubes and the keg (actually, the bottom half of the connector bodies). Oh yes, and I recommend also replacing (if you can) the over-pressure saftey valve. It has a rubber gasket also.

\*\*\*\*\*

I wrote:

>Well, I doubt even the beginners on the HBD can see what's wrong with  
^

This should have been "I'll bet."

\*\*\*\*\*

Michael writes:

>fermentor. Do you think siphoning into a secondary fermentor would  
>improve the flavor?

For an ale, I would say no. They spend so little time in the fermenter, that the benefits of a secondary are outweighed by increased risk of infection (especially in the summer) and aeration.

>Should I use a hop bag for the pellets?

I do, but then I also add 10% to Ragers numbers because of it. I add another 10% if I use pellets or plugs.

> Which reminds me, someone posted a question recently about shoving the >flotsam back down into the wort. After a week of fermentation I

I recommend against this. Either Conn or Goeff (sorry, forgot who) collected some of this scum and checked to see if it was soluble in water with (I believe) a little bit of ethanol. The verdict was that it was not soluble. I'm quite sure it's mostly hop bits and hop resins that were extracted from the hops, but did not become soluble.

Al.

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Date: Thu, 01 Jul 1993 11:42:22 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Cleaning kegs

Bart sez:

>3) I bought a used and dirty Cornelius keg. I scrubbed the interior out  
as  
> well as I could. Now, I'm worried whether there might be built up  
> crud in the feeder tube or the hose fittings. Would you recommend  
> disassembly and cleaning ? I've circulated sanitizing solution  
> through all of these parts.

I'm one of the you-can't-be-too-careful-when-it-comes-to-cleaning-old-kegs  
kinds of guys. One of the results of the great o-ring debate was that  
sometimes you get burned with old o-rings and sometimes you don't,  
depending on whether that old keg had sprite or rootbeer/coke in it. If  
you don't know, toss all the rubber parts and rebuild to be safe.

You DEFINITELY need to disassemble and clean. Personally, I've found  
that  
nothing beats boiling up 5 gallons of a hot B-Brite solution, pouring it  
into the keg and letting it soak. After filling the keg, press the  
little  
valve on the liquid side of the keg and the sterilant solution will fill  
the dip-tube and clean it, too. If you don't, the dip tube won't get  
cleaned and that COULD be very bad for your beer.

Most homebrew supply shops carry rebuild kits. Alternative Beverage in  
Charlotte, NC does for sure. 1-800-365-2739. And I'd imagine Al does.  
Email him at: korz@iepubj.att.com

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Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.

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Date: Thu, 1 Jul 93 15:50 CDT  
From: timborn@ihlpb.att.com  
Subject: Got a recipe for a Duval approximation, anyone?

From: ihlpb!timborn  
Postmark: Your official 'out of the box thinker'

Date: Thu Jul 1 15:42:49 1993 IH

To: homebrew@hpfcmi.fc.hp.com

Subject: Got a recipe for a Duval approximation, anyone?

A Belgian beer imported to the states called Duval (trans. 'devil'?) has always caught my tastebuds just right. I checked my notebooks/cookbooks and the Cat's Meow, but I didn't stumble across anything that claimed to approximate this one.

How does one go about trying to duplicate a given beer? I don't think my tastebuds are in the league where I can hoist a class and then pencil a recipe. How about you? Have any of you either found a recipe for a Duval-clone or created one and stashed it away in your notebook?

"Enquiring minds want to know."

Best,  
-tim  
t.born@att.com

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Date: Thu, 1 Jul 93 16:45:35 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: hops storage

Wizards of Wort:

I plan to try using more whole hops in the near future. I have read the info in the hops catalogues of Glenn Tinseth and "Mark from HopTech" - really good info in there, by the way, thanks guys! - and I am beginning, sadly to \*worry\* about storage. I have the freezer space, so temperature is not a problem. Oxygen, on the other hand, is. One of these gentlemen recommends storing unused whole hops in a CO2-purged mason jar; the other recommends "investing" in a vacuum-sealer.

I have neither CO2-capability nor a vacuum sealer. I know CO2 systems are pretty expensive, but I don't know a thing about vacuum sealers. Can anybody enlighten me? I really don't want to sink a lot of dough into new equipment right now. If I plan on using the hops all up within a short period of time will this be o.k.? How long can they sit in a freezer in a non-O2-free environment and still be reasonably fresh? If I can't count on using them up within a short period of time, should I just go with pellets for the longer shelf-life? Please, no pellet-vs.-leaf wars here - that isn't what I'm interested in. Glenn and Mark, if you're listening, I'd love to have you clarify the info on storage in your catalogs, and I'd like to hear anyone else's \$.02 worth as well.

A final question on whole hops: when I used them before I had the devil of a time siphoning the cooled wort out without getting all clogged up, unless I used bags to contain the hops. Are bags o.k. or is there some evidence they cut down on hop utilization? If it is preferable not to use bags, what tricks do people have for siphoning w/o clogging?

Hmm... seems like I have a lot more questions about brewing when I'm not doing any. Maybe now that several of you have encouraged me to go ahead and brew on those cool summer nights, I'll get back to business and stop asking so many questions.

"Just Brew It."

Jonathan Knight  
Grinnell, Iowa

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Date: 01 Jul 93 19:26:07 EDT  
From: "Elizabeth Gold, zymurgy/Brewers" <75250.1351@CompuServe.COM>  
Subject: zymurgy article

As editor-in-chief of zymurgy magazine, I am currently in the final stages of refining the articles for our 1993 Special Issue. The theme of this year's Special is the traditional brewing techniques of England, Germany and America.

I am currently looking for someone to cover two subjects in the English culture section:

1 Homebrewing in England -- an overview of what it is that makes this brewing specifically English. This could include trends, popularity, styles, etc., and

2 English Brewing History -- For the other two cultures, this subject covers the basic history and includes ingredients, development, style, trends, etc.

I know you all are the experts, so I am turning to you for assistance! If you're interested, either send me a note through C\$S (75250,1351) or call me at (303) 447-0816. Deadline for these articles is the week of July 20 and length is up to the writers -- I just want the subjects covered.

I look forward to hearing from you!

All the best, Elizabeth Gold

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Date: Thu, 1 Jul 93 17:57:43 -0600  
From: lager!wtm@hellgate.utah.edu (Tom McCollough)  
Subject: large vs. small scale brewing

In HBD #1171 Mark Garetz writes:

> Forgive me for a bit of a tangent here, but this is kind of like why  
> there  
> aren't really any good formulas for predicting bitterness based on all  
> the  
> variables. The reason is that commercial breweries don't change their  
> process often, so that is in effect a constant. They also have a lab  
> to  
> measure (and tasting panels to confirm) the actual amount of bitterness  
> they're getting for a given hop addition. They also have the luxury of  
> blending batches to correct mistakes and get better consistency. So  
> their  
> "formulas" are based on a lot of trial and error with measurement and  
> subsequent adjustment, with the knowledge that their yeast strain,  
> fermentation temperature, etc. will all remain constant and can be  
> tightly  
> controlled. So do they care to have a formula that they can plug in  
> lots  
> of variables and get a reasonably accurate bitterness calculation? No.  
> So we don't have one either (yet).

This is such a good observation. There are many simple, yet unanswered, questions posed to the HBD. These are the kinds of questions that one would think were answered years ago by a brewing scientist working for a big brewery. But your observation hits it right on the nose: the big brewing scientists are busy answering questions that are more appropriate to "big brewing". As small scale brewers, we have quite an opportunity here!

Tom McCollough  
wtm@gr.cs.utah.edu

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Date: Thu, 1 Jul 93 20:09:21 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Small Batch too much air? NO!

Salutations!

Someone wrote in July 2nd's HBD wondering if 3 gal of beer fermenting in a 6 gal carboy would cause problems. I assume the person was worried (GASP!) about oxidation. The CO2 produced by the beer is heavier than air and will blanket the brew. No need to be concerned. I would recommend using a starter batch of yeast to get the fermentation going faster. Good luck!

Gene in Duluth (Soon to be Laramie =)

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Date: Thu, 1 Jul 93 18:59:00 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop bags. racking tips

Michael Barre writes (with lots of stuff deleted):

>Should I use a hop bag for the pellets?  
>Which reminds me, someone posted a question recently about shoving the  
>flotsam back down into the wort. After a week of fermentation I  
>uncovered the wort to scoop some out with my sterilized (boiled for 15  
>minutes) Pyrex measuring cup to test the s.g. At that time I pushed  
>most of the scum from the sides of the bucket back into the liquid with  
>my sterilized steel spoon. I don't know if that contributed to my  
>problem, but I won't do it again.  
>If I use pelletized hops, I will put them in a bag.  
>I may or may not use liquid yeast, and may or may not siphon off  
>into a secondary fermentor after the fermentation settles down.

First a disclaimer. Although I do sell hop bags that keep pellet particles contained, I'm about to *\*not\** recommend them for Michael's usage.

I assume your problem with the hop pellets is the particles getting into your finished beer and that you want to use a hop bag to prevent this from occurring. While this will certainly do the trick, it will also cause other "negative" effects. Most importantly, your hop utilization will suffer (meaning that you'll get less bittering power). Also, there are many benefits to be had to the wort by having the hop particles (whole or pellet) thrashing around in the wort during the boil (help with protein coagulation - aka the hot break) is the main one. Sorry I can't give you a number on how to adjust your utilization downwards, there are just too many variables, which brings me to my next point: The hop particles will expand quite a bit when they get wet, so make sure you don't over-fill the bag while they're still dry. To give you an example, we sell a 4x6" hop bag and we recommend only 3/4 of an ounce maximum amount of hop pellets in that bag (which is a *\*lot\** smaller than 4x6" when dry). This amount of hops will expand to fill the whole bag. Utilization will suffer because the wort can't get to the hops easily.

Anyway, I recommend you do use a secondary and rack carefully. The two step racking process should leave all of the pellet particles in the trub layer on the bottom. This is instead of the hop bag. The hop bags are great for dry hopping, but I don't like them for the boil. Also, your racking techniques will improve with time. The key is to have a reliable way to suspend the end of the racking tube just above the trub layer. I use a rubber stopper

that fits in my carboy with two holes in it: One for the racking tube and the other I use to force CO2 into the carboy (at \*low\* pressures) to push the beer into the secondary (I use a soda keg for the secondary). If you don't have the CO2 around, you still need the second hole to allow your siphon to work. There are these orange carboy caps around that do the same thing, but make sure they fit your carboy before you buy one (mine didn't!). You can also use Kinney Baughman's BrewCap system if you want the cadillac system. Lastly, I have had success with the racking tube securely rubber-banded to a clothes pin (with some extra rubber bands to make it close tighter) and then clip this to carboy neck. The problem with all of these is that you usually can't see the end of the racking tube once it's in the beer. The answer: a ruler. Measure from the top of the trub layer to the carboy neck's top, and then measure your racking tube to figure out where on the tube you'll have to line up with neck top. As the beer gets close to the tube bottom, you can usually adjust the tube bottom downwards now that you can see it, so err a bit on the high side when setting the tube depth. BTW, I have found the "orange racking tip" thingy to be essentially worthless. Ditto Fermtech's \$2 racking tube clothespin.

About the scum: You're right. Don't do it again. This could be responsible for all of the "off-tastes" in your beer. The scum has a lot of hop alpha acids, beta acids and tannins in it, and will also affect your calculations for utilization if you put it back in the beer (you'll get more bitterness, but you don't want it, trust me). If you want a shock, taste some of it.

Liquid yeast: Yes. Make the switch. You won't be sorry.

Mark

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Date: Thu, 1 Jul 1993 19:10:25 -0800  
From: ulrich@sfu.ca  
Subject: Advertising

Martin A. Lodahl writes:

>We've learned to expect advertising on the  
>more conventional media to be less than completely reliable; for  
>this quality to slip unannounced into this forum compromises the  
>credibility of every scrap of information presented here, especially  
>for the newer brewers who are less prepared to sort fact from  
>factoid, and don't yet know who's selling what.

This sounds like an argument for advertising. Doesn't advertising have the effect of informing said newer brewers who's selling what and thus whose postings should be taken with a grain of salt?

Charles Ulrich

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Date: Thu, 1 Jul 93 19:15:35 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Mash Question, Crazy Grain Mill Idea

Having just made the switch to all-grain about four batches ago, I have a question for the more experienced mashers:

I have always adjusted the mineral content of my water "to style" using gypsum, epsom salts and sodium chloride. Since going all grain, I have adjusted the mash water and sparge water in proportion to their volume, without any regard to their pH - mainly because the pH test strips I bought (pHydrion 5-7 range) are junk and I haven't bought any replacements yet. Basically I decided not to worry about it.

I have always gotten decent extractions (except my first batch because I didn't grind the grain fine enough). My latest pale ale got around 32 pts/lb/gal. I just did another batch, but decided to leave out any mineral additions to see if it would make any difference to the taste of the beer. Things proceeded fine but my extraction was down around 28.5 pts. Could the higher pH of the water (because I didn't add any gypsum) make that big a difference, or was I just lucky before? BTW, I use EBMUD water, which is pretty good quality "soft" water and I use a single infusion "picnic cooler" mash/lauter tun. Mash temp for both batches was around 154F, sparge temp of 170F.

Grain mill "crazy" thought:

The other day while waiting in an office supply superstore for some copying to be completed, I was wandering around and happened into the "paper shredder" section. One happened to be at the right height for me to look down into its jaws (it was on top of a trash can). I had always assumed these things had blades in them, but they actually have little wheels that look like 1/4" wide mini rollers from a malt mill, grooved and all. The spacing between the rollers seemed about "grain width" and I wondered if one rigged a suitable hopper if these things could be used as a motorized grain mill? The model I saw had plastic rollers (may not last too long with grain) but some of the more expensive models had metal rollers. The cheapest ones were in the \$50 range, the most expensive around \$100.

Now: Not wanting to sneak a handful of grain into the office supply store to try them, does anyone on the Digest own one of these things and be willing to try some grain and report back? If it works, this might be a nice already motorized malt mill for not much money.

(Warned you it was crazy)

Mark

"If architects designed buildings the way programmers wrote programs, a woodpecker would come along and destroy civilization!"

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Date: Fri, 2 Jul 93 7:28:31 EDT  
From: grctechs!tmcguire@grctechs.grci.com (Terry McGuire)  
Subject: Jim Koch??? // Houston brewpubs

My apologies if you have already beaten this issue into the ground but I have literally (and figuratively) been out of town. Why does Jim Koch have such a bad reputation? I gather that he likes to sue people, but I don't have the full story. I like the beer, although I have had much better.

Also, can anyone tell me if there are any brewpubs in Houston? I may have to spend a month or more down there and I will need some relief from the heat & humidity.

thanks!

Terry McGuire  
tmcguire@grctechs.grci.com

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Date: 2 Jul 1993 08:25:30 U  
From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
Subject: Big brewers & real beer

Al K. sez:

> Perhaps the brewmasters and food chemists at Anheuser-Busch have worked  
> so hard to remove all traces of beer flavor from their "beer" that they  
> have forgotten how to brew real beer. Actually, the fact that the  
> industrial megabrewers are taking notice of beer with flavor is a good  
> sign. All we have to do now is to encourage the good brewers to keep  
> giving A-B the finger.

My first reaction was "right on!" but then I had a second thought. Here  
are some data points:

Jim(tm) Koch(tm) and his gang of contract brewers did a truly wondrous  
thing for this country. They made a very high quality beer widely  
available to the mass market. That's GOOD!

The last time I passed through the Denver area, I drove out to Golden  
and had some fresh Coors Winterfest at the brewery tasting room. It was  
absolutely outstanding. Even when I see it at my local supermarket, it's  
not bad, and that's GOOD.

Miller is apparently trying to do the same thing on a larger scale  
with their new Special Reserve Amber (disclaimer: I haven't had the  
opportunity to try it yet, so the jury is still out). Again, that's  
GOOD (at least from the reports I've been seeing).

The last time I heard a statistic, all the microbreweries and all the  
brewpubs and all the homebrewers in America put together only made  
a small fraction of one percent of the output of the big 3. They have  
nothing to fear from us, and the renewed interest in GOOD beer can  
only help the big guys by making their "pasteurized processed beer  
product" more popular.

So far, the big guys haven't done anything to the little guys in  
this country except recognize the competition and try to compete  
fairly. Since positive reinforcement generally works better than  
negative, maybe we should be telling the big guys how much we appreciate  
their efforts to improve quality. Saying "I'll buy this new product  
you make" rather than "I won't buy this old swill you make" seems like  
it would have a greater effect.

And yes, I think it's essential that A-B keep its grubby fists off  
the real Budweiser Budvar brewery!

++ Ed Westemeier Cincinnati, Ohio westemeier@delphi.com ++

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Date: Fri, 2 Jul 93 14:14 GMT  
From: Phillip Seitz <0004531571@mcimail.com>  
Subject: Orange peel in Belgian brewing

Steve Stroud's excellent post in Friday's HBD prompted me to write regarding on ingredient that he mentions: orange peel.

I think the concensus is that brewing Belgian-style beers is tough to do, and I'm sure that anyone who's seriously worked on this has had more than their share of disappointments. I know I have. It's therefore with some regret that I must add another complication: there's more than one kind of orange peel being used in Belgian brewing.

The one we are most familiar with, at least by reputation, is curacao or bitter orange (the latter term actually being more common). In its dry state the peels look like they're made of plaster, and dirty to boot. The dried peels are quite stiff, and are more likely to snap than bend. When broken they give off a fleeting but enticing aroma of Cointreau, and when nibbled are noticeably bitter. Brewers who buy the peels in large quantities get them in hunks that represent about 1/4 of a single orange's peel. Bitter orange peel is also available in European herb and spice shops in smaller chips, and can be bought by the gram. I have yet to find it here in the U.S. (and believe me, I've called just about everywhere), and usually people don't even know what I'm talking about. The only people who do are very experienced cooks, who use the peel for certain Provencal meat dishes. I believe these oranges are grown in Spain and Northern Africa.

The less-known orange is called sweet orange. In fact, I strongly suspect that it's not too far from your standard, grocery store orange. These peels come to brewers in spirals, the kind you'd make if you were trying to peel an orange in a single shot. These are more orange colored than the bitter orange, less dry, less aromatic when crumpled, but are also less bitter and more orange-tasting.

I recently was able to bring back a small supply of each from Belgium. The guidelines I received from brewers there are to use the bitter orange in moderation, up to a maximum of 1 gram per liter of finished beer. I think the average use is closer to 0.5 grams/liter. The sweet orange can be used more liberally.

So, what do these do for your beer? We're still in the early experimental stages, but it appear that the sweet orange is what imparts any acutal "orange" flavor. On the other hand, the bitter orange gives no orange flavor or aroma at all, but if I'm not mistaken does provide a very noticeable but mellow bitterness--not herbal at all like hops. I recently made a white beer using only the bitter orange--.75 grams per liter to get its full effects--and found it to be sort of richly bitter but absolutely lacking in orange character. I added the zest of two oranges to teh secondary.

The bad news is that the bitter orange appears to be impossible to get over here, although if you can bring some back it will probaby last you quite a while. The good news is that if you can't get the sweet orange you can probably substitue Sunkist zest without losing too much.

Phillip Seitz  
PSEITZ@MCIMAIL.COM  
Arlington, VA

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Date: Fri, 2 Jul 93 11:02:50 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: In defense of Jim Koch

First of all thanks to some excellent tips on high gravity brewing (esp D. Richman), and on Tripples. It is subjects like these that keep craft brewing interesting and exciting long after one has become "advanced".

Of note in the discussion is what I believe is a major factor in producing high gravity beers and diluting them, that is fermenting the product at the desired OG and not adding water to the finished ferment. I am not doubting the experience related on the diluted Pils, but I agree with the concept of a cleaner beer if you ferment at the desired OG as opposed to fermenting and then adding water to the keg. Obviously, if one is aiming for more esters, a high gravity ferment will help.

Tripples: I think the best advice is to use all Pils malt, and 2-4 lbs of sugar noble hops and a clean high gravity yeast. We are currently experimenting with LaChouffe so this is a definite possibility. A test of Duvel and Westmalle cultures might be in order also.

In defense of Jim Koch:

Despite the well known negative aspects of the BBC and its relations to other craft brewers, I want to praise him for building a world class brewery in Jamaica Plains. While I have not personally visited the site (yet), a noted brewmaster friend has just returned with rave reviews of the equipment and dedication of the staff. Apparently both kettles are fired allowing full decoction mashing to be done. The variety of beers produced here is enough to make any homebrewer at home. Apparently a super bock of some 40% ABV was made and stored in old Jack Daniels Whisky barrels! The report indicated a distinct "whisky/oak" character in the sample. The brewers are free to experiment and get feedback from the clientel. It is in this way that some really good recipes are developed and only after adequate market tests are then contracted out. From a pure brewers point of view (no buisness men around) this is what we need more of in small craft breweries in the US. It takes some risks to produce some winners.

Good brewing,  
Jim Busch

PS: I am interested in personal experiences with home made and dispensed cask conditioned ales. If anyone is using isinglass and a beer engine, email me with details and experiences. Thanks

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Date: 02 Jul 1993 08:37:46 -0800 (PST)  
From: "Alon Ben-Shmuel, EUCS, X 6681" <SHMUEL@CSMC.EDU>  
**Subject: Brew shops and pubs in Baltimore**

I'll be moving to Baltimore next month and wanted to know if anyone in  
Homebrew  
land knew of any Brewshops or Brewpubs in the area. Please respond to me  
directly (no need to waste bandwidth).

thanx in advance,

Alon Ben-Shmuel  
shmuel@csmc.edu

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Date: Fri, 2 Jul 93 15:56:00 +0000  
From: SCHREMPPE\_MIKE/HP4200\_42@hp-ptp.ptp.hp.com  
Subject: High gravity brewing

All my beers are high gravity brewed.

I'm an all grain brewer without the 10 gallon stainless pot. I have one of those 5 gallon (or is it 33qt?) enameled pots. I mash in a 3 gallon Gott round insulated picnic drink cooler (can only hold 9 lbs of grain, if I was buying one rather than using the one I already had, I'd go for the 5 gallon version). I sparge in the same cooler using a false bottom.

Due to the small size of my mash tun, I tend to have thick mashes. My process is to put all the grain in the cooler, and add mash water to fill it up, stirring along the way. I almost always do a protein rest, then put it all into my brew pot to bring it to mash temp. This process lets me maximize the water in the mash (since I fill up the cooler) and lets me stir the whole thing well (in the brew pot).

I usually get 28-30 points per pound (a new brew unit, the ppp?), with the lower rates for high temperature sweet mashes, and high rates for lower temp drier mashes.

I recirculate til clear, then sparge with lots (note no measurement) of hot (75-80C) water, and keep going until the brew pot is nearly full of sweet wort. After the boil, I usually have about 3 - 3.5 gallons of wort which I cool using a counter flow / ice bath chiller. I top up to 5 gallons in the fermenter.

Due to the limitation of 9 lbs in my mash tun, my OG's tend to be below 1.055, but at the 3.5 gallon stage they are as high as 1.075. I don't make any corrections for hop utilization, etc.

I like my beers, so I guess I have the perfect brewing system (BrewPerfect tm?).

Mike Schrempp

If I can't even smell my own bad breath, how can I tell if my beer is bad?

-----

Date: Fri, 02 Jul 93 15:37  
From: RON.admin@admin.creol.ucf.edu (RON)  
Subject: vanilla and cardamom

Noticed only a few receipes with reference to their use....

Any expieriences using vanilla (not extract but bean) or  
cardamom seeds or pods ground up.

Will post results of replies later.....

- --  
ron@laser.creol.ucf.edu

-----

Date: Fri, 2 Jul 1993 07:48:25 -0400 (EDT)  
From: jdg@cyberspace.org (Josh Grosse)  
Subject: re: Electrim Bin

In HBD 1173, Bruce MacDonald complained that he doesn't like the beers he makes in his Electrim Bin, and complains of an off-flavor. He wonders also if temperature control may affect it.

Well, I've bin a Bin use for a couple of years, and have been able to make beers without detectable flaws in it. I use a grain bag for mashing and sparging. Bruce didn't say if he uses one as well. If he doesn't, and he isn't stirring continuously, non-stop, without a break, he can scorch grain against the heating element. This may be the cause of the off-flavor.

I don't have problems with temperature control. I mash in approximately 3 gallons (imperial), regardless of the size of my grain bill. I stir fairly regularly during mashing. I've stopped using iodine to test my mashes, and every sugar rest runs for 90 minutes

I've also improved my sparging, which now gives me 34 points / us gallon, by ensuring that the grain bed is fully compacted in the bag. I drop the level of wort way down, untie the grain bag and let it settle on the bottom, watch my wort slow to a trickle and clear completely. I then add the wort back in and add sparge water as needed. A sparge now takes 2 hours or more.

If your off flavor is "wet cardboard" or "sherry/winey", your problem may be oxidation caused by aeration of the wort when it's still hot. If you transfer your wort from an un-grainbagged Bin to a lauter-tun, using the spigot, and you "pour" into a lauter tun when mashing on the stove, this difference in procedure could be the source of your problem.

-----  
Josh Grosse jdg@grex.cyberspace.org  
Ann Arbor, Michigan  
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Date: Thu, 1 Jul 1993 22:19:04 -0400 (EDT)  
From: jdg@cyberspace.org (Josh Grosse)  
Subject: Bringing beer into Canada

In HBD 1171, Fred Waltman (waltman@bix.com) asked:

>I have a family re-union this summer in Sault Ste. Marie, ONT., and I  
would  
>like to bring some homebrew. Is there any particular problem with  
importing  
>homebrew into Canada or should I bottle it all in old Coors bottles with  
the  
>labels still on <grin>? I would assume that I would have to pay duty  
just as  
>if it is store-bought beer.

This spring I talked to Canadian customs and was told the following:

If it's for your own consumption, and you stay longer than 24 hours, you  
can bring 24 12-ounce bottles with you free of import duty. If you are  
bringing it in as a gift, you can expect to pay between C\$10 and C\$13/  
case,  
depending on value determination. Store bought beer is easy to value,  
homebrew  
would depend on your declaration of strength, I suppose. (Standard,  
premium,  
super-premium? Alcohol/vol? Starting gravity? Customs officer whim?).

Were I you, I'd call Canadian customs in S.S.M. before going, get the  
name  
and title of the person you talked to, and \*bring\* that persons name with  
you when you go, just in case. What I was told may have no bearing on  
what  
happens to you at that border (I'd checked with Customs in Windsor).  
What-  
ever you do, be sure to declare your beer.

-----  
Josh Grosse jdg@grex.cyberspace.org  
Ann Arbor, Michigan

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Date: Fri, 2 Jul 93 16:51:31 EDT  
From: neilm@juliet.ll.mit.edu ( Neil Mager )  
Subject: Re: Blueberries, sparge setups

> Edward Croft <CROFTE@delphi.com> says:  
>  
> > Allan Wright's Amber Wheat Beer fruit base in HB1166. I have been  
> > contemplating a fruit beer, and this may do the trick. But, Allan,  
> > blueberries in beer? Let me know how that turns out.  
>

Boston Beer Works makes a really good Blueberry ale. They even  
put a few blueberry's in your glass. Great beer on a hot summer night

> Jeff Benjamin <benji@hpfcbug.fc.hp.com> says:  
>  
> Jim Liddil <JLIDDIL@AZCC.Arizona.EDU> and "Mark S. Nelson"  
> <mnelson@eis.calstate.edu>, respectively, ask:  
>  
> >I obtained a straight sided keg from the scrap metal yard this  
weekend.  
> > Now I want to turn it into a boiler/lauter tun. Has any one ever  
> > mounted an EasyMasher(TM) on a keg? What other manifold setups work  
> > well that can be easily removed?  
>  
> > I'm a kit brewer second in the feild ready for the grain. Please  
give me  
> > your best advice, I really would like to know how to construct the  
best  
> > system.  
>  
> There are a number of different lautering options: an easymasher, a  
> slotted copper pipe manifold, a false bottom, a separate double-  
bucket  
> Zapap-type as described in Papazian. The subject has been covered at  
> various times here, maybe it's time for a monthly FAQ?  
>  
> Anyway, I favor the slotted pipe setup, since it's completely  
> removable, doesn't require you to drill a hole in your pot, and can be  
> disassembled for easy cleaning. I posted plans in HBD #1099 (Mar 17  
> '93). The description of the EasyMasher(tm) were originally posted by  
> Jack Schmidling in HBD #754 (Nov 4 '91), and there was a lot of  
> discussion and diagrams during March '93.

I compiled a digest of all grain & mash tun lauter tun designs.  
Much of the discussion is included in the digest. You can ftp it  
from sierra.

- - -

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Neil M. Mager  
MIT Lincoln Laboratory Lexington, MA  
Weather Radar - Group 43

Voice (617) 981-4803 (W)  
Internetneilm@juliet.ll.mit.edu  
America On Line neilm@aol.com



Date: Fri, 2 Jul 93 18:23 PDT  
From: lfk@veritas.com (Lynn Kerby)  
Subject: Re: Lauter Tun Manifold

>  
>I have a question that I hope someone can answer. I am making a manifold  
for  
>my lauter tun with copper pipe in which I will make small cuts with a  
hacksaw.  
>The question I have is do I make the cuts face up or down or does it  
matter?

>  
Just made one myself a couple of batches ago and I am pleased so far. I  
made  
mine with the cuts facing down, but I suspect that it really doesn't  
matter  
all that much. I suppose I could turn it over and find out sometime.

Are you making a manifold with tees, endcaps, elbows, etc or just a coil  
of  
3/8" copper tubing with some slots cut in it? I went whole-hog and build  
a  
manifold from 1/2" hard copper pipe (I think I saw the original idea on  
the  
HBD a few months ago) that uses 4 tees, 2 elbows, 4 endcaps, some  
reducing  
couplings, a vent pipe riser, and a siphon pipe riser. The vent pipe and  
siphon pipe are soft 3/8" copper. I didn't solder anything, it is all  
just  
press fit with a little crimping/flaring where necessary to make things  
snug.

>Also, what are the pro's and con's to a manifold type lauter tun.  
>

I don't know what you plan to lauter in, but I have had a minor problem  
with  
establishing and maintaining proper outflow rates. I do my lautering in  
my  
mash pot (doing a stove-top style step mash) which is a 6 gallon Vollrath  
pot. At mash-out time, I thin the mash a little more with a couple of  
quarts of sparge water, then I drop my lautering manifold in and start a  
siphon. I siphon off a quart or two, recirculate it and away I go.  
Again,  
the only problem has been establishing a siphon and maintaining a  
suitable  
flow rate. I think I am going to put a ball valve on my siphon hose and  
see  
if that helps any for the next batch.

I suspect that this is a side-effect of my setup, but I don't suck the  
grain  
bed dry anymore. I don't consider this good or bad, just different. I  
have  
been getting excellent yeilds with the manifold, the real test will be  
trying to sparge a big oatmeal stout.

>Any info would be greatly appreciated.  
>  
>Thanks,  
>

>Don Doyle

Hope this is helpful,

Lynn Kerby  
lfk@veritas.com

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Date: Sat, 3 Jul 1993 17:49:23 +0501 (EDT)  
From: Paul Gibbs <paulrgb@gibbs.oit.unc.edu>  
Subject: plastics and forced carbonation

I've been seeing a lot of hype about plastics (food grade or not food grade? does it leach monomer in the presence of alcohol?). Recently a brewing buddy of mine has just converted his bottling system to 33 oz seltzer or gingerale plastic bottles(PETE #1 - recycling code on the bottom). These bottles have the following advantages: 20 bottles fit easily into 2 milk crates, so you can bleach and rinse all at once as a batch; 20 bottles holds a five gallon batch w/ less work - you can fill them directly after cleaning/sterilizing, and without removing from the milk crate to cap just screw the lid on snugly. They work like a charm! Also the way the bottle is shaped traps most of the sediment that starts to role down at the end of the pour - also if you don't want a 33 oz belt you can recap for later (half a bottle, or so, is still substantially carbonated the next day).

NOW THE BIG NASTY QUESTION - does it leach monomer? If so, is it a biohazard - brain/liver/genital toxic?

If anybody out there has a decent knowledge of polymers/monomers/plasticizers please write back in to help settle the plastic questions once and for all - it would be great to see a table of suitable plastics to use with beer.

Also, I've been thinking about investing in the 5 liter cans (from brew Ha Ha) - Which I was told are also internally lined with a polymer coating. Can these be force carbonated - if so what does it involve?

by the way this list serve is really well run - I thoroughly enjoy reading  
HBD.

Paul Gibbs (dental student - Chapel Hill, NC)  
paulrgb@gibbs.oit.unc.edu

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End of HOMEBREW Digest #1175, 07/06/93  
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Date: Sat, 3 Jul 93 17:34:04 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: filter, etc catalogs

Another catalog for filters ( and pumps ) is SERFILCO, Ltd ...

Glenview, IL, US 800 323 5431  
Leola, PA, US 717 656 2161  
Los Angeles, CA, US 213 588 6826

Also, someone asked about Cole-Parmer ( or was it Fisher ? ) so ....

Cole-Parmer 1 800 323 4340  
647 7600 ( within 708 area code )  
1 708 647 7600 ( within 312 area code )

Fisher international company with at least 16  
800 numbers, for the United States alone.  
recommend phone book, or email me for a  
specific area number.

Omega 1 800 622 2378 ( customer service )  
203 359 1660 ( international )

... this represents all of the members of my catalog collection, whom  
have  
materials which I think might be pertinent to brewing. ( Others whom have  
alternatives I don't know about are encouraged to post them. ) I use  
these  
catalogs as stimuli to my creativity, as well as resources for tangibles,  
and references as to what sorts of technology are commercially available.

( For instance, did you know that teflon-lined plastic tubing is  
available ?

Would this be easier to sanitize ? I wonder ... )

Anyone have a reference to a catalog of DC motors or two ? ( For solar-  
powered  
mills, and mashers, of course - using kinetic waveform generators to  
facilitate  
the mash process ... :-)

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com  
Was someone saying "God is dead."  
The simple use of The Word  
Negates the second, and the third. ( Duke Ellington, \_Sacred Concert\_ )

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Date: Mon, 5 Jul 93 11:22 GMT  
From: Andy Phillips <PHILLIPSA@LARS.AFRC.AC.UK>  
Subject: Re: Electrim bin

There was a query last about boiling in Electrim bins. I have the same problem, namely that the thermostat cuts the power too frequently when boiling, so that the wort never quite reaches a rolling boil. I got around this by by-passing the thermostat. The element socket on my bin (I bought this 10 years ago, here in the UK - yours may be different) fits a standard kettle plug. I connected this to this mains. The only risk is that the element is not designed to take continuous power, and heat transfer from it may also be reduced by burnt-on sugars. However, I've only had one disaster so far - the element failed during a boil, and I had to boil the wort in 1 gallon batches on the stove. Moral: always carry a spare.

Hope this helps  
Andy Phillips  
Bristol, UK

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Date: Mon, 5 Jul 93 10:35:44 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: attenuation and my \$.02

Ok fellow home brewers...(remember this phrase I'll get back to it), I have read Papazian in depth and been reading the HBD for about a month now and I have yet to get a definition of attenuation...something to do with the production from yeast? Please email me your responses on this question - if there's interest I'll post something to be entered into a HBD dictionary reference somewhere.

Ok back to the start..."fellow home brewers" - we are all here reading this digest (thanks go out to Rob Gardner) for one key reason...we enjoy home brewing. There may be other aspects to that: the many year experienced 'philanthropist' type spreading his or her experience through the net, the neophyte (like myself), or others who see an opportunity to generate interest in a product within their core market. Be that as it may, it is quite evident that this bulliten(sp?) is self-policing (I have yet to see evidence of non-self-censorship or people getting kicked off the net), some people do a very good job of letting letting others know that they've gone too far. Problem is, its all just somebody's opinion, so what are you going to do about it anyway.

Bottom Line: be thankful that we have the resource, some of us aren't as thick skinned as others - so take it easy \*please\* - thank you very much for your responses and your time.

Good luck and good beer,

Chris

=====  
|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
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Date: Mon, 5 Jul 93 10:50:15 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: never mind on attenuation

oops - about 15 mins after I posted about attenuation etc. I figured it out please forgive the momentary stupidity of the poster...but anyone out there might clarify: attenuation is a term expressing just how far you can expect to get from your initial gravity to the final gravity (how far will the gravity \*attenuate\*), often expressed as a percentage with all the way to 1.000 being 100% attenuation. Any responses and comments to get my .... out of my .... can be sent via email.

Good luck and good beer,  
Chris

=====  
|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
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Date: Mon, 5 Jul 93 11:31 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Pumps, Farmers, Noble,

>From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>

>For those of you who have chest-freezers with top-opening designs, how do  
get the full carboys in and out w/o breaking your backs?

I rigged up a rope and hook arrangement that didn't work very well and found  
that if I put the keg on a chair and then into the freezer, it was manageable. That is until I moved on to a ten gallon keg. This is going to  
take a few pulleys and a serious hoist.

However, I have a pump to move beer from fermenter to keg so the only reason  
to have to lift it would be to be able to shake it when carbonating. It only  
take a few days to carbonate it at 25 lbs so I have been doing it that way.

I think the pump was one of the best improvements I have made in my brewery  
and it cost nothing. I just removed the one from the sink in my little used  
motor home.  
.....

Just noticed you said carboy not keg. Good luck :)

>From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>

> It is said: Farmers make wine; Engineers make BEER! This is not simple sloppy work we are doing here....

What is often said, aint always so. Careless, uninformed people can no more  
make good wine than good beer. Being an engineer, I put everything I know  
into both and know for a fact that you only get out what you put in and considering the time invested in a good wine, the rewards can be far greater  
than from a good beer.

>From: korz@iepubj.att.com

>Styrian Goldings are neither noble nor are they Goldings, actually. The only three noble hops (this was confirmed from various sources in the Brewer's Forum) are Hallertauer, Tettnanger and Saaz.

I think a definition of "noble" would be appropriate. Doesn't sound like  
anything a botonist could get a hold of.

Just what does it mean?

js

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Date: Mon, 5 Jul 93 10:52:09 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: do-it-yourself mash tuns - some pointers

"Date: Wed, 30 Jun 93 12:36:53 PDT  
From: Jurassic Engineer <fecich@csol.enet.dec.com>  
Subject: Homemade Bruheat/HB store in PGH/Advertising in HBD

"I'm looking for suggestions from anyone who has tried to make a home-made 'Bru-heat' type mash-tun. I've located the parts (cooler, 1KW element, thermostat), but I still have a few questions....

">Should the heating element be separated from the grain with screen?"

">I will place the thermostat near the element, but will there be a possibility of wide temperature variations in the grain?"

">Should I include some method of mixing/stirring the grain as I mash?"

--\*--

I see some major problems with a lot of mash tun designs I see posted.

Few of them, for instance, make use of any sort of insulator - choosing, instead, to put the heating element directly in the grain ... as well as failing to circulate the water through which the heat is transmitted ...

There seems to be room for a better design.

Tossing my hat into the ring, as it were, here's a proposal for a pretty good - but purely theoretical, as of this time - build-it-yourself mash tun ... I haven't built it yet, but I've been designing it in my head for a few months now.

(1) acquire two nested buckets

- one, sufficient to hold, say, six gallons
- one, sufficiently larger, that the first bucket can be placed within it, and be separated by at least 1" of air space from the second bucket

(2) assemble buckets, support structures, heating and sensing element(s), circulating element(s)

- cement plastic support structures to bottom of larger bucket ( to support weight of the bucket intended to sit within )
- cement heating element(s) to inside of larger bucket, on side(s), evenly spaced ( more, smaller heating elements, evenly distributed, gives a better overall control of temperature, as well as a degree of fail-safe behavior / redundancy )
- cement circulating pump(s) inside larger bucket, on side(s) - some sort of pump to circulate water

is absolutely necessary to guarantee that pockets of heat and cold do not develop, or that water does not become stratified by temperature.

- cement smaller bucket, atop supports cemented to inside bottom of larger bucket, well centered - note that heating and circulating components are placed such that they can be reached, and not beneath the ( now cemented ) bucket. (-: ( a 1" air space may not be sufficient, and a 2" air gap may prove more desirable. )
- optionally, cement braces along sides to hold the smaller bucket centered, against bumps and such, should it prove necessary to move the masher while it is full of water - be careful not to obstruct water circulation, or reorient circulation to keep this from becoming a problem.

(3) to operate,

- fill air space with water
- adjust thermostat to correct temperature
- turn on circulation pump, heater
- add water, grain to inside bucket, mash

The advantage of this design is a stable temperature - as a great deal of thermal mass, in the form of the water jacket surrounding the inner mash chamber, resists sudden changes in temperature.

Other advantages are the separation of the temperature module, from the mashing module ... and, with the addition of a two lids ( one to close off the mashing tun, and the other to cover the whole thing, and keep the water in the jacket from steaming off - despite this, water will need to be added periodically to offset evaporation ), and a wrapping of thick insulating material, you have a perfect mash tun. No flames, no hot spots, no problems at all.

I haven't solved the problem of circulating the mash yet, but some sort of mechanical oscillator - one suggestion has been a rotating shaft with eccentrically shaped washers on it, another has been piezoelectrical vibrators such as are found in pagers - would suffice, as this would create kinetic waves that would bounce through the solution and disturb any sorts of pockets or stratifications that might develop.

This chamber might also be used to cool the wort, also, by using the outer jacket to contain cold water ... and with the addition of an outlet valve, with a removable rolled-up screen, bent at one end, into a pipe that went through both inner bucket and outer bucket, you could sparge, as well as - after removing the screen and replacing the hot water with cold water

- pour the wort off of the hot break, all very nicely.

This also has room for added control electronics, so it could become half



of a BrewBot, if anyone wants to make an automated homebrew robot. ( Making  
the bottling automated, now there's a challenge ... :-)

Comments ?

- -- richard

The silliest thing I ever read, richard childers, pascal@netcom.com  
Was someone saying "God is dead."  
The simple use of The Word  
Negates the second, and the third. ( Duke Ellington, Sacred Concert )

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Date: Mon, 5 Jul 93 14:26:56 EDT  
From: Jim Grady <grady@hpangrt.an.hp.com>  
Subject: Copper question

Well, I have finally started to build a copper manifold and have a question. I see two types of copper pipe in the hardware store; M type and L type. What kind do I want? Do I care?

Thanks.

- - -

Jim Grady  
Internet: grady@hp-mpg.an.hp.com  
Phone: (508) 659-3409

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Date: Mon, 05 Jul 1993 14:59:05 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject: Elaine's question about 3gal batch in 5gal carboy

Elaine writes:

I want

>to just make half a batch (3 GALS). My secondary fermenter is 6 gals and  
my

>question is, will having that large air space be a problem?

Since no one has responded to this, I would like to say that it *\*should\**  
*\*NOT\** be a problem. As far as I can see this is equivalent to using  
an open fermenter (or maybe it is even a little better).

A tip for other novices (this includes me): a cheap source for 5gal glass  
carbays are stores that sell spring water. They are usually available for  
a \$7.00 deposit (+/-).

Hoppy brewing!  
Patrick Weix  
<weix@swmed.edu>

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Date: Mon, 05 Jul 93 16:07:07 EDT

From: roberts735@aol.com

**Subject: Keg Information Needed**

With all the talk on the HBD lately about CO2 pressure, I have grown interested in keggering.

I have located five 2.5 gallon kegs at a used restaurant supply house. Two of them have screw-on caps with tapered rubber washers, while three have clamp-type lids with smaller rubber gaskets/o-rings.

There is also a combination of fittings on the tanks themselves, with some having pins, and others having grooves for snap-rings.

I would appreciate hearing from any kegger out there on the relative merits of these various types.

The kegs are pretty crudded-up, but I think they will clean. Are there any fine points to be aware of before sinking money into these kegs?

TIA, and please reply to me with private e-mail, and I will post to the HBD if there is a consensus opinion. Please private e-mail to America On Line if possible.

Robert Stovall  
RobertS735@aol.com

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Date: Mon, 5 Jul 93 11:49:47 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Help with homebrew at a party.

I am brewing a batch of pale ale for my friend's wedding this weekend. Soon, I will keg the beer into a cornelius keg. My question regards how to keep the beer cold enough in the sun at the wedding? Does anybody have experience with portable homebrew? I planned to stick the keg in a bucket of ice. Thanks for your suggestions.

STEVE

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Date: Mon, 5 Jul 93 11:51:08 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Dangerous Zymurgy suggestion

I recently purchased a back issue of Zymurgy (Gadgets and Equipment). After reading an article on preserving and freezing yeast by Maribeth Raines Ph.D. I decided to give her suggestions a try.

I only wanted to store my yeast for a few weeks to a month so I followed her directions for storing the yeast in the fridge. I mixed yeast from the primary (British #1098) with an equal amount of a sucrose solution mixed at a ratio of 1 cup of water to 3/8 sucrose. I understand that the article was mostly about freezing yeasts, but she also suggests, "On the other hand, if you plan to use the same yeast within the next few months you can save the yeast from your primary fermenter and store it with an equal volume of sucrose (it's cheaper than glycerol) in the refrigerator. (Zymurgy Special 1992, p. 69)"

The new solution was placed in the fridge in a sanitized and closed glass jar. In a few hours I noticed that the solution was fermenting away. So, over the last few days I have been venting the jar to keep it from exploding. This situation seems quite dangerous. Most of all, I was surprised to see an ale yeast ferment at 38 degrees. Should I take that to mean that I have a wild yeast fermenting away beside the British yeast strain.

Any suggestions are appreciated. Am I doing something wrong? Any suggestions or amendments to the article.

STEVE

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Date: Mon, 5 Jul 1993 21:37:16 -0400 (EDT)

From: Keith Sabol <ks5v+@andrew.cmu.edu>

**Subject: Cask Question**

I have a friend who is interested in racking his brew in a wooden (5 Gal.) cask. Can anyone recommend appropriate amounts of priming sugar and/or an information source for the required details?

Thanks!

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Date: Mon, 5 Jul 93 21:21:39 MDT  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Besieged by baleful bacteria

Fat Wanda's Brewery & Recording (my basement) is under attack by vicious bacteria. I've had a recurring house infection that I can't seem to get rid of, in spite of the scourings and bleach treatments. Now it's gotten to the point I can't even get an uninfected starter!

To the best of my meager knowledge, it's some kind of lactobacillus or possibly pediococcus infection. Symptoms are cloudiness, a slight acidic flavor and aroma, and a tan slime on top of the krausen. These all match the symptoms described in Noonan (p. 81).

My starter had been prepared normally, with dry malt and some hops, boiled, put in clean jars, given a water-bath canning procedure, then put in the fridge for a few weeks. I popped a package of WYeast 1056 on Saturday, let it swell for a few hours, then pitched it into a quart starter and capped with an airlock. By Monday, the infection was obvious.

I can't imagine how the infection entered the starter. The airlock stopper? The airlock itself? Are there any beer-loving strains of lacto or pedio that can survive canning? Is there any easy way to ID the exact beasties that are giving me problems, and if I do will it help?

This is really getting frustrating. I now have a batch of porter that will have to sit overnight until the brew store opens tomorrow and I can get some fresh yeast.

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Tue, 6 Jul 93 07:02:09 PDT  
From: high-gravity recipes anyone? 06-Jul-1993 0959 -0400  
<ferguson@zendia.enet.dec.com>  
Subject: Looking for a High-Gravity recipe / Watermellon recipe

Hi y'all,

I'm interested in brewing a high-gravity all-grain brew. I'm currently limited by my pot (5gal) and stove. Can anyone suggest a high-gravity recipe? I can boil up to 4gal of liquid... I do have a lauter-tun (Zapap type) that works adequately.

.....

Also, anyone have a watermellon recipe? I bought a H2O mellon this weekend for a pahty and we never used it. It is a 16.3 pounder - i would like to brew something with it.

Thanks,  
JC Ferguson  
Digital  
Littleton MA USA

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Date: Tue, 6 Jul 93 10:50:59 -0400  
From: Rich Ryan <ryancr@install4.swin.oasis.gtepsc.com>  
Subject: Carboys

I'm looking to purchase a few used carboys. I've tried some of the local bottled water companies but they seem to use plastic these days. The homebrew shops I've visited want \$16 to \$18 for a new one. Can anyone suggest a different alternative?  
Any suggestions can be emailed to me privately.

Rich Ryan  
Chantilly, VA

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Date: Tue, 06 Jul 93 11:28:31 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: Miller's recipe question

After 5 all grain batches, I re-read Miller's "complete" book to see if it made more sense now (it did). I have a question about hop rates in a couple of his recipes (pages 213, 214). The format of these recipes is:

```
xxx AAU hops
3rd addition 1 ounce (count only half of the AAUs toward your total)
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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What on earth does that mean?

- --Tony Verhulst  
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Date: Tue, 06 Jul 93 11:42:15 EDT  
From: Kern <IZSJ@CORNELLA.cit.cornell.edu>  
Subject: Wedding brews

While I am here in Ithaca NY trying to get a thesis written by the end of the year, I am also in the process of planning an Oregon wedding for next Spring.

(I fell in love with the place (after working a summer in Portland --it will be

"home" just as soon as I wrap things up here in New York!) We are getting

married at Timberline Lodge (Mt. Hood) probably around the early part of June

or late May '94. The reason I am writing to you all is for some advice. I am

a homebrewer (since my days in Portland) and my fiance and I are avid appreciators of fine brew. Thus, we would like to plan our wedding reception

around beer. Say, for instance, a Duvel-like toast, IPA or an amber during the

meal, followed by something along the lines of a barley wine or Grant's Imperial Stout. I am hoping to work something out with one of the micro-breweries in the area (Widmer, Hood River, Mt. Hood, or even Weinhard?) for

contract batches of both barrels and some custom bottled brews for souvenirs.

(I'm sure it would taste better on the first anniversary than that frozen wedding cake!)

I am pretty sure this is "do-able", but the most difficult part is trying

to coordinate everything from 2,000+ miles away! If any HBDers (esp. you in the Pacific NW) have any clues, advice, hints, suggestions, (ETC..!) I would REALLY appreciate it! Thanks.

KERN

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Date: Tue, 6 Jul 1993 12:06:48 -0400 (EDT)  
From: TAYLOR@sbchml1.chem.sunysb.edu  
Subject: Fourth Annual Colorado Brewers Festival

I attended a Brewer's Festival in Fort Collins, Colorado on June 26 and 27. I was particularly impressed with Judge Baldwin's Amber Ale. It was a remarkably pleasant way to spend part of a weekend.

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Dave Taylor  
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Date: Tuesday, 6 July 93 11:15:52 CST  
From: ADCMR@utxdp.dp.utexas.edu  
Subject: brewpubs in Providence

Hello fellow brewers,

I will be moving to Providence, Rhode Island in a few weeks and figured I would plumb the depths before I jumped (not that I haven't already committed by climbing the ladder). In any case, I will be living somewhere in the vicinity of Brown University and would like to know of any brewpubs and homebrew suppliers in the area. If there is some sort of a homebrew club I would also be interested in that. Thanks much for any information y'all can provide me with.  
Caleb Rounds  
bidding a woeful farewell to glorious Austin, Tejas.

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Date: Tue, 6 Jul 93 16:48:00 +0000  
From: ron\_hall%80@hp6400.desk.hp.com  
Subject: KQED San Francisco Beer Festival

I am surprised that there have been no posts yet about the KQED San Francisco Beer Festival. Perhaps it is the format of the thing that makes it not get the kind of recognition that the GABF or the Oregon Brewers Festival get, as it may not appeal to some homebrewers.

Let me describe it this way:

Have you wandered into your local import beer shop and said to yourself, "boy, I sure wish I could taste ALL of these beers." Well, you almost can. The format of the KQED Beer Fest is that you pay about \$30 for a ticket, then you get to taste all the beer you can in 3 hours. About 250 beers are represented, mostly imports and microbrews. I can't remember all of them, but Samuel Smith, Paulaner, Bass, Guinness, Anchor, Sierra Nevada, and many others serve their full assortment of brews in

1-2 oz tastes, usually poured from bottles. There are also many free food samples such as french bread, salmon pate, etc., to soak up some of the brew.

I have to admit that I like the format of the Oregon Brewer's Fest better, as it is more relaxed and its outdoors. But I know of no other festival where you can taste the variety of import beers as the KQED. Also, the servers are often volunteers who know nothing about the beer, and the palate tends to become a bit muddled after tasting several hundred different beers :). Nevertheless, I always manage to have a great time.

The KQED Beer Fest is on July 10 in San Francisco, I believe at the Armory, south of Market Street near I-80. Disclaimer: I have nothing to do with this Festival, just thought you should know. Also FYI, KQED is the local public television station.

Bay Area Locals: Please post corrections or more specific info if you know more than this.

Ron Hall, Corvallis, Oregon

ron\_hall@hp6400.desk.hp.com

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Date: Tue, 6 Jul 93 10:20:22 PDT  
From: hpfcla.fc.hp.com!miata!rlbowen  
Subject: Attenuation of Wyeast 1056

I am formulating a recipe for IPA and in going through the Cat's Meow I've noticed several testaments to Wyeast #1056 producing certain aroma and flavor characteristics that I desire so I intend to give it a try. But, what I couldn't find was any data on its attenuation. Does anybody out there have any attenuation data on Wyeast #1056 (Chico Ale yeast also known as American Ale yeast)? No need to take up bandwidth, just email me direct.

Thanks,  
Randall

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Randall Bowen  
INTERNET : rbowen@analog.analog.ingr.com

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Date: Tue, 6 Jul 93 10:30:44 -0700  
From: ek@chem.UCSd.EDU (Ed Kesicki)  
Subject: High Gravity//South Carolina HB

Here's a data point on high gravity beermaking. I did this once inadvertently on my 2nd all grain batch. I managed to make a wort with an orig. grav of around 75-80. I fermented it as such, using Sierra Nevada Yeast.

Came time to bottle, and I got three gallons bottled (out of five total). Then I decided to bring the last two gallons up to three using tap water, added an appropriate amount of additional priming sugar, then bottled.

These beers came out totally different. The undiluted one was very strong and had that winey flavor (similar to bigfoot barleywine). The diluted one turned out to be a reasonably good pale ale. Very interesting. I'd be interested in hearing from someone else who could go through this same simple process and see if my data point is valid. Another good point is that you get an extra gallon without much extra work and without obtaining any larger equipment--and you get two different beers, to boot.

Also, another thing to consider is hop rate. My original wort was well hopped. 11 or 12 AAU's, so the diluted one ended up with a decent bitterness.

Second Thing: I am moving to Columbia, South Carolina in about a month. Anyone have any advice or info on where to get HB stuff around there, either in town or by mail order. I am doing this now in case I don't have internet access there. Thanks.

Ed Kesicki  
San Diego, CA

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Date: Tue, 6 Jul 93 18:05:50 GMT  
From: Martin Wilde <martin@gamma.intel.com>  
Subject: Low gravity all grains

This past weekend I brewed an all grain English Bitter (I know English Ale on the 4th of July... flame off...). The target gravity was 1037. I used 1 qt of water per pound and grain. Usually I am fairly good at hitting my target gravities. Most of my batches are OG of 1045 - 1080.

For a 5 gallon batch I collect 6.5 gallons of extract (stopping when gravity reaches 1010). However this time I was only able to collect 5 gallons of extract. I had to add 2 gallons to the fermenter to get the gravity down from 1056 to 1039. What gives? Is this just the results of brewing low gravities and having to top off the boiler with water?

thanks  
martin@gamma.intel.com

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Date: Tue, 6 Jul 93 13:19 CDT  
From: korz@iepubj.att.com  
Subject: Full carboys

Jonathan writes:

>For those of you who have chest-freezers with top-opening designs, how  
do get  
>the full carboys in and out w/o breaking your backs?

Simple... carboy handles. I've got one on each of my nine carboys.  
Al.

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Date: Tuesday, 6 July 93 13:59:18 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: orange peels/ranting

Howdy,

In HBD 1175, Phillip Seitz writes about orange peel in Belgian beers. As a point of reference, Celis White is brewed with Curacao peels. They grind it with coriander in a small grain mill. If that's the flavor you're shooting for, that's the orange to use. I have no idea where Pierre Celis gets it from, though.

Speaking of Celis, he sold his small brewery in Hoegaarden, Belgium, a few years back to Interbrew, a huge brewing conglomerate. With the millions he made he was able to set up shop here in the states. If Jim Koch did the same with A-B, maybe it will allow him to do other things in the world of brewing. It certainly will give him a lot of fast capital to work with. And who cares if A-B is brewing Sam Adams? If they stay faithful to the quality (believe it or not, Auggie Busch is big on quality), does it make any difference if Koch or Busch is in charge?

Happy brewing,

Alan Van Dyke  
Austin, TX

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Date: Tue, 6 Jul 93 13:54 CDT  
From: korz@iepubj.att.com  
Subject: OOPS!!!

I wrote (quoting Michael):  
>>Should I use a hop bag for the pellets?  
>  
>I do, but then I also add 10% to Ragers numbers because of it. I add  
another  
>10% if I use pellets or plugs.  
^^^^^^^^^^^^^^^^^^^^

This should have read WHOLE hops or plugs. I add 10% for the hop bag  
because  
I contend (and have verified empirically) that the decreased agitation of  
the hops and decreased circulation of wort through the hops when using a  
hop bag require an increase in the amount of hops you use. I increase  
another  
10% when I use whole hops or plugs because I theorize that the  
pelletization  
process exposes a lot more lupulin than is available in whole or plug  
forms  
of hops. Again, I have settled on 10% because my experience, with  
perhaps  
75 batches since I started to make these compensations mathematically  
(instead  
of just targeting for a higher IBU in the formulas), has shown that they  
are  
pretty close -- within the tolerances of my tastebuds. I'd like to  
verify  
these numbers with actual tests, but the cost of these types of tests are  
a  
bit too expensive for me at this time. Perhaps some day.

Al.

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Date: Tue, 6 Jul 93 13:38:18 PDT  
From: MIke Peckar 06-Jul-1993 1635 <m\_peckar@cscma.enet.dec.com>  
Subject: Converting a 1/2 bbl keg...

Could someone please send me a copy of that article on converting a 1/2  
bbl  
SS keg into a lauter/mash/brewing contraption? I've recently acquired a  
nice one and would like to look more into donning the welders hat.

Thanks, I tried to locate it in the archives, but got a bit overwhelmed  
by  
the volume...

m\_peckar@cscma.enet.dec.com

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Date: Tue, 6 Jul 93 16:59:51 EDT  
From: sdlsb.dnet!73410%sdlcc@swlvx2.msdlcc.com (Omega)  
Subject: Freezer controls/Miller Special Reserve

I am picking up a chest freezer this weekend, and I will need to put a controller on it for fermentation/lagering/etc. While I've seen mentions of controls by Hunter, Johnson, and Williams in the past, I would like to get info/pros/cons/raves/flames on these or others. Given enough response

I will post a summary. Private e-mail please, to "73410@sdlcc.msdlcc.com"

Had a chance over the fourth to try the new Miller Special Reserve Ale (tm, no doubt). Not to my taste, but it was a passable light ale with flavor characteristics reminiscent of the "regular" Miller pBeer. Any educated palates care to tackle whether that is yeast, hopping (I couldn't taste any), or both?

Carl Howes

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Date: Tue, 6 Jul 93 14:58:26 PDT  
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)  
Subject: Re: HBD soul-searching and hops

Regarding Jonathan Knight's HBD 1174 posting on advertisements and technical posts: right on! Well said.

Regarding my Southern California hop garden, the hop cones have just started appearing in the last week. These are Cascade. I recall someone mentioning a while back not to grow hops near roses because the bugs on roses are bugs for hops, too. Well, I have no choice; the only spot in my yard which is good for hops is right next to the roses.

I also have had no problem. I have enough praying mantis, ladybugs and green lacewings running around my yard that little in the way of spray-on chemicals has been required. But there is a reason why one would not want to grow hops near roses which has been brought to my attention, and which I'll share.

If your roses -- or any other plant near the hops -- are being treated with any type of systemic insecticide, then beware, because the systemic in the soil can be absorbed by the hops!

Garrett <uunet!mdcsc!gdh>

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Date: Tue, 6 Jul 93 14:59:52 PDT  
From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)  
Subject: Re: lautering manifold with siphon

In HBD 1175, Lynn Kerby discusses a lautering manifold in a pot,

>I don't know what you plan to lauter in, but I have had a minor  
problem  
>with establishing and maintaining proper outflow rates. I do my  
>lautering in my mash pot (doing a stove-top style step mash) which is  
a  
>6 gallon Vollrath pot. At mash-out time, I thin the mash a little  
more  
>with a couple of quarts of sparge water, then I drop my lautering  
>manifold in and start a siphon. I siphon off a quart or two,  
>recirculate it and away I go. Again, the only problem has been  
>establishing a siphon and maintaining a suitable flow rate. I think I  
>am going to put a ball valve on my siphon hose and see if that helps  
>any for the next batch.

I, too, have a six-gallon Vollrath. I have been thinking about  
modifying  
it with a valve on the bottom, as has been mentioned by others, and of  
trying out the "easysparge" type of system discribed by js and others,  
but I haven't found anybody to do the welding, and I also don't know  
where to get a suitable stainless valve.

After reading your comments about your lautering manifold and the use  
of  
a syphon, it sounds like you have gotten around the problem of needing  
a  
valve on the pot.

How about a little more detail on how this manifold is set up?

Garrett <uunet!mdcsc!gdh>

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Date: Tue, 6 Jul 93 16:41 CDT  
From: korz@iepubj.att.com  
Subject: Hop bags/mash pH

Mark writes (in reference to not using hop bags for boiling hops):  
>Also, there are many  
>benefits to be had to the wort by having the hop particles (whole or  
pellet)  
>thrashing around in the wort during the boil (help with protein  
coagulation  
> - aka the hot break) is the main one.

Indeed hop particles will help with protein coagulation, but I feel that  
you  
should wait till after the hot break to add the hops in the first place.  
The last time I recall reading about this is in a post from Stuart  
somewhere  
around HBD 1150. My contention, as that mentioned by Stuart, is that the  
hops will do too-good a job coagulating proteins \*AROUND THEMSELVES\*  
thereby  
reducing the utilization. Now, if you wait till after the hot break, I  
suggest that there will still be some coagulation of proteins around the  
hops, but not nearly as much as if the hops were added before the hot  
break.

Why does this matter? Well, the theory is that the protein coagulated  
around the hops will reduce utilization. I have not done side-by-side  
tests of this, but I do recall a significant increase in hop utilization  
when I began to wait for the hot break before adding the hops. I did not  
put the two together till someone on the HBD mentioned it.

>Anyway, I recommend you do use a secondary and rack carefully. The two  
step  
>racking process should leave all of the pellet particles in the trub  
layer on  
>the bottom. This is instead of the hop bag. The hop bags are great for  
dry  
>hopping, but I don't like them for the boil.

I disagree. I do just the opposite. I use a hop bag for boiling  
primarily  
to avoid the problems of having to remove the hops from the wort later,  
either as you pour the wort into the fermenter (my screen kept clogging  
and that made it a real pain!) or when racking. I just compensate by  
adding 10% more hops. I don't use a hop bag for dryhopping but only use  
whole or plug hops because they float. I've never had any problems  
siphoning the beer out from under the whole hops.

>Also, your racking techniques  
>will improve with time. The key is to have a reliable way to suspend  
the  
>end of the racking tube just above the trub layer. I use a rubber  
stopper  
>that fits in my carboy with two holes in it: One for the racking tube  
and  
>the other I use to force CO2 into the carboy (at \*low\* pressures) to  
push the  
>beer into the secondary (I use a soda keg for the secondary).

then later:  
>BTW, I have found

>the "orange racking tip" thingy to be essentially worthless. Ditto  
>Fermtech's \$2 racking tube clothespin.

Interesting, but I've had no trouble with the orange tip on the end of my racking cane -- I tip the carboy with a stack of coasters or a block of wood and then gently lower the cane into the lowest part of the carboy. I then use masking tape or a rubber band to make sure the cane doesn't move. I discard the first two cups or so and the beer runs clear from there on. Perhaps you are not getting a good cold break and your trub layer is very deep. Then again, you've got hops in your trub and I don't.

On a typical 5 gallon batch, my trub layer is about 1 inch thick, say between 0.75 and 1.5 inches. Just for the record, I have not tried Fermtech's racking tube holder.

In another post, Mark writes:

>I have always gotten decent extractions (except my first batch because I  
>didn't grind the grain fine enough). My latest pale ale got around  
>32 pts/lb/gal. I just did another batch, but decided to leave out any  
>mineral additions to see if it would make any difference to the taste of  
the  
>beer. Things proceeded fine but my extraction was down around 28.5 pts.  
>Could the higher pH of the water (because I didn't add any gypsum) make  
that  
>big a difference, or was I just lucky before?

The pH does make a big difference and the luck is that you still got 28.5 points without adjusting the pH. Those enzymes are pretty picky about their environment and you could have gotten much worse than 28.5.

Al.

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Date: 06 Jul 1993 18:52:30 -0600 (CST)  
From: RBSWEENEY@msuvx2.memst.edu  
Subject: Yield calculator (tm)

As part of my neverending work to improve the spreadsheet program I use to keep track of my brewing I decided to include an Extraction Rate Calculator (tm) to automatically compute an extraction yield based on the o.g., total weight of grains used, gallons of beer produced (pts/lb/gal). I then decided to go that one better and include a calculation for the maximum extraction rate based on some yields found in Dave Miller's book-Brewing the World's Great Beers (p. 129). These yields in alpha order are:

| Type of malt         | Yield |
|----------------------|-------|
| Black                | 24    |
| British crystal      | 26    |
| British mild         | 33    |
| British pale         | 36    |
| Brown sugar          | 45    |
| Cara-pils            | 30    |
| Chocolate            | 24    |
| Crystal              | 24    |
| Flaked barley        | 30    |
| Flaked maize         | 40    |
| Malt extract (dry)   | 45    |
| Malt extract (syrub) | 35    |
| Munich               | 28    |
| Pale 2-row           | 35    |
| Pale 6-row           | 33    |
| Roasted barley       | 24    |
| Vienna               | 32    |

I can now find the maximum yield for a batch by typing in the type of grain and the pounds used, then use a lookup table to access the above yields in my maximum extraction rate formula. I have also included a formula for the percentage of maximum yield to give me an idea of the efficiency of my mashing/sparging operations. When I plugged some of Miller's recipes from BTWGBs I computed efficiency ratings of between 81-91% of maximum, which is what I got on my last couple of batches. However, since Miller did not include any source for these yields I was wondering if they look reasonable to the informed readers of the HBD. Also he did not include yields for a couple of grains I have used in the past, such as Wheat malt and Flaked Oats and I was hoping someone else could supply them.

In the for what its worth department, on my last batch I used an all-at-once sparging method (you pour in the all the sparge water, mix for 10 minutes, let

it settle and after recirculating until clear, drain the wort into the brewpot) which was described in the FAQ on grain brewing in the archives (sorry, I can't remember by who to give proper credit) and got an 85% yield efficiency. If I can get this high a percentage with this extremely simple approach I don't think I will ever go back to the old way.

I will merrily post any interesting reply results received relative to grain yields. As always, your constructive comments are greatly appreciated.

Bob Sweeney  
Department of Management Information Systems  
Memphis State University  
RBSWEENEY@msuvx1.memst.edu

P.S. Invoking the principle of one CPU, one vote, I would like to see the HBD include less technical ramblings and more investigative reporting (do we have someone watching Koch(tm) full time now?), argumentativeness and flaming characteristic of Phil, Montel, Opera, Hard Copy, Current Affair, etc. Lets quit this polite and informed, but incessant bickering and really spice it up so we can have a forum to be proud of. :)

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End of HOMEBREW Digest #1176, 07/07/93  
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Date: Tue, 6 Jul 93 16:45 CDT  
From: korz@iepubj.att.com  
Subject: Specialty Products Intl. part 3 of 4

This is part 3 of my review of "Home Beermakers Guide" by Leigh P. Beadle.

Pg8:

"PROCEDURE Fill your fermenter with 4 gallons of cold water."

No mention of boiling and cooling, so I'm assuming that plain, chlorinated or bacteria-laden tapwater is recommended. Chlorinated water, if unboiled to drive off the chlorine, can result in chlorophenols in your beer which are detectable to taste at the parts-per-billion level. Bacteria, well, we all know what that will do to your beer.

"Add 1/4 teaspoon of gelatin to the water in the saucepan without stirring, bring to a boil, and turn off the heat. Add a can of Superbrau Ingredient Mix and a level teaspoon of salt to the saucepan and stir until completely dissolved."

Hmm? Gelatin? Salt? My ingredient count is up to 8, how about yours? Gelatin can reduce chill haze if used correctly, but it should be used at bottling time and not boiled -- just raised to 140F to sanitize. Boiling it would render it quite useless for fining-out the tannins that the author is presumably trying to remove. It's true that a little salt can improve flavor (Chlorine ions), but I'd say that this recipe is already beyond help.

"Add 2 pounds of cane sugar (4 cups), and stir until dissolved. Reheat the mix to a boil for 2 minutes, then pour it into the cold water in the fermenter. Stir thoroughly or the hot mix will sink to the bottom. Next, pour a pack of Superbrau yeast into the beer and after 10 minutes, stir thoroughly."

No mention of aeration. To me, "stir thoroughly" is different from aeration.

Even though this is dry yeast that was "imported from overseas," it still requires that the wort be aerated. Again this 2 minute boiling time is a laugh and a half. By the way, cane and corn sugar will, indeed, create the same cidery flavors, but they are not actually the same. Corn sugar is dextrose (glucose) and cane sugar is mostly sucrose. Yeast can absorb glucose directly, but sucrose is a glucose molecule bonded to a fructose molecule and thus must be split outside the yeast cell by an enzyme that yeast release (whose name escapes me at the moment) before being absorbed by the yeast.

Pg9:

"To carbonate, add on-half teaspoon of white household sugar to each of your clean 12 ounce bottles. You will need 48 bottles. Use a small funnel and 1/2 measuring teaspoon."



No mention of sanitizing the bottles, spoon, funnel or the sugar.  
Bacteria  
and wild yeast can and do exist on clean glass, spoons, funnels and in  
sugar. Besides being unsanitary, inconsistent carbonation can be the  
result of this procedure, not only from inconsistent amounts of sugar,  
but  
also from incomplete dissolution of the granular sugar. No, a much  
better  
way of priming is to siphon into another food-grade vessel and add a  
measured  
amount, 1/2 to 3/4 cup dextrose boiled in a cup or two of water.

To be continued...

Al.

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Date: Tue, 6 Jul 93 17:13:11 PDT  
From: russ@netcom.com ( Russ McLaren)  
Subject: subscription request

Please add me to the list.

Thanks,

Russ

mclaren@ikos.com

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Date: Tue, 6 Jul 1993 18:01:46 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Hops: Growin' & Dry

Two points re hops - one a question, the other a report:

1) Growin' Hops

I planted two rhizomes about six or seven weeks ago, received from a mail order company. One was Nugget, the other Centennial. Nugget sprouted and is doing well, but no sign yet of Centennial. I followed the accompanying directions, i.e. planted upright with the top of the rhizome about two inches underground. I'm sure neither was planted upside down. Both had small traces of some sort of mold growing here and there on the skin of the rhizome (they were shipped wrapped in plastic bags). They've had plenty of water and are in a sunny spot, but the soil is not great. Realizing the soil was indeed substandard, I fertilized nine days ago and the Nugget, which had sprouted but was small, responded vigourously. But still, no Centennial.

My question is: is there hope for the Centennial? How long can a rhizome conceivably sit underground without sprouting? Might it appear next year? Or is it now no more than a decomposing stick?

2) Dryhoppin'

Just wanted to report with considerable glee that my first attempt at dry-hopping has resulted in a phenomenally hoppy and delightful pale ale! I think it's the only way to get that bright, in-your-face, almost citrus-like, aggressive hoppiness characteristic of the finest North American microbrew. I threw an ounce of loose Cascade hops into the secondary and bottled nine days later. The hops pretty much just floated on top, even though I tried to push them down a couple times with a sanitized slotted spoon, and I was worried that not enough hop flavour would get into the brew, but my fears were groundless. God knows what the hop utilization figures might be (though judging from the recent thread on the issue, even s/he is probably not sure), but the result was exactly the delicious mega-hoppiness I sought. And as has been suggested here, one does obtain a major aroma boost with little additional bitterness. I also had no clogging problems with the racking tube. The hops just floated at the top, and I siphoned the beer out underneath them. I look forward to trying it with my lagers next winter.

So if you haven't tried dry-hopping yet, do it, do it, do it!

- - - - -  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Tue, 6 Jul 1993 19:07:02 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Oxygenation during secondary rack**

In planning my next batch of beer, the question came up as to the extent of oxygenation when racking to the secondary. Anybody want to estimate the effects? Other than to be as gentle as possible any suggestions to minimize the oxygenation? How about throwing a small piece of dry ice into the secondary, and letting it evaporate. CO<sub>2</sub> is heavier than air and as the dry ice sublimates it should force out all the air. Should I bother?

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: 06 Jul 93 21:59:10 EDT  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: Beer in Chicago, Beer at the ballpark (Philadelphia)

From: Matthew Mitchell  
Sorry if this rains on anyone's parade, but I was quite disappointed by Goose Island when I visited Chicago a couple of weeks ago. Granted I didn't get to try the Hopscotch Ale which I was looking forward to (it's my kind of style) but there wasn't anything there that I liked as much as its counter-part which I had had at Dock Street (Philadelphia) the night before. Best example was the weissbier: I actually finished the sampler size at Dock Street the first weissbier I remember finishing|  
Generally, the Goose Island seemed less flavorful.

To change the subject: someone pointed out the micro-brew available at the Stick. Veterans Stadium now has a stand on the 200-level which is exclusively imported beer (and some from Pottsville 8^) Price is \$4.75 a bottle with a couple of exceptions like Sam Smiths. Now I didn't check to see if they actually had everything offered: I'd much rather bring a half-gallon of lemonade (99c) and maybe a flask if I have to have something alcoholic.

Do we need to compile a Ballpark beer guide???  
My recommendation: Blue Hen beer at Wilmington, Del.  
(As I've said before: Lion in Wilkes-Barre is #1 for contract-made beer both the late, lamented Trupert BTW: anyone ever try to match that or get the recipe from Joe Ortlieb? and Blue Hen. Apologies to West End, a close #2, if only because the Saranac they sell themselves)

Howzat!?!  
Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

Inquiring minds want to know: how the h\*\*\* did SCHLITZ win the GABF???

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Date: Tue, 6 Jul 1993 20:20:35 -0600 (CDT)  
From: jim@n5ial.mythical.com (Jim Graham)  
Subject: Problems with recent batches---cidery taste

My apologies if this appears twice---it shouldn't. It seems that my first attempt at routing this via a faster UUCP path didn't quite work. :-)

First, some background:

I'm more or less a beginner.... I still brew from kits (or at least, from malt extracts+hops), and can't afford the equipment to go beyond this yet. I've made a fair number of batches, and all (except the most recent two) came out fantastic.

Now, the problem:

My most recent two batches have a cidery sort of taste to them. It's not really what I would call sour, as such, but it is pretty bad. The owner of the local homebrew supply shop tells me that sometimes, you'll get a batch that takes a \*LOT\* longer to age (he said sometimes even 5 weeks---the first of these has now been in bottles for roughly 3.5 weeks), and based solely on my description, he thinks these batches might just need to continue to age.

Btw, both batches have good carbonation, and at the bottling stage, everything seemed perfectly normal (from what little I know, at least).

Does this sound like anything people have seen before? Could these batches have gone bad on me? Does this have anything to do with the fact that the outside temps are no longer just in the 80s and low 90s, but more like 90s, with heat index readings at/near 110 deg. F? I do have central air, and keep the temperature inside at/near 78 deg., but I gather that there's more to it than just this?

Any idea if these batches will recover? What about the batch in the fermenter now? Is it likely to suffer the same fate?

--jim

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INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.32W  
AMATEUR RADIO: (packet station temporarily offline) AMTOR SELCAL: NIAL  
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E-mail me for information about KAMterm (host mode for Kantronics TNCs).

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Date: Tue, 06 Jul 1993 23:02:52 -0400 (EDT)  
From: waltman@BIX.com  
Subject: Techincal postings, Continuous brewing

As a new homebrewer (8th batch in primary) and a very new HBD reader (1 week, but have been reading archives) I thought I'd add to the discussion of the technicality of some postings. Even though there are many discussions I do not follow AT PRESENT -- as my knowledge of the chemistry and biology of brewing increases I hope to go back and understand them better at a later date. Similarly, I do not now do any kegging of my beer, so I do a quick scan of the posts on that subject, but when I do have decide to take the plunge it will be nice to have this information available. In the mean time, that is why the PageDown key was invented. So keep the technical posts coming and help me changed from a receipe follower to a brewing engineer and scientist.

As for advertising, I do think a policy is required. Some of the posts remind me of the benchmark wars I've seen in other forums. As Mark Twain has been paraphrased "There are lies, damned lies and benchmarks." Announcements of new products by their distributors are great. So are third parties comments of "I used X and it was great" or "I tried Y and it was lousy." Distributors of products should not make negative comments about competing products and personal remarks should be avoided.

On another note, does anyone have any references or information on continous brewing? My father is a mathematician and one class of problems he studies is the theory of chemostats -- which is essentially a continuous fermentor. Private e-mail is fine.

Lastly, thank you to all who responded with advice on my question regarding importing homebew into Canada. I will let you all know how things turned out after the family re-union/

Fred Waltman.  
waltman@bix.com

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Date: Tue, 6 Jul 93 22:01 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Lee Slezak in '94

I feel the compulsion to waist bandwidth for a wholly personal reason:

Lee Slezak, if you are still breathing, I need the talk to you. Contact me asap.

chris campanelli

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Date: Wed, 07 Jul 1993 06:55:00 EDT  
From: hmcook@boe00.minc.umd.edu (Hardy M. Cook)  
Subject: Weissbeir Yeast Cultures

Concerning Dennis Lewis's question about Weissbeir yeasts:

You might try Brewer's Resource at 1-800-8-brewtek for slants of wheat yeasts.

- CL-90 Belgian Wheat -- A top fermenting yeast which produces a soft, bread like flavor and leaves a sweet, mildly estery finish.
- CL-92 German Wheat -- A true, top fermenting Weizenbier yeast, Spicy, clovy and estery. High attenuative.
- CL-94 American Wheat - Offers a smooth, slightly sweet wheat beer, with a full, clean, underattenuated malt flavor.

I have purchased the German and the American but have not had a chance to use these two cultures yet. The other cultures I purchased from BrewTek have worked great.

Hope this helps.

- --Hardy M. Cook  
HMCook@boe00.minc.umd.edu

PS: the German Wheat is a single strain culture unlike the Wyeast variety.

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Date: Wed, 07 Jul 1993 07:46:52 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast info, steam beer recipe request, and a chest off-getting.

Thanks to all who responded to my recent request for info on yeast strain variance. Unfortunately the compiled information is greater than 8k which precludes posting it on the HBD whole; however, I found this information to be

of great interest Given the certainty of this topic's reemergence, I was wondering if anyone else would like to see a Yeast FAQ for storage on the archive. I could and would submit the strain variances, proper rehydrating

techniques, and culture methods as a FAQ resource. Can someone tell me how to

go about this or who to contact? If there is no interest in an archive submission, I will chop the info up into 4 sections (Dry, Liquid Ale, Liquid

Lager, and Misc/Wine/Funky\_Belgian\_Fungi/etc) and force it on the digest readership as a whole.

One more request:I wanna make a Steam(tm) beer! I have looked at the recipe in

Papazian's New Testament for The Sun Has Left Us on Time Lager, but am unsure

of the fermentation times. Does one lager a steam beer? How cool does room

temperature have to be? Please deluge me with your favorite award winning recipes! Thanks!

Patrick Weix

UT Southwestern at Dallas

weix@swmed.edu

P.S. Not to start a flame war or anything but why do people submit recipes that they have not tried? I hate to read an interesting recipe only

to see "I'll let you know if this works" or some variant of same at the end.

Show some restraint and tell us if it works after you've had a glass or three!

Glad to get that off my chest!

P.P.S. The above does not of course reply to harebrained ideas about papershredder/maltermills etc. That sort of free exchange of ideas and brainstorming makes the HBD great! (I use harebrained in the best intentioned

way of course >(:p <--rabbit sticking out tounge?!?!).

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Date: Wed, 7 Jul 93 09:51:06 EDT  
From: <geotex@engin.umich.edu>  
Subject: Oxidation

Greetings.

There has been a lot of talk about oxidation lately. Would someone be so kind as to give me an explanation of what exactly it is. I realize it has something to do with having hot wort exposed to oxygen (aerated).

Is cooling the hot wort (before adding it to the cold water in the fermenter) the best way to prevent this problem?

Fill me in!  
Thanks

Alex Ramos  
geotex@engin.umich.edu

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Date: Wed, 7 Jul 93 15:41:17 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re: Cask Question

Keith asks about wooden casks. I don't use one myself, but obviously they are not going to hold a great deal of pressure in the first place and, secondly, are likely to lose pressure with time. So you need a strategy in which (a) you are prepared to drink the brew quickly and young and (b) you encourage a prolonged secondary ferment in the cask. My advice would be to use finings both to hasten drinkability, but more importantly, to slow the primary fermentation down before it has gone quite to completion. This seems to result in earlier condition than that which is achieved simply by priming the cask. Lastly, (heresy button on) an attenuative dried yeast could be used to ensure prolonged fermentation.

- - -

Conn V Copas  
Loughborough University of Technologytel : +44 509 263171 ext 4164  
Computer-Human Interaction Research Centrefax : +44 509 610815  
Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut  
G Britain (Internet):C.V.Copas@lut.ac.uk

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Date: Wed, 07 Jul 93 09:06:40 CDT  
From: Dave Justice <DD24005@UAFSYSB.UARK.EDU>  
Subject: starters,pH adjustment

Hi all,

I've been reading HBD for a few months now and my brewing has improved as a result. This is a fantastic forum and I wouldn't change a thing. For this, my first post, I have one datapoint and one question.

Datapoint: I've been getting much quicker and visibly impressive yeast starters going by using boiled or canned wort saved from previous (all-grain) batches. I usually pitch the starter before retiring at night and with this method, I'm seeing a good 1/2" to 3/4" krausen in the starter the next morning. No combination of DME and yeast nutrients ever worked this well for me, I was lucky to see any decent krausen after 1.5 days or so.

Question: Lately I've taken to adjusting the pH of my sparge water using acid blend. Exactly what is that stuff? It takes about 3/8 tsp. per 5 gallons to get the pH of my tap water into the 5.5 to 5.8 range. My beers are turning out just fine, but it hasn't seemed to improve my extraction. I think there are other more significant factors at work there.

Comments?

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Date: Wed, 7 Jul 1993 11:02:56 -0600  
From: gmeier@ncsa.uiuc.edu  
Subject: use of oxygen regulators with CO2 (DON'T).

David Skelton writes:

>"I'm currently setting up a keggung system for my beer and I was wondering if  
>there was any reason why I can't use my O2 regulator from my oxy/acetylene  
>setup. If threads are the only problem then I could come up with an adapter  
>but I don't know if there is any difference in the regulator itself."

I wouldn't do it. I don't know if there is any difference in the regulator itself, but regulators for oxygen service should never be allowed to be contaminated with anything potentially flammable (oil or other hydrocarbons are the most common problem). A contaminated regulator, when put back into service with high pressure oxygen, presents an explosion hazard. Regulators are so expensive that I assume somebody somewhere will hook up your oxygen regulator to an oxygen tank again. In the same issue of HBD, Al wrote:

>"Regarding force carbonation, you can begin at a higher pressure, but in  
>eventually, you will need to use the tables to determine what pressure  
>you need to use for the temperature you've chosen. Be careful when  
>you lower the pressure at the gauge (release the pressure in the keg  
>first) or you will get a lot of foam and some may travel back up your  
>CO2 line towards the regulator."

So it looks like contamination of the regulator is a real risk.

Gary Meier  
FMC Corporation  
Box 8  
Princeton, NJ 08543 (609) 951-3448

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Date: Wed, 7 Jul 93 8:15:39 PDT  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Re: brewing capitol of the world

In HOMEBREW Digest #1164, Thu 17 June 1993, we find:

>From: STROUD%GAIA@leia.polaroid.com  
>Subject: brewing capitol of the world  
>

>It is very easy in the current renaissance-in-brewing atmosphere in the US to  
>get wrapped up in our own little corner of the world and think that we sit on  
>top of the best beer. But the truth is that we're not even close. There is  
>high quality brew in this country, but there is also a \*lot\* more mediocre beer  
>being made, whether you're talking the East Coast, the West Coast, or  
>somewhere in between.

Partly true. Microbrews hold a fraction of the market, and the big three or four lager brewers hold a huge share of the market among them. However, in the last 12 years, we've gone from 50 operating breweries in the USA to over 350 - and about 300 of these are putting out some quality products. In terms of volume, the USA is the brewing giant of the world - we 'Merkins brew more in quantity than any other country, although we don't consume more per capita (viz. Germany, Belgium, Czech Republic). In terms of quality, though, we're still re-learning lessons forgotten long ago, a result of Prohibition.

The current wave of American beer-bragging is due to a recent phenomenon - we finally have beer to brag about! For years, Europeans could visit us here, and while we Americans could crow over their material life-style, they could justifiably sneer at the mediocre, flavourless American beers. Now we have good brews again (although some of the praise is not fully justified), and we've come a long way. As local people become accustomed, I hope they'll be able to relax and enjoy the good things being made with a quiet sense of pride. Some of our recent converts to Good Beer still have a bit to learn about the Rest Of The World; just give 'em some time.

>Beer Heaven (and the Brewing Capitol of the World) in undoubtedly located in  
>Europe. I'd nominate Belgium for Heaven, Bavaria for the Capitol, with the  
>British Isles and the rest of Germany as close also-rans.  
>The USA is hardly in the race.

Much has been said about the "beer-belt" of brewing that stretches from the UK across much of north-central Europe. The origins of most of our well-known beer-styles are in these lands. It's kind of ironic to brag about "locally-produced" pale ale, stout, or pilsener, knowing the origins of these styles. We might be able to make a case for Anchor Steam, it being a style all its

own, but most of our beer is derived from some style imported from across the Atlantic. Lager from Germany and Austria, pilsner from Bohemia, bitter

ale from the UK; even our basic barley and hops were originally imports, transplanted here. What was that about "our victuals and especially our ale being spent", entered in the log of a little boat called the "Mayflower". ..?

Hey, we've even imported actual brewers! Does "Celis" ring a bell?

>If you've been to Europe, you know what I mean. If you haven't been there,  
>what are you waiting for?

For a lot of folks, it's a matter of priorities. Raising a family, paying the rent or mortgage, or even a touch of good old xenophobia: all may contribute to settling for what's available in "my own back yard". In some cases, this has eventually hardened into an attitude that it's just plain "disloyal" to consume foreign products, because if it was American-made, it was good enough. Well, it often wasn't "good enough", as GM and Ford discovered in the 70s and 80s, and the big brewers are discovering as they fight for stagnating or declining market share, while the micros keep on growing, and the homebrewers keep on making their own. For those who go abroad, though, visit the old centers of brewing - and take one or two bottles of good New American micro-brew with you, to show the natives that maybe we are catching on, finally. I've done it once or twice.

BTW, beer chauvinism is alive and well in Germany. They don't much care for beers from outside of Germany, with the very occasional exception. Of course, they may just be a teensy little bit justified, at least on occasion, in thinking that their country, especially the southern part, is some sort of center of brewing.

Actually, I keep thinking that my brew-cellar is the brewing capitol of my own immediate neck of the universe (Maritime Pacific and Redhook notwithstanding). Don't all homebrewers regard their cellars this way ... ? ;- )

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- --
  // / | Don Scheidt | // /
 / / / | Boeing IASL, 777 Cab Development | / / /
 // // / | dgs1300@aw101.iasl.ca.boeing.com | / // // /
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Date: Wed, 7 Jul 93 11:18:34 -0400  
From: David Adams <tmc!david@uunet.UU.NET>  
Subject: Re: KQED San Francisco Beer Festival

Ron Hall writes...

> I am surprised that there have been no posts yet about the KQED  
> San Francisco Beer Festival. Perhaps it is the format of the thing  
> that makes it not get the kind of recognition that the GABF or the  
Oregon  
> Brewers Festival get, as it may not appeal to some homebrewers.  
> Let me describe it this way:  
> ...

One of the Boston NPR stations, WBUR (Boston University Radio?) has been running essentially the same event for a few years, calling it "A Brewer's Offering". Part of the price is tax deductible, and you get a free Pilsner glass (at least you did two years ago.)

If you are in the Boston area, 90.9 FM is where you can get details. The event is more conducive to getting mildly trashed on quality brew than it is to actually doing some judging. Noise, banners, munchies, bands playing, CROWDS, more noise, too much to choose from, no space for taking notes. That said, though, it's a fun time for what it is.

I, for one, am heading to Portland this year. See y'all at Tom McCall park...

Dave

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Date: Wed, 7 Jul 93 11:32:09 -0400  
From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)  
Subject: Bruheat etc.

Hey now --

In HBD 1176 Richard Childers described his ideas for building a mash/brew kettle. While this was quite detailed it seemed overly complicated

(maybe a case of overanalysing a simple problem :- ) ).

The final product described in Richard's post sounds suspiciously like a commercial steam jacketed kettle as used by almost every restaurant in the world. These kettles are a double walled stainless steel vessel which circulates live steam through the gap between the walls and are available in sizes from 3 gallon all the way up to 100+ gallons.

I have been thinking that it would make an ideal mash/boil vessel and have been actively searching the used restaurant equipment dealers in the area for one. I have found many in a variety of sizes but they are all a little too expensive right now. In addition, I need one with a built in boiler (not many people have steam boilers in their houses)

this adds to the price considerably. Used kettles in the 5 -10 gallon range

that fit my requirements are available for around \$300-500. I would like to find one for around 100 -150 in fair condition that can be cleaned up.

The principle advantages of using steam to heat your wort are

1. Speed. Since steam has about 6 times more latent heat than water at the same temperature, it will bring 10 gallons of liquid to a boil in a few minutes.

2. Ability to maintain a rolling boil without having to worry about scorching. Since there is a maximum temperature that steam can maintain it is much more difficult to scorch and/or caramelize sugars in the process.

I do see some potential difficulties in trying to mash in this type of vessel though. Since steam is generally much higher in temperature than the target temps of the mash and the heat generated in the kettle is evenly distributed throughout the interior spaces it would be a little difficult to maintain targeted temperatures. Constant monitoring and adjustment would be necessary to avoid overshooting.

i still think that a steam kettle would be worth investigating. Anyone out there with any experience using one is welcome to respond.

- --S  
^

[ABrewers do it while they mash

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Date: Wed, 7 Jul 1993 08:52:53 -0800 (PDT)  
From: Dave Gilbert <solomon!solomon.aha.com!dave@yoda.eecs.wsu.edu>  
Subject: RE: Copper question

Jim Grady writes:

> Well, I have finally started to build a copper manifold and have a  
> question. I see two types of copper pipe in the hardware store; M type  
> and L type. What kind do I want? Do I care?

Well I don't know what the M and L stand for, but last weekend when I was constructing my copper manifold, I discovered the hard way what the differences are between the two types of flexible copper pipe available to me. (deep breath, don't you love run on sentences)

To make a long story short, the two types of copper pipe that I found are both the same O.D. (5/8ths I think), but one has much thicker walls and is, (with my limited skills) impossible to bend smoothly and in has some sort of greasy film on the inside. The other pipe has much thinner walls and is bright and clean on the inside. The thinner walled pipe can be easily bent into just about any configuration that you need.

So, to sum it all up, get the thinner walled pipe, your life will be much more fulfilling, and your neighbors won't cover their children's ears when they walk past your garage.

Hope this helps.

Dave Gilbert dave@aha.com  
Advanced Hardware Architectures Inc.  
Moscow, Idaho

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Date: Wed, 7 Jul 1993 09:38:51 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: KQED San Francisco Beer Festival

In HBD# 1176, Ron Hall gives us this well-intentioned misinformation:

>The KQED Beer Fest is on July 10 in San Francisco, I believe at  
>the Armory, south of Market Street near I-80. Disclaimer: I have  
>nothing to do with this Festival, just thought you should know.  
>also FYI, KQED is the local public television station.  
>  
>Bay Area Locals: Please post corrections or more specific info if  
>you know more than this.

Here's the scoop, courtesy of the California Celebrator:

July 10 San Francisco CA  
11th Annual KQED International Beer & Food Festival,  
1-4pm, Concourse, 8th & Brannan. \$35 (members save on  
advance orders). 250 beers, micro pavilion, lots of  
food & music. 415-553-2200 for info.

The Concourse is on Brannon between 7th and 8th. Get there  
early...there's usually a block-long line at the door!

See you there...

have fun  
gak (gak & gerry's garage, brewery and hockey haven, Castro Valley CA)

P.S. July 17-18 Mountain View CA  
California Small Brewers Festival at the Tied House.  
Call 415-965-2739 for info.

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Date: Wed, 07 Jul 1993 09:46:31 -0700 (MST)  
From: cjohnm@ccit.arizona.edu (John Mare)  
Subject: RE:Homebrew Digest #1176 (July 07, 1993)

A few weeks back while in one of my favourite "real ale" pubs ("The Brewery Tap") in Glasgow, Scotland, I was told by the proprietor that he had read in the Glasgow Herald that A-Busch had bought a controlling interest in Budweiser Budvar! Bad, bad news if true!  
John M.

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Date: Wed, 7 Jul 93 10:00:42 PDT  
From: greg@bandit.berkeley.edu (Greg Jesus Wolodkin)  
Subject: carboy -> chest freezer

Jonathan G Knight writes:

>For those of you who have chest-freezers with top-opening designs, how  
do  
>get the full carboys in and out w/o breaking your backs?

You could use a milk crate to "protect" the carboy, providing handles  
for it at the same time. Now all you need is a block and tackle over  
the freezer and you're all set ;-)

Cheers,  
Greg

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Date: Wed, 7 Jul 93 12:05 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Little Hole

>From: mdcsc!gdh@uunet.UU.NET (Garrett Hildebrand)

>I, too, have a six-gallon Vollrath. I have been thinking about  
modifying it with a valve on the bottom, as has been mentioned by  
others, and  
of trying out the "easysparge" type of system discribed by js and  
others,  
but I haven't found anybody to do the welding, and I also don't know  
where to get a suitable stainless valve.

Two points here. If you use the easymash concept, no welding is  
required and  
you can get by just fine with brass fittings available at any hardware  
store.

>After reading your comments about your lautering manifold and the use  
of a syphon, it sounds like you have gotten around the problem of  
needing  
a valve on the pot.

It has been pointed out by several that the easymash screen can just as  
well  
be put on the end of a long piece of copper tubing that rises up out of  
the  
kettle and connects to a hose. It produces a siphon and the screen is  
far  
easier to make than the tubing manifold.

Having said that, a spigot on the bottom of a kettle just seems to add a  
touch of class and convenience that I could not live without. I will  
never  
understand the reluctance of some people to drill a hole in a kettle  
that  
they bought specifically for the purpose of brewing, when that little  
hole  
will make the kettle a "real" brew kettle.

js

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Date: Wed, 7 Jul 93 10:17:14 PDT  
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)  
Subject: Hot break

In hbd 1159, Al says this about adding hops to the boil to help with protein coagulation:

>Indeed hop particles will help with protein coagulation, but I feel that you  
>should wait till after the hot break to add the hops in the first place.  
>The last time I recall reading about this is in a post from Stuart somewhere  
>around HBD 1150. My contention, as that mentioned by Stuart, is that the  
>hops will do too-good a job coagulating proteins \*AROUND THEMSELVES\* thereby  
>reducing the utilization. Now, if you wait till after the hot break, I  
>suggest that there will still be some coagulation of proteins around the  
>hops, but not nearly as much as if the hops were added before the hot break.  
>  
>Why does this matter? Well, the theory is that the protein coagulated  
>around the hops will reduce utilization.

I always wait until after the hot break to add hops for this reason. However, I also always find myself wanting very badly to add the hops to avoid a boil over. Does anyone else have an opinion on this? Has anyone done a side by side analysis of this? I have observed that even waiting until after the hot break to add hops, they still get coated with protein.

Darren Aaberge

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Date: Wed, 07 Jul 93 09:51:48 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Besieged by baleful bacteria / infection survey / adverts

Jeff Benjamins bacteria problem:  
Acck!

I just got rid of a nasty infection which ruined 6 5 gallon batches. It's almost enough to send you back to the liquor store for commercial beer. I think that our problems differ in source, but not in result. My contamination was occurring due to a contaminated primary fermenter, and a desire to dump less bleach into the environment.

Anyway, I think my solution may work for you as well. I became a serious anal retentive when it comes to sanitization. I bleach the shit out of everything(1 cup/[3-5] gallons). I use long contact times on everything, at least 15 minutes, including the fermentation locks, rubber stoppers, my rubber gloves, everything. I rinse with \*chlorinated\* tap water.

Three points with you method: 1) Try reboiling your canned starter wort just prior to use. You may have bacteria collecting around the lid of the jar, creating an infection upon opening. Put the lid on the boiling pot prior to turning off the heat, so even the lid is steam sterilized. 2) Put a drop of bleach in each fermentation lock used, so bacteria will not be able to "swim" through it.. 3) Let the yeast package swell until you are sure it will burst, then a little more. Get that population as high as possible before exposing it to your environment.

=====  
Infections in general:

About 6 months ago I posted a request for people's infection rates and sanitization methods. I did this because I had heard so much about other folks problems, and had had none myself, and was curious about my good fortune. Well, I guess I forgot to "knock on wood" before posting "I've never had a contaminated batch" :-( Anyway, I got 30 responses but was unable to find a reasonable thread of cause/effect. I will mail out a compressed, uuencoded tarfile of the responses if anyone is interested.

=====  
Advertising:

How about this: Once a month, each person who sells a product may post a "I sell this product" message. No claims, no hype, no prices, no details, just a clear statement of intent to sell. Interested parties may then send them private email requesting info on their product. These people should then refrain from taking part in discussions on their or competing products. People with personal or financial interest (close friends of sellers, etc) should show similar restraint. Recommendations from satisfied customers in responses to queries from other list members would always be welcome.

Drew Lynch  
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Date: Wed, 7 Jul 93 09:49 CDT  
From: korz@iepubj.att.com  
Subject: Specialty Products Intl. part 4 of 4

This is part 4 of my review of "Home Beermakers Guide" by Leigh P. Beadle.

Pg10:

"To establish a siphon you must suck on the end of the siphon hose while it is lower than the opposite end."

Actually, the author is not only showing that they know nothing about microbiology, but also that they know nothing about physics. For a siphon to work, the position of the inlet does not matter as long as it is under the level of the liquid. The level of the siphon outlet must be below the level of the top of the liquid and is NOT AT ALL DEPENDENT ON THE LEVEL OF THE INLET! Back to microbiology. Besides the zillions of bacteria on your hands, there are hundreds of zillions of bacteria in your mouth. Sucking on a siphon hose with your mouth is probably one of the best ways to infect your beer with lactobacillus which is everpresent in the human mouth. Lactobacillus will eat sugars that the yeast have left behind and cause your beer to gush about four to six weeks after bottling.

"Unlike commercial beers, which start deteriorating as soon as they are bottled, your home-made beer has an unlimited shelf life. This is because of the natural preservative quality of the yeast."

No, the author's beer has an unlimited shelf life because the author has infected their beer by using an unsanitized fermenter and by sucking on unsanitized siphon hoses and there is nothing left in the beer to spoil. Also, the bacteria and wild yeast have produced so many off-flavors, combined with the chlorophenols from the tapwater, that any further spoilage would not be noticeable. Please also note that there are commercial beers such as Sierra Nevada and Bell's that do have yeast in them. It is unfair (besides being wrong) to include these fine beers when criticizing the industrial megabrewers.

Pg13:

"Types of Beer... CANADIAN LAGER Throughout the world pilsner beers represent the highest class of beer. This recipe will produce a refreshing, non-filling beer with rich European flavor and aroma."

I will not debate the highest class of beer, although I, personally, prefer Belgian and English ales over pilsners. Given that the author says: "Do not ferment your beer in rooms that are less than 60 degrees..." none of these kits are for making lagers. They are for making (to use the expression very loosely) ales. Also, if it has a "rich European flavor and aroma," then why call it "CANADIAN LAGER?"

"AMBER This beer is traditionally brewed during the Oktoberfest season in Germany and is made using lightly roasted malt. It has an amber color and heavier malt flavor than most beers."

I think the author incorrectly believes that this is an Oktoberfest recipe. Oktoberfest is a lager and is traditionally brewed FOR Oktoberfest not DURING. It has traditionally been brewed in March for consumption in October. Nonetheless, at fermentation temperatures above 60F, what will probably be made is a very watery and cidery scottish ale.

Pg15:

"For a European-style beer, simply increase the boiling time for the Ingredient Mix. For a Heineken or Becks style beer, give the mix a high boil for 10 minutes... A fifteen minute boil produces a strong British ale, and a 20 to 40 minute boil with the Dark Mix makes a moderate or strong stout. for a richer stout, leave out a gallon of the cold water..."

The magic of brewing, eh? Gosh, I never new it was so simple.

Beginners: please just forget you ever read the above quote -- it is so wrong, I can't even begin to correct it.

Pg21:

"SOME FINAL THOUGHTS The unique feature of our Ingredient Mixes is that they contain 1/2 ounce of fresh, uncooked hops. (These are the lumps you see in the syrup when you pour it out.) This gives you an infinite variety of beer flavor which you tailor to your own taste simply by extending the normal 2 minute boil."

"The beer should be consumed within a month after bottling..."

Hey, what happened to unlimited shelf life???

"...This is because the yeast may slowly convert some of the remaining sugars in the beer and cause it to become thinner flavored and may over-carbonate it. If the carbonation remains normal after 3 weeks in the bottle, no problem."

No, it means that you have been lucky and did not infect your beer too bad. Of course it's not the yeast that continues to eat the sugars, it's the bacteria, but I don't think Leigh P. Beadle has ever bothered to learn about bacteria, despite the fact that he is the author of some "best selling" books on brewing. Yeah, right.

This is a comedic brochure, right? This company doesn't really exist, does it? Did Chris Campanelli write this for laughs? No, I'm afraid this is a real company and they are really misguiding beginners into brewing a "beer" that tastes worse than the industrial megabrews. The prices are reasonable, but are not the best available through mailorder. They do have a Pure Malt Extract (without lumps, and allegedly without corn syrup) for the same price as the mercifully named "Complete Ingredient Mixes" but you must buy it by the case and the price is still higher per pound than Northwestern (100% malt) Malt Extracts.

Al.

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End of HOMEBREW Digest #1177, 07/08/93  
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Date: Wed, 7 Jul 93 09:52 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Cheap carboys

The cheapest place I've found (so far) for carboys is St. Pat's of Texas. They sell seven gallon carboys for \$10.00 (add \$5 for S+H) and it comes in one of those styrofoam egg/pod things. Although most homebrewers prefer the seven gallon carboy because of the extra headspace, I buy them because I like to wear the way-cool styrofoam pod on my head when I take a shower. You should try it some time.

I don't have their number handy. I seem to remember seeing their ad in the Zymurgy classifieds. If you can't find it there, email me and I'll dig it up.

chris "mushroom head" campanelli

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Date: Wed, 7 Jul 93 14:33:58 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: attenuation definitions

I recieved a number of responses on my attenuation question and I realized that the definition which I left hanging on HBD was weak at best. Thanks go out to Paul Jasper, Dick Dunn, Chip Hitchcock, and Spencer Thomas for their quick responses (in addition, thanks to George Fix for the info which Spencer Thomas quoted to me and by me here).

good luck and good beer,  
Chris Pencis

From: Spencer.W.Thomas@med.umich.edu

Date: Wed, 7 Jul 93 11:13:35 EDT

## Subject: attenuation definitions

There's "apparent attenuation" and "real attenuation". The difference comes about because alcohol has a specific gravity less than 1 (about .8). Real attenuation is the percent of sugars converted to alcohol. So, if you had a 10% (by weight) sugar solution (about 1.040), and got 100% real attenuation, the resulting specific gravity would be about 0.991 (corresponding to about 5% alcohol by weight). The apparent attenuation of this brew would be 122% !

George Fix published a set of equations relating apparent and real attenuation and alcohol content last year. To wit:

```
>A = alcohol content of finished beer in % by wt.
>RE = real extract of finished beer in deg. Plato
>
> Since A and RE are generally not known to us, additional approximations
> are needed. The following are due to Balling, and have proven to be
> reasonable. Let OE and be defined as follows:
>
>OE = original extract (i.e., extract of finished wort in deg. Plato)
>AE = apparent extract (i.e., measured deg. Plato of finished beer).
>
> Then
>
>RE = .1808*OE + .8192*AE,
>
> and
>
>A = (OE-RE)/(2.0665-.010665*OE).
>
```

The "tricky part" here is the expression of the sugar content in degrees Plato. This is a fancy term for % sugar by weight, and corresponds roughly to "degrees gravity" divided by 4. That is, a 1.040 wort has an extract of 10 degrees Plato.

He goes on to calculate an example:

```
> To take Walter's specific case, first note that from Plato tables an OG
of
> 1.045 is equivalent to
>
>OE = 11.25 deg. Plato,
>
> while a FG of 1.010 is equivalent to
>
>AE = 2.5 deg. Plato.
>
> Therefore,
>
> RE = .1808*11.25 + .8192*2.5 = 4.08 deg. Plato,
>
> and
>
> A = (11.25 - 4.08)/(2.0665 - .010665*11.25) = 3.68 % wt.
```

The apparent attenuation is 75% (from 1.040 to 1.010), the real attenuation is  $(11.25 - 4.08)/11.25 = 64\%$ .

=S

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|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
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Date: Wed, 07 Jul 1993 13:55:32 CDT  
From: "Bret D. Wortman" <wortman@centurylub.com>  
Subject: Low SG -- what might the cause(s) be?

Greetings, all. I'm a novice who has just started my second batch (a  
5 gallon batch that has managed to foam over the fermentation lock on  
a  
6 1/2 gallon carboy, but I digress).

Both of my first two batches used kits -- syrup -- and no sugar. The  
first used a 3.3lb Munton & Fison Pilsner kit with 1.4 lb Light Amber  
Malt kicker. The second used 1.8kg Muntons IPA Bitters with 1.4 lb  
Lilght Amber Malt kicker.

In each case, the SG after sparging and after getting the total  
volume  
of liquid to ~5 gallons was around 1.015. This seems awfully low to  
me, as it'll result in beer that has (at most) around 1.5% alcohol  
content.

What might I be doing wrong, or what should I be looking for? I  
carefully noted the 5 gallon mark on my carboy so I'm sure I'm not  
making more than I think I am....

WordMan

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--
| Bret D. Wortman   | "I want to live shipwrecked and comatose,
| wortman@centurylub.com | Drinking fresh mango juice.
| wortman@decus.org  | Goldfish shoals nibbling at my toes,
| NLC Events Team Chair | Fun, fun, fun in the sun, sun, sun."
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
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Date: Wed, 7 Jul 93 14:40 CDT  
From: korz@iepubj.att.com  
Subject: attenuation/hop nobility/2.5 gal kegs/cask priming/infection

Chris asks about attenuation and then posts that he's got it figured out.

I just want to mention that this is APPARENT ATTENUATION -- that is, the percentage difference between the original gravity and the final gravity. The reason that it is only the APPARENT attenuation is because the yeast is making alcohol which is lower specific gravity than water. Therefore, to determine the actual attenuation (which can be quite a bit less than the apparent), you must distill-off the alcohol and replace it with an equivalent amount of distilled water. Don't bother though, because virtually all attenuation values and final gravities you see in homebrewing books, here and in magazines are apparent ones.

\*\*\*\*\*

Jack writes:

> >From: korz@iepubj.att.com

>

> >Styrian Goldings are neither noble nor are they Goldings, actually.

> The only three noble hops (this was confirmed from various sources

> in the Brewer's Forum) are Hallertauer, Tettnanger and Saaz.

>

> I think a definition of "noble" would be appropriate. Doesn't sound like

> anything a botanist could get a hold of.

>

> Just what does it mean?

It's not a botanical term, rather a brewing term simply made-up by (I believe)

German brewers. Hallertauer, Tettnanger and Saazer appear to have simply been grouped together quite a while ago and labeled "noble hops."

\*\*\*\*\*

Robert writes:

>I have located five 2.5 gallon kegs at a used restaurant supply house.

>Two of them have screw-on caps with tapered rubber washers, while three have

>clamp-type lids with smaller rubber gaskets/o-rings.

Grab them. They are very rare -- you can always replace the fittings you don't like with ones you like (i.e. you can switch them all to ball-lock).

>There is also a combination of fittings on the tanks themselves, with some

>having pins, and others having grooves for snap-rings.

I suspect that the grooved ones are actually ball-lock. The pin ones are pin-lock. Coke uses pin-lock and Pepsi uses ball-lock. I personally like

the ball-lock ones because they are easier to recondition (you can simply use a 12-point socket for the fittings, whereas for the pin-lock you need to buy (\$40) or build yourself a tool to remove the fittings.

>The kegs are pretty crudded-up, but I think they will clean. Are there any

>fine points to be aware of before sinking money into these kegs?

Check the seams inside and out -- be careful to release all the pressure before removing the lid -- you could injure yourself quite seriously if you don't. If the seams are all pitted and cracked, you may have to pay more to have them re-sanitary-welded than to buy new ones. You really should replace all the rubber. If the lids don't have overpressure release valves, you should get some. There were some posts about two or three years ago that said that the Cornelius company will exchange lids without valves for new lids. All my lids had valves, so I didn't keep the post.

There are many hidden rubber gaskets that you should replace. There are eight including the gasket on the overpressure valve. The issue is not one of sanitation, but more so of soda (root beer, grape) smells that would enter your beer. Some have suggested boiling, but I've tried it and I could still smell root beer in the rubber. To completely recondition a keg with new rubber (including a new overpressure valve -- the rubber does not come separately) will run you about \$10, but I feel it's worth it. See a recent HBD for a post I authored which explained where the gaskets were.

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Keith writes:

>I have a friend who is interested in racking his brew in a wooden (5  
>Gal.) cask. Can anyone recommend appropriate amounts of priming sugar  
>and/or an information source for the required details?

I suggest using about 1/4 to 1/3 cup corn sugar.

\*\*\*\*\*

Jeff writes:

>Fat Wanda's Brewery & Recording (my basement) is under attack by vicious  
>bacteria. I've had a recurring house infection that I can't seem to get  
>rid of, in spite of the scourings and bleach treatments. Now it's  
>gotten to the point I can't even get an uninfected starter!

I suspect it is in the air. You could try to get an air cleaner and keep all the doors closed and the air conditioning off while you brew (give the dust some time to settle and the air cleaner to do it's stuff). Alternatively, you could wait till fall, when your air will go back to being less microbiologically active.

Al.

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Date: Wed, 7 Jul 93 13:04:51 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hops vs. Protein and Hop Storage

Al writes in response to my post:

:Mark writes (in reference to not using hop bags for boiling hops):  
:>Also, there are many  
:>benefits to be had to the wort by having the hop particles (whole or  
:pellet)  
:>thrashing around in the wort during the boil (help with protein  
:coagulation  
:> - aka the hot break) is the main one.  
:  
:Indeed hop particles will help with protein coagulation, but I feel that  
:you  
:should wait till after the hot break to add the hops in the first place.  
:The last time I recall reading about this is in a post from Stuart  
:somewhere  
:around HBD 1150. My contention, as that mentioned by Stuart, is that  
:the  
:hops will do too-good a job coagulating proteins \*AROUND THEMSELVES\*  
:thereby  
:reducing the utilization. Now, if you wait till after the hot break, I  
:suggest that there will still be some coagulation of proteins around the  
:hops, but not nearly as much as if the hops were added before the hot  
:break.  
:  
:Why does this matter? Well, the theory is that the protein coagulated  
:around the hops will reduce utilization. I have not done side-by-side  
:tests of this, but I do recall a significant increase in hop utilization  
:when I began to wait for the hot break before adding the hops. I did  
:not  
:put the two together till someone on the HBD mentioned it.

I don't buy this. Number one, if it really did boost utilization, you  
:can  
:bet the big breweries would be using it. I've never seen any reference  
:to  
:it. Number two, I've never noticed any protein coating the hop petals  
:or particles and even if it did, it wouldn't matter cause there isn't  
:any-  
:thing of value in there anyway. Now if we're talking microscopically  
:around the resins, maybe there's a possibility. But the biggest problem  
:I  
:have with it is waiting for the hot break. Besides the fact that a lot  
:of newbies don't even know what it is or what it looks like, I don't want  
:to keep sampling my wort to see the break so I know when to add hops.  
:Then I'd have to figure out how many boil minutes remained and adjust my  
:hopping rate accordingly in real time. What if I didn't get a break  
:until  
:30 minutes into 1 hour boil? I'd be getting a \*lot\* less utilization  
:from  
:the shorter boil time than any better utilization advantage I might have  
:got  
:by waiting.

:  
:>Anyway, I recommend you do use a secondary and rack carefully. The two  
:step



:>racking process should leave all of the pellet particles in the trub layer on  
:>the bottom. This is instead of the hop bag. The hop bags are great for dry  
:>hopping, but I don't like them for the boil.  
:  
:I disagree. I do just the opposite. I use a hop bag for boiling primarily  
:to avoid the problems of having to remove the hops from the wort later,  
:either as you pour the wort into the fermenter (my screen kept clogging  
:and that made it a real pain!) or when racking. I just compensate by  
:adding 10% more hops. I don't use a hop bag for dryhopping but only use  
:whole or plug hops because they float. I've never had any problems  
:siphoning the beer out from under the whole hops.

Floating hops does not make for good oil utilization. The best method is to keep the hops suspended in the middle of the beer using a bag and weight system (tie the weight to the drawstring instead of putting it in the bag).

This is what Anchor does and I have found it works well for me and other brewers I know. I don't know of any commercial brewers that boil their hops in a bag, but they do use them for dry hopping. But what works for you works for you.

:  
:>Also, your racking techniques  
:>will improve with time. The key is to have a reliable way to suspend the  
:>end of the racking tube just above the trub layer. I use a rubber stopper  
:>that fits in my carboy with two holes in it: One for the racking tube and  
:>the other I use to force CO2 into the carboy (at \*low\* pressures) to push the  
:>beer into the secondary (I use a soda keg for the secondary).  
:  
:then later:  
:>BTW, I have found  
:>the "orange racking tip" thingy to be essentially worthless. Ditto  
:>Fermtech's \$2 racking tube clothespin.  
:  
:Interesting, but I've had no trouble with the orange tip on the end of my  
:racking cane -- I tip the carboy with a stack of coasters or a block of wood and then gently lower the cane into the lowest part of the carboy.  
:I then use masking tape or a rubber band to make sure the cane doesn't  
:move. I discard the first two cups or so and the beer runs clear from  
:there on. Perhaps you are not getting a good cold break and your trub  
:layer is very deep. Then again, you've got hops in your trub and I don't.  
:On a typical 5 gallon batch, my trub layer is about 1 inch thick, say  
:between 0.75 and 1.5 inches. Just for the record, I have not tried  
:Fermtech's racking tube holder.

So you get a couple of cups of trub? Isn't this exactly what the orange racking tube tip is supposed to prevent? I guess it doesn't work for you either! :-) I suggest you try leaving it off once and I'll bet your results will be identical. My trub layer isn't any deeper than yours, and  
I don't have hops in it. My strainer works fine. I also use a "settling tank" between the kettle and the primary. I use my old plastic fermenter with the spigot in the bottom. I cool the wort, pour through the strainer

into the bucket, put the top on and let the cold break settle out. Then I attach a hose to the spigot and run the wort into my carboy through a homemade "wort squirter" to help aerate it. I usually only have .5" of trub at the end of the primary. And for the record, the problems I found with Fermtech's tube holder were that 1) The tube tended to come out of molded holder clip and 2) The spring didn't hold the clip to the carboy steady enough with the weight of the racking hose (works fine with just the racking tube, but that isn't very practical). I rubber banded the heck out of it to get it to work and ended up in the same place as my clothespin, but wasted \$2 in the meantime.

Jonathan Knight asked about hop storage:

I was the one that recommended an "investment" in a home vacuum sealer, and, BTW, also recommended CO2 or nitrogen purged mason jars as an alternative. The reason I recommended a home sealer is that they not only are nice for storing hops, but are also useful for sealing other things like DME, grains and minerals. Anyway, what's more important in Jon's post is the whole issue of hop storage. I'm working on a longer post that will address this issue and will post it in a few days.

Mark

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Date: Wed, 7 Jul 93 13:15:48 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: sugar in beer

Sugar added to certain beers (british ales and belgian ales) have been discussed here before. Was there a consensus as to the best thing to use that is available in the states? Brown sugar? What is best for a brown ale versus a belgian double or triple? In the belgian ale book the author says the brown color of the double is from the sugar, so I'm not sure what the homebrewer is to do.

Is rock candy anything more than just sucrose? If so, would it dissolve in the boil?

Thanks.

- Bryan

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Date: Wed, 7 Jul 93 15:21 CDT  
From: korz@iepubj.att.com  
Subject: high-gravityVSpartial boils/carboys/Miller's AAUs/thermostats/pts-lb-gal

JC writes:

>I'm interested in brewing a high-gravity all-grain brew. I'm currently  
>limited by my pot (5gal) and stove. Can anyone suggest a high-gravity  
>recipe? I can boil up to 4gal of liquid... I do have a lauter-tun  
(Zapap  
>type) that works adequately.

Although I picked JC's post (sorry JC), there are a number of posters who seem to be confused by this "high-gravity" brew thread. There's a big difference between partial boil (which could also be called high-gravity boil) and high-gravity ferment. I believe that the original post that started this thread asked about what kind of compensation had to be made for a high-gravity ferment. Well, a number of brewers have posted that a higher gravity ferment will result in a beer with more esters. I have found this to be true, but have not tried diluting the resulting beer into a medium-gravity beer. I think what JC is asking about (as well as a couple of others) is a partial-boil recipe. One in which, say, 3-

gallons of wort are boiled and then this is diluted into a 5-gallon batch in the fermenter. You see, there's a big difference between diluting before fermentation and diluting after fermentation. In either case you need to use some math to figure out how much hops to add to achieve the bitterness

you want in the final beer. I suggest (although they are being disputed by some) that Jackie Rager's numbers in the Hops Special Issue of Zymurgy are still very good if you compensate, as I do, for hop bags and whole hops (adding 10% more if you use a hop bag and 10% more again if you use whole or plug hops in stead of pellets).

In both cases (partial boil and high-gravity ferment) you need to pick the IBUs you want and then use 5-gallons for the volume in the formula. When it comes to figuring the boil gravity, calculate it for the boil volume. For example: 6 lbs of Northwestern in 3 gallons of water will give you about a 1080 gravity boil. Use that for the gravity adjustment. Dr. Bob Technical's Amazing Wheel of Beer is great for approximating the contribution of a large variety of grains (beware that some extracts contribute a bit more points some less).

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Rich writes:

>I'm looking to purchase a few used carboys. I've tried some of the  
>local bottled water companies but they seem to use plastic these  
>days. The homebrew shops I've visited want \$16 to \$18 for a new  
>one. Can anyone suggest a different alternative?

Some water companies offer a choice of glass or plastic. Call around.

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Tony writes:

>After 5 all grain batches, I re-read Miller's "complete" book to see if  
it

>made more sense now (it did). I have a question about hop rates in a  
couple

>of his recipes (pages 213, 214). The format of these recipes is:

>

> xxx AAU hops



Date: Wed, 7 Jul 93 16:40:35 EDT  
From: Bruce=Kiley%SIG%SNI%sig@sni-usa.com  
Subject:

Does anyone have a set of plans of detailed description on how to build  
beer  
cases out of wood?

Please reply to [brucek@sig.sni-usa.com](mailto:brucek@sig.sni-usa.com)

Thanks in advance,

Bruce

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Date: Wed, 07 Jul 1993 16:43:46 -0400 (EDT)  
From: BILLOK@delphi.com  
Subject: HB Digest Back issue helpKK

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Date: Wed, 7 Jul 1993 17:16:00 -0400 (EDT)  
From: garvin@grebyn.com (Rick Garvin)  
Subject: Hop bags/mash Ph

korz@iepubj.att.com writes:

> Indeed hop particles will help with protein coagulation, but I feel  
> that you  
> should wait till after the hot break to add the hops in the first  
> place.  
> The last time I recall reading about this is in a post from Stuart  
> somewhere  
> around HBD 1150. My contention, as that mentioned by Stuart, is that  
> the  
> hops will do too-good a job coagulating proteins \*AROUND THEMSELVES\*  
> thereby  
> reducing the utilization. Now, if you wait till after the hot break, I  
> suggest that there will still be some coagulation of proteins around  
> the  
> hops, but not nearly as much as if the hops were added before the hot  
> break.  
>  
> Why does this matter? Well, the theory is that the protein coagulated  
> around the hops will reduce utilization. I have not done side-by-side  
> tests of this, but I do recall a significant increase in hop  
> utilization  
> when I began to wait for the hot break before adding the hops. I did  
> not  
> put the two together till someone on the HBD mentioned it.

There is another issue at stake here. These protein molecules are contributors to haze. We all like our beers to clear without filtering, so we want to use all of the tools we have to coagulate these proteins. If you place your hops in the wort before the boil and the hot break occurs you will not get the full benefit of the hot break. The hard resins from the hops will bind with protein molecules that would have otherwise coagulated without their aid.

For me the extra coagulation power is secondary to any added efficiency in utilization. I am also an avowed user of pelletized hops. I do not put my hops or my dates in bags.

Cheers, Rick

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Date: 8 Jul 1993 05:16:40 -0600

From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>

Subject: Keeping Soda Kegs Cool

For keeping kegs cool , there is a simple, low cost alternative to a bucket of ice- insulate! All you need is a larger version of the foam plastic single-can insulators that are popular among the canned beer crowd. The insulator I use is made from a polyethylene foam sleeping pad, of the type used by backpackers. These can be purchased at sporting goods stores for about ten dollars, and are big enough to make a couple of insulators, if you get one longer than about 55 inches. Use contact cement to join the ends of a piece of the pad, which has been cut to the proper width (the height of the keg) , and length (about 3/16" shy of having the ends meet when it's wrapped around the keg). To use the insulator, just slip it down over the top of the keg when you remove it from cold storage.

Martin Manning

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Date: Wed, 7 Jul 1993 15:51:26 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: Re: KQED Festival

I have one very serious objection to the way this festival is being run. That is the fact that it only runs for three hours. Who came up with that brilliant idea?

I have always found that the best brew/food festivals are the ones that allow you plenty of time to relax and enjoy the offerings. To charge \$30.00 for what is billed as the largest event of its kind, then to allow barely enough time to get started, is pretty bad.

Personally, I'll save my money for the smaller festivals that give you for fun and enjoyment.

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...And Rene Descartes was a drunken fart  
"I drink therefor I am!"

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: Wed, 07 Jul 93 21:44:04 EDT  
From: drwho2959@aol.com  
Subject: Home Brew U BBS: CHANGES!!

Announcing a new "campus" of the popular BBS dedicated exclusively to Home Brewing and Beer Appreciation:

HOME BREW U. - MIDWEST  
(708)705-7263, N,8,1  
1200-14400 bps, V.42bis

I plan to run the new campus in much the same manner as the old one. The focus is on BEER (making it, buying it, drinking it, and ENJOYING it! )

While a large library of beer-related files is available, the REAL strength of this BBS is in the quality of brewing knowledge contained in the message base. So please remember to take a look at the messages, and feel free to ask questions. Many novice brewers have gotten prompt help and advice from the HBU message base.

Beer lovers in the Southern USA should note that the original Home Brew U. continues to operate in Houston, Texas, with a new Sysop and a new phone number: (713)923-6418. Its name has been changed to 'Home Brew U - Southwestern Campus'.

\*-----\*  
| SysopAndrew Patrick Founder |  
| Home Brew U-Midwest Home Brew U-Southwest |  
| (708)705-7263Internet: andinator@delphi.com (713)923-6418 |  
\*-----\*

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Date: Wed, 7 Jul 93 23:16:57 EDT  
From: <geotex@engin.umich.edu>  
Subject: Specialty Products

Does anyone have any experience with Specialty Products Inc.? They have their "SuperBrau" malt extracts for \$80 for 12 3.1 lb. cans. They are %100 malt. Seems like a good deal to me. Any thoughts.

please reply by e-mail or post if you think it's of interest to others.  
Alex Ramos  
geotex@caen.engin.umich.edu

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Date: Thu, 8 Jul 93 01:24:08 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: water/racking tip/belgian ale

In HBD #1171 Mark Garetz writes:

> Forgive me for a bit of a tangent here, but this is kind of like why  
there  
> aren't really any good formulas for predicting bitterness based on all  
the  
> variables. The reason is that commercial breweries don't change their  
> process often.

...  
> So do they care to have a formula that they can plug in lots  
> of variables and get a reasonably accurate bitterness calculation? No.  
> So we don't have one either (yet).

A lot of it has to do with your water, and how it affects hop  
utilization. Boil Time / AAU tables are a start, but don't  
take water quality into account.

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>Mark Garetz <mgaretz@hoptech.com> writes:  
>err a bit on the high side when setting the tube depth. BTW, I have  
found  
>the "orange racking tip" thingy to be essentially worthless.

gotta disagree with this one. the orange racking tip thingy gets  
me at least 1/2" more clean wort out of a 5 gal carboy before it  
starts picking up trub (out of the post-boil pre-ferment wort,  
which doesn't cake down).

- - - - -

>I think the concensus is that brewing Belgian-style beers is tough to  
do,  
>and I'm sure that anyone who's seriously worked on this has had more  
than  
>their share of disappointments.

I can't seem to brew high-gravity ale that doesn't turn out belgian-  
like.  
High ferment temp is the big thing. Put an electric blanket around  
your fermenter for the first day or two. Add a pound of sugar or  
two, any type (but different tastes). If you add finish/dry hops, saaz  
works best. It's a lot easier to enjoy the irreproducible results than  
it is to worry about consistency. Relax and don't worry, because  
belgian ales are not well-defined and you can get away with a lot in  
a competition.

prosit!

bb

- - - - -

Date:Thu, 8 Jul 93 8:07:23 EDT  
From: "Peter J. Burke" (FSAC-PMD) <pburke@PICA.ARMY.MIL>  
Subject: Schlitz

Schlitz took an award at the GABF because it is a great beer. Just because it is not a microbrewery doesn't make it garbage.

My two cents.  
Pete Burke

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Date: 08 Jul 1993 08:16:08 GMT  
From: "Tom Stolfi" <WAUTS@cwemail.ceco.com>  
Subject: Copper Manifold System

From: Tom StolfiWAUTS - CWE1IIN  
To: Jeff Benjamin BENJI - CWEMAIL  
Subject: Copper Manifold System

Jeff,  
Since the HBD has been filled with the copper manifold/easy masher/zapap thread I thought I'd send you a note thanking you for your help. I have been using a copper manifold system for my two last batches (it works very well :-)) that is based on your design. I only changed one thing, instead of soldering a copper 1/2" to 3/8" reducer I purchased a larger (I can't recall the size) vinyl tube that fits over the 1/2" pipe. The vinyl tube needs to be heated in hot water in order to fit it on the copper pipe but creates an airtight fit. Using a large plastic hose clamp, with adjustable click stops, on the tightest setting that allows liquid to flow lauters six gallons in 45 minutes. The only drawback is that you need to brace the tubing where it comes out of the standpipe or it bends over. I used some copper wire and it worked OK but I am trying to come up with a better solution. I thought you might be interested in any modifications of your system. Thanks.

Tom Stolfi wauts@cwemail.ceco.com  
Commonwealth Edison Co Waukegan, IL

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Date: 8 Jul 93 04:04:57 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navy.mil>  
Subject: Siphoning

Message Creation Date was at 8-JUL-1993 08:44:00

Greetings,  
I recently brewed a relatively light batch which is still sitting in the primary fermenter. I plan to run an experiment on this beer. I will split the beer into two separate carboys for secondary fermentation. I will have a bed of raspberries in one of the carboys in the attempt to create a fruit beer without loosing the fruit aroma. In the other secondary carboy the beer will ferment w/o any fruit. This way I can compare and determine the exact contribution of the raspberries.

Now the questions:

1. Is 2 lb raspberries/gallon of beer a reasonable amount?
2. Should I use a Campden tablet overnight in the raspberries to prevent introducing any new bacteria in the secondary fermenter?
3. Siphoning: If I siphon first into one carboy and then into the second, I'm afraid I may end up with differing beers. I would think the first carboy would get the lighter beer and the second a heavier beer (and more trub remnants). I was thinking of a "Y" siphoning connector. The beer being siphoned would hit the "Y" connector and then branch out down two paths into the two carboys. I would end up using 3 lengths of 3/8 " tubing along with the "Y" connector to accomplish the siphon.  
Does anyone know if this would work, or is it doomed to abject failure?  
If it would work, does anyone know where I could procure a "Y" connector?

TIA

Andy A

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Date: Thu, 8 Jul 93 08:25 CDT  
From: othon@ial7.jsc.nasa.gov (Bill Othon.LinCom)  
Subject: Hops and hot break

Darren Aaberge discusses hops and hot break, and I have some questions:

- 1) from the FAQ file, what and when is hot break?
- 2) do you wait for hot break before adding bittering hops (the hops usually added at the beginning of the boil). Or are we talking aromatic hop addition here?

T-54 days till legal brewpubs in Texas....

-Bill  
// |\_\_| //  
===== / / --- | | --- / /  
Bill Othon <othon@ial7.jsc.nasa.gov> / / --- | | --- / /  
Tetherologist / /  
LinCom Corporation - Houston Division / //// //// /  
(713) 483-1858// / / //  
//

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Date: Thu, 8 Jul 1993 07:23:07 -0700 (PDT)  
From: John Brooks <jbrooks@u.washington.edu>  
Subject: Duval, Fuller's ESB and Full Sail Ales

In reply to the HBD inquiries of Domenick Venezia (6/30/93) and Tim Born (7/1/93) about recipes, I offer the following:

Duvel - Ingredients: pale malt; Saaz and Styrian hops (30 B.U.); top fermenting yeast; brewing sugar for bottle fermentation; O.G. 1.070, degrees Plato 17.5; 8.5% alcohol by volume; unpasteurized.

Fuller's E.S.B. (export) - Ingredients: pale ale and crystal malt; flaked maize; caramel and brewing sugar; Challenger, Northdown and Target bittering hops, Goldings aromatic hops; O.G. 1.060, degrees Plato 14.8 (ale that is kegged/casked for domestic consumption is O.G. 1.054); alcohol by volume 6.0%.

Redhook's E.S.B. is reputed to be a take-off on Fuller's (and at 50,000 barrels this year, successfully so) - Ingredients: 2-row Klages malt, caramel malt (60L); Willamette and Tettnanger hops; O.G. 1.054; 4.3% alcohol by weight; no pasteurization; another interesting point about all of Redhook's products is that carbonation comes from their primary fermentation in airtight vessels (no secondary fermentation, bottle fermentation or CO2 injection).

Full Sail Golden Ale - Ingredients: Oregon 2-row Klages malt, caramel and Cara-pils malt; Oregon Tettnanger and Halletauer hops.

Full Sail Amber Ale - Ingredients: 2-row pale malt, caramel and chocolate malts; Kent Goldings and Willamette hops.

The source for the info on Duvel and Fuller's is "The European Beer Almanac" by Roger Protz, 1991, Lochnar Publishing, Scotland. The sources for Redhook and Full Sail are those companies published product sheets.

I would be interested any more detailed info anyone may have on Full Sail Amber (O.G.'s, B.U.'s, etc.). When I downloaded Cat's Meow, I found a reference to Full Sail Amber in the index, but not in the text. Please post or reply to private e-mail.

John Brooks  
jbrooks@carson.u.washington.edu

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Date: Thu, 8 Jul 93 10:14:34 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Hunter Airstats are a myth!

Greetings.

I've just recently started lagering, and I found it impossible to find a Hunter Airstat anywhere in the Milwaukee, Wisconsin area. Everyone I talk to at home supply type stores (Menards, etc) give me that look of "Yeah, right, temperature controller...uh huh....sure....that's OK" You know, that look.

Anyway, if someone could e-mail me an address or phone number for Hunter, or a mail-order source for these things, I'd appreciate the heck out of it.

On another note: I've got 33 pounds of strawberries ordered, anyone have a good recipe for a strawberry ale, wine, mead, or whatever? Thanks!

Dave Hinz

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Date: Thu, 8 Jul 93 09:10:13 -0700  
From: sag5004@yak.ca.boeing.com (Ford Prefect)  
Subject: Summary of a large scale home system

I guess that I have waited long enough for the replies to trickle in... The executive summary was lots of "me too" replies :-)

Basically when you scale up in size you need to think long and hard about the following:

Anything >1bbl will you will probably need pumps (or a very tall gravity system :-) And need to make sure you can move around large quantities of hot fluids in a timely maner.

How to handle large amounts of grain, floorspace and other bits. e.g. How do you crush and handle and dispose of a the huge amount of grain you will be using.

I was warned to not forget about losses (of product) in the transfer and handling process.

One person wrote that he would write up his experiences in brewing in a 2bbl brewhouse when he get a spare moment. Look for it in an upcoming issue of the HBD... (sorry, I don't know when)

"It is not as easy as one might think to design a plug and play system of this size." I know that the system that I use now has sort of evolved to what it is now, and the problem with doing this in a large scale is that it gets expensive fast.

- - - - -  
A couple of people replied with stuff that they have for sale. All has been posted in the HBD

A guy in Ohio has a 112 SS vessel, and another guy Arizona has a few leftover pieces (kegs, boiler and vessel, and a fermenter) [Sorry I am not posting their names because I didn't ask permission too]

- - - - -  
It appears that boiler geometry is use whatever is convenient to fabricate or buy. You should stick to using standard sizes of stainless sheets ( basically 4x 6,8,or 10 feet) because this stuff is \$\$\$ and you don't want to waste any.

I was warned against getting the lauter geometry 'too vertical' and was given a rough number of 1-3 feet is a good depth for a grain bed.

Sorry, about the disjointed ramblings, but this is what I know at this time.  
I was really hoping that there would be a journal article I could read, but  
no such luck :- ( I will report back periodically if I learn anything new.

Thanks to

Scott Wisler (swisler@c0431.ae.ge.com)  
Jim Busch (busch@daacdev1.stx.com)  
Kinney Baughman (baughmankr@conrad.appstate.edu)  
Ray Brice (ray@hwr.arizona.edu)

and to the many nameless others that I accidently deleted.

Later,

ps. I am getting married on the 24th so I wont be reading my mail for a couple of weeks after that.

stuart galt boeing computer services  
sag5004@yak.boeing.combellvue washington  
(206) 865-3764 or home (206) 361-0190  
#include <standard/disclaim.h>  
I don't know what they say, they don't know what I say...

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Date: Thu, 8 Jul 93 09:42:18 PDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 08-Jul-1993 1228  
<macneal@pate.enet.dec.com>  
**Subject: More on "sparging" and light extracts**

>Date: Tue, 29 Jun 1993 12:10:00 -0400 (EDT)  
>From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
>Subject: Bits and pieces

>Hi ya'll!

>Keith mentions:  
>>Charlie Papazian in TCJOH refers to the dumping of the wort through a  
strainer  
>>into the fermenter to remove the hops and any other particulates as  
sparging.

>And I disagree with the esteemed CP on this. While I'm not one who  
>thinks you need to rack off the cold break before fermentation begins,  
>I do believe you need to get as clear a runoff as possible off the hot  
>break when going to the fermenter.

I was merely trying to point out that CP called this sparging which is  
probably what the original poster meant when he used the term.

By the way, it seems to me that you agree with CP on this. The  
"sparging" of  
the wort into the primary seems to remove most of the hotbreak material  
along  
with the hops.

>>This might be the source of the confusion. He also recommends scooping  
out  
>>the specialty grains just prior to the wort coming to a boil.

>Hmm... The conventional wisdom here is to remove the grains at 170  
>degrees to avoid leaching tannins into the wort. Waiting until just  
>before the boil is too long.

This sounds like a momily to me. I haven't noticed an astrigency problem  
with  
beers I've made to date using this method and I know of several other  
brewers  
who use this method with success.

>Date: Tue, 29 Jun 93 10:39:32 PDT  
>From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)  
>Subject: storing kegs and sanitizing fermeter lids

>Here's a few of questions for the experts :

>1) I haven't been able to find a good way to immerse my fermeter lid (a  
> 5 gallon white plastic bucket with snap on lid) in the sanitizing  
> solution. I can distort the bucket and jam the lid in part way,  
> but this could scratch the sides of the bucket and besides does  
> not totally immerse the lid. Also, I don't have any other vessel  
> larger than the bucket. I've been splashing the sanitizing solution  
> all over the lid in the hopes that the contact time is long enough.  
> Is it ? Do I need to buy a larger soaking vessel ?

I simply fill the primary up to capacity and snap on the lid and let it soak.  
Just before I'm ready to go, I wipe down the lid with a sponge that has been soaking in the sanitizing solution. Seems to work OK so far. Wiping stuff down was recommended by a local supply shop. I think the physical action of the wipe would offset the minimal contact time.

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>Date: Tue, 29 Jun 93 12:43 EDT  
>From: LYONS@adc2.adc.ray.com  
>Subject: Light (Lovibond) Extract

>I seem to recall some HBDers complaining that the American Eagle  
>dry extract product had significant amounts of corn sugar mixed in  
>with the malt. This would certainly make a light beer, but it may  
>be better to stay with a quality extract, such as M&F or Laaglander,  
>which claims to be all malt.

I hadn't heard that. I've used American Eagle for a few batches and noticed no characteristic cidery taste. It also claims to be all malt. The use of corn sugar might explain the low price, though.

Keith A. MacNeal  
Digital Equipment Corp.  
Hudson, MA

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End of HOMEBREW Digest #1178, 07/09/93  
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Date: Thu, 8 Jul 93 12:37:51 -0400  
From: Rich Ryan <ryancr@install4.swin.oasis.gtegs.com>  
Subject: flat beer

Let me start by saying I'm a neophyte in the homebrew field. I just bottled my first batch three weeks ago. The beer tastes fine other than being somewhat flat.

Papazian's troubleshooting section came to two conclusions:  
1) I left an excessive amount of sterilant in the bottles or  
2) I'm storing the beer at excessively cool temperatures.

I used B-brite to sanitize the bottles and equipment and was very diligent to make sure I washed it all off. As far as storing the beer goes, it hasn't gone below 70 since it was bottled. Can anyone suggest any other possible reasons for the lack of carbonation?

I also read somewhere else in Papazian's book that you should leave about an inch of air space in each bottle. I noticed that I have more like two inches of air space in each bottle. Could this have some effect on the carbonation. It would seem that as I increase the air space in each bottle the carbonation should increase as well.

Rich Ryan

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Date: Thu, 8 Jul 93 09:59:50 PDT  
From: rush@xanadu.llnl.gov (Alan Edwards)  
Subject: A Handy Table for Keg Pressure

Hello fellow brewmeisters,

While we're on the subject of kegging and pressure, I've come up with a formula and a table for determining what pressure to apply to achieve a certain carbonation level. I believe that this table is more useful compared to the other table that has appeared on the HBD and elsewhere. It's smaller (fits easily in an 80 column window), but contains all the needed information in a more obvious arrangement. (It makes more sense to me to ask "what pressure do I need" rather than "what do I get if I use this pressure"). Besides, it can do any temperature.

You can print the table out and stick it in your brewing logbook or on the side of your kegs.

#### TABLE

Look at the row that corresponds to your keg temperature, and read the number at the column corresponding to the desired carbonation level. That number is the pressure to apply to the beer, in PSI.

#### PRESSURE REQUIRED FOR DESIRED CARBONATION

| Volumes of CO2 desired |      |      |      |      |      |      |      |      |      |      |      |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Temp                   | 2.0  | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
| 32F                    | 3.5  | 4.4  | 5.4  | 6.3  | 7.3  | 8.2  | 9.2  | 10.1 | 11.0 | 12.0 | 12.9 |
| 34F                    | 4.3  | 5.3  | 6.3  | 7.3  | 8.2  | 9.2  | 10.2 | 11.2 | 12.1 | 13.1 | 14.1 |
| 36F                    | 5.1  | 6.2  | 7.2  | 8.2  | 9.2  | 10.2 | 11.2 | 12.3 | 13.3 | 14.3 | 15.3 |
| 38F                    | 6.0  | 7.0  | 8.1  | 9.1  | 10.2 | 11.2 | 12.3 | 13.3 | 14.4 | 15.4 | 16.5 |
| 40F                    | 6.8  | 7.9  | 9.0  | 10.1 | 11.2 | 12.3 | 13.4 | 14.4 | 15.5 | 16.6 | 17.7 |
| 42F                    | 7.7  | 8.8  | 10.0 | 11.1 | 12.2 | 13.3 | 14.4 | 15.5 | 16.7 | 17.8 | 18.9 |
| 44F                    | 8.6  | 9.7  | 10.9 | 12.1 | 13.2 | 14.4 | 15.5 | 16.7 | 17.8 | 19.0 | 20.1 |
| 46F                    | 9.5  | 10.7 | 11.8 | 13.0 | 14.2 | 15.4 | 16.6 | 17.8 | 19.0 | 20.2 | 21.3 |
| 48F                    | 10.4 | 11.6 | 12.8 | 14.0 | 15.3 | 16.5 | 17.7 | 18.9 | 20.1 | 21.4 | 22.6 |
| 50F                    | 11.3 | 12.5 | 13.8 | 15.0 | 16.3 | 17.6 | 18.8 | 20.1 | 21.3 | 22.6 | 23.8 |
| 52F                    | 12.2 | 13.5 | 14.8 | 16.1 | 17.3 | 18.6 | 19.9 | 21.2 | 22.5 | 23.8 | 25.1 |
| 54F                    | 13.1 | 14.4 | 15.7 | 17.1 | 18.4 | 19.7 | 21.1 | 22.4 | 23.7 | 25.0 | 26.3 |
| 56F                    | 14.0 | 15.4 | 16.7 | 18.1 | 19.5 | 20.8 | 22.2 | 23.6 | 24.9 | 26.3 | 27.6 |
| 58F                    | 15.0 | 16.4 | 17.8 | 19.2 | 20.6 | 21.9 | 23.3 | 24.7 | 26.1 | 27.5 | 28.9 |
| 60F                    | 15.9 | 17.3 | 18.8 | 20.2 | 21.6 | 23.1 | 24.5 | 25.9 | 27.4 | 28.8 | 30.2 |
| 62F                    | 16.9 | 18.3 | 19.8 | 21.3 | 22.7 | 24.2 | 25.7 | 27.1 | 28.6 | 30.0 | 31.5 |
| 64F                    | 17.8 | 19.3 | 20.8 | 22.3 | 23.8 | 25.3 | 26.8 | 28.3 | 29.8 | 31.3 | 32.8 |
| 66F                    | 18.8 | 20.3 | 21.9 | 23.4 | 25.0 | 26.5 | 28.0 | 29.6 | 31.1 | 32.6 | 34.1 |
| 68F                    | 19.8 | 21.4 | 22.9 | 24.5 | 26.1 | 27.6 | 29.2 | 30.8 | 32.4 | 33.9 | 35.5 |
| 70F                    | 20.8 | 22.4 | 24.0 | 25.6 | 27.2 | 28.8 | 30.4 | 32.0 | 33.6 | 35.2 | 36.8 |
| 72F                    | 21.8 | 23.4 | 25.1 | 26.7 | 28.4 | 30.0 | 31.6 | 33.3 | 34.9 | 36.5 | 38.2 |
| 74F                    | 22.8 | 24.5 | 26.2 | 27.8 | 29.5 | 31.2 | 32.9 | 34.5 | 36.2 | 37.9 | 39.5 |
| 76F                    | 23.8 | 25.5 | 27.2 | 29.0 | 30.7 | 32.4 | 34.1 | 35.8 | 37.5 | 39.2 | 40.9 |
| 78F                    | 24.9 | 26.6 | 28.4 | 30.1 | 31.8 | 33.6 | 35.3 | 37.1 | 38.8 | 40.5 | 42.3 |
| 80F                    | 25.9 | 27.7 | 29.5 | 31.2 | 33.0 | 34.8 | 36.6 | 38.3 | 40.1 | 41.9 | 43.7 |

#### PRESSURE REQUIRED FOR DESIRED CARBONATION

Volumes of CO2 desired

| Temp | 2.0  | 2.1  | 2.2  | 2.3  | 2.4  | 2.5  | 2.6  | 2.7  | 2.8  | 2.9  | 3.0  |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 01C  | 4.2  | 5.2  | 6.2  | 7.2  | 8.1  | 9.1  | 10.1 | 11.1 | 12.0 | 13.0 | 14.0 |
| 02C  | 5.0  | 6.0  | 7.0  | 8.0  | 9.0  | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 |
| 03C  | 5.7  | 6.8  | 7.8  | 8.9  | 9.9  | 10.9 | 12.0 | 13.0 | 14.0 | 15.1 | 16.1 |
| 04C  | 6.5  | 7.6  | 8.6  | 9.7  | 10.8 | 11.9 | 12.9 | 14.0 | 15.1 | 16.1 | 17.2 |
| 05C  | 7.3  | 8.4  | 9.5  | 10.6 | 11.7 | 12.8 | 13.9 | 15.0 | 16.1 | 17.2 | 18.3 |
| 06C  | 8.1  | 9.2  | 10.3 | 11.5 | 12.6 | 13.7 | 14.9 | 16.0 | 17.1 | 18.2 | 19.4 |
| 07C  | 8.8  | 10.0 | 11.2 | 12.3 | 13.5 | 14.7 | 15.8 | 17.0 | 18.2 | 19.3 | 20.5 |
| 08C  | 9.6  | 10.8 | 12.0 | 13.2 | 14.4 | 15.6 | 16.8 | 18.0 | 19.2 | 20.4 | 21.6 |
| 09C  | 10.4 | 11.7 | 12.9 | 14.1 | 15.4 | 16.6 | 17.8 | 19.0 | 20.3 | 21.5 | 22.7 |
| 10C  | 11.3 | 12.5 | 13.8 | 15.0 | 16.3 | 17.6 | 18.8 | 20.1 | 21.3 | 22.6 | 23.8 |
| 11C  | 12.1 | 13.4 | 14.7 | 16.0 | 17.2 | 18.5 | 19.8 | 21.1 | 22.4 | 23.7 | 25.0 |
| 12C  | 12.9 | 14.2 | 15.6 | 16.9 | 18.2 | 19.5 | 20.8 | 22.1 | 23.5 | 24.8 | 26.1 |
| 13C  | 13.7 | 15.1 | 16.4 | 17.8 | 19.2 | 20.5 | 21.9 | 23.2 | 24.5 | 25.9 | 27.2 |
| 14C  | 14.6 | 16.0 | 17.4 | 18.7 | 20.1 | 21.5 | 22.9 | 24.3 | 25.6 | 27.0 | 28.4 |
| 15C  | 15.4 | 16.8 | 18.3 | 19.7 | 21.1 | 22.5 | 23.9 | 25.3 | 26.7 | 28.1 | 29.6 |
| 16C  | 16.3 | 17.7 | 19.2 | 20.6 | 22.1 | 23.5 | 25.0 | 26.4 | 27.8 | 29.3 | 30.7 |
| 17C  | 17.1 | 18.6 | 20.1 | 21.6 | 23.1 | 24.5 | 26.0 | 27.5 | 29.0 | 30.4 | 31.9 |
| 18C  | 18.0 | 19.5 | 21.0 | 22.6 | 24.1 | 25.6 | 27.1 | 28.6 | 30.1 | 31.6 | 33.1 |
| 19C  | 18.9 | 20.4 | 22.0 | 23.5 | 25.1 | 26.6 | 28.1 | 29.7 | 31.2 | 32.7 | 34.3 |
| 20C  | 19.8 | 21.4 | 22.9 | 24.5 | 26.1 | 27.6 | 29.2 | 30.8 | 32.4 | 33.9 | 35.5 |
| 21C  | 20.7 | 22.3 | 23.9 | 25.5 | 27.1 | 28.7 | 30.3 | 31.9 | 33.5 | 35.1 | 36.7 |
| 22C  | 21.6 | 23.2 | 24.9 | 26.5 | 28.1 | 29.8 | 31.4 | 33.0 | 34.6 | 36.3 | 37.9 |
| 23C  | 22.5 | 24.2 | 25.8 | 27.5 | 29.2 | 30.8 | 32.5 | 34.1 | 35.8 | 37.5 | 39.1 |
| 24C  | 23.4 | 25.1 | 26.8 | 28.5 | 30.2 | 31.9 | 33.6 | 35.3 | 37.0 | 38.7 | 40.3 |
| 25C  | 24.3 | 26.1 | 27.8 | 29.5 | 31.3 | 33.0 | 34.7 | 36.4 | 38.1 | 39.9 | 41.6 |

#### REFERENCE

Volumes of CO2:

British style beers = 2.00 - 2.40

Most other beers = 2.40 - 2.85

High-carbonation beers = 2.85 - 2.95

#### FORMULA

If you use a spreadsheet or a programmable calculator for your brewing endeavors, this formula works very well (it was used to create the table):

Pressure = F(Temperature, Volume)

$$P = -16.6999 - 0.0101059 T + 0.00116512 T^2 + 0.173354 T V + 4.24267 V - 0.0684226 V^2$$

#### C-SHELL

For you Unix users, here's the above formula converted to a C-shell script called "pressure":

```

-----CUT-HERE-----
-----
#!/bin/csh -f

if ($#argv != 2) then
    echo "pressure: calculate pressure needed to acheive a certain volume"
    echo " of CO2 in solution."
    echo "Usage: pressure volume temperature (F)"
    exit 1

```

```
endif

set vol = $1
set temp = $2

set eqn1 = "scale=2;(-16.6999-0.0101059*$temp+0.00116512*$temp*$temp+0.
173354"
set eqn2 = "*$temp*$vol+4.24267*$vol-0.0684226*$vol*$vol+.005)/1"
set pressure = `echo "$eqn1$eqn2" | bc`

echo "To get $vol volumes of CO2 into solution at $temp degrees F, you
need:"
echo "$pressure PSI"
-----CUT-HERE-----
-----

Have fun,
-Alan

┌ Alan Edwards: rush@xanadu.llnl.gov | Member: The Hoppy Cappers
└ or: Alan-Edwards@llnl.gov | homebrew club, Modesto, CA
└-----
```

Date: Thu, 8 Jul 93 10:16:59 PDT

From: ghultin@sfu.ca

Subject: yeast FAQ/filters/temps

I certainly would like a yeast FAQ. I think that would be a tremendous help for new/intermediate brewers and for those like me who simply want to learn more. FAQs make a great place to learn enough to ask intelligent questions.

I have a question about filtering beer. Out of curiosity, I just made some quasi-czech pilsner at a U-Brew-It-Here place, and they of course filter their beer to get that commercial look. Why should I filter, or not filter my homebrew? What would it do for my beer? (by the way, I have chosen not to patronize those brew-places again, they charge exhorbitant rates).

Finally, I would like some information on warm temp brewing. If brewing ales, what are the consequences of fermenting between 18-24 degrees C? My apartment is not air-con. nor do I have a basement (!). Is bacterial contam. my main worry, or will I develop some interesting, but perhaps 'out of style' flavours?

geoff.

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Date: Thu, 08 Jul 1993 10:31:37 -0700 (MST)  
From: cjohnm@ccit.arizona.edu (John Mare)  
Subject: India Pale Ale's

In a recent discussion on India Pale Ales (IPA's) the assertion was made that these are all high gravity ales. Conventional wisdom tells us that these ales were brewed at high gravity to allow them to travel well (ie. by ship to India), and our US beer competitions persist in defining IPA's as medium to high gravity (OG 1050 to 1065). It is interesting to observe, however, that in their land of origin IPA's are not in fact high gravity ales. Some of the truly outstanding examples of this type which I tasted on a recent beer tour of The British Isles include "Palmer's IPA" (Dorset, OG 1039, ABV 4.3%), "Robinwood IPA" (Yorkshire, OG 1040, ABV 4.2%), "Younger IPA" (Edinburgh, OG 1043, ABV 4.5%), "R&D Deucher's IPA" (Edinburgh, OG 1048, ABV 3.9%), and "Thompson's IPA" (Devon, OG 1045, ABV 4.6%). The Palmer's IPA has won the "Beer of th Show Award" at a British Guild of Beer Writer's beertasting, attesting to the fact that in Great Britain an ale with an OG of 1039 can both qualify as an IPA, and win awards. Perhaps we should focus less on categories and their physical parameters, and more on the sheer joy of producing fine ales fitting the broad spectrum of taste and aroma nuances found in the "real ales" of Britain.

John M. of "John's Alehouse", where "the ale cures what ails ye"!

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Date: Thu, 8 Jul 93 12:51 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Steam Kettle

>From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)

>The principle advantages of using steam to heat your wort are  
1. Speed. Since steam has about 6 times more latent heat than water at  
the same temperature, it will bring 10 gallons of liquid to a boil in a  
few  
minutes.

That presumes you have an infinite supply of steam. If you use the same  
burner to create the steam that you would have used to just heat the  
wort,  
you gain nothing.

If you have a burner that produces enough steam to bring ten gallons of  
liquid to a boil in a few minutes, you might just as well put the kettle  
on  
it.

> 2. Ability to maintain a rolling boil without having to worry about  
scorching.

Scorching is only a problem in mashing as a rolling boil by itself  
precludes  
it. You may be referring to caramelizing in the boil but that is easily  
controlled by the amount of heat applied.

Sorry but the steam jacketed brew kettle for the homebrewer sounds like  
a  
very complicated and expensive solution to a problem that does not  
exist.

That is not to say however, that if it turns you on, go for it. After  
all,  
there are the RIMS fundamentalists out there so why not steam boilers in  
the  
kitchen?

js

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Date: Thu, 8 Jul 93 13:00:31 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Farmer/Engineer etc.

Salutations!

When I made that comment about Farmers making wine and Engineers making beer, I was just saying that the creation of beer is more intricate than the production of wine. The fermentables are already present in wine, as Brewers, we must coax sugars out of the grains. Granted, winemaking doesn't seem easy, but I think brewing has the capacity for more complexity.

I also have a comment for the fellow who has the most unfortunate infection problem. I noticed you mentioned sanitizing everything you use, but didn't say you do anything to the yeast packet itself. I dunk mine in bleach water for a while before opening. I cut the packet with a recently bleached pair of scissors. Just a comment. I hope you work it out.

How many people brew in their basements? Unless it's an enclosed room, I can't see as it would be very sanitary at all. Most of them are a little damp, dark, and although not warm, a constant temp. I think someday I'll have a brew set up in a basement, but I've always thought of sheet rocking off a room and putting ceramic tile on the floor and waist coat.

Gene in Duluth (Soon moving to Laramie, WY (I don't know why...) :)

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Date: Thu, 8 Jul 93 13:18 CDT  
From: fjdobner@ihlpb.att.com  
Subject: AdvertisingWyeast

Among other thing yesterday, Drew Lewis said:

>..... 3) Let the  
>Wyeast package swell until you are sure it will burst, then a little  
>more. Get that population as high as possible before exposing it to  
>your environment.

My exeperience with letting the Wyeast go the extent of bursting has been poor. My original orientation was to treat the directions of letting the package swell to 1" as a minimum and anything greater than that was so much the better. I found that once the package is about to burst the yeast do not respond well in a starter environment. Has anybody else found that to be true?

Again Drew says:

> How about this: Once a month, each person who sells a product may  
>post a "I sell this product" message. No claims, no hype, no prices,  
>no details, just a clear statement of intent to sell. Interested  
>parties may then send them private email requesting info on their  
>product. These people should then refrain from taking part in  
>discussions on their or competing products. People with personal or  
>financial interest (close friends of sellers, etc) should show similar  
>restraint. Recomendations from satisfied customers in responses to  
>queries from other list members would always be welcome.

I agree wholeheartedly with this recommendation. This would perform many services to us in this forum. It would allow the commercialists (me being one) to do their thing in a confined marketplace, would restrict commercial behaviour to what would be strictly proper and improper, provide product information to customers, and allow the real artists and scientists here their needed airtime to talk about their hobby/pastime/professions. I have truly restrained myself in all the highly shrouded pursuits of customers on the HBD and I feel good about that. I want others to do the same, however I see some of us want commercials and some do not. Drew's recommendation is an excellent one. There was also one just like it by someone else last week (sorry that I cannot give you credit as well but I cannot remember your name).

Dear Moderator,

I hereby propose the implementation of the above recommendation. How do we proceed? Shall I contact you directly?

Frank

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Date: Thu, 08 Jul 93 14:27:13 EDT  
From: Elaine <EBORIS@UGA.CC.UGA.EDU>  
Subject: re: Specialty Products Intl

About the review of "Home Beermakers Guide" by Leigh P. Beadle

Sad but true:

When I first tried my hand at brewing over 10 years ago I bought an equipment kit which included Superbrau and L.P. Beadle's ~guide~. Looking back, I am amazed that I didn't get any truly BAD beers from following his advice. It took some time (and much better books on homebrewing) to rid myself of bad brewing techniques I gotten from that book.

I wish that ~guide~ had been a joke, but no laughs, it just makes me angry thinking about it.

Elaine Boris      Student Information Systems  
Computer Services Specialist      University of Georgia  
706 542-0484      Athens Georgia

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Date: 8 Jul 93 13:13 CST  
From: Wolfe@act-12-po.act.org  
Subject: Not enough body & Brewpubs

I recently got into homebrewing (plan on doing my fifth batch this evening). I have two questions. The first has to do with body. I like my beer "chewy" (or so my wife claims). None of my beers have been as full-bodied as I would like. How do I increase the body of the beer without necessarily increasing the alcohol content? Can I use dextrine malt without mashing it? What about Lactose?

The second question may be due to a related problem. None of my Original Specific Gravities have been as high as I'd expected (given similar recipes I've seen). For example, my last batch was a stout (6 lbs. of dark liquid extract, 1 lbs. of dark dried extract, and .75 lbs. each of crystal malt (L50), black barley, and roasted barley; along with about a couple of ounces of Northern Brewer's hops). I estimated the Original Specific Gravity to be around 1.042 which was lower than I'd expected. What could be causing this? I may be putting too much water in the fermenter. I start my boil with 3.5 gallons, and I typically fill up the 5 gallon carboy with water and the boiled wort (thus compensating for the amount that evaporated during the boil). Could it be due to the type of extract I'm using? Could it be my water? (I have a Culligan water softener.) Could it be due to my estimation method? (I add a little to the SG reading for each degree over 60F according to the error estimates Charlie P. gives in his book. I think it is somewhere around 0.003 for each degree. I can't remember because I've got the formula in a database cell somewhere.)

Finally, I am taking two trips soon and would like some information on brewpubs. Can anybody suggest brewpubs worth visiting in Louisville, KY or in San Francisco, CA?

Ed Wolfe  
WOLFE@ACT-12-PO.ACT.ORG  
Iowa City, IA

---

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Finally, I am taking two trips soon and would like some information on brewpubs. Can anybody suggest brewpubs worth visiting in Louisville, KY or in San Francisco, CA?

Ed Wolfe  
WOLFE@ACT-12-PO.ACT.ORG  
Iowa City, IA

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Date: Thu, 8 Jul 93 19:26:01 GMT  
From: ccicpg!brian@uunet.UU.NET (Brian Davis)  
Subject: Re: Besieged by baleful bacteria

In HBD 1177 Drew Lynch talks about preventing infections...

>Let the Wyeast package swell until you are sure it will burst,  
>then a little more. Get that population as high as possible  
>before exposing it to your environment.

The guy who runs our local homebrew shop talked about Wyeast at our last club meeting. He said that your best bet is not to pop the nutrient pouch inside the Wyeast package. He suggests that you just cut open the outer package, and pour the yeast into a sterile starter.

He does this because the Wyeast nutrient appears to be infected. Maybe they can't sterilize the nutrient without destroying it. He claims that if you leave the nutrient pouch sitting on a warm kitchen counter, it will swell up on its own -- and not with yeast!

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Date: Thu, 8 Jul 93 15:36:46 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: Burners for Culturing

Does anyone know of a source of burners for use in yeast culturing? I have an "alcohol lamp" (a vessel with a large "wick" in it) but would like to find a burner with a more constant/controllable flame.

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Thu, 08 Jul 93 14:35:29 PDT  
From: Gary Rich <garyrich@qdeck.com>  
Subject: Priming with Maple syrup

> In HBD# 1174, Jonathan Knight of Grinnell, Iowa reminds me of my latest attempt at a maple beer:

>

> >There seems to be an abiding interest in maple syrup in the HBD. I haven't

> >done it, but have often thought of priming a light ale with it. I'm not

> >crazy about using large amounts in the boil because of the cost and because

> >it seems that such a delicate flavor would be destroyed that way. Can

> >anybody report on how much maple character is imparted by priming, and how

> >much syrup to use for this procedure?

>

> In my latest attempt at this I made a dry stout with

> #7 Domestic 2-row

> #1 flaked barley

> #1 roast barley

> #1 Vermont fancy grade light maple syrup (not that 2% stuff)

> 1.5 oz Northern Brewer @ 60min.

> Wyeast Irish Ale

>

> The syrup being added ~3 minutes before I turned off the fire. I racked and

> bottled as usual and primed with 3/4 cup of the same syrup. The resulting beer

> had absolutely no maple character at all. What it did have was a big hole

> in the flavor where the maple was planned to be. It also gushed (this is too

> much syrup to prime with) and had too much roast barley tang. None of this

> stopped my wife and I from drinking it. My wife commented that she liked

> the strong roastiness.

>

> Unless I can get a quantity of of very dark maple, I don't think I'll try

> this again. The light stuff just seems to all ferment out. I still think the

> idea of priming with it is a good one, but use a dark syrup that will have

> a higher percentage of non-fermentable sugars.

>

> Gary Rich garyrich@qdeck.com

>

>

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Date: Wed, 7 Jul 93 17:35:13 -0400  
From: rxh6@po.CWRU.Edu (Randall Holt)  
Subject: Sparge Manifold/100% Wheat Beer/Balling vs. SG

I don't contribute often to this newsletter, but I have a few things of interest:

#### Sparge Manifold

I, also, have built and used the sparge manifold suggested by Jeff Benjamin back in the 3/16/93 HBD and discussed in recent issues. One difference in construction, he suggests half-slots every 2 cm, I made half slots every 0.5 cm. The outflow rate was way too high, but can be restricted with a screw clamp at the tygon-tube siphon. I felt that adding more slots would create more evenly distributed flow throughout the grain, and improve the sparged leeching of maltose sugars from the grain. With only two all-grain batches under my belt, and as both used the sparge-manifold system, I wouldn't call myself an expert, but I'm happy. I am planning to install a drain spigot in my mash vessel, as siphon starting 158F liquor can really scorch the lips.

#### 100% Wheat Beer

Last winter I asked about 100% wheat malt, for use in an experimental brew, specifically to benefit a poor afflicted friend who is allergic to barley. Many responded that Ireks sells such, but I was worried that some barley was used in the mashing to provide a-amylase enzyme. So, I made the jump to full-grain (see above) in order to be certain that no barley contaminants would be included. But, based on helpful hints from HBDers, the a-amylase content of malted wheat is low, and so I used a bit of fungal-extract a-amylase enzyme (at your local brew-shop/mail outlet) which I think is used in sake fermentation (?). Well, the extract rate came to 29 points ( a tad low, possibly the enzyme), the wort fermented in the primary for 4 days and 2 weeks in the secondary, bottled up at about 4.5% EtOH. Taste? Well, it tastes like a tangy whole-wheat bread, with a little alcohol. I fed some to my barley-allergic friend, who smacked his lips, drank another sip and set the bottle down. He did not go into anaphylaxis, but did leave the other 35 bottles of wheat-beer behind. Personally, I couldn't blame him, but I like the flavor of barley. Not to let it go to waste, I tried mixing an older porter with two wheats - dynamite dark wheat. So, it wasn't a total loss, but I wouldn't suggest anyone bother with the 100 % wheat recipe - maybe some maple or honey might give a different flavor, but I'd guess that it just transforms the Wonder Bread flavor into Pancakes with maple syrup flavor.

#### Balling (brix)/Specific Gravity Conversions

A couple of weeks ago Pfr. Fix requested the conversion of Balling sugar density units to specific gravity units. He had a second order fit, something like  $P = -205.347 \cdot (SG-1) \cdot (SG-2.25)$  (my factoring), which he inverted via Newtons approximation to get a  $SG=f(P)$  function. The question Dr. Fix had, was (paraphrased) 'Was there a reason for this function, and did it have some historical significance?'

I think that the significance is evident in the definition of;  
" Balling Saccharometer shows directly the per cent of sugar  
(sucrose) by weight at the temperature indicated on the instrument,  
usually  
17.5 degrees." from CRC HBDK on Chem/Phys. under Hydrometers and  
Density  
Units.

An table of %Wt vs. Specific Gravity vs. grams solute/liter  
solution is given in CRC under Specific Gravity of Aqueous Invert  
Solutions, where the %Wt (== Balling points) vs. specific gravity  
fits very closely to Dr. Fix's noted 2nd order fit. I believe, then,  
(and this is purely a guess) that the historical reasons for the  
Balling/SG curve are largely phenomenological, i.e. add sugar up to  
percentage of sugar byweight, then measure specific gravity.  
Although SG can be determined from partial fractions and pure SG's  
at varying temps (and will eventually lead to an approximation of  
the above 2nd order fits - an exercise which I leave to the reader),  
SG's vary; the most accurate method depends on laboratory readings.

Again, this last bit is pure conjecture, based on extrapolated  
speculation.

My 0.02 on NetAdverts vs. NetComplaints

Frankly, I'd rather ignore a couple of blatant capitalists than suffer  
through megabytes of pissing and moaning about abusing the nets.  
If you are pissed off at someone for NetAbuse, then flame them,  
not the rest of us on the HDB.

BIBO ERGO SUM

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Randall W. Holt rxh6@po.cwru.edu

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Date: Thu, 8 Jul 1993 15:36:26 -0700  
From: Leo Reilly <zanadu@well.sf.ca.us>  
Subject: Guinness

I am sure that this has already been answered but I have been unable to find an explanation in previous postings.

1. Does the NO2 cartridge in the canned Guinness affect more than just the head of the brew? It seems to me that the canned Guinness is alot smoother and less bitter than the traditional bottled stuff.
2. What does the nitrous oxide actually do to the beer? I.e. how does it interact with the brew to give the creamy head and the smoother taste.
3. Is any other brewer using the NO2 cartridge? If so, who?
4. Would it make sense to use the NO2 cartridge in any other brew (lambic? porter? scottish ale?)
5. Are any home brewers using the NO2 cartridge for their homebrew, or contemplating trying it?

I apologize if I am covering old ground, but "enquiring minds want to know"!

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Date: Thu, 08 Jul 93 21:13:01 EDT  
From: gdm15@aol.com  
Subject: **unsubscribe**

Please cancel my subscription to homebrew.... Thanks

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Date: Thu, 8 Jul 93 21:06:59 cdt  
From: Jonathan G Knight <KNIGHTJ@GRIN.EDU>  
Subject: hops storage, victory malt

I have been asking a lot of questions lately, and I have been getting lots of great replies both on and off line -- thanks to all! The generosity shown by the experienced brewers toward those less experienced is one of the great strengths of this forum.

Here is one question that didn't get answered, though: if I buy a bunch of whole hops and use part of the bag, how long can I expect the remainder to stay fresh in the freezer? I do not have a CO2 dispenser nor a vacuum sealer, so I would not be able to purge the container of O2.

And someone else asked this eons ago, but I don't remember seeing an answer posted to the digest. What is "Victory malt"?? Does it have to be mashed, or can it be steeped like specialty malts? What characteristics does it impart to the beer?

"Don't worry, be hoppy!"  
Jonathan Knight  
Grinnell, Iowa

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Date: Fri, 9 Jul 93 08:38:37 EDT  
From: gfoerste@bajor.coat.com (Glenn D. Foerster)  
Subject: The Boiling Vessel

I'm kind of new to homebrewing, and need to have a question answered by people "in the know." The first few batches I have brewed had something of a funny taste to them. COuld this be the result of using an aluminum pot for boiling the wort?

gdf

-----

Date: Fri, 9 Jul 93 08:56:39 edt  
From: mtavis@gemini.hyperdesk.com (Mike Tavis)  
Subject: Pike's Place yeast

Alright all you Seattle-ites, here's a question for you.

A few months ago a friend of mine brought me a bottle of Pike's Place back from Seattle. I tried it and absolutely loved the fruitiness (esters?) of this ale. I assumed that it was due to the yeast used in making the beer, so when another friend went to Seattle I made sure he brought me back another bottle so I could try and culture the yeast out of it.

Well last night after several starter solutions and some offerings to the gods of beer I have what looks like a healthy Pike's Place sample. My only questions is: Is the yeast I cultured the same yeast used in fermentation or is a yeast used for bottle conditioning?

Thanks in advance for your help.

- -- Mike

o o | Michael Tavis, HyperDesk Corporation  
o o | Suite 300, 2000 West Park Dr., Westboro, MA 01581  
----+ E-mail: mike\_t@hyperdesk.com (508) 366-5050

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Date: 9 Jul 93 03:58:40 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Fermenting in 100 degree weather

Message Creation Date was at 9-JUL-1993 08:41:00

Greetings,  
This is just a data-point for those looking for information on how to cool their carboys on hot days:

It's been 100 degrees F in Washington, DC for the last few days as well as for the next few days to come. I had not brewed a batch in 2 months due to extensive home repairs and had grown desparate (i.e. withdrawl symptoms) to brew again. I didn't realize it would be so hot, and I don't have central A/C. I have window units which I turn off when I go to work. What to do?

I have a basement, but it's only 6 ft below ground level - but that's better than nothing. I placed the carboy in a large plastic bucket on the basement floor. I filled the bucket with about 8 inches of water and then covered the carboy with a towel. Then I put a fan right beside the carboy blowing constantly. I attached one of those strip thermometers which tells the temperature inside the carboy as opposed to the ambient air temperature. In the mornings after the night "lows" were 80 degrees, the thermometer would read 70 degrees. When I would read the thermometer at 4 PM, it would only rise to 75 degrees. Acceptable for ales.

I still prefer brewing in winter, but at least it is possible to cool a carboy during a summer week-from-hell.

Cheers,

Andy A

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Date: Fri, 9 Jul 93 09:26:19 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: Starters

From: Dave Justice <DD24005@UAFSYSB.UARK.EDU>

> Datapoint: I've been getting much quicker and visibly impressive  
> yeast starters going by using boiled or canned wort saved  
> from previous (all-grain) batches. I usually pitch the  
> starter before retiring at night and with this method,  
> I'm seeing a good 1/2" to 3/4" krausen in the starter  
> the next morning. No combination of DME and yeast  
> nutrients ever worked this well for me, I was lucky to see  
> any decent krausen after 1.5 days or so.

Well, I don't know if this is good or bad.

Basically, yeast starters are designed with only one purpose in mind:

to increase the yeast population you pitch into your wort

It has been my impression that there are two basic approaches:

- 1) Catch the yeast while they are already reproducing, \*before\* they have begun fermentation, and pitch them then.
- 2) Wait until they have all settled down for a long winter's nap and concentrate on pitching the yeast sediment in the starter.

I would personally \*worry\* if I saw appreciable krausen. Is this silly?

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Fri, 9 Jul 1993 06:26:42 PDT

From: wegeng.henr801c@xerox.com

Subject: Re: Cheap carboys

It sounds like the seven gallon carboys that St. Pat's of Texas is selling are "used" from the chemical industry (where they are used for shipping acid). Homebrewers in many areas of the country will be able to buy similar carboys from industrial chemical supply companies, probably at a lower cost since they don't have to be shipped. Apparently these carboys cannot be reused for their original purpose (I dunno why). Look in the yellow pages under Chemicals, and then make some phone inquiries. Note that since these carboys contained acid they should be handled with caution until you clean them (with baking soda).

Homebrewers in the Rochester, NY area can buy used carboys from Jones Chemical in Caledonia. The people at Jones are used to dealing with home wine and beer makers.

/Don  
wegeng.henr801c@xerox.com

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Date: Fri, 9 Jul 93 09:39:19 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Content and Siphons

As others have basically said already, there are lots of articles I skip over, like all the ones on kegging. But I might want to read it later, and don't want to keep others who need the info from getting it.

Plus, if I really want info on, say, wort chillers, a well-designed posting containing a stupid theory works wonders <grin>.

>From: korz@iepubj.att.com

>Back to microbiology. Besides the zillions of bacteria on your hands, >there are hundreds of zillions of bacteria in your mouth. Sucking on a >siphon hose with your mouth is probably one of the best ways to infect >your beer with lactobacillus which is everpresent in the human mouth. >Lactobacillus will eat sugars that the yeast have left behind and cause >your beer to gush about four to six weeks after bottling.

Well, Al, I appreciate your posting of seriously stupid advice, but the "start siphon with mouth" issue comes up all the time and many (including myself) have no problems with this approach. I always \*start\* my siphoning with boiled water in the tube, but whenever it stops for some reason, I end up using my mouth. In four years, my only infection has been because I used an infected starter. I can just see the testimonials pouring in again.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Fri, 9 Jul 93 06:40:42 PDT  
From: "I grew up on rock 'n' roll, but these blues won't leave me alone  
09-Jul-1993 0932 -0400" <ferguson@zendia.enet.dec.com>  
Subject: partial-boil is what I'm after

Al writes:

>Although I picked JC's post (sorry JC), there are a number of posters  
who  
>seem to be confused by this "high-gravity" brew thread. There's a big  
>difference between partial boil (which could also be called high-  
gravity  
>boil) and high-gravity ferment. I believe that the original post that  
>started this thread asked about what kind of compensation had to be made  
>for a high-gravity ferment. Well, a number of brewers have posted that  
>a higher gravity ferment will result in a beer with more esters. I have  
>found this to be true, but have not tried diluting the resulting beer  
>into a medium-gravity beer. I think what JC is asking about (as well as  
>a couple of others) is a partial-boil recipe. One in which, say, 3-  
gallons  
>of wort are boiled and then this is diluted into a 5-gallon batch in the  
>fermenter.

You are correct here. A partial-boil is what I want to do, or, perhaps  
it is better worded at a partial-high-gravity-boil, which is diluted in  
the primary fermenter.

I'm still looking for all-grain recipes that'll allow me to do this. I've  
done some partial mashes, hence I'm familiar w/ the process to some  
degree.

Does one just cut the amount of H2O used during the mash process in half  
to  
get a high-gravity wort? I could probably handle mashing with a full  
grain bill and H2O (1 qt/lb), but my pot would be insufficient to handle  
the  
grain sparge through my lauter-tun...

JC

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Date: Fri, 9 Jul 93 09:12:54 EDT  
From: man@lcwdwl.att.com  
Subject: Re: Pin lock fitting removal

Al writes:

>I suspect that the grooved ones are actually ball-lock. The pin ones  
are  
>pin-lock. Coke uses pin-lock and Pepsi uses ball-lock. I personally  
like  
>the ball-lock ones because they are easier to recondition (you can  
simply  
>use a 12-point socket for the fittings, whereas for the pin-lock you  
need  
>to buy (\$40) or build yourself a tool to remove the fittings.

Some of us more stubborn (and cheap) brewers use Vise-Grips to remove pin  
lock fittings from kegs.

Mark Nevar

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Date: Fri, 9 Jul 93 10:13:46 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Re: Low SG

>From: "Bret D. Wortman" <wortman@centurylub.com>

> In each case, the SG after sparging and after getting the total  
volume  
> of liquid to ~5 gallons was around 1.015. This seems awfully low to  
> me, as it'll result in beer that has (at most) around 1.5% alcohol  
> content.

In my experience, 9 times out of 10, this happens because people mix the water and wort in the fermenter, but don't do it well enough. The result is that there is layering, and samples are likely to have really low readings.

What \*I\* do nowadays when I have to add some water to top things off is to draw my sample from the wort first. Then I had the same proportionate amount of water to my sample as to the wort.

So if I end up with 4 gallons of wort and have to add 1 gallon of water, I siphon off maybe 4 ounces of wort in the sample tube and then add 1 ounce of water to it. It may sound hard but is really very easy if your fermenter has every gallon marked off and if your sample tube is graduated as well.

Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

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Date: Fri, 9 Jul 93 10:26:40 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: Hot Break and Hops

Well, the question again arises of when to add hops and what is the hot break, etc.

I used to add hops right away as boiling started and had to be very careful about boil-overs.

I now wait until a film or scum forms on top of the boiling wort (it doesn't take very long, maybe 10 minutes into the boil). With a strainer, I then remove as much of this is feasible. Within a few minutes you will see vigorous boiling with no film/scum on top and you no longer have to worry about boilovers. At that point you can add your hops (it gets hard to strain the film off with hops in your way).

P.S. I didn't define hot break or anything here, except by accident.

Fidonet: 1:109/131    Internet: jdecarlo@mitre.org

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Date: Fri, 09 Jul 93 09:25:33 CST  
From: Johann Klaassen <C34859JK@WUVM.D.Wustl.Edu>  
Subject: What's wrong with my wheat beer?

Howdy -- and here's hoping that someone can help. I've brewed two batches now using two cans of M&F's "wheat" syrup, in attempts to make a nice, light wheat like I'd get at my corner micro (were there one). However, both of these batches have turned out *\*quite\** dark -- and I can't explain to myself quite why that's true. Could it be that my hour-long boils have darkened the otherwise light malt (which would shock me)? Is M&F Wheat always so very dark (and if so, why)? And what kind of extract can I use next time (I really don't have the time, energy, or space to go all-grain) to get the light color I'm looking for? I'm pleased with the taste of the stuff I've been getting, but the darkness has got me weirded out. Anyone with info that'll make it clear to me?

TIA -- d8^) Johann  
c34859jk@wuvmd.wustl.edu

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Date: Fri, 9 Jul 93 10:35:53 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: sugar in beer

I was recently re-reading Rajotte's book, thinking about trying for a "Grand Cru" style, with Celis's yeast (assuming, as has been claimed here, that the White and Grand Cru use the same yeast). He seems to contradict himself on the topic of the exact composition of "candi" sugar. On one page, referring to the "rock" kind, he says it's 99% sucrose. On the next page, referring to the liquid kind, he says it's a mixture of sucrose and invert sugar. Elsewhere in the "Sugar" section, he says that brewers prefer invert sugar because it's easier for the yeast to "eat" (they don't have to break it down first).

Does anyone know whether the inconsistency is because that's the way it really is, or are one or more of the above statements incorrect?

Does anyone know of a good source for invert sugar? I assume I can color it by caramelizing some of it.

=S

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Date: Fri, 9 Jul 1993 10:52:41 EDT  
From: "Sweet, Timothy" <TSWEET@WVNVN.WVNET.EDU>  
Subject: cider

I'm looking ahead to apple season and would like to make some cider. Does anyone have advice on this--especially on type of yeast? Where I live I can get plenty of unpasteurized fresh-pressed apple juice, so the raw material will be of good quality. All replies appreciated.

Tim Sweet  
tsweet@wvnm

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Date: Fri, 9 Jul 93 10:56 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: 220V Airstat

Now that I have fallen in love with my Airstat controlled "lagering room", I want to put one on a window air conditioner, which just happens to be what they were developed for.

I was informed by Hunter that they no longer make the 220V version and I seem to be out of luck unless someone got one buy mistake or still has one in stock. If anyone has or is aware of either situation, please let me know.

For whoever it was looking for a local source, you can call (901) 745 9222 and they will give you a list by Zip Code. Not a single source in Chicago but what would one expect for such a small town?

Builder's Square carries them, but not in the city.

js

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End of HOMEBREW Digest #1179, 07/12/93  
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Date: Fri, 9 Jul 1993 09:12:15 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Needs More Malt!

Wortman (what a great name!) has a problem:

>Both of my first two batches used kits -- syrup -- and no sugar. The  
>first used a 3.3lb Munton & Fison Pilsner kit with 1.4 lb Light Amber  
>Malt kicker. The second used 1.8kg Muntons IPA Bitters with 1.4 lb  
>Light Amber Malt kicker.

>

>In each case, the SG after sparging and after getting the total volume  
>of liquid to ~5 gallons was around 1.015. This seems awfully low to  
>me, as it'll result in beer that has (at most) around 1.5% alcohol  
>content.

>

>What might I be doing wrong, or what should I be looking for? I  
>carefully noted the 5 gallon mark on my carboy so I'm sure I'm not  
>making more than I think I am....

>

>

Bret, your problem is easily resolved: use more malt!!!!!! Instead of  
using a 1.4# kicker, use two (2) 3.3# cans of malt. Your SG will then  
fall into the normal range. Really.

- --Jeff

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Date: Fri, 9 Jul 1993 09:29:59 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Irish Moss

I'm interested in hearing about people's experience using Irish Moss as a kettle fining agent. I had been using it off and on for years, without being able to notice any difference when I remembered to add it. Eventually, I stop bothering all together, and since I was using 1056 yeast almost exclusively, I hadn't any problems with clarity.

Recently, however, I returned to using an old friend, a culture from a local microbrewery, and discovered that my beer was no longer as clear as it should be (thanks to Dr. Fix for pointing this out rather definitely). A local brewer mentioned to me that they were switching back to flaked Irish Moss from the powder and was appalled to learn I wasn't using it at all. The ever-helpful Dr. Fix not only sent me some IM (enough to brew many hectoliters) but a copy of a paper he'd done analyzing the use of Irish Moss and its effect on hot break, head retention and body. Very interesting.

So I used Irish Moss in my most recent brew, and the results were pretty amazing -- a very dramatic hot break, quite different from what I'm used to, some strange behavior early in the fermentation (the yeast clumped into weird shapes near the surface of the wort -- George says this is normal), and what appears to be extremely good flocculation (earlier than would be expected, and more thorough).

So, what's different from the past? Well, for one thing, the "standard" homebrew texts (e.g., Miller & Papazian) suggest adding 1/4-1/2 tsp for a five-gallon batch. Miller pretty much says it's a waste of time, although it might be useful in British infusion style mashes. He says he hasn't observed any changes in other batches.

Well, I'm not surprised. According to the data George offers, and the recommendations from Siebel, the optimal addition is 1/8 gm/liter (I hate those figures, but wotthell), which turns out to be about 5 gms/10 gallons or 2.5 gms/5 gallons. Five grams of dried, flaked Irish Moss is almost exactly one TABLESPOON -- for those who are kitchen-illiterate, a Tablespoon = 3 Teaspoons. So the correct addition of Irish Moss for 5 gallons of beer = 1/2 Tablespoon, three times the amount suggested by Miller & Papazian.

Quite a difference.

Another recommendation was given me by the local brewer, and followed, which was to rehydrate the Irish Moss before adding it to the kettle. In fact, he suggested rehydrating it a day in advance, but the five grams turned back into seaweed in 1/2 hour or so; this presumably reduced the time necessary for it to go to work in the kettle. It also meant that the volume was considerably more than a Tablespoon when it was added.

Frankly, I'm convinced already but will reserve final, passionate adoration of Irish Moss until the beer is in a glass.

- --Jeff

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Date: 9 Jul 93 08:09:28 EST  
From: "Anderso\_A" <Anderso\_A%55W3.CCBRIDGE.SEAE.mrouter@seaa.navsea.navy.mil>  
Subject: Drinking around Lancaster, PA

Message Creation Date was at 9-JUL-1993 13:02:00

Greetings,  
I recently found out that I will soon be traveling to Lancaster, PA. The first thing I have to do is figure out just where Lancaster is located. The second task is to find out what brew-pubs or good-beer-bars are in the general area. Rand-McNally will help me with the first task, I'm hoping HBD can help me with the second.

TIA

Andy A

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Date: Fri, 9 Jul 93 14:23:25 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 09-Jul-1993 1421  
<macneal@pate.enet.dec.com>  
**Subject: PET bottles for beer**

Paul Gibbs asks about the dangers of using PET in beer. Personally, I  
wouldn't  
worry about it. I've seen some British beers bottled in 2 liter PET  
bottles.  
PET is (obviously) widely used in softdrink packaging.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Fri, 9 Jul 93 17:24:14 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: In defense of Jim Koch, pt 2

Since I posted a bit last week on Jim Koch's brewery in Jamaica Plains I received some email disputing the assertion that this place could possibly be producing quality beers, much less "world class" ones. As I noted in my earlier post, I was not personally at the brewery so I was passing on second mouth information. Since then I have been able to learn some more details about the facility that Jim has installed at Jamaica Plains (near Boston).

The brewery is a 15 BBl system manufactured by The Pub Brewing Co. It consists of twin copper jacketed fired kettles, one being the usual mash tun/kettle, the other being a full sized decoction kettle. This in itself is unusual in that a brewer would spend money on a full sized decoction kettle since one usually only needs to decoct about 1/3 to 1/2 of a mash volume. There is a dedicated lauter tun and I believe a dedicated whirlpool. One of the "showpiece" aspects of this system is that Pub has engineered a bottom driven motor, as opposed to the normal top mounted drive system seen in many breweries throughout the world. Pub is apparently quite proud of this development, and probably justifiably so. The report I received indicated that some of the Unitanks are new and some are old. The system was installed in March, 1993.

The "triple bock" that I previously noted is made from an OG of 40 Plato! I believe triple is an understatement here (the first ever from Jim & Co!). It is indeed aged in old Jack Daniels whisky barrels.

Word is that the brewing staff is knowledgable and enthusiastic about the beers being produced. This is certainly not the same Ringwood system that was in this facility prior to the Pub system and as such I would say to those in the Boston area, go try it out and let us know what you think. (one of these days I have to get to Boston....)

Now I realize some of you could care less if Jim Koch brews beer in gold lined satin covered vessals, you wouldnt touch it with a ten foot sample glass and thats OK, its your consumer rights. I am no fan of Jim Koch's bastardization of the Lambic name, nor of his blatent misrepresentation of his achievements at the GABF, but I am merely pointing out that in this brewery we have someone who has gone the extra step of putting in a serious system and producing some seriously different and interesting beers and that is good for craft brewing.

Good brewing,  
Jim Busch

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Date: Fri, 9 Jul 93 16:15:48 EDT  
From: lyons%adc2@swlvx2.msdl.ray.com  
Subject: Liquid yeasts

When fermenting with liquid yeasts, is there a simple way to use the slurry on the bottom of the secondary for pitching into a new batch? Any comments on the amount to use would be helpful. Also, is there a method for storing such a slurry for later use?

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Date: Fri, 9 Jul 1993 14:34:58 -0700 (PDT)  
From: engebret@ucssun1.sdsu.edu (aguado e)  
Subject: strike temp

Has anyone derived an accurate equation for calculating strike temperatures?  
I seem to recall a discussion of this a few months ago on the HBD, but can't remember if an actual equation was posted. I have been experimenting with various mash viscosities and such an equation would be very helpful.

Also, what are the dangers of a slight overshoot with a single-step infusion mash? Will a couple of degrees above 156F hurt anything?

Thanks in advance,  
Mark Engebretson  
engebret@ucssun1.sdsu.edu

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Date: Fri, 9 Jul 1993 14:50:14 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: All Grain Red?

I've been searching around lately for an all grain recipe for a read ale. I've also gone through the Cat's Meow, but with no luck (unless I overlooked something). Can someone please e-mail your favorite recipe? It would be very much appreciated.

BTW, I have edited and have available a Word Perfect 2.0 (mac) version of the Cat's meow if anyone would like a copy. Or, I can try to upload it to an ftp library if enough people would be interested. I have not deleted or changed anything, just cleaned it up for easier use.

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...And Rene Descartes was a drunken fart  
"I drink therefore I am!"

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: 10 Jul 93 05:55:13 EDT  
From: "Ben Ricci, PA" <71331.3435@CompuServe.COM>  
Subject: Starview Brew in York,PA

In the event there may be York, PA area homebrewers lurking in the shadows...Mike Knaub, President of the York Area Homebrewers Association is now selling homebrew supplies through his business: Starview Brew. Mike has a decent selection of leaf hops, malts (syrup and dry), adjuncts and Yeast Lab liquid yeasts on hand. He's building his inventory all the time too. All you need is water! <g> Starview Brew is in Mt. Wolf, PA (51 Codorus Furnace Road) and can be reached at 717-266-5091.

Ben Ricci  
71331.3435@compuserve.com

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Date: Sat, 10 Jul 93 08:30 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: St. Pat's of Texas

The requests for the phone number of St. Pat's of Texas have been overwhelming. Again, they sell a seven gallon carboy for \$10. Their number is (512) 832-9045.

chris campanelli

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Date: Sat, 10 Jul 93 11:42 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Wine Grapes

I am looking for a place within a reasonable drive of Chicago to either pick grapes or purchase fresh picked grapes or juice.

The Maltshop in Wisconsin who usually has high quality wine grapes anticipates no useful harvest this year because of the cold Spring.

Anyone have any ideas?

js

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Date: 10 Jul 1993 13:44:04 -0500 (EST)  
From: Sandy Cockerham <COCKERHAM\_SANDRA\_L@Lilly.com>  
Subject: seeking info

I recently saw info about a new Japanese dim sum restaurant/brewpub opening in the San Francisco area. The problem is I can't remember where I saw it! Also, I am seeking info on brewpubs in Hawaii.

I would appreciate it if anyone knowing about either of these 2 things could send me a post by e-mail.

thanks, sandy c.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

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Date: Sat, 10 Jul 1993 18:28:52 -0400 (EDT)  
From: WESTEMEIER@delphi.com  
Subject: BEER & SWEAT #5: 8/21/93

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\* BEER & SWEAT #5 \*  
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WHAT:

The 5th Annual Beer & Sweat is a huge summer party of, by, and for homebrewers. Sponsored by a consortium of homebrew clubs, it is one of the largest gatherings of homebrewers on the planet, and it is of interest to all who live in the midwestern USA. Please come if you are within driving distance of Cincinnati, and bring a keg or two of your best homebrew to share. Beer & Sweat is absolutely free. There is no admission fee of any kind, except for a \$5 fee if you wish to enter a keg in the competition.

WHEN:

Saturday, August 21, 1993. Setup will be between 3:00 and 5:00 pm.

WHERE: At the Drawbridge Estate (home of the Oldenberg microbrewery). About five miles south of downtown Cincinnati, in Ft Mitchell, Kentucky. Take the Buttermilk Pike exit from Interstate 71/75 and go east one block.

Room rate at the Drawbridge is \$70 a night, for up to four persons. Call 606-341-2800 for reservations, and mention Beer & Sweat to get this special rate and one of the block of rooms set aside for us.

WHY:

Beer & Sweat is unique in that it is 100% homebrew oriented. Unlike the usual gathering of brewers, where everyone keeps opening their cooler and pulling out another example of a favorite commercial beer, we stress the homebrewer's craft exclusively.

Beer & Sweat is also almost entirely devoted to DRAFT homebrew. For example, last year we had almost 30 kegs of top quality homebrew on hand, almost all containing 5 gallons each. There were also a few 10 gallon kegs and a few smaller kegs, but with over 150 homebrewers in attendance, we still had a quantity of beer sufficient to produce the expected quantity of sweat.

NEW LOCATION THIS YEAR:

Beer & Sweat has grown to the point where we can no longer feel comfortable mingling with the general public. Based on a number of suggestions, we have secured practically the exclusive use of the Garrison facilities. Slightly separated from the main Drawbridge complex, Garrison has an outdoor pool, tennis courts, and recreation area. There are also plenty of ice machines and soft drink vending machines. Next door to the Oldenberg brewery itself, and close to the area's biggest and best brewpub, J.D. Brews, this is the perfect spot. The Drawbridge will have food booths set up (of course you can bring your own), and we plan to set up a large tent for an outdoor eating and drinking area.

COMPETITION:

We encourage entries to the B&S Open Draft Homebrew Competition. We are considering making this an AHA sanctioned competition next

year, so this is kind of a "wet run" to see how well it goes. For a \$5.00 entry fee, you can enter a keg (no bottles) of ANY style beer. Get it set up (bring your own CO2 etc.) between 3 and 5 pm, pay the registration fee, and judging will take place at 5:00 pm. Any BJCP judge who would like to participate should contact Ed Westemeier in advance via e-mail at: westemeier@delphi.com (or by phone at 513-321-2023). No points, just great draft beer. Next year we probably WILL have points available.

First prize in this competition will be a PhilMill donated by the Listermann Mfg. Co. and second prize will be a Phil's Lautering System from the same source. Third prize is a pound of hops. A prize will also be awarded to the club with the highest average point total. After the formal judging of registered entries, ALL kegs present will be eligible for the popular vote competition, and a prize will also be awarded for that.

**BJCP EXAM:**

The BJCP Exam will be conducted at 10:00 am SHARP. Anyone wishing to join the ranks of the "official" beer judges should register no later than July 31. Test fee for first time exam takers is \$40, and \$30 if you have taken it before and want to raise your score. Contact Keith Wilbourn by phone at 502-422-6954 or fax him at 502-422-6955.

**MORE INFORMATION:**

General questions should be directed as follows:  
e-mail: westemeier@delphi.com  
phone: Allan Moellmann at 513-232-9182 anytime during July  
phone: Chuck Boyce at 513-531-8076 after 5 pm weekdays

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Date: Sat, 10 Jul 93 15:20:46 PDT  
From: sc@vcc.com (Steve Casselman)  
Subject: Yeast Storage

This question was recently presented.

>I recently purchased a back issue of Zymurgy (Gadgets and  
>Equipment). After reading an article on preserving and freezing  
>yeast by Maribeth Raines Ph.D. I decided to give her suggestions  
>a try.  
>I only wanted to store my yeast for a few weeks to a month  
>so I followed her directions for storing the yeast in the fridge.  
>I mixed yeast from the primary (British #1098) with an equal  
>amount of a sucrose solution mixed at a ratio of 1 cup of water  
>to 3/8 sucrose. I understand that the article was mostly about  
>freezing yeasts, but she also suggests, "On the other hand, if you  
>plan to use the same yeast within the next few months you can  
>save the yeast from your primary fermenter and store it with an  
>equal volume of sucrose (it's cheaper than glycerol) in the  
>refrigerator.(Zymurgy Special 1992, p. 69)"  
>The new solution was placed in the fridge in a sanitized and  
>closed glass jar. In a few hours I noticed that the solution  
>was fermenting away. So, over the last few days I have been  
>venting the jar to keep it from exploding. This situation seems  
>quite dangerous. Most of all, I was surprised to see an ale  
>yeast ferment at 38 degrees. Should I take that to mean that I  
>have a wild yeast fermenting away beside the British yeast  
>strain.  
>  
>Any suggestions are appreciated. Am I doing something  
>  
>wrong? Any suggestions or amendments to the article.  
>  
>STEVE

The well documented procedure will allow yeast to be stored  
for as long as two years. The principle behind it is at 4  
degrees C invertase becomes inactive. This means there is  
no way for the yeast to metabolize the sucrose. If you are  
getting fermentation there are a few things you might not  
have made sure of: 1) you can have no other sugars but sucrose,  
common errors might include; taking the yeast from the  
primary before it is completely fermented, using a low  
purity sucrose (it might have glucose in it for example),  
and 2) the solution must stay under 4 C at all times.

In your current position I would put your jar in the  
refrigerator with the lid on loosely to allow any sugars  
other than sucrose to ferment out then close the lid. If  
this does not work than your refrigerator may not be keeping  
a constant cold temp.

Your problem, of course, could also stem from the introduction  
of some wild yeast - in which case I would not recommend  
repitching the yeast.

I hope this helps.

Steve Casselman

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Date: Sun, 11 Jul 93 15:42:22 EDT  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: Low SG readings

In HBD1178 Bret D. Wortman asks:

> Both of my first two batches used kits -- syrup -- and no sugar. The  
> first used a 3.3lb Munton & Fison Pilsner kit with 1.4 lb Light Amber  
> Malt kicker. The second used 1.8kg Muntons IPA Bitters with 1.4 lb  
> Lilght Amber Malt kicker.

> In each case, the SG after sparging and after getting the total  
volume  
> of liquid to ~5 gallons was around 1.015. This seems awfully low to  
> me, as it'll result in beer that has (at most) around 1.5% alcohol  
> content.

> What might I be doing wrong, or what should I be looking for? I  
> carefully noted the 5 gallon mark on my carboy so I'm sure I'm not  
> making more than I think I am....

There are several possibilities.

- 1 Are you taking your gravity readings when the wort is 60 deg. F?  
Taking readings at higher temperatures will give lower than  
expected readings. For example, if your reading of 1.015 was  
measured at 110 deg. F your actual SG is 1.023. If the temperature  
of the wort was 140 deg. F your actual SG would be about 1.027.
- 2 Your hydrometer is bad. A simple check is to measure the SG  
of water at 60 degrees F. It should measure 1.000 (or very close).
- 3 Assuming that by "sparging" you really mean pouring and straining  
the wort into your carboy, do you vigourously shake the carboy  
to get a homogeneous mix. (I'm assuming that since your just  
beginning, your not boiling all 5 gallons at once and are mixing  
your boiled wort with cold water in the carboy.) If so, it is  
conceivable that the higher density wort has settled to the bottom  
and you are measuring the gravity of the lower density stuff  
which has stratified on top.

By the way you should have gotten gravities of about  
1.034 for 3.3 lbs Canned Malt Extract + 1.4 lbs DME  
and  
1.038 for 1.8 kg (3.97 lbs) Malt extract + 1.4 lbs DME.  
for your 2 batches.  
Here, I've used the empirical formula

$SG = 1.000 + (\text{lbs of DME} + 0.8 * \text{lbs of Malt Extract Syrup}) * .0084$

for a 5 gallon batch. This assumes 42 points for DME and 20% less  
for syrup.

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Date: Sun, 11 Jul 1993 17:17:19 EDT  
From: hmcook@boe00.minc.umd.edu (Hardy M. Cook)  
Subject: Spicing for Wheat Beer

I'm planning to make my first spiced wheat beer next week and would appreciate any help I can get on the spicing. I'm considering adding the following during that last five minutes of the boil to my standard beer wheat recipe:

1/2 oz. Orange peel  
1/2 oz. Crushed whole coriander  
1/2 oz. Chamomile  
1/2 oz. Whole Hallertauer hops

I have decided on these ingredients but would appreciate any suggestions as to ratios, weights, and time to add to the boil.

Hardy Cook  
HMCook@boe00.minc.umd.edu

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Date: 11 Jul 93 22:26:35 EDT  
From: "Rex K. Perkins" <70651.1611@CompuServe.COM>  
Subject: 6oz bottles / Mail order Belgium imports

To: >Internet homebrew@hpfcmi.fc.hp.com

I am about to start my first mead and was recently pondering the problem of bottling the stuff. As it is going to be mighty strong, I won't really want to drink it 12oz at a time. It will also be sparkling, so re-sealable screw caps won't help either. So, the natural solution would be for smaller bottles.

I was once given a case of European lager in small bottles. I think these were 225ml (8oz), but I'm not sure, so I know they exist. I'm sure I have seen smaller bottles (6oz?), but I can't think where.

My question is: Where can I get 6-8oz bottles from? I see many home-brew suppliers carry 12 and 22oz sizes, but no mention of anything smaller. Does anyone know of a source of such bottles? I guess I'd be looking for 2-4 cases.

\*\*\*\*\*

Reading the current issue of CAMRA's What's Brewing I see several UK companies offering Belgium beers by mail order. Are there such companies in the US? The selection of such beers available locally (central MA) is very limited and I would like to expand my knowledge of these beers. I could ask the UK companies if they would send to the US, but I expect I would get hit on both UK and US taxes that way.

Cheers,

Rex K. Perkins  
70651.1611@compuserve.com

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Date: Mon, 12 Jul 93 06:37:18 PDT  
From: 12-Jul-1993 0931 -0400 <ferguson@zendia.enet.dec.com>  
Subject: NO2 is NOT used in Guinness!

>Date: Thu, 8 Jul 1993 15:36:26 -0700  
>From: Leo Reilly <zanadu@well.sf.ca.us>  
>Subject: Guinness

>  
>I am sure that this has already been answered but I have been unable to find  
>an explanation in previous postings.

>  
>1. Does the NO2 cartridge in the canned Guinness affect more than just the  
>head of the brew? It seems to me that the canned Guinness is alot  
>smoother  
>and less bitter than the traditional bottled stuff.

Guinness does not use NO2; it uses N2, nitrogen. The canned stuff is all together different then the stout in the bottles. IMO, the canned stuff is light and the bottled stuff is heavy. Guinness names the can stuff "Draught" and the bottled stuff "stout."

>2. What does the nitrous oxide actually do to the beer? I.e. how does it  
>interact with the brew to give the creamy head and the smoother taste.

again, N2; my understanding is that the N2 facilitates much smaller bubbles, hence making that creamy head.

>3. Is any other brewer using the NO2 cartridge? If so, who?

Murphey's stout; same design as guinness. not sure if this is available in the US yet; I've brought some back from Ireland w/ me in the past.

>5. Are any home brewers using the NO2 cartridge for their homebrew, or  
>contemplating trying it?

No, but i have thought about buying a second CO2 cylinder and having it filled with 40% N2 and 60% CO2 for some winter stouts out of my keg. Has anyone done this with success (ie: brewed a stout and dispensed it w/ a nice creamy head ala guinness?).

JC Ferguson  
Digital  
Littleton MA USA

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Date: Mon, 12 Jul 93 06:56:15 PDT  
From: Jamie Ide 12-Jul-1993 0947 <ide@film.enet.dec.com>  
**Subject: Saison Recipe Needed**

I'd like some advice on formulating a saison recipe. Better yet, a tried and true recipe.

I've got a bottle of Saison Dupont (new to the US, I think) that I can culture from -- does anyone know if I'll get the fermenting yeast? I've also got a culture from La Chouffe, which I believe is a similar style.

I'd appreciate any help on the saison style, I haven't been able to find much information on it. I'll summarize any e-mail replies I get.

Jamie Ide ide@studio.enet.dec.com

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Date: Mon, 12 Jul 93 10:22:29 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: IPAs & Basements

John Mare makes some excellent points regarding English IPAs:

<From: cjohnm@ccit.arizona.edu (John Mare)  
<Subject: India Pale Ale's

<In a recent discussion on India Pale Ales (IPA's) the assertion was made  
<that these are all high gravity ales. Conventional wisdom tells us  
<that these ales were brewed at high gravity to allow them to travel well  
<(ie. by ship to India), and our US beer competitions persist in defining  
<IPA's as medium to high gravity (OG 1050 to 1065). It is interesting to  
<observe, however, that in their land of origin IPA's are not in fact  
high  
<gravity ales. Some of the truly outstanding examples of this type which  
I  
<tasted on a recent beer tour of The British Isles include "Palmer's IPA"  
(Dorset, OG 1039, ABV 4.3%), "Robinwood IPA" (Yorkshire, OG 1040, ABV 4.  
2%),  
<"Younger IPA" (Edinburgh, OG 1043, ABV 4.5%), "R&D Deucher's IPA"  
<(Edinburgh, OG 1048, ABV 3.9%), and "Thompson's IPA" (Devon, OG 1045,  
ABV  
<4.6%).

This is absolutely true. In fact I had troubles locating a IPA as high  
as 1.046 OG. Even "strong ales" tend to be around 1.052 and are regarded  
with fear from many pub goers. It is really sad to find this attitude,  
since as a result these beers tend to be some of the oldest and less  
crisp  
cask ales to be found. Of course, the higher gravity gives them a slight  
edge on shelf life. Note how much residual sugar is in the R&D Deucher  
IPA at only 3.9 ABV with an OG of 1.048. This can be true of the  
ordinary  
bitters too.

Gene asks about basement ferments & sanitary conditions:

<From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Farmer/Engineer etc

<How many people brew in their basements? Unless it's an enclosed room,  
<I can't see as it would be very sanitary at all. Most of them are a  
\_little\_  
<damp, dark, and although not warm, a constant temp. I think someday I'll  
<have a brew set up in a basement, but I've always thought of sheet  
rocking  
<off a room and putting ceramic tile on the floor and waist coat

Well, I ferment in my basement, in an open SS vessal. I do leave the  
heavy  
lid ontop, and remove it to skim yeast. I still have numerous cobwebs  
over-  
head and it could be much cleaner but it works fine. Sure, Id love to  
have  
sheetrock and tile too, but Im too busy spending money on SS vessals to  
do  
the tile work. The key is always lots of clean healthy pitching yeast.  
You  
would not believe how dirty some english and belgium breweries are.

Good brewing,  
Jim Busch

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Date: Mon, 12 Jul 93 09:20 CDT  
From: fjdobner@ihlpb.att.com  
Subject: Looking for...

I need to reach Craig Vandeventer, Paul Sherrill and Hyrum Laney.  
Please contact me at the above e-mail address or call me at  
(708)979-5124. Thanks. Your e-mail addresses do not seem to work.  
This is homebrewing related.

Frank Dobner

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Date: Mon, 12 Jul 93 14:34:00 +0000  
From: DAMON\_NOEL/HP0800\_01@mailhub.cs.itc.hp.com  
Subject: 2 holes

In a recent post to Mark at Hoptech in response to a query as to where one might obtain a two hole stopper for carboys, Mark was kind enough to tell me of how he ended up drilling a second hole himself. He said he used a regular drill, but it chewed up the rubber. Not having a suitable drill bit, I tried an alternative, a 1/4 inch piece of brass tubing lying about, which I filed to an edge on one end and chucked up in a hand drill on the other. I lubricated the tube with a drop of water. The thing worked beyond my wildest hopes and made a hole cleaner than the original. Altho the tube was 1/4 inch, the hole it made was smaller such that a piece of 1/4 inch copper tubing fits perfectly. The tube also just fits the inside of my keg system CO2 line so I now have a way of starting the syphon system on carboys for transfer to kegs. Lab types I know have stoppers available, but none of the local homebrew suppliers do :-).

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Date: Mon, 12 Jul 1993 11:13:48 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: it's in the air

For those of you with possible airborne infection problems, one way to clean the air is to allow steam from boiling sparge water or wort to fill the brewroom. As the steam settles out, it will take airborne particles down with it, much as rain clears out smog. The heat of the steam may also help in sanitizing.

Russ Gelinias  
esp/opal  
unh

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Date: Mon, 12 Jul 1993 12:30:10 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Nitrogen / sugar

Leo Reilly writes:

>I am sure that this has already been answered but I have been unable to find  
>an explanation in previous postings.

>

>1. Does the NO2 cartridge in the canned Guinness affect more than just the  
the

>head of the brew? It seems to me that the canned Guinness is alot  
smoother

>and less bitter than the traditional bottled stuff.

I believe Guinness draught and Guinness Extra Stout are two different recipes, the draught recipe being smoother, the Extra Stout containing a small portion of soured beer.

>2. What does the nitrous oxide actually do to the beer? I.e. how does it

>interact with the brew to give the creamy head and the smoother taste.

N2, not NO2. It doesn't dissolve (well, not well). The thick body and tiny bubbles make for the creamy head.

>3. Is any other brewer using the NO2 cartridge? If so, who?

There are a few british ales using the N2 cartridge (called, I believe, a "bobo")

>4. Would it make sense to use the NO2 cartridge in any other brew (lambic?

>porter? scottish ale?)

A scottish ale perhaps, definitely NOT a lambic. Any beer which is cask conditioned and served by hand pump rather than by pressure (ie "Flat" beers) could be served with this method.

>5. Are any home brewers using the NO2 cartridge for their homebrew, or  
>contemplating trying it?

Not unless they have a way of canning their beer under N2 pressure. Most homebrewers use bottle conditioning for carbonation. Some may have used a CO2/N2 mix for dispensing Kegs, though.

\*\*\*\*\*

Spencer.W.Thomas writes:

>I was recently re-reading Rajotte's book, thinking about trying for a  
>"Grand Cru" style, with Celis's yeast (assuming, as has been claimed  
>here, that the White and Grand Cru use the same yeast). He seems to  
>contradict himself on the topic of the exact composition of "candi"  
>sugar. On one page, referring to the "rock" kind, he says it's 99%  
>sucrose. On the next page, referring to the liquid kind, he says  
>it's a mixture of sucrose and invert sugar. Elsewhere in the "Sugar"  
>section, he says that brewers prefer invert sugar because it's easier  
>for the yeast to "eat" (they don't have to break it down first).



Invert sugar is split sucrose. Same components, easier for yeasties to digest, and perhaps the invert sugar is easier to make into a syrup (higher solubility rate?).

>Does anyone know whether the inconsistency because that's the way it really is, or are one or more of the above statements incorrect?

>Does anyone know of a good source for invert sugar? I assume I can color it by carmelizing some of it.

Might be able to find invert sugar at the grocery store near the cakes and frosting mixes. If not, try food distributors, or your local mega bakery. What I did was to dissolve sucrose in a bit of wort, and I added just a touch of honey and corn syrup. Then I boiled the s\$#@ out of it to caramelize it. As the water evaporates it will all froth up and make a mess, so keep your eyes on it. To get the caramelized sugars out of the pan, keep the heat on and add more wort, stir to dissolve.

The belgian ale I did this way came out tasting right, anyway.

ed

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |  
| "I'm not racist, but..." |

+-----+  
Diversity in all things. Especially beer.

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Date: Mon, 12 Jul 93 9:39:17 MDT  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: Burners for Culturing

> Does anyone know of a source of burners for use in yeast culturing? I  
have  
> an "alcohol lamp" (a vessel with a large "wick" in it) but would like  
to find  
> a burner with a more constant/controllable flame.

I use a propane torch. Overkill, maybe, but it certainly does the job.  
I originally bought it for constructing a counterflow wort chiller, and  
wouldn't be using it much any more if not for yeast culturing.

A bottle of propane cost about \$8 at the hardware store, if memory  
serves.  
The head (valve/nozzle assembly) can be had for about the same, or you  
can spend a little more if you want one with a built-in igniter.

- - -  
Jeff Benjamin benji@hpfcla.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Mon, 12 Jul 93 17:20 CDT  
From: korz@iepubj.att.com  
Subject: Low SG/hop bags again/siphon tip

Bret writes:

> Both of my first two batches used kits -- syrup -- and no sugar. The  
> first used a 3.3lb Munton & Fison Pilsner kit with 1.4 lb Light  
Amber  
> Malt kicker. The second used 1.8kg Muntons IPA Bitters with 1.4 lb  
> Lilght Amber Malt kicker.  
>  
> In each case, the SG after sparging and after getting the total  
volume  
> of liquid to ~5 gallons was around 1.015. This seems awfully low to  
> me, as it'll result in beer that has (at most) around 1.5% alcohol  
> content.

It has already been mentioned that perhaps the water that you sparged  
with  
had not mixed very well with the wort at the bottom of the fermenter.  
This  
is most likely the problem. However, you should also remember to  
compensate  
for temperature. Check your hydrometer -- most are calibrated for 60F,  
but  
some are calibrated for 70F. Once you know what it's calibrated at, you  
need to compensate for the temperature of the wort you're measuring. All  
I  
have handy right now is a sheet that came with one of my very first  
hydrometers. It was calibrated to 60F and here's the temp. compensation  
chart:

50F -0.0005  
60F 0.0  
70F +0.001  
77F +0.002  
84F +0.003  
95F +0.005  
105F +0.007

Check back issues of HBD for at least three more charts/formulas for  
SG temperature compensation.

\*\*\*\*\*

Mark writes (regarding whether or not to wait for the hot break before  
adding hops -- the text preceded by >: is part of my post):  
>:Why does this matter? Well, the theory is that the protein coagulated  
>:around the hops will reduce utilization. I have not done side-by-side  
>:tests of this, but I do recall a significant increase in hop  
utilization  
>:when I began to wait for the hot break before adding the hops. I did  
not  
>:put the two together till someone on the HBD mentioned it.  
>  
>I don't buy this. Number one, if it really did boost utilization, you  
can  
>bet the big breweries would be using it. I've never seen any reference  
to  
>it.

Researchers research & publish, whereas brewers brew & usually don't publish.  
A problem with articles written by researchers is that much of the information is not bound to practical applications. I called the Siebel Institute and they confirmed that except for hop extracts, the hops are generally not added at the very beginning of the boil for several reasons including the one I mentioned.

>Number two, I've never noticed any protein coating the hop petals  
>or particles and even if it did, it wouldn't matter cause there isn't any-  
>thing of value in there anyway. Now if we're talking microscopically  
>around the resins, maybe there's a possibility. But the biggest problem I  
>have with it is waiting for the hot break. Besides the fact that a lot  
>of newbies don't even know what it is or what it looks like, I don't want  
>to keep sampling my wort to see the break so I know when to add hops.  
>Then I'd have to figure out how many boil minutes remained and adjust my  
>hopping rate accordingly in real time. What if I didn't get a break  
until  
>30 minutes into 1 hour boil? I'd be getting a \*lot\* less utilization  
from  
>the shorter boil time than any better utilization advantage I might have  
got  
>by waiting.

Mark, you might as well admit you are one of those newbies. For you and the others, that don't know what hot break looks like, it looks kind of like egg drop soup. No need to sample your wort unless you are boiling in a keg with a small hole cut in the top of it. You just look in the pot and see the flakes churning about. It begins usually within the first 5 minutes of the boil as little flakes of off-white globs. I'm not saying wait 30 minutes (although some brewers do) for your first hop addition -- I usually wait 10 or 15 minutes and then add my hops. So my logbook reads:

```
boil: 70 min
60min -- 1oz Nugget Pellets 12.8% AA.
15min -- 1/2oz East Kent Goldings Plugs 4.7%AA.
dryhop -- 1oz East Kent Goldings Plugs 4.7%AA.
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>:>the bottom. This is instead of the hop bag. The hop bags are great for dry  
>:>hopping, but I don't like them for the boil.  
>:  
>:I disagree. I do just the opposite. I use a hop bag for boiling primarily  
>:to avoid the problems of having to remove the hops from the wort later,  
>:either as you pour the wort into the fermenter (my screen kept clogging  
>:and that made it a real pain!) or when racking. I just compensate by  
>:adding 10% more hops. I don't use a hop bag for dryhopping but only use  
>:whole or plug hops because they float. I've never had any problems  
>:siphoning the beer out from under the whole hops.  
>  
>Floating hops does not make for good oil utilization. The best method is

>to keep the hops suspended in the middle of the beer using a bag and weight  
>system (tie the weight to the drawstring instead of putting it in the bag).  
>This is what Anchor does and I have found it works well for me and other  
>brewers I know. I don't know of any commercial brewers that boil their  
>hops in a bag, but they do use them for dry hopping. But what works for  
>you works for you.

I contend that it is more difficult to get the hop bag into a carboy than loose hops, more difficult to remove the hop bag than loose hops from a carboy (not an issue for Anchor, with their open fermenters), sanitation of the hop bag is not particularly easy (I just sanitize a funnel and a 1 foot length of plastic HDPE hose and stuff the hops through it into the carboy) and the total surface area contact of loose hops is probably greater than that of hops in a hop bag despite the fact that the very top layer of hops is not immersed in the beer (I'm just basing my assertion on my observations -- not on any experiments that I've done)

>:>BTW, I have found  
>:>the "orange racking tip" thingy to be essentially worthless. Ditto

>:Interesting, but I've had no trouble with the orange tip on the end of my  
>:racking cane -- I tip the carboy with a stack of coasters or a block of wood and then gently lower the cane into the lowest part of the carboy.  
>:I then use masking tape or a rubber band to make sure the cane doesn't  
>:move. I discard the first two cups or so and the beer runs clear from  
>:there on. Perhaps you are not getting a good cold break and your trub  
>:layer is very deep. Then again, you've got hops in your trub and I don't.

>So you get a couple of cups of trub? Isn't this exactly what the orange  
>racking tube tip is supposed to prevent? I guess it doesn't work for  
>you either! :-)) I suggest you try leaving it off once and I'll bet  
>your  
>results will be identical. My trub layer isn't any deeper than yours,  
>and

I don't think you understand the principle. When I insert the racking tube with the orange tip into the fermenter, I'm careful to avoid disturbing the trub. The tip sinks partly into the trub and the first two cups of beer through the racking tube draws the nearby trub in -- subsequent beer is virtually crystal clear.

>I don't have hops in it. My strainer works fine. I also use a "settling  
>tank" between the kettle and the primary. I use my old plastic fermenter  
>with the spigot in the bottom. I cool the wort, pour through the strainer  
>into the bucket, put the top on and let the cold break settle out. Then

That must be some mongo strainer or you must have to dump it after every gallon of wort -- I stand corrected -- I had theorized that perhaps the reason for your dissatisfaction with the orange tip racking tube was a very deep trub layer in the primary. I try to avoid transfer of beer when I can, since every additional transfer is one more container to sanitize

(plastic fermenters being even harder to sanitize than stainless or glass)  
and an additional invitation for infection.

A1.

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End of HOMEBREW Digest #1180, 07/13/93  
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Date: Mon, 12 Jul 93 17:30 CDT  
From: korz@iepubj.att.com  
Subject: fruit/hot break

Andy writes:

>1. Is 2 lb raspberries/gallon of beer a reasonable amount?

It may be too intense. I used 5 lbs of raspberries and 5 lbs of cherries in a 5 gallon fermenter and then added about 3.5 gallons of beer on top of them. One judges comment (from our very own Roger Deschner) was that the beer didn't have enough "beer flavor" and that the fruit completely overpowered the malt. By the way, I presumed that some of the fruit flavor would subside after a while and the same beer entered in a competition

two months later took first in fruit beers. Note that raspberries have a much more dominant flavor/aroma than cherries and this is why I'm speculating

that 2#/gal would be too intense. If I were to try a balanced raspberry/cherry beer, I would probably use 2:1 for the cherry/raspberry ratio.

>2. Should I use a Campden tablet overnight in the  
>raspberries to prevent introducing any new bacteria in the  
>secondary fermenter?

Can't help you there -- I froze and blanched my fruit for sanitation, but you are correct in assuming that you'll introduce some microbeasties with the fruit and you need to deal with them somehow. I just don't have any experience with Campden tablets.

>

>3. Siphoning: If I siphon first into one carboy and then  
>into the second, I'm afraid I may end up with differing  
>beers. I would think the first carboy would get the lighter  
>beer and the second a heavier beer (and more trub remnants).  
>I was thinking of a "Y" siphoning connector. The beer  
>being siphoned would hit the "Y" connector and then branch  
>out down two paths into the two carboys. I would end up  
>using 3 lengths of 3/8 " tubing along with the "Y" connector  
>to accomplish the siphon.

>Does anyone know if this would work, or is it doomed to  
>abject failure?

>If it would work, does anyone know where I could  
>procure a "Y" connector?

The "Y" would work and you can probably get it from a place that stocks parts for Recreational Vehicles. Note that a problem with your experiment

that you haven't mentioned is that the geometries of your fermenters will be different, no? You have to account for the space taken up by the fruit.

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Bill writes:

>1) from the FAQ file, what and when is hot break?

Hot break is coagulated protein. It is basically cooked protein, but is formed partly due to the proteins in the wort reacting with tannins from the grains and (later, for those who do wait for the hot break) hops.

>2) do you wait for hot break before adding bittering hops (the  
>hops usually added at the beginning of the boil). Or are we

>talking aromatic hop addition here?

Personally, I do wait, even for the boiling hops.

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Dave writes:

>I've just recently started lagering, and I found it impossible to find  
>a Hunter Airstat anywhere in the Milwaukee, Wisconsin area. Everyone I  
talk  
>to at home supply type stores (Menards, etc) give me that look of "Yeah,  
right,  
>temperature controller...uh huh....sure....that's OK" You know, that  
look.

You might try asking for a thermostat for a window airconditioner. I  
have  
the Hunter sales brochure and they make something like eight thermostats.  
One of them is most definately the Hunter Airstat. If your retailer  
carries Hunter thermostats, they should be able to get the Airstat. You  
could also call the number Jack posted -- sometimes I think homebrew  
makes  
you psychic.

Al.

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Date: Mon, 12 Jul 1993 13:17:25 CDT  
From: "Bret D. Wortman" <wortman@centurylub.com>  
Subject: FWD: Low SG problem resolved!

Well, I received a \*lot\* of replies to my question about low OG.

It turns out that I hadn't mixed the wort well enough with the additional water I added to bring my volume to 5 gals. I started another batch this weekend, agitated well (you should've seen me, I didn't have a cap for the carboy so I hugged it to my chest, rested it on my thighs, and danced around the kitchen for a while--it was a sight!), and lo and behold, the OG came out 1.042 -- it was supposed to fall between 1.040 and 1.044, so I'll consider that a good measurement.

Thanks again to all who commented and gave me guidance. Have one on me. ;-)

WortMan

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--  
| Bret D. Wortman | "I want to lie shipwrecked and comatose,  
| wortman@centurylub.com | Drinking fresh mango juice.  
| wortman@decus.org | Goldfish shoals nibbling at my toes,  
| NLC Events Team Chair | Fun, fun, fun in the sun, sun, sun."  
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Date: Mon, 12 Jul 1993 19:05:07 EDT  
From: CKXB66B@prodigy.com (MRS BETTINA A BARBIER)  
Subject: U-brew-it-here-place

On Thu, 8 Jul 93 10:16:59 PDT, Geoff (ghultin@sfu.ca) said in the course of

a discussion that was really about: Subject: yeast FAQ/filters/temps:

->I just made some quasi-czech pilsner at a U-Brew-It-Here place

Geoff,

This is the first I have ever heard about a place of this nature. My husband and I are about to move, and it now occurs to me that this might be

a good little sideline to get into in our new location. How do they get around the laws concerning selling homebrew, the gallons per year rules, and all the other regulations that exist to prevent us from all realizing our dreams and opening brew pubs in our basements? What state are they in, and if possible, could you tell me the name of the store and their address? Do they let the batch ferment there, bottle or keg it and baby-sit

it for you? Take gravity readings, etc.? Is your batch guaranteed, or if

there is an infection or the batch tastes like something awful, do you eat

the cost of the brew? And do they have a standard selection of brews you can

do, or do they let you use your imagination? There are plenty of homebrew

supply shops where we are going, but this idea could really be a winner!

Bettina B, dreaming in CT...about doing something like this in NY

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Date: Mon, 12 Jul 1993 19:05:22 EDT  
From: CKXB66B@prodigy.com (MRS BETTINA A BARBIER)  
Subject: Flat Beer

On Thu, 8 Jul 93, Rich Ryan <ryancr@install4.swin.oasis.gtegs.com> said about: Subject: flat beer:  
>The beer tastes fine other than being somewhat flat. Papazian's  
>troubleshooting section came to two conclusions: 1) I left an excessive  
>amount of sterilant in the bottles or 2) I'm storing the beer at  
>excessively cool temperatures. I used B-brite to sanitize the bottles  
>and equipment and was very diligent to make sure I washed it all off.  
As  
>far as storing the beer goes, it hasn't gone below 70 since it was  
bottled.

Rich, how did you prime the beer at bottling time? If you rinsed the bottles well and are keeping them at 70 degrees, either you didn't prime the beer right or you have a brew that attained so high a level of alcohol that it killed all your yeast-critters. Why don't you give us a little more info...Style brewed, ingredients, OG, FG, type of yeast used and how long the fermentation took.

>I noticed that I have more like two inches of air space in each bottle.

I would think that with over 2 inches of headspace you would have little beer bombs ready to explode. I usually go for less air space rather than more, based on no real theory but just on our own good results and the hope that by eliminating one little 1/2 inch of space in each bottle we might reduce the amount of bottles to fill and cap (and wash) per batch. I think that if this situation continues, you may want to re-bottle the beer, perhaps by making up a rather large starter, uncapping all the bottles, putting the beer into a well-sanitized bucket, adding the starter at high krausen and re-bottling in a new batch of (already waiting) sanitized bottles. I would not use the same bottles again. Do you have a jet washer?. Or you could keg it and force-carbonate it.  
Good luck with it...Bettina

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Date: Mon, 12 Jul 1993 19:05:36 EDT  
From: CKXB66B@prodigy.com (MRS BETTINA A BARBIER)  
Subject:

On Thu, 8 Jul 93 13:18 CDT, Frank (fjdobner@ihlpb.att.com) quoted Drew in:

Subject: AdvertisingWyeast

>>Again Drew says:

>> How about this: Once a month, each person who sells a product may  
>>post a "I sell this product" message. No claims, no hype, no prices,  
>>no details, just a clear statement of intent to sell. Interested  
>>parties may then send them private email requesting info on their  
>>product. These people should then refrain from taking part in  
>>discussions on their or competing products. People with personal or  
>>financial interest (close friends of sellers, etc) should show similar  
>>restraint. Recommendations from satisfied customers in responses to  
>>queries from other list members would always be welcome.

Frank then says:>I agree wholeheartedly with this recommendation.

>This would perform many>services to us in this forum.

>It would allow the commercialists (me being one)

>to do their thing in a confined marketplace, would restrict commercial  
>behaviour to what would be strictly proper and improper, provide product  
>information to customers, and allow the real artists and scientists  
>here their needed airtime to talk about their hobby/pastime/  
professions.

Bettina chimes in with her non-commercial 2 cents:

I agree, as a newcomer here but a regular on another service (am I  
allowed

to mention other services I am on?) that the problem of crass  
commercialism

would be well addressed by this approach. I have no problem with people  
who sell things saying so...who knows, I might just want to buy one! I  
think the caveat should be that the description should fit into a  
proscribed amount of space, with details limited to descriptions of  
technology used or actual physical characteristics rather than long  
laudatory sales pitches about the item, i.e. "Fresh Belgian Yeast  
straight

from a Trappist brewery and flown in every week on the Concorde, in  
special

containers of x composition and gathered using y methods, including a  
hermetically sealed container of air from near the roof tiles of the  
brewery" might be acceptable...but NOT GUARANTEED TO MAKE TRAPPIST ALES  
BETTER THAN THE MONKS DO!!!!!!...I am always interested in reading about  
new things, and especially in how things work or how they are done, but  
NOT

in hearing about how great the inventor, seller or best friend of the  
above

think the whateveritis is.

Bettina B

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Date: Monday, 12 July 93 13:39:25 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: dark wheat

Howdy,

Johann Klaassen is worried about how his wheat beer is coming out darker than expected (HBD 1179). Just impress your friends with the Dunkelweiss recipe you developed, & everything should be okay.

However, if you want to do a Weiss, see if you can get Alexander's extract. I think it's 60% barley / 40% wheat. I've never personally tried it, but I hear that it works.

Alan, Austin

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Date: Mon, 12 Jul 1993 12:31:24 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Pike Place Yeast

In HBD #1179 Michael Tavis asks,  
> My only questions is: Is the yeast I cultured the same yeast used in  
> fermentation or is a yeast used for bottle conditioning?

I called the Pike Place Brewery, and the gentleman that answered (did not get his name) was very helpfull. At the tail end of the fermentation (primary or secondary?) the fermenter is sealed and allowed to pressurize. It is then cooled to help dissolve more CO2, and flocculate the yeast, then they bottle using a counter flow pressure system. So, the yeast Michael cultured is what they use to ferment.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Mon, 12 Jul 93 14:59:14 EDT  
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>  
Subject: Re: J Klaassen's wheat beer

I think you provided the answer - the boil is too. Try your next batch at twenty five minutes. I have successfully used the M&F Wheat (two cans with 1 pound of malted wheat mashed in 3 cups of 150F water and sparged to add to wort to make 5 gallons) with 1 1/2 Hallertau plug hops to make a very satisfying, pale wheat ale. The last batch I added a hop tea of Hallertau to add to the aroma and liked the results.

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Date: Mon, 12 Jul 93 11:14:11 MST  
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
Subject: electric surface heating elements

I would like to find an electric surface heating element which could be used for a 6 - 8 gallon boil. Right now I do a 2.5 gallon boil using the 1 kW element on my kitchen stove, which takes about 30 to 45 minutes. All else being equal, seems I could use a 2 - 3 kW element.

Note that I don't intend to replace the stovetop element. I want to make a stand-alone unit that I could use in the garage or outside with a 10 gallon stainless pot.

Thanks in advance.

Joel Birkeland  
Motorola SPS  
(602) 897-4359

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Date: Mon, 12 Jul 93 22:46:59 GMT  
From: Martin Wilde <martin@gamma.intel.com>  
Subject: Re:Pike Place Yeast

In digest #1179, Mike Tavis writes:

> Alright all you Seattle-ites, here's a question for you.

> A few months ago a friend of mine brought me a bottle of Pike's Place  
> back from Seattle. I tried it and absolutely loved the fruitiness  
> (esters?) of this ale. I assumed that it was due to the yeast used in  
> making the beer, so when another friend went to Seattle I made sure he  
> brought me back another bottle so I could try and culture the yeast  
> out of it.

> Well last night after several starter solutions and some offerings to  
> the gods of beer I have what looks like a healthy Pike's Place sample.  
> My only question is: Is the yeast I cultured the same yeast used in  
> fermentation or is a yeast used for bottle conditioning?

Mike, yes you have the fermentation strain. Pike Place is a single  
strain  
yeast.

Since they Irish Moss their beer I am suprised you obtained any yeast  
from the bottle. I was told by the brewery - Good luck... Then I took  
them a quart jar and they gave me some yeast...

This strain is a good strong fermenter. Not much esters and other  
flavors.

martin (NOT Seattle - But Portland)

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Date: Mon, 12 Jul 1993 15:59:37 -0500 (CDT)  
From: BIRMINGHAM@FNE683.FNAL.GOV (Yeah, yeah, yeah)  
Subject: Bizarre homebrewer behavior

>From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)

>.... Although most homebrewers  
>prefer the seven gallon carboy because of the extra headspace, I buy  
them  
>because I like to wear the way-cool styrofoam pod on my head when I take  
>a shower. You should try it some time.

This is the sort of behavior I have come to expect from people who  
use Sierra Nevada Pale Ale (amen) as slug bait. :-)

Seriously, does anybody know of a cheap \*local\* (to the Chicago  
area) source for 25-liter acid carboys? I picked one up for ten bucks  
at an antique store last weekend, but I doubt they get many of those.

Later,  
Phillip

- - -

Phillip J. Birmingham birmingham@fne683.fnal.gov  
" 'Evian' is 'naive' spelled backwards. That's what you are if you buy  
bottled water. Drink gin instead." -- Milk and Cheese's Fourth #1

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Date: Mon, 12 Jul 1993 12:25:24 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Extract darkening with boil

In HBD #1179, Johann Klaassen writes:

>Could it be that my hour-long boils have darkened  
>the otherwise light malt (which would shock me)?

Funny you should mention this, because this very weekend I was at my local brew store talking to the guy there about brewing with extract. I usually brew all-grain, but due to time constraints I'm doing an extract batch next, and so I was getting some advice on it. He said that boiling does indeed darken malt - he thinks it's actually an oxidation process and that splashing the wort around a lot when hot darkens it even more. His solution: do a mini-mash of your specialty grains first (crystal, chocolate, etc.), strain the grain out, then boil the hops in that water, and only add the extract for the last twenty minutes of the boil, thus minimizing the time the extract is boiling, but still giving you the full time for the hop boil.

How does this technique sound to the more experienced extract brewers out there?

- - - - -  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Mon, 12 Jul 93 13:54 PDT  
From: Charles T Jacob <ct\_jacob@pnl.gov>  
Subject: Hot Mash!!!

Since there are many of you out there who have created "Mashes" (No hard liquor of course) I have an unusual request for a hot pepper mash. Not to make beer with although it's been done in the past. I make my own Habanero (This can also makes one hot but fruity beer) hot sauce and would like to make a sauce using a mash that has aged for 1 month to a year. Is there anyone out there who could give me advice on how to go about making a good mash?? Please E-mail me privately. Winning response gets a homemade bottle of sauce to put on your dog while your drinking a homebrew.

Charley  
Greenbelt, MD  
Internet: ct\_jacob@pnl.gov

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Date: Mon, 12 Jul 93 23:55:00 +0000  
From: WHEATON\_JOHN/HPBOI1\_03@hpdmd48.boi.hp.com  
Subject: Not enough body/SF area brewpubs

Response to Ed Wolfe

Beer Body

I use at least 1/2 to 1 lb Dextrin malt in my mash for an acceptable level of body. This malt must be crushed and mashed with your 2-row. You can use dextrin powder and add directly to your boil but I have never experimented with it as I went to all-grain before I had the chance.

SF area brewpubs

If you can, check out the Anchor Brewing Co. on Potrero Hill in the South part of the city just off of Hwy 101. The fresh beer is outstanding, not like your bottled stuff! Try a 50-50 mix of Liberty Ale and Old Foghorn Barley Wine, you'll never be the same. Pick up a Celebrator magazine when you get there and you will have an instant guide to the local micros. Call Anchor Brewing or SF Brewing Co. on where to get a copy. For the Jurassic Park of micro brewing you MUST visit Buffalo Bill's in Hayward, enough said.

John W. - HP  
Boise, ID

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Date: Mon, 12 Jul 1993 18:43:34 -0400 (EDT)

From: Edward Croft <CROFTE@delphi.com>

**Subject: Re Brewpubs in Providence**

Caleb, I tried to answer via private E-mail, but the user ADMCR was rejected.

Anyway, I live about twenty minutes from Providence and as yet I don't believe

that any brewpubs have been started there. The closest that I know of are in

Boston, about 50 minutes drive. As far as suppliers, there are a few within

forty minutes drive from Brown. If you E-mail me once you get to Brown, I will

send them on to you.

Sorry about the bandwidth, but I couldn't get through.

E

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Date: Mon, 12 Jul 1993 18:49:58 -0400 (EDT)

From: Edward Croft <CROFTE@delphi.com>

Subject: Fruit quantities in beer

I am interested in trying my hand at a couple of fruit beers. I was wondering if anyone has put together a chart that shows how much fruit to add for five gallon batch. Also, whether to add to the wort, primary, secondary, or bottle. Also weather to cut, blanch, or whatever. It would look something like this.

| Fruit     | WGT. | Conditioning | Wort | Primary | Secondary | Bottle |
|-----------|------|--------------|------|---------|-----------|--------|
| Blueberry | 10#  | Blanched     | X    |         |           |        |
| Orange    | 10#  | Cooked       | X    | last    | 5m        |        |

|        |     |          |   |      |    |   |
|--------|-----|----------|---|------|----|---|
| Orange | 10# | Cooked   | X | last | 5m |   |
| Prunes | 5#  | Blanched |   |      |    | X |

Of course, the above are fictional, but maybe someone who knows these things can fill in the blanks. TIA, Ed

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Date: Monday, 12 July 1993 14:11 PT  
From: scott.powell@amail.amdahl.com  
Subject: Beer in the White House

I was digging through some of my old books and I found one I had forgotten about. It's titled The White House Cook Book. A Comprehensive Cyclopedia of Information for the Home. It was first written in 1887 (though I have a second printing from 1907) by Hugo Ziemann (Steward of the White House) and Mrs. F.L. Gillette. Here are the beer recipes I found.

#### Hop Beer

Take five quarts of water, six ounces of hops, boil it three hours; then strain the liquor, add to it five quarts of water, four ounces of bruised ginger root; boil this again twenty minutes, strain and add four pounds of sugar. When lukewarm put in a pint of yeast. Let it ferment twenty-four hours it will be ready for bottling.

#### Ginger Beer

Put into a kettle two ounces of powdered ginger root (or more if it not very strong), half an ounce of cream of tartar, two large lemons, cut into slices, two pounds of broken loaf sugar and two gallons of soft boiling water. Simmer them over a slow fire for half an hour. When the liquor is nearly cold, stir into it a large tablespoon of the best yeast. After it has fermented, which will be in about twenty-four hours, bottle for use.

#### Spruce Beer

Allow an ounce of hops and a spoonful of ginger to a gallon of water. When well boiled, strain it and put in a pint of molasses, or a pound of brown sugar, and a half an ounce or less of the essence of spruce; when cool add a teacupful of yeast and put into a clean tight cask, and let it ferment for a day or two, then bottle it for use. You can boil sprigs of spruce fir in place of the essence.

#### Egg Flip, or Mulled Ale

Boil one quart of good ale with some nutmeg; beat up six eggs and mix them with a little cold ale; then pour the hot ale into it, and pour it back and forth several times to prevent its curdling; warm and stir it till sufficiently thick; add a piece of butter or a glass of brandy and serve it with dry toast. (I'm going to try this at a Homebrew party in August)

>From what I gathered about this book it is a compilation of information  
from  
the recipes and experiences of the White House staff since the time it  
was  
first occupied (circa ????) till 1887.

| Scott B. Powell, sbp00@amail.amdahl.com-- I drive the Scoboni --|  
| (insert standard disclaimer here) |

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Date: Tue, 13 Jul 93 08:01:21 -0400  
From: jchism@mtmis1.mis.semi.harris.com (Jami Chism)  
Subject: re-using yeast slurry

>When fermenting with liquid yeasts, is there a simple way to use the  
>slurry on the bottom of the secondary for pitching into a new batch?  
>Any comments on the amount to use would be helpful. Also, is there  
>a method for storing such a slurry for later use?

I have been re-using yeast slurry for several years. My method is to add a cup or so of cool water to the slurry after I've racked off of it and swirl it around, mixing the slurry really good with the water, then pouring it into a sterilized glass quart jar. I let this sit at room temp for several hours until there is noticable seperation, then pour the top liquid layer off. I again add about a cup of cool water to the yeast, mix it up good, cover and let sit at room temp for several hours. Pour off top layer, pour the resulting yeast cake into a sterile canning jar, cap and store in the refridgerator until you're ready to brew again. This is better know as washing yeast and the method can be used with either dry or liquid yeasts. I have been usually re-use a package of yeast anywhere from 7 to 10 brewing sessions before it starts to appear suspicious.

Cheers,  
Jami

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Date: Tue, 13 Jul 93 08:23:27 EDT  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: Seriously Stupid Advice

In HBD1179 John DeCarlo writes:  
>Plus, if I really want info on, say, wort chillers, a well-designed  
posting  
>containing a stupid theory works wonders <grin>.

>>From: korz@iepubj.att.com

>>Back to microbiology. Besides the zillions of bacteria on your hands,  
>>there are hundreds of zillions of bacteria in your mouth. Sucking on a  
>>siphon hose with your mouth is probably one of the best ways to infect  
>>your beer with lactobacillus which is everpresent in the human mouth.  
>>Lactobacillus will eat sugars that the yeast have left behind and cause  
>>your beer to gush about four to six weeks after bottling.

>Well, Al, I appreciate your posting of seriously stupid advice, but the  
>"start siphon with mouth" issue comes up all the time and many  
(including  
>myself) have no problems with this approach. I always \*start\* my  
siphoning  
>with boiled water in the tube, but whenever it stops for some reason, I  
end  
>up using my mouth. In four years, my only infection has been because I  
>used an infected starter. I can just see the testimonials pouring in  
again.

I probably shouldn't get involved here, but I'm a bit confused.

Are you saying it's impossible to get an infection using your mouth when  
starting a siphon? Because if it is possible, then why is Al's advice  
"seriously stupid"? The fact that you have not gotten any infections  
using a siphon by mouth seems analogous to not getting lung cancer  
after smoking for 30 years, or not getting killed while driving  
without a seat belt, or not getting an infection while having sex  
without a condom. All these are likely outcomes but since they  
are all possible any advice on not smoking, or on wearing seat belts,  
or a condom aren't "seriously stupid". If you believe the chances  
of infection are so remote that one shouldn't worry about it,  
then why not use your mouth all the time instead of using boiled water?

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Date: Tue, 13 Jul 1993 09:00:26 -0400 (EDT)  
From: roman@tix.timeplex.com (Daniel Roman)  
Subject: Re: NO2 is NOT used in Guinness!

> >5. Are any home brewers using the NO2 cartridge for their homebrew,  
or  
> >contemplating trying it?  
>  
> No, but i have thought about buying a second CO2 cylinder and having it  
filled  
> with 40% N2 and 60% CO2 for some winter stouts out of my keg. Has  
anyone  
> done this with success (ie: brewed a stout and dispensed it w/ a nice  
creamy  
> head ala guinness?).

It is my understanding that you will need a different type of tap to  
completely duplicate the creamy head. The taps used for Guinness  
must add some turbulence or some other effect whereas the standard beer  
taps go for smooth flow so as not to knock the CO2 out of solution. I  
have not found a bar owner who would let me take their Guinness tap apart  
to find out but I do keep trying.

- - -

Dan Roman Internet: roman@tix.timeplex.com//  
ccMail: roman\_d@timeplex.com GENie: D.ROMAN1 /X/ Only AMIGA!

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Date: 13 Jul 1993 08:27:08 GMT  
From: "Tom Stolfi" <WAUTS@cwemail.ceco.com>  
Subject: NOTE 07/13/93 08:27:54

From: Tom Stolfi

I have a homebrewing friend going to Toronto in August. Can anyone  
recommend  
a few Brewpubs for him to try??? Thanks.

Tom Stolfi  
wauts@cwemail.ceco.com

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Date: Tue, 13 Jul 1993 09:33:22 -0400 (EDT)  
From: Jim Griggers <brew@devine.ColumbiaSC.NCR.COM>  
Subject: Parking in Portland

I will be attending the AHA's Brewing Frontiers in Portland, Oregon. When I picked up my airline ticket yesterday, I discovered yet another cost for this trip.

I will be flying into Seattle and driving a rental car to Portland. One big shock came when my travel agent informed me that the parking charge at the Marriott is \$14 a day. Parking the car for a week will cost almost as much as the car rental. I don't plan on using the car very much during the conference, but I do want to have a car for a couple of days to sight-see after the conference and Brewers Festival.

Does anyone have a suggestion on where to park? Renting the car "by the day" is out because they have a \$75 drop-off charge. Maybe some other combination of travel would work (air, bus, rail, boat, ???).

-jim griggers    brew@devine.columbiasc.ncr.com

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Date: Tue, 6 Jul 93 08:54:35 EDT  
From: lyons%adc3@swlvx2.msd.ray.com  
Subject: RE: Shake, Shake, Shake

I followed Mike Lemons advice in HBD #1171 about shaking the primary vigorously to aerate the wort. I pitched the liquid yeast (Wyeast #1338 - European, no starter!) at 79F and stored the primary at 72F until fermentation kicked in. Within 12 hours the fermentation was under way. Pitching liquid yeast in a well aerated wort, at slightly warm temperatures, will result in short lag times without the need for a starter. Thanks Mike!

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Date: Tue, 6 Jul 93 09:20:33 EDT  
From: lyons%adc3@swlvx2.msd.ray.com  
Subject: RE: Pressure/temperature relationship

Keith writes in HBD #1174:

>Someone a couple of issues ago asked what would be the proper pressure  
>to  
>get the same volume of CO2 at a temperature of 70F.  
>  
>At the risk of getting technical, there is an easy solution given by the  
>ideal gas law. Holding volume and mass constant, the pressure is equal  
>to  
>the original pressure times the new temperature all divided by the  
>original  
>temperature. That is:  
>  
>P2 = P1\*T2/T1  
>  
>This does not take into account the solubility of the CO2 in the beer,  
>but  
>it should be close enough for your needs.

Just want to mention, that you should convert the temperatures (T2 & T1)  
to absolute temperatures before taking the ratio. It does make a  
difference in the result.

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Date: Tue, 13 Jul 93 09:59:12 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: Irish Moss

Jeff Frane asks:

I'm interested in hearing about people's experience using Irish Moss as a kettle fining agent. I had been using it off and on for years, without being able to notice any difference when I remembered to add it. Eventually, I stop bothering all together, and since I was using 1056 yeast almost exclusively, I hadn't any problems with clarity.

I recently made a steam beer using Papazian's all grain recipe. The recipe called for Irish moss but I decided to omit it. After a month in secondary the brew had a permanent haze that just wouldn't go away. On a hunch, I boiled 1/2 tsp irish moss in a quart of water for 10 munutes and after cooling added to the secondary and mixed well. Within minutes globs of solids formed (I love technical terms :- ) and settled to the bottom. Within 24 hours the brew was crystal clear - I mean CLEAR!

The beer is currently on tap and is great.

- --Tony Verhulst

P.S. I had done a protein rest (122F for 30 min) and the iodine test was negative for starch.

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Date: Tue, 13 Jul 93 14:22:00 +0000  
From: DAMON\_NOEL/HP0800\_01@mailhub.cs.itc.hp.com  
Subject: Invert sugar

Spencer Thomas asks for a source of invert sugar...it's used in candy making.  
Any local cake decorating/candy making operation should carry the stuff, also they sell a substance (I think it's an acid) which you can use to convert ordinary sugar to invert. Check the yellow pages for "Candy & Confectionery-Retail".

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Date: Tue, 13 Jul 93 09:17 CDT  
From: fjdobner@ihlpb.att.com  
Subject: Duvel

The recent post on Duvel got me thinking about something I read in Jackson's Belgian beers book. On page 216 paragraph 3, it states "A proportion of dextrose is added before primary fermentation, to boost alcohol and further attenuation." Well, my understanding of dextrose is that it is not largely fermentable (by commonly used yeast). How could the dextrose boost alcohol and further attenuation. Perhaps its in the type of yeast used. Jean De Clerck at it again. A further reference to dextrose being used in priming after cold maturation and yeast compaction (see last paragraph same page).

It is also interesting to note that the maturation for this top-fermented product is so low: 30.2F or -2C. After maturation they drop the temperature to 26.6F (-3C) for compaction and precipitation of the yeast bed. All this happens prior to conditioning. During which the temperature is boosted to 71.6F (22C). My experience with yeast is after it has sedimented and been treated in such a cold manner that it doesn't take to a quick revival. Must be a truly remarkable yeast.

Frank Dobner

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Date: Tue, 13 Jul 93 9:31:23 MDT  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Re: 6oz bottles

> My question is: Where can I get 6-8oz bottles from?

Coca-Cola has recently started selling Coke in 6-packs of 8oz bottles (at least here in Colorado). The bottles are nice heavy glass and take normal crown caps, not screw-ons. I've used them quite successfully to bottle strong ales and such. Check out your local grocery stores. Donate the bottle contents to your friends if you're not fond of Coke or if you'd rather try to win a syringe :-/.

The disadvantages are that the glass is clear, so you need a dark case to store them, and you have to live with the screened "Coke" label.

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Tue, 13 Jul 93 8:30:36 PDT  
From: gbaldw@zaphodusin.com (Gordon Baldwin)  
Subject: Irish Moss

In #1079 Jeff Fane asks about others experience with Irish Moss and recommends using 1 Tablespoon per 5 gallon batch. I have been having similar problems with Irish Moss. I use 1/2 to 1 teaspoon per 5 gallons, and it doesn't seem to make any difference if I add it or not. My beers are mostly clear with a slight chill haze. Some have a fairly high amount of chill haze.

When should the irish moss be added to the boil. I think Papazian suggests 5 minutes from the end of the boil, and the instructions on the packet of irish moss I got from the homebrew store say 30 minutes. (It could be the other way around) From what Jeff is saying it looks like it should be added as the wort is heating up before the boil. So when is the best time to add it?

Gordon Baldwin

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Date: Tue, 13 Jul 1993 11:37:55 -0400 (EDT)  
From: bickham@msc.cornell.edu  
Subject: Good news for micros in New York State

According to one of the editors of the Schenectady paper, the New York State legislature actually approved a decrease in the licensing fee for a microbrewery or brewpub. It will now be \$250, which is approximately a factor of 10 less than the \$2000+ fee one had to pay last year. Now if I just had a few hundred thousand for capital equipment ;-)

Scott  
- - -

=====  
Scott Bickham |  
LASSP and Materials Science Center | bickham@msc.cornell.edu  
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Date: Tue, 13 Jul 1993 09:08:02 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Gas (urp!)

JC Ferguson:

> >  
>  
> >5. Are any home brewers using the NO2 cartridge for their homebrew,  
or  
> >contemplating trying it?  
>  
> No, but i have thought about buying a second CO2 cylinder and having it  
filled  
> with 40% N2 and 60% CO2 for some winter stouts out of my keg. Has  
anyone  
> done this with success (ie: brewed a stout and dispensed it w/ a nice  
creamy  
> head ala guinness?).  
>  
> Although I haven't bought a second tank myself, I have sampled homebrew  
served this way -- only it was a brown ale rather than a stout, and the  
creaminess and head retention were both truly remarkable. I don't know  
if this qualifies as "cheating", but the end result was terrific. Only  
stubbornness (and the fact that the CO2 company is two blocks away)  
prevents me from making the conversion.

Jim Busch agrees with John Mare:

>  
> John Mare makes some excellent points regarding English IPAs:  
>  
> <In a recent discussion on India Pale Ales (IPA's) the assertion was  
made  
> <that these are all high gravity ales. [text deleted ]  
>  
> This is absolutely true. In fact I had troubles locating a IPA as high  
> as 1.046 OG. Even "strong ales" tend to be around 1.052 and are  
regarded  
> with fear from many pub goers. It is really sad to find this attitude,  
> since as a result these beers tend to be some of the oldest and less  
crisp  
> cask ales to be found. Of course, the higher gravity gives them a  
slight  
> edge on shelf life. Note how much residual sugar is in the R&D Deucher  
> IPA at only 3.9 ABV with an OG of 1.048. This can be true of the  
ordinary  
> bitters too.  
>

Actually, what's amazing to me is not British "fear" of stronger ales,  
but the fact that British brewers can produce such flavorful beers at  
such low gravities. But Jim is right: a British relative went on at  
great length about how my 1.050 beer tasted like a barleywine. You  
should have seen his eyes bug when I served him a real strong ale!

I suspect part of the "fear", however, stems from the British propensity  
for session drinking. Beers in the 1.030-1.035 range certainly lend  
themselves to spending the whole evening in the pub and still being able  
to find one's way home. (Of course, as Andy Capp has it: "You know  
where I live, Chalky knows where I live. We don't \_all\_ need to know.")

- --Jeff

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Date: 13 Jul 1993 12:00:05 -0500  
From: "Daniel F McConnell" <Daniel.F.McConnell@med.umich.edu>  
Subject: Irish moss/hot break?

Subject: Time:11:54 AM  
OFFICE MEMOIrish moss/hot break? Date:7/13/93

Jeff asks about Irish moss users. I also used to use it (powdered) when I remembered (about half the time) and could notice no significant difference in clarity. 1 full teaspoon/5 gal. for the last 10 or so minutes of boiling. When I ran out I did not buy more. My kegs would condition for about 2 months in the cool cellar. Recently I have been supplying my father on a regular basis and the beer now seems disappear twice as fast (at least!). In the shortened conditioning phase I had noticed a clarity problem which I attributed to process changes that I made when I increased my brew length. Then I happened to notice the Irish moss FLAKES at my local supplier. Since I'm a sucker for anything new/different I tried them. Suddenly the clarity problem is GONE. Imagine that. I am convinced.

But I am confused about one statement

>So I used Irish Moss in my most recent brew, and the results were pretty >amazing -- a very dramatic hot break...

Hot break? You make no mention about time of addition. I always thought IM was to be added very late in the boil, well after the hot break had formed.

DanMcC

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Date: Tue, 13 Jul 1993 09:11:25 -0700 (MST)  
From: cjohnm@ccit.arizona.edu (John Mare)  
Subject: RE:Homebrew Digest #1180 (July 13, 1993)

I heartily agree with Jim Busch's assertion that Jim Koch's efforts in assembling a fine brewery at Jamaica Plains, and taking the trouble to experiment with a variety of unusual (for the USA) beers is good for craft brewing. I have visited the brewery, and was very impressed with the knowledge of our guide, and with the beers we tasted. We don't have to like the guy to acknowledge that he has helped shift the focus of the common beer drinkers to something better.  
John M.

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Date: Tue, 13 Jul 93 11:37:28 EST  
From: Andrius Tamulis <ATAMULIS@ucs.indiana.edu>  
Subject: Publist at sierra

Yesterday I uploaded the publist from sierra.stanford.edu and noticed that  
1) it had out-of-date info. on it - the old Sieben's brewery, more recently used by Berghoff, in Chicago is now closed. 2) It did not have the info. I was looking for - I've heard that there is a brewpub in the Evansville, IN area that brews a chili pepper beer, and I wanted to find it. So - I'd like to find out how this list is being updated. Please, please, don't get me wrong - it was obviously a great chore just to put out such a list, keeping it current must be impossible. I'd just like an email address to send info to - like the Berghoff closing in Chicago, and this Evansville brewery, if I ever find it.

thanks,  
andrius  
atamulis@ucs.indiana.edu

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Date: Tue, 13 Jul 93 10:51 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: Irish Moss

Jeff Frane brings up the subject of Irish Moss. I've always used it, but since my beers are never light colored, it doesn't make a helluva difference.  
That I've noticed.

But I'm curious about one thing. Papazian et al say to add IM 10 - 15 minutes before the end of the boil. This seems to contradict what Jeff (Dr. Fix?) says about helping the hot break. Doesn't the hot break happen near the beginning of the boil?

On other thing. A while ago, I experimented with with larger amounts (like what Jeff suggests) and I remember having some problem, (Maybe low SG?). I'll have to check my notes at home.

Brew hard,  
Chuck

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Date: Tue, 13 Jul 93 12:28 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Nitrogen

>From: 12-Jul-1993 0931 -0400 <ferguson@zendia.enet.dec.com>

>5. Are any home brewers using the NO2 cartridge for their homebrew, or  
>contemplating trying it?

<No, but i have thought about buying a second CO2 cylinder and having it  
filled with 40% N2 and 60% CO2 for some winter stouts out of my keg. Has  
anyone done this with success (ie: brewed a stout and dispensed it w/ a  
nice  
creamy head ala guinness?).

It is difficult or impossible to mix at home and keep it mixed. You can  
buy  
it already mixed in a product called Alagal. They roll it for hours to  
mix  
it properly. I tried it, it's cute but not much can be said beyond  
that.  
The head seems to form a little strangely but I could detect no  
particular  
difference in the feel of the carbonation or in the lingering head.

Contrary to popular notions, the product was developed to make more  
money not  
better head. The fact that it does not dissolve into the beer means that  
high  
pressures can be used at the source for rapid dispensing at remote taps.  
Football stadiums and ball parks are the best customers so that should  
give  
you a clue as to the objective.

It is impossible to force carbonate beer with this stuff so you  
definitely  
need two separate tanks. The method I used was to pressure up the keg  
at 50  
psi with the mix and shake it for a few minutes. No matter how long you  
do  
this, there is no noticeable drop in pressure or other indication that  
anything is happening but some nitrogen is dissolved. I then purge the  
tank  
and carbonate in the usual manner with CO2, then purge again and rest it  
over  
night with the mix at 30 psi, then reduce to normal dispensing pressure.

I rented the mix just to experiment with and returned it a few weeks ago  
as  
another idea of little value to homebrewers.

js

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End of HOMEBREW Digest #1181, 07/14/93

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Date: Tue, 13 Jul 93 12:35 CDT  
From: korz@iepubj.att.com  
Subject: astringency/flat beer/filtering/warm ferment/IPAs

Keith writes (quoting Kinney, who quoted someone else (sorry)):  
>>>This might be the source of the confusion. He also recommends  
scooping out  
>>>the specialty grains just prior to the wort coming to a boil.  
>  
>>Hmm... The conventional wisdom here is to remove the grains at 170  
>>degrees to avoid leaching tannins into the wort. Waiting until just  
>>before the boil is too long.  
>  
>This sounds like a momily to me. I haven't noticed an astringency  
problem with  
>beers I've made to date using this method and I know of several other  
brewers  
>who use this method with success.

I thought so too on my first few batches, but then a more experienced  
brewer pointed out the astringency in my beer. Upon questioning, it  
was traced to my removing the grains when the water came to a boil.  
Heck, for my first batch, I boiled them for 60 minutes. I recall I still  
loved the beer, but today, now that my palate is more sensitive I'll bet  
I wouldn't enjoy it.

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Rich writes:  
>Let me start by saying I'm a neophyte in the homebrew  
>field. I just bottled my first batch three weeks ago.  
>The beer tastes fine other than being somewhat flat.  
>  
>Papazian's troubleshooting section came to two conclusions:  
>1) I left an excessive amount of sterilant in the bottles or  
>2) I'm storing the beer at excessively cool temperatures.

You may also have:

1. not stirred the priming sugar well and some of your bottles may be overcarbonated (did you first dissolve the sugar in a few cups of water and boil it to sanitize and dissolve the sugar?), or
2. you may not have used enough priming sugar (1/2 to 3/4 cup corn sugar for a 5 gallon batch -- or use 3/4 to 1.25 cups of DME),
3. or, you may have brewed such a high-alcohol beer that the yeast is pooped-out (I once brewed an Imperial Stout with an OG of 1120 -- it never really carbonated at all -- in retrospect, I should have pitched a more attenuative yeast once the Wyeast #1028 pooped out at 1050).

>I also read somewhere else in Papazian's book that you should  
>leave about an inch of air space in each bottle. I noticed that  
>I have more like two inches of air space in each bottle. Could  
>this have some effect on the carbonation. It would seem that  
>as I increase the air space in each bottle the carbonation  
>should increase as well.

Yes, too much headspace will give you more carbonation not less.

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goeff writes:

>I have a question about filtering beer. Out of curiosity, I just  
>made some quasi-czech pilsner at a U-Brew-It-Here place, and they  
>of course filter their beer to get that commercial look.  
>Why should I filter, or not filter my homebrew? What would it do  
>for my beer? (by the way, I have chosen not to patronize those  
>brew-places again, they charge exhorbitant rates).

The look will change, but the flavor will change also. A pair of brewers who have won gobs of awards for their beers (including the Ninkasi Award in 1992), Steve and Christina Daniel, are strong proponents for filtering. When you filter, you must be aware that you can filter too much -- try Miller Brewing Company's Amber Ale -- not bad in flavor, but all the body has been filtered out of it!

>Finally, I would like some information on warm temp brewing. If  
>brewing ales, what are the consequences of fermenting between 18-24  
>degrees C ? My apartment is not air-con. nor do I have a basement (!).  
>Is bacterial contam. my main worry, or will I develop some  
>interesting, but perhaps 'out of style' flavours?

Bacterial contamination as well as wild yeast and mold (however mold should not be a problem (unless you've got tons of it in your air) if you watch aeration (molds are aerobes)) can be problems so watch your sanitation. Higher temperatures will increase the yeast's production of all kinds of by-products from esters (fruity flavors and aromas) to phenols to higher alcohols. If you use a good, clean yeast, you should not have problems with phenols and higher alcohols too much. Some yeasts produce more than others. I feel that Wyeast #1056 and #1028 are quite clean. I believe that diacetyl production is increased at higher temperatures also, so you may want to avoid high-diacetyl producers like Wyeast #1084 when you brew at higher temperatures.

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John writes:

>In a recent discussion on India Pale Ales (IPA's) the assertion was made  
>that these are all high gravity ales. Conventional wisdom tells us  
>that these ales were brewed at high gravity to allow them to travel well  
>(ie. by ship to India), and our US beer competitions persist in defining  
>IPA's as medium to high gravity (OG 1050 to 1065). It is interesting to  
>observe, however, that in their land of origin IPA's are not in fact  
high  
>gravity ales. Some of the truly outstanding examples of this type which  
I  
>tasted on a recent beer tour of The British Isles include "Palmer's IPA"  
>(Dorset, OG 1039, ABV 4.3%), "Robinwood IPA" (Yorkshire, OG 1040, ABV 4.  
2%),  
>"Younger IPA" (Edinburgh, OG 1043, ABV 4.5%)...

I believe that the use of the title India Pale Ale has been misused in Britain as well as in the US. I feel that the AHA's definition is closer to the mark on this particular style than are the commercial examples, but this is just my opinion.

Al.

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Date: Tue, 13 Jul 93 12:38 CDT

From: korz@iepubj.att.com

Subject: body/softeners/Guinness cans/Victory malt/strange taste/partial boil

Ed writes:

>I recently got into homebrewing (plan on doing my fifth batch  
> this evening). I have two questions. The first has to do with body.  
> I like my beer "chewy" (or so my wife claims). None of my beers  
> have been as full-bodied as I would like. How do I increase the body  
> of the beer without necessarily increasing the alcohol content? Can  
> I use dextrine malt without mashing it? What about Lactose?

I've used dextrine malt without mashing it and yes, it will increase  
body.

Lactose will not do much for body (I feel) but will increase residual  
sweetness which can be interpreted as increased body. Malto-dextrin  
powder is available and can increase body and mouthfeel, but I haven't  
tried using it yet. Some extracts will give you a higher final gravity  
which will give you that "chewyness" that you seek. The best extract for  
this is Laaglander Dried Malt extract. Northwestern Malt extract also  
tends to finish a bit higher, but not nearly as much as Laaglander.

>The second question may be due to a related problem. None of my  
> Original Specific Gravities have been as high as I'd expected (given  
> similar recipes I've seen)....

> ....Could it be due to the type of extract I'm using?  
> Could it be my water? (I have a Culligan water softener.) Could it  
> be due to my estimation method? (I add a little to the SG reading  
> for each degree over 60F according to the error estimates Charlie P.  
> gives in his book. I think it is somewhere around 0.003 for each  
> degree. I can't remember because I've got the formula in a  
> database cell somewhere.)

It could be that you are not stirring well enough when you top your wort  
up  
with water (see a recent HBD). Another point I'd like to make is that  
you  
should not use softened water for your brewing. Water softeners work by  
adding salts to the water. If you have bicarbonate hardness, you can  
reduce  
it by boiling and then pouring off the sediment that forms. A little  
more  
trouble, yes, but I think your beer will taste better. Note that a high  
carbonate water is perfect for brewing stouts like Guinness!

Leo writes:

>I am sure that this has already been answered but I have been unable to  
find  
>an explanation in previous postings.

Search further back -- about two years ago there was much discussion on  
this  
topic.

>1. Does the NO2 cartridge in the canned Guinness affect more than just  
the  
>head of the brew? It seems to me that the canned Guinness is alot  
smoother  
>and less bitter than the traditional bottled stuff.

It's not NO2 and I don't believe there's any nitrogen at all in the cans. The recipe is different for draft Guinness compared to the bottled version.

Jackson gives the bottled version four stars, but I believe only three for the draft. The cans are the draft recipe. To make a long story short, the cans work because the plastic bubble squirts beer into the can through a small opening and makes the beer foam. Please see late 1991 to early 1992 HBDs for more details.

\*\*\*\*\*

Jonathan writes:

>And someone else asked this eons ago, but I don't remember seeing an answer  
>posted to the digest. What is "Victory malt"?? Does it have to be mashed,  
>or can it be steeped like specialty malts? What characteristics does it  
>impart to the beer?

It is somewhere in color and flavor between Munich and Vienna Malts (at least that's where Briess Malting puts it on their price sheets) and yes, it must be mashed.

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Glenn writes:

> I'm kind of new to homebrewing, and need to have a question answered by  
>people "in the know." The first few batches I have brewed had something of  
>a funny taste to them. COuld this be the result of using an aluminum pot  
>for boiling the wort?

Some say it can, others say it doesn't, but you need to describe the funny taste more for us to help you -- is it metallic? can you relate it to some kind of food? do you have hard water? do you use well water? what kind of yeast did you use? is it sour? Post more details and I'm sure someone will be able to help you find the source of this flavor.

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JC writes (quoting me):

>>Although I picked JC's post (sorry JC), there are a number of posters who  
>>seem to be confused by this "high-gravity" brew thread. There's a big  
>>difference between partial boil (which could also be called high-gravity  
>>boil) and high-gravity ferment. I believe that the original post that  
>>started this thread asked about what kind of compensation had to be made  
>>for a high-gravity ferment. Well, a number of brewers have posted that  
>>a higher gravity ferment will result in a beer with more esters. I have  
>>found this to be true, but have not tried diluting the resulting beer  
>>into a medium-gravity beer. I think what JC is asking about (as well as  
>>a couple of others) is a partial-boil recipe. One in which, say, 3-gallons  
>>of wort are boiled and then this is diluted into a 5-gallon batch in the  
>>fermenter.  
>  
>You are correct here. A partial-boil is what I want to do, or, perhaps

>it is better worded at a partial-high-gravity-boil, which is diluted in  
>the primary fermenter.  
>  
>I'm still looking for all-grain recipes that'll allow me to do this.  
I've  
>done some partial mashes, hence I'm familiar w/ the process to some  
degree.  
>Does one just cut the amount of H2O used during the mash process in half  
to  
>get a high-gravity wort? I could probably handle mashing with a full  
>grain bill and H2O (1 qt/lb), but my pot would be insufficient to handle  
the  
>grain sparge through my lauter-tun...

Hmmm... I seem to have gotten it all wrong. It's not a partial boil that  
you  
want. What you really want to do is to sparge into your kettle till it's  
about 3/4 full, then boil that down to where you can add more runoff.  
Once  
you're done sparging boil this down to about 6 gallons and then add the  
boiling hops. If your pot is too small to handle 6 gallons comfortably,  
you  
can do the boil in two parts, splitting your hops in half. Many  
breweries  
do this when their fermenters are twice the size of their boilers. You  
don't get a high-gravity wort simply by reducing your mash water in half.  
..  
you get one by either just taking the first runnings and making a 1  
gallon  
or 2 gallon batch (then using the second and third runnings for a smaller  
beer) or by taking all the runnings from, say 12 or 15 lbs of malt and  
then  
boiling this all down to 4 or 5 gallons. A partial boil is an extract  
procedure where you boil your extracts with only part of your total water  
(compensating for the low hop utilization) and then adding water after  
the  
boil in the fermenter.

Al.

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Date: Tue, 13 Jul 93 13:41:40 EDT

From: gorman@aol.com

**Subject: BruHeat Insulation**

BruHeat Users/Potential Users:

My first attempt to heat 5 gal. of water in a BruHeat took >1 hr to reach  
a  
boil

I purchased a sheet of 1.5" very dense foam, cut holes for the gauges and  
spigot and duct-taped it around the BruHeat.

Next batch took ~30 min to boil.

Also, I'm extract brewing only, but I bet mashing temperatures could be  
much  
more easily maintained and more quickly increased with the insulation.

Bill Gorman

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Date: Tue, 13 Jul 93 10:50:19 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: more on sugar in beer

I'm trying to find out the constituents or chemistry of different sugars added to British or Belgian beers. What I think I need to determine first, however, is what is the purpose of adding the sugar? What are we trying to accomplish?

What is taken as truth about sugar (I think):

- \* Glucose is 100% fermentable and thus adds alcohol and no flavor
- \* Table sugar is sucrose and is mostly fermentable but can add a cidery taste if the amount is too much
- \* Brown sugar is sucrose with a little molasses still in it
- \* Turbinado sugar is similar to brown sugar; it is table sugar that has not been completely refined.

What is invert sugar? I thought it was an optical isomer of sucrose, but sucrose is a disaccharide of glucose and fructose.

Back to the original point. If the idea behind adding sugar is to lessen the body of high gravity beers (doubbel, trippel), then it would seem that glucose is the best bet. Rajotte's book implies that invert sugar is more fermentable (than sucrose), but it shouldn't be more fermentable than glucose.

If the idea is to add some additional flavor, then brown, turbinado, or candi sugar would be a better bet. Glucose leaves no flavor and sucrose leaves an undesirable (usually) flavor.

Where do candi sugar and turbinado come in? That is, what do they add that the other sugars don't?

So what did I get wrong? Sugar is usually a taboo subject with homebrewers, so I'm not suprised that there is no primer or anything. Fire away...

- Bryan

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Date: Tue, 13 Jul 93 12:40:47 PDT  
From: mike@notorious.lbl.gov (Michael P. O'Neill)  
Subject: beers across the world?

it's been a year since following this newsletter, so if this question  
has been answered recently, SORRY!

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Date: Tue, 13 Jul 93 12:57:10 -0700  
From: ek@chem.UCSD.EDU (Ed Kesicki)  
Subject: Wheat beer slants

I seem to have gotten the number wrong for the Co. that sells pure cultures of wheat beer yeast. I called the following, which was incorrect:

1-800-BREWTEK

Got some communications company.  
So..What is the real number?

Ed Kesicki

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Date: Tue, 13 Jul 1993 16:28:18 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: The Tumbleweed Report (part 1)

What happened to all that free time I was supposed to have this summer?

I promised to summarize some of my experiences at the Tumbleweed Grille for the forum. I received dozens of requests to do so, so here goes... Sorry it's taken so long. I apologize in advance for the somewhat rambling nature of what follows but there's a lot I'd like to say and if you wait for me to organize it into MA thesis form, it'll never get posted!!

Before getting down to all the numbers, allow me to set the stage for you. You'll never understand why we did what we did if you don't have a grasp on the problems as they were presented to us. I'd hope that anyone who decided to take the jump into commercial brewing would have more money than we did. At the same time, what follows is proof positive that you can put together a commercially viable brewpub on a shoestring budget. From the beginning, the prime motivating factor behind what we've done at Tumbleweed has been the fact the operation was designed and built without borrowing a single red cent!! If the operation folds tomorrow, we haven't lost any money. We've capitalized all equipment as the need arose. To me, this makes what we're doing at Tumbleweed unique and is why I'm boring you with the details. We have almost 30 years combined brewing experience among the three brewers. And yet 7 months ago none of us could have imagined that we'd be doing things the way we are now! But what we're doing is working, so what can you say?

A bit of background on Tumbleweed. The business started in 1989 as a Southwestern foods restaurant and is firmly established as such. Tumbleweed is a restaurant first. It is not a bar and doesn't pretend to be one. This is important to keep in mind when one considers our weekly sales. I think beer sales are significant despite this fact. I sometimes shudder to think what could be happening if we were a bar.

The restaurant is located in Boone, NC, a small mountain town in the northwestern corner of NC. Population of the town proper is about 13,000. Appalachian State University has an enrollment of 11,000. I think there is about 30,000 people living in the county. Boone is a summer and winter vacation destination point. Believe it or not, Boone is the ski capital of the South. There are 4 major slopes (at least for us) within 30 minutes of town. In the summer, people come up here to escape the heat off the

mountain. Last I heard, some 2,000,000 tourists come through town each year.

Much of our business comes from this tourist crowd. We get hardly any business from the students. We're beginning to get a decent following among the faculty and staff.

Bart Conway, the proprietor at Tumbleweed, began reading about the brewpub movement in restaurant publications and thought it was a great idea. Bart is as enthusiastic a person as one could ever hope to meet. He's a man who definitely appreciates good beer. But as he contemplated starting his own brewpub I think it's fair to say he didn't know the difference between malt and hops. So here's a man who likes the brewpub idea, owns a restaurant, and wants to try it, fully admitting he doesn't know that much about making beer. I have a lot of respect for a man with his intestinal fortitude.

Not knowing the ins and outs, he did not want to invest 100's of thousands of dollars into a business about which he knew very little. One day he was drinking coffee with a homebrewer here in Boone who said, "Sure. I can brew beer. Let's do it." And so it began. In February of 1992, Tumbleweed served its first beer.

They bought a used gas stove, a 10 gallon enameled pot, and turned out the first few batches of Tumbleweed beer \*5 gallons\* at a time, bottled them and walked them down the hill to the restaurant. (Tumbleweed is officially a microbrewery because the brewhouse is not attached to the restaurant itself. We walk the beer - now in 5 gallon cornelius kegs - down to the restaurant when they run out.) Shortly they moved to 10 gallon batches. An assistant brewer, Cam Hedrick, came on board in the May of 1992, is still there, and is the only member of the team who is indispensable. He works forty hours a week, monitors the day to day operation: kegging, transfers, keeping the restaurant in stock, keeping records straight so the BATF stays off our backs, etc. In July, Cam pushed production up to 30 gallons where things stood when Burton Moomaw and I were invited to join the operation in November.

When Cam arrived, they were using an immersion wort chiller. When the 30 gallon kettle was put online, I helped them design a counterflow wort chiller (1/2" copper tubing inside 5/8" garden hose) which they began using in August.

Being the good mountain man that he is, Bart is an inveterate "horse trader". And with his own beer online, beer was a hot topic of conversation at the

restaurant. During the course of one of these "rap" sessions, he scrounged a 30 gallon stainless steel pot that had been used in a restaurant at one of the country clubs close by. Now he needed a gas burner. Somehow this came up in conversation with the guy who sells the restaurant after dinner mints. He knew where there was a 350,000 btu burner that wasn't being used and gave it to Bart. The moral of the story here is that for a couple of free meals, the brewery had a stainless steel pot and a gas ring.

In November Brett Deal, the head brewer moved from Boone, Bart called to ask me if I was interested in working in a kind of head/brewer consultant capacity. Already working two jobs, I actually turned him down, promised to find someone for him, called my brewing buddy, Burton Moomaw, and we decided to form a very loose "partnership" and split the responsibilities with each other. When I'm busy, he brews. When he's busy, I brew. And Cam, our brewery operations manager, always brews.

So here we were. A couple of homebrewers who had never brewed more than 15 gallons at a time. Full of ideas and enthusiasm and no commercial brewing experience. There were a number of changes to be made. In fact, it's fair to say that no part of the existing brewing operation resembles what was going on in November. We've changed everything.

(To be continued)

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Date: Tue, 13 Jul 1993 13:59:05 -0800 (PDT)  
From: Dave Gilbert <solomon!solomon.aha.com!dave@yoda.eecs.wsu.edu>  
Subject: DeWolfe-Cosyns distributor?

Well, the owner of my local homebrew store (if you can call a 160 mi. round trip local) has agreed that he will carry DeWolfe-Cosyns malt, providing I can find him a name, address and phone number for a distributor.

So, how about it??

Any help will be greatly appreciated!!

Thanx

Dave Gilbert      dave@aha.com  
Advanced Hardware Architectures Inc.  
Moscow, Idaho

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Date:Tue, 13 Jul 93 17:25:45 EDT  
From: tony g <giannone@BBN.COM>  
Subject: Bartles & James MALT BEVERAGE??

Hi,

My wife was reading the label of a Bartles & James 'Premium Berry Cooler'  
and  
she noticed that it said "Malt beverage with natural flavors".

Anyone know how to brew this stuff? I'd sure like to be able to brew  
something  
similar, so my wife can enjoy the fruits :- ) of my labor also.

regards,  
tony (giannone@bbn.com)

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Date: Tue, 13 Jul 93 17:34 CDT

From: korz@iepubj.att.com

Subject: Irish Moss/overshoot/storing yeast under sucrose/7oz bottles

Jeff writes:

>I'm interested in hearing about people's experience using Irish Moss as  
>a kettle fining agent. I had been using it off and on for years,  
>without being able to notice any difference when I remembered to add it.  
>Eventually, I stop bothering all together, and since I was using 1056  
>yeast almost exclusively, I hadn't any problems with clarity.

I used to use it, but after a discussion with George Fix (which I posted in HBD a while ago) in which he convinced me that the majority of mouthfeel and head retention is from proteins and not from dextrans, I reassessed my use of Irish Moss. Irish Moss works by electrostatically attracting protein molecules to itself as it sinks to the bottom of the kettle. I was dissatisfied with my head retention at the time, so I theorized that I might be taking too much of the proteins out of the wort. I cut back from a teaspoon to 1/2 teaspoon and then eventually stopped using it altogether. Except for my very first few batches, I have always been very careful to not boil my grains. (Chill haze needs big proteins and tannins to form. Head retention and mouthfeel are the result of smaller proteins which can be formed from the big proteins during the protein rest, but that's a whole other issue). In any event, I felt that I was getting acceptable clarity and thus did not miss the use of the Irish Moss.

On the other hand, some of the National 1st-round judges (justifiably) had a higher standard for clarity and I got some "slight haze" comments. Now, I'm thinking about perhaps trying Irish Moss again or one of the other finings, perhaps Polyclar, which (I believe) also works electrostatically, but is used in the fermenter and instead of proteins it attracts tannins (please correct me if I've got this wrong, or confirm).

By the way, the yeasts I use are mostly Wyeast #1056 and Wyeast #1028.

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Mark writes:

>Also, what are the dangers of a slight overshoot with a single-step  
>infusion mash? Will a couple of degrees above 156F hurt anything?

The way that higher temperature mashes work to make a more dextrinous wort is that the beta-amylase enzyme is more quickly denatured at the 156-157-158F temperature range than is alpha-amylase. At the lower temps (148-149-150-151-152), they both work together to break the starch molecules down to mostly fermentables, whereas at the higher temps, it's mostly alpha-amylase at work. If you overshoot to 158 or 160F for a minute or two, you may denature a bit of your alpha-amylase faster than at 156F, but you probably couldn't even measure the difference.

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Steve writes (in response to a question about storing yeast under sucrose solution):

>The well documented procedure will allow yeast to be stored  
>for as long as two years. The principle behind it is at 4  
>degrees C invertase becomes inactive. This means there is  
>no way for the yeast to metabolize the sucrose. If you are  
>getting fermentation there are a few things you might not  
>have made sure of: 1) you can have no other sugars but sucrose,

>common errors might include; taking the yeast from the  
>primary before it is completely fermented, using a low  
>purity sucrose (it might have glucose in it for example),  
>and 2) the solution must stay under 4 C at all times.

What I don't understand, is why the sucrose solution then?  
I know that long term storage of yeast requires either  
sub-zero temperatures or feeding them (so they don't start  
eating their neighbors), but if they aren't going to eat  
the sucrose, then why have it there at all?

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Rex writes:

>My question is: Where can I get 6-8oz bottles from? I see many home-  
brew  
>suppliers carry 12 and 22oz sizes, but no mention of anything smaller.  
Does  
>anyone know of a source of such bottles? I guess I'd be looking for 2-4  
cases.

I have a possible source for this size of bottle (7oz, I believe -- they  
are made of thick glass and have punts too!), but I would have to order a  
great number of them. How much interest is there in bottles such as  
these?

Please email me directly and if there is sufficient interest, I'll pursue  
this source.

Al.

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Date: Tue, 13 Jul 93 18:24:58 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: weevils

My hop plants have been slowly consumed by something that bites big chunks out of the stem and leaves. I thought for a while that it was the same squirrel that was terrorizing my snapdragons. However today I found a bug munching away on a leaf.

A quick perusal of Hops (R.A. Neve) found a picture of the critter. It is a Clay-coloured weevil (*Otiorrhynchus singularis*). The damage description matches too. Unfortunately, Neve doesn't give much advice about eliminating it.

He states that it is not generally a pest of great importance. He suggests organo-phosphorus or carbamate insecticides, then refers to a report about the possibility of using parasitic nematodes. I would prefer using natural predators instead of insecticides, but Neve seems uncertain of their usefulness.

Does anyone have any experience eliminating weevils? I now only have one living plant left, and am concerned that predators may not be effective on a single plant. Perhaps I should simply kill the weevils by hand.

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Chuck Cox <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: Tue, 13 Jul 93 15:49:20 -0700  
From: pquint@mail.barrnet.net  
Subject: ALES

MC EWAN'S ALE is my favorite and only try. Consistency is a concern,  
overboil  
was a problem...any ideas out there?

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Date: Wed, 14 Jul 93 12:14:32 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re : Irish Moss

My experience has been that Irish Moss improves the \_cold\_ break, ie, upon cooling the wort, one obtains a very sharply defined layer of trub, similar to that which could otherwise be obtained by refrigerating the wort for a couple of days. I suspect we get told to add the Moss near the end of the boil for reasons of economy, in other words, to let the combination of heat, hops and agitation do its stuff first.

Jeff, what do the scientists say about the effects of Irish Moss on body/head retention? It would be great if it was selective enough to take out the larger proteins which we don't want and leave the rest, but I presume this is where some of the reservations arise. In fact, this issue of protein selectivity applies to a whole range of brewing practices, starting with the use of a protein rest during mashing, and moving on to issues such as whether to skim the initial boil or not, whether to use kettle finings or not, even whether to employ forced wort chilling (at least in stouts), whether to skim/blow-off the primary, and lastly whether to employ finings after fermentation. I presume a whole lot of trade-offs are involved here, probably involving glucans and lipids as well as proteins, and I for one would like to see more definitive statements than can be found in the homebrewing textbooks.

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Conn V Copas  
Loughborough University of Technologytel : +44 509 263171 ext 4164  
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G Britain (Internet):C.V.Copas@lut.ac.uk

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Date: Wed, 14 Jul 93 08:04:40 -0400  
From: Philip J Difalco <sxupjd@anubis.fnma.COM>  
Subject: **Barreling Beer**

I'd like to barrel my beer.

The only place I have seen barrels for sale was in a catalog ("The Cellar Homebrew, Supplies & Equipment, 1993 catalog, 1-800-342-1871). Their oak barrels ranged in price: \$60/1gal., \$93/5gal., \$115/10gal.

Seems semi-expensive.  
If anyone has a cheaper source for oak barrels, I'd like to know.  
Thanks in advance.

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email: sxupjd@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior SomethingOrOther, Advanced Technology  
FannieMae, 3900 Wisconsin Ave NW, Washington, DC 22016(202)752-2812

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Date: Wed, 14 Jul 93 08:27:23 -0400  
From: pgauvin@hq.crad.dnd.ca (Pierre Gauvin)  
Subject: U-Brew-It-Here

Here in Ontario, this has been a real growth industry for the last year. However, the BIG BEER MAKERS complained about the unfair competition and in the last provincial budget, the government slapped a tax of \$0.26/litre starting 1 Aug 93. The tax is scheduled to go up in the next couple of years. This will spell the end of a lot of the U-Brew places.

The way they worked is that you go there, pick a recipe and are assigned a kettle. You mix the ingredients and cook the beer, then the staff puts it in a keg to age after filtering and cooling through a heat exchanger. Two weeks later, you come back to bottle. I understand that during the interval, the beer is filtered once again and transferred into another keg.

There are some severe restrictions on the places. They do not sell beer. They sell ingredients and bottles, and rent the equipment to users. You are not allowed to sample your beer while bottling so that the place does not turn into a drinking establishment. The only way to sample a beer recipe before brewing is to exchange a bottle with the person bottling next to you or with friends who brew there.

Costs for a batch of 48 litres (roughly 12 gallons) vary between \$60 and \$110 CDN depending on the recipes. This includes the regular sales taxes and a \$25 service charge (equipment rental, storage, etc...). The new tax will add more than \$12 per batch. The old price was half the price of a commercial beer for a clone of same beers to about the same price for a more exotic beer (Chimay clone). Now the price will go up to almost 75% of the cost of commercial stuff.

Advantages of U-Brews: -No mess to clean up. No room required to store beer or ingredients.

- No smelling up the house
- Socializing
- Its almost impossible to make bad beer

there.

Disadvantages: - Cost: Almost twice as expensive as making beer at home, especially if you shop around for ingredients

- Limited choices of beer recipes, with no cusatomization.
- Car required to bring back the bottles
- Cannot experiment with more exotic ingredients such as ginger, fruits, etc...
- Cannot lager the beer

Pierre Gauvin  
pgauvin@hq.crad.dnd.ca

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Date: Wed, 14 Jul 1993 05:34:40 PDT  
From: wegeng.henr801c@xerox.com  
Subject: Re: Parking in Portland

>Does anyone have a suggestion on where to park [in Portland]?

You might check into private long term parking lots at the airport, which might be cheaper (though the bus fare to/from the airport might make up for the cost savings). Your travel agent ought to be able to help you with this.

Btw, it`s also worth mentioning that the conference hotel does not provide a free shuttle bus to/from the airport. There`s a private bus that serves several of the downtown hotels, however. Yet another cost to add to your budget for the week.

/Don  
wegeng.henr801c@xerox.com

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Date: Wed, 14 Jul 93 8:12:37 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: Darkening Extract; Brewer's Warehouse; Nitrogen Regs

In HBD #1181, Derrick Pohl writes:

> He said that boiling does  
> indeed darken malt - he thinks it's actually an oxidation process and  
> that  
> splashing the wort around a lot when hot darkens it even more. His

Since George isn't with us this summer (may the book go well), one of the reactions at working is the "Browning Reaction(s)". (Most of this info comes from George's book via my hazy morning memory.)

Browning reactions START when the extract is being made. They continue while in the can, which means it would be nice if they marked the cans with

date of production. The Browning reactions result in Melanoidins. These reactions will also occur during your boil. The oxidation of melanoidins

is where they begin to play a bigger part in the overall beer. (Not mentioned above, melanoidins are the dark pigment.) If you have George's book, Principles of Brewing Science, the section is only a couple pages long but well worth reading.

re: Brewer's Warehouse

Has anyone out there bought their propane burner? It appears to be in a ceramic base of some nature, which probably would solve the need to build a heat shield.

re: Nitrogen thread

Looking at Superior's catalog last night, I noticed Nitrogen regulators. Just for the knowledge, what is the difference between these and CO2 regs? Range on the dials?

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Wed, 14 Jul 1993 09:27:22 -0400  
From: "/platinum/homes/hethmon/.signature" <hethmon@cs.utk.edu>  
Subject: Plastic Fermenters

I've got a question about plastic fermentation vessels. The kit I started with came with a 6.5 gallon plastic pail with a screw down lid for the primary fermenter. Though the batches I've brewed so far have come out good (with the exception of using old Whitbread yeast for one -- yuck!), I noticed a definite lack of bubbles coming up through the fermentation lock. I asked at my homebrew store and he said it was hard to make a good seal between the lid and pail.

I guess my question in all of this rambling is whether this seems reasonable and whether I should worry or have a homebrew? I've thought of going to a glass carboy for a primary fermenter, but I don't have a 6 or 7 gallon one at the moment. I've thought of using my 5 gallon size with a blow off tube, but the thought of my dogs or two year old son drinking from the blow off bucket has kept me from it so far.

Any comments or suggestions?

thanks,  
: Paul Hethmon |anonymous ftp for  
: hethmon@cs.utk.edu | Woodworking: cs.rochester.edu  
: University of Tennessee | Brewing info: sierra.stanford.edu  
: Knoxville, Tennessee | OS/2 info: ftp-os2.cdrom.com

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Date: Wed, 14 Jul 1993 10:03:30 -0400 (EDT)

From: KLIGERMAN@herlvx.rtpnc.epa.gov

**Subject: dextrose, hot break**

F.J. Dobner writes"..my understanding of dextrose is that it is not largely fermentable (by commonly used yeast)."...

He must be confusing dextrose with some other sugar. Glucose, dextrose, corn sugar, and grape sugar are synonymous (The Merck Index 10th Edition) These are all fermentable by common yeast.

There also seems to be some confusion about what is the hot break and when does it occur. I hope someone knowledgeable will clear this up.

Andy Kligerman

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Date: Wed, 14 Jul 93 09:50:16 EDT  
From: chiz@atmel.com (Robert Chizmadia)  
Subject: RE: Drinking around Lancaster PA

Very close to Lancaster is Adamstown. There you will find Stoudt's brewpub. I recommend the honey nut oatmeal stout. Depending on how far you want to travel, there are two brewpubs in Philadelphia and three in Baltimore. Philly is about half an hour, and has the Dock Street brewpub and the Sam Adams brewpub. In Baltimore, there is the Baltimore Brewing Company ( which makes a very unique wiezen-bock ), Sisson's brewpub, and the Wharf Rat. Make sure you get the Wharf Rat by Camden Yards for microbrew, although with 28 taps the one is Fell's Point is a fine drinking establishment. Baltimore is about an hour and a half away.

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Date: 14 Jul 93 11:26:36 EDT  
From: Matthew Mitchell <IEKP898%tjuvm.bitnet@TJUVM.TJU.EDU>  
Subject: Neuweiler's Stock Ale

From: Matthew Mitchell  
Another excellent contract brew from Lion in Wilkes-Barre is the Neuweiler's Stock Ale, brewed for Neuweiler's of Allentown. I think they have their own brewery, right? They've been around a while and I never looked twice but at the distributor, I saw markings on the case that looked like Lion's and had to try. Only \$15.00|| 8^) =

Anyway, the beer is quite amber, and has a fruity hoppy aroma much like a good IPA, Taste is excellent, with accent on hop character. All-malt according to the label.

So is stock ale a defined style? The last one I had was the Molson Stock Ale (which had an anchor in the hexagon molson label ref to sea voyage like in IPA???)  
The label says that the story is that the beer was reserved for stockholders in the company Any truth to that?? Is that the same story as UK's Courage "Directors' Bitter??"

Howzat!?!  
Matthew Mitchell<iekp898@tjuvm.tju.edu> <iekp898@tjuvm.bitnet>  
Former Brewmaster, Penthouse Brewing Co., Haverford PA  
makers of Barclay Beer, Penthouse Brown Ale, and Big B Malt Liquor

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Date: Wed, 14 Jul 93 10:54:42 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Hunter Airstat summary available from me.

Greetings!

About a week ago, I expressed my frustration at not knowing how to get a Hunter Airstat. The responses were numerous, and I saved most of them. (My mail program is flukey sometimes).

If anyone would like a (fwd) of the summary, I'd be happy to e-mail it to you, and if there's enough interest I could forward it to the Sierra listserv.

Dave Hinz

ObHomebrewComment: Don't you just HATE finishing the last bottle of a batch?  
It's sort of sad to know that the whole thing is history...

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Date: Wed, 14 Jul 1993 09:11:00 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Hot Break Terminology

Judging from the responses I received in regard to my posting on Irish Moss, there is some real confusion about the definition of "hot break". A number of people seemed to think I was advocating adding the IM at the beginning of the boil, which is not at all the case.

So let's be clear: the hot break is at THE END of the boil, not the beginning.

I can understand the confusion; not only have recent postings by theoretically reliable people made the wrong assertion, but the standard homebrewing texts are remarkably vague on the whole subject. Although I found good information in professional brewing texts, the most lucid explanation is from good old Dave Line, in his Big Book of Brewing, from which I quote with abandon:

The "hot break"

If you take a sample of the wort in a hydrometer jar and hold it up to the light it should look reasonably clear; clear, but not crystal clear and bright like one would expect in the finished beer.

The change in clarity is brought about by the boiling process. A closer inspection of a light coloured wort would show that the dullness is caused by a greyish mist of finely dispersed matter. The mist is due to the presence of haze forming degraded protein matter combined with hop tannins and its derivatives.

The behaviour of these nitrogenous substances in the copper is rather remarkable. Long vigorous boils will coagulate these gummy substances and make them insoluble. Regularly observing the clarity of samples taken throughout the boil will demonstrate this fact. A few minutes after boiling commences, the mist forms a haze of small, but visible particles. The particles grow as the boiling ation, coupled with the buffering of hop cones, increases the rate at which these gummy substances combine to form even larger particles.

The "hot break" is said to be secured when all the protein matter has formed into flocculating compact lumps. Always check for this condition (but not before at least one hour's boil) by removing a wineglassful of the wort.

The thermal cycle of cooling, should, if the break is successful, deposit the match head sized particles at the bottom of the glass to leave the wort above clear of suspended matter. If there are still minute particles in suspension which have not combined with the main masses, then the wort is "undercooked" and boiling must be continued.

For those of a more scientific bent, there are similar discussions in DeClerq, who also recommends visual examination of the wort and says: "The appearance of the break serves as a guide to the brewer for the duration of the boil, because it frequently happens that after a good break has been obtained any further boiling gives a turbid wort."



Recommendations on the use of Irish Moss range from 15 minutes (Dr. Fix) to 1/2 hour before the end of the boil.

- --Jeff Frane

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Date: 14 Jul 93 11:27:32 EDT  
From: CHUCKM@PBN73.CV.COM  
Subject: step mashing temperature formula?

Hello brewers,

PErhaps someone can help...

Does anyone have a formula that will help me with Step infusions in order to hit proper temperatures. eg. I mash in a cooler tun. If I have X pounds of grain at Y degrees, how much 212 degree water must I add to raise the temp Z degrees. Given that I know X, Y, and Z all I need to find out is the 'how much'.

Thanks in advance

chuckm@pbn73.cv.com

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End of HOMEBREW Digest #1182, 07/15/93

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Date: Wed, 14 Jul 93 12:44:58 EDT  
From: lyons%adc2@swlvx2.msd.ray.com  
Subject: RE: Extract darkening with boil

Subject: Extract darkening with boil

>In HBD #1179, Johann Klaassen writes:

>>Could it be that my hour-long boils have darkened  
>>the otherwise light malt (which would shock me)?

>Funny you should mention this, because this very weekend I was at my  
local  
>brew store talking to the guy there about brewing with extract. I  
usually  
>brew all-grain, but due to time constraints I'm doing an extract batch  
>next, and so I was getting some advice on it. He said that boiling does  
>indeed darken malt - he thinks it's actually an oxidation process and  
that  
>splashing the wort around a lot when hot darkens it even more. His  
>solution: do a mini-mash of your specialty grains first (crystal,  
>chocolate, etc.), strain the grain out, then boil the hops in that  
water,  
>and only add the extract for the last twenty minutes of the boil, thus  
>minimizing the time the extract is boiling, but still giving you the  
full  
>time for the hop boil.

>How does this technique sound to the more experienced extract brewers  
out  
>there?

I believe doing a full boil with only a small fraction of the malt  
would drastically increase the hop utilization.

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Date: Wed, 14 Jul 93 12:29 CDT  
From: fjdobner@ihlpb.att.com  
Subject: Dextrose

My comments of yesterday regarding fermentability of Duvel confused dextrose and dextrin. Dextrose is completely fermentable and dextrin is not. Thanks for the many e-mail messages.

Frank

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Date: Wed, 14 Jul 93 9:35:42 PDT

From: ghultin@sfu.ca

Subject: brew places/Toronto

Answering the question about brew-it-here places.

I am writing from British Columbia. In Canada (generally) a business is allowed to RENT you equipment for you to brew your beer on their premises. You select recipe, get ingredients from bulk barrels, mix everything together, stand around and wait.

They help you connect hoses to cool beer and pump into a keg. Later, you come back and bottle it. (They store it, in primary and secondary in room-sized coolers, and force carbonate with C02)

Re: Toronto

A bar serving lots of local brews is C'est What? on Front Street. Also Rotterdams and Amsterdam (2 different places) brew their own. There are several microbreweries around. If your pal goes to C'est What, your pal will discover easily from the bar staff their locations.

geoff.

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Date: Wed, 14 Jul 1993 14:42:10 CDT  
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>  
Subject: Parking in Seattle; Hunter Airstat in Milwaukee; DA FLOOD!

Three Amtrak trains run daily from Seattle to Portland. Schedule:

|                       |                       |
|-----------------------|-----------------------|
| Seattle ---> Portland | Portland ---> Seattle |
| 7:30AM 11:30AM #26    | 7:55AM 11:50AM #796   |
| 9:50AM 2:00PM #11     | 2:10PM 6:10PM #25     |
| 5:30PM 9:25PM #797    | 3:50PM 8:05PM #14     |

I just personally saw the Hunter Air Stat in the Builders Square on I-94 on the south side of Milwaukee. It's in the electrical department, about an aisle beyond all the light fixtures and ceiling fans. They had plenty of them, in a display with a bunch of other Hunter stuff, like ceiling fan mounting brackets, speed controls and such.

And those of you who know I live in Chicago may ask what was I doing in Milwaukee? Well, I was in Milwaukee to watch Sprecher Brewing Company (a thriving micro) slide into the river. This same catastrophic monsoon season which has made Middle America into the Mississippi Ocean, got the ground so soaked during the last week of June at the Sprecher Brewery that it gave way and slid into the canal. The building has stayed put, so far, but has developed an ominous crack through which you can see the river outside. Access to the front door is by a hurriedly constructed wooden gangplank. Brewing has continued nervously, but uninterrupted. I understand Randy Sprecher has accelerated his search for new quarters for his brewery. The building, fortunately, is rented.

Anyone know of any other washed out or flooded breweries? What about Dubuque Star, which is on low land by the riverbank?

See everyone in Portland!

- -- Roger Deschner, UIC, CBS, BJCP, ABCDEFGHIJKLMNOPQRSTUVWXYZ

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Date: Wed, 14 Jul 93 15:58:12 EDT  
From: lyons%adc3@swlvx2.msd.ray.com  
Subject: Irish Moss - Extract vs All Grain

I've noticed in Charlie's book that he lists Irish Moss as an ingredient for All Grain recipes, but not for Extract recipes. Am I correct to conclude that only All Grain recipes will benefit by using Irish Moss during the last 15 minutes of the boil?

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Date: Wed, 14 Jul 93 14:00:11 PDT  
From: Mike Peckar 14-Jul-1993 1700 <m\_peckar@cscma.enet.dec.com>  
Subject: 1/2 bbl SS keg as brewpot (again)

Hi again. Last week I requested a copy of a bygone HBD article posted on converting 1/2 bbl kegs. I never got a response. What I did get, however, is lots of email expressing interest, so I felt compelled to ask again for the article in question. This time my request is for a repost, though, since there seems to be lots of interest...

Anyway, in the mean time, I kind of came up with my own idea on what to do with the rounded stainless steel keg I came across, and since folks asked via mail, I figured I'd reply here. Basically, what I plan on doing is cutting the top off, installing a drain faucet, and sealing off the bunghole. No rocket science there. I am curious what others have done, though, and how different folk use SS kegs to mash/lauter. What I was considering was simply attaching a screen to the inside of the drain faucet kind of like a test tube with the open end sealed around the inlet to the faucet. My friend who uses this method using a cooler with great results calls this his "screen penis". I believe he said he got the idea from an article in a trade magazine, I think it was The Yankee Brew News. Anyhow, look like a fun project, and I'll keep you informed as this project progresses. For now, I've already started hacking away at the top...

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Date: Wed, 14 Jul 1993 20:43:05 -0400 (EDT)  
From: WESTEMEIER@delphi.com  
Subject: Don't touch the hops!

A note of warning to all novice backyard hop growers:

It's still quite early in the season, but there may be some parts of the country where people are getting ready to start harvesting hops.

If you've done this before, you can skip to the next message. If not, please take a word of advice. Poking around amongst hop vines is an activity that usually required both a pair of light cotton work gloves and (important!) a long-sleeved shirt.

A great many of us are very sensitive to these delightful plants. I don't know if it's the physical action of the tiny spines on the vines, or the hop oil itself, or some combination, but if you're like me, your arms and hands will be covered with nasty red welts and itch like crazy if you don't take these simple precautions.

I was reminded of it today, since my Cascades were so heavy that the twine they were growing up broke last night and I had to replace it with a much heavier variety. I have various varieties planted around the deck in back of my house, and they grow up poles to about 8-10 feet, then up heavy twine to the eaves of the house. Crossing over the deck, they add some shade, and (lucky me!) my wife really likes they way they look.

Again, PLEASE don't try harvesting these beauties with bare arms. Unless you're in the small minority that is not sensitive, you'll itch for at least a couple of days.

Ed Westemeier    Cincinnati, Ohio

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Date: 14 Jul 93 16:12:00 PST  
From: John Fitzgerald <johnf@ccgate.ScrippsRanchCA.NCR.COM>  
Subject: pin-lock fittings

A couple of digests ago there was some mention of a need for a special tool for removing pin-lock fittings on soda kegs. Another poster mentioned the use of vice-grips (sorry for the lack of names of the posters). I just wanted to mention that I use a 13/16" open ended wrench, it slips on the fitting just fine (the shape of the fitting allows the wrench to fit from one direction without destroying the pins).

Happy Brewing,  
John Fitzgerald  
(just mailed off my last 2 Bouncing Baby Dopples for 2nd round judging...does anybody know if we will receive additional feedback from the judges from this next tasting?)

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Date: Wed, 14 Jul 93 22:14:02 -0700  
From: Alex Simons <alexsi@microsoft.com>  
Subject: Irish Moss

In HBD #1180, Jeff Frane made some observations about the use of Irish Moss. I am in absolute accord with jeff, and have found that adding 1 tablespoon of Irish Moss per 5 gallons makes all the difference. I would also recommend using the flaked rather than powdered as I have had better luck with it.

Using several different Wyeast strains as well as Nottingham Ale yeast, I have found that the Moss aids flocculation immensely. I have also found it helps to settle the "floaties" I often encounter when using specialty malts. I was initially worried that I might have settled out so much yeast as to make carbonation difficult, but have found that in general, bottled with a the standard amount of Corn Sugar, these ales take only a few days (5-7) longer to reach a satisfactory level. And bottling was never so easy....

I might also add that in the same area, I have had a great deal of success using Polyclar added during the last 48 hours into the secondary fermenter. In one batch of a light raspberry wheaten-ale, which I had split into two carboys, the carboy with the Polyclar came out substantially cleaner in both appearance and taste than one without.

I am now a fervent fan of both...

Alex Simons  
\*\*\*\*\*  
Alexsi@microsoft.com  
No fancy insignia, lots of time to other things.....  
\*\*\*\*\*

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Date: Wed, 14 Jul 93 23:20:53 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Storage, Part One

Here is the post I promised a while ago on hop storage.

#### Introduction

Hops have three main ingredients that brewers care about: The alpha acids, the beta acids and the essential oils. Normally we concern ourselves with only two of the three: alpha acids and the oils.

The alpha acids are bitter, but they don't dissolve well in beer so they need to be changed into a form that does dissolve well. In brewing, this is caused by boiling and the process is known as isomerization. The resulting isomerized alpha acids are soluble in beer and are still bitter.

The beta acids are not bitter and they are not isomerized by boiling (nor are they changed into a bitter form). They are, however, bitter when oxidized.

The oils are responsible for the aroma of the hops, and enter into the beer's flavor profile for short boil times, steeping, used in a hop back or dry hopped.

All of these three components undergo changes as the hops age.

#### Hop Harvesting and Processing

All hops are harvested once per year, beginning as early as late August and continuing through October, depending on the hop variety. The hops are dried and in the US, baled in 200 lb bales. The bales are made by compressing the hops and then wrapping them in burlap. Some of the hops will be ground and pressed into pellets. Some hops in the UK are compressed into "plugs" that weigh about 1/2 an ounce. The level of compression in these plugs is much higher than the level in the bale. In Germany, some hops are compressed into 11 lb "bricks" and then vacuum sealed. The level of compression is about 3-4 times that of the US bale. (And BTW, in the UK the plugs are known as pellets)

The hops are then stored in huge warehouses at around 30 degrees F (this temperature differs depending on the broker, and the outside temperature)

They stay there until they are shipped to a brewer or hop supplier. Most small brewers buy enough hops at the start of the hop season to last all year, but they are stored at the hop broker and shipped periodically to the brewer. This keeps the brewer from needing a huge cold storage facility.

Also since most small brewers don't have hop analysis equipment, this allows the hop broker to keep tabs on the alpha acid and oil contents as they change over time.

Only the megabrewers pay to have their hops shipped refrigerated.

#### Hop Deterioration

Hops start to lose their alpha acids and oils as soon as they are harvested. The rate is dependent on the storage temperature, amount of air present and the hop variety. Basically, the lower the temperature, the less the hops deteriorate. Oxygen also causes the alpha acids to oxidize and one of the oxidation components is responsible for the "cheesy" aroma of old hops. The oxidized alpha acids cannot be isomerized and are no longer bitter. So O<sub>2</sub> is definitely bad for alpha acids. If you remember, the beta acids turn bitter when they are oxidized, so some believe that this makes up for the loss of alpha acids. In fact, it has been argued that cold storage and anerobic conditions are not necessary for bittering hops, as long as the boil is long enough and open enough to allow the cheesy aroma to escape. But brewers aren't buying the argument (who can blame them).

The variety of the hop also plays a major role. For reasons yet unknown certain hops store better than others under the same storage conditions. The American Society of Brewing Chemists has a procedure for measuring the "storageability" of hops called the Hop Storage Index and involves taking readings of hops stored at 20C (68F) when "fresh" and six months later. Unfortunately, this only gives us two points on a curve and compares the storage properties of one variety vs. the other, but won't help us predict what happens to the same variety for differing storage times.

The oils also deteriorate and oxidize over time. It is believed that some oxidation of the oils is beneficial to the hop aroma. Since most homebrewers have no idea what the oil content of their hops are (a fact I'd like to see changed), they're not aware of the oil losses. But they should be since knowing the oil content is just as important for aroma additions as knowing the alpha acids is for bittering additions. And consistency of results aside, a lot of brewers end up using more hops by weight for finishing and dry hopping than for bittering. So it makes economic sense to know the oil content. (OK, I'll get off my soapbox.)

#### Hop Storage

So for best storage conditions, the hops should be stored as cold as possible (30 to -5F) and away from air. The compression of the hops into bales, pellets and plugs helps keep all but the surface layers away from air. Even so, air still penetrates and causes some oxidation. The cold temperature slows the oxidation process. As was mentioned earlier, some hop varieties don't store as well as others. At some point in the season, hop brokers will take all remaining unsold bales of poor storage hops and turn them into pellets. Not only does the pellet keep out a lot of oxygen, but since they

take up so little space they can now be vacuum packed to further slow the deterioration.

BTW, the reason pellets are so prevalent in the homebrewing trade is that they deteriorate more slowly than whole hops when stored in less than ideal conditions.

Now the compression of the whole hops slows the oxidation because it's harder for the O2 to get at the hops. But when the bale is broken up to be portioned into homebrewer sized quantities, the compression is lost. Now air can get at the hops much more easily. The plugs are a good compromise between pellets and whole hops.

#### Hop Packaging for Sale to the Homebrewer

Vacuum packing or inert gas packaging in an O2 barrier material is the best. The common type of O2 barrier packaging is the "boiling bag" which is clear and made from a lamination of two types of plastic: The inner layer is a food grade polyethylene (the same stuff zip lock bags are made from). It is \*not\* a barrier material, but does make a good heat seal and is the main reason it's there. The outer layer is made from polyester (aka mylar) and is what provides the barrier. The next step up is the aluminized mylar bag (aka foil bag or pouch) and this adds a layer of aluminum that increases the barrier protection over 10-fold. It also more than doubles the cost so it's not widely used even though it's better.

Some suppliers still insist on selling their hops in polyethylene bags. These provide almost no barrier protection and you should avoid a supplier that uses them as they obviously don't care about the quality of the hops.

To tell the bags apart, I assume you know what a zip lock or sandwich bag feels like. These are polyethylene. You can smell the hops right through the bag (this should tell you something). The clear barrier bags are noticeably stiffer and thicker. They are also "shiny" and not "frosted" like the polyethylene bags. The foil bags look either silver or gold.

To be continued...

Mark

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Date: Wed, 14 Jul 93 23:21:41 PDT  
From: Mark Garetz <mgaretz@hopstech.com>  
Subject: Hop Storage, Part Two

Hop Storage, continued

What To Do When You Get Them Home

Firstly, if the hops are not packaged properly (and you had no choice but to buy them) you need to get them in suitable barrier packaging as soon as possible. If you're going to brew with them in the next week or so, don't worry about it, just put them in the freezer for now. If the hops were packaged properly, don't open them until you need to. Store them in the freezer. Once you've opened them, the biggest problem is what to do with the remainder. If they came in a vacuum sealed bag, the best thing to do is reseal the bag with a "home quality" vacuum sealer. These cost anywhere from \$20 on sale to \$100 depending on the seal width (and length) and the amount of heat they put out. Even the cheapest sealer (the Decosonic from Best Products) will put out enough heat to seal the standard clear barrier bags. They will not unfortunately put out enough heat to seal the aluminized bags. Look around in kitchen supply departments and hardware stores and the best bet is to take an old piece of bag with you and see how it seals. You can always transfer the hops to the bags that come with the sealer, but beware that the bags with the cheap Decosonic are not true barrier bags, but they're better than polyethylene. If you keg or otherwise have CO2 or nitrogen available, you can flush some mason jars with the gas, put in the hops and add a layer of gas and reseal the jar. I advise you to practice with the gas as it's very easy to blast your hops all over the room. And always always always use a regulator! If you can't do any of this, put the hops in a mason jar and put them in the freezer, it's better than nothing.

How Long Will They Last?

Well, like most things in brewing, the answer is "It depends." If you keep them cold and free from O2 hops should "last" a few years. It's not uncommon for hop brokers to be selling hops from 2 or 3 seasons ago that have been pelletized and vacuum sealed. This is not to say that the oils and alpha acids will be exactly the same as when you purchased them, but the hops won't be "bad". There is no practical way I know of to estimate the loss in oils or alphas. We could assume from the hop storage numbers listed below that the relationship is linear and could be therefore calculated, but I'm not sure that's right. As I stated earlier, we have only two points on a

curve to go by. But as a practical matter, you can expect reasonably stable numbers for about 6 months if you store the hops in the freezer (a non-auto defrost freezer is best) at -5F and under gas or vacuum packed and in barrier packaging. Of course you'll get better results from the better storing hops.

#### Hop Varieties and Their Storage Numbers

The following table is compiled from several sources, mainly from data provided by hop brokers and the book "Hops" by R.A. Neve (Neve's data is by his own admission "suspect" since it was itself compiled from lots of sources and lots of different storage conditions. I have used his data only to fill in gaps in the hop broker's data which was compiled in a more scientific manner (generally following the ASBC method). Neve lists only "words" like "fair" whereas the broker's data is listed as a percentage alpha acid remaining after 6 months at 20C (68F). This is how you can tell the two sources of data from each other).

| Variety                   | % Alpha Remaining after 6 mo. at 20C or Storage Quality |
|---------------------------|---------------------------------------------------------|
| Cascade                   | 50%                                                     |
| Fuggle                    | 63%                                                     |
| Domestic Hallertau        | 55%                                                     |
| Domestic Hersbrucker      | 50%                                                     |
| Liberty                   | 40%                                                     |
| Mt. Hood                  | 55%                                                     |
| Perle                     | 85%                                                     |
| Domestic Spalt            | 50%                                                     |
| Domestic Tettnanger       | 58%                                                     |
| Willamette                | 63%                                                     |
| Centennial                | 63%                                                     |
| Chinook                   | 68%                                                     |
| Cluster                   | 83%                                                     |
| Eroica                    | 60%                                                     |
| Galena                    | 78%                                                     |
| Domestic Northern Brewer  | 80%                                                     |
| Nugget                    | 75%                                                     |
| Czech Saaz                | 50%                                                     |
| Tettnang Tettnanger       | 58%                                                     |
| German Spalt              | 55%                                                     |
| Hallertau Hersbrucker     | 60%                                                     |
| Strisselspalt             | 65%                                                     |
| Hallertau Northern Brewer | 75%                                                     |
| Hallertauer Mittelfruh    | good                                                    |
| Huller Bitterer           | moderate                                                |
| East Kent Goldings        | good                                                    |
| Brewers Gold (UK)         | poor                                                    |
| Wye Northdown             | good                                                    |
| Wye Challenger            | good                                                    |
| Wye Target                | poor                                                    |
| Styrian Goldings          | good (this hop is actually a Fuggle)                    |
| Pride of Ringwood         | poor                                                    |

Hope this shed some light on the issue, which reminds me, light can also cause the hops to deteriorate. This is not really an issue at home (but it does finally give us a real justification to determine if the light really goes out in the fridge!) but it is an issue in your local homebrew supply. The hops should not be sitting in a well lighted place if the

packaging is clear.

Mark

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Date: Thu, 15 Jul 93 09:54:00 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: New Orleans area trip report

I just got back from spending a few daze over in and around the Crescent City, checking out the local brewing vista.

Note: I'm not an 'official' beer judge. My taste buds aren't real sophisticated. Your mileage (highly) likely to vary...

In New Orleans, there's Dixie Brewery, the South's oldest (190?). Dixie is located on Tulane Ave, a bit away from downtown and the quarter. They're renovating right now, so no touring of the facility was possible

They make a mediocre lager which was all that was available when i used to live there. But hey, when I lived there coke(tm) was .50 a can, Dixie was .35 a can, you figure out which one a student buys - But honest, mom; i'm saving money by drinking beer ;-)

In the last coupla years they've added two new brews:

Jazz - a nice tasting Amber, good color, really nice Hop nose, not a hoppy taste, though. (I dont much go for strong hop taste, but found I really liked this strong nose and almost no hop taste combination). Of the three brews, this was my favorite - stacks up favorably to any beer, as far as a good, drinkable beer.

Blackened Voodoo Lager - only had one of these, not bad, but i wouldn't go outta my way to get one and would take an amber is offered the choice. I \*like\* dark beers, so it's not that i would just choose any amber over any dark, either. They claim it's aged in cyprus casks. try it, but dont expect too much.

Also in New Orleans, down on Decatur street, across the street from the old Jax Brewery (RIP) and about 2 blocks toward Canal street is the Crescent City BrewPub. Note that their beer cant be sold off the premises. Get it there or do without. My recommendation - GO GET SOME.

They serve beer in small mugs (like most pubs/bars), medium (1/2 litre?) pilsner style glasses, and LITER mugs.

We tried to get a tour of the brewing equipemnt there, but the Brewmaster was in Germany and the other person we were refered to declined.

They brew 4 beers:

Pilsner - tasted like one to me. I tried a sip of someone else's. Not my favorite style of beer so I didn't waste the drinking time on it.

Red Stallion - a light amber sorta thing, kinda seemed like a cross between a pilsner and an amber to me. Pretty tasty. Good beer.

Dark Forest - Here's a great beer. Dark, good chocolate malt taste (at least i think that's what it is, see my (dis-)qualifications above). I really liked this beer, and consumed several liters just to be sure.

seasonal speciality brew

Liberty lager is the current specialty brew - it's kind of a most

amber-like version of the Red Stallion brew. If it weren't for the awesome Dark Forest, i'd been drinking this one. Try it (if you get there soon)

Special mention goes to the Pizza place (cant remember the name) over on the other side of the quarter at the corner of Decatur and Barracks. They do great wood-baked pizza and are the only place I have *\*ever\** seen Chimay trippel (25 oz bottle for \$9, compare to reg bottled beers at \$2.50) on the menu on a regular food establishment.

We stopped by Brew Ha-Ha on magazine street (uptown) and chatted with the owners for a while. He's a transplant from New York who couldn't believe that

there is a brew club, brew pub, brewery, and no homebrew supply store

rent for an apartment and storefront was only \$450 (in NY the same storefront alone would be "about \$5000")

So, he took out a \$4000 loan and opened a store. He's "quitting my day job" after just under a year in business and seemed to be real happy and doing well. Nice folks. his girlfriend was brewing out back while we were there. Offered some good advice/tips also. Check them out if you're in the area.

And across the lake in Abita Springs is Abita Brewery. (take the Abita Springs exit from I-12, go north - you go right past the brewery just before the red light in town) Started by a couple homebrewers back in the mid-80s, now distributed/sold across the south from Texas to North Carolina, "selling more than we brew".

We got an extensive tour of the facility (they're expanding the fermenting stuff to a building down the road). Real nice folks. Currently three brewers and a total (i think) of 14 employees.

They grind 1800 lbs of grain into the masher, hold it at ~150 for ~ an hour, sparge to another tank and 'boil'? for about another hour, then whirlpool it to remove the hops, etc in a third tank for another hour or so, and filter it into the fermentation tanks.

They have an ancient bottling machine, just got a new keg washing/filling setup (used to do them by hand). Pretty interesting setup.

They're currently brewing 4 beers also:

Abita Amber - nice amber beer. good stuff

Abita Golden - only tried a small bit of this, seemed OK, but nothing real notable

Turbo Dog - an interesting dark beer. kinda (excessively) roasted malty tasting to me, you might like it if you like dark beers, hard to say. About the name - "yeah, the owners were sitting around drinking one day after brewing the first batch and came up with that"

the current specialty beer is Abita Wheat - this was a real nice wheat beer. I liked it a lot (and sampled it repeatedly afterwards just to make sure ;-)) Give it a try if you get a chance.

Thats it for now. Enjoy!

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Date: Thu, 15 Jul 1993 10:13:30 EST  
From: Kristof\_Mueller@voyager.umeres.maine.edu  
Subject: Purchasing Supplies

I was just wondering, I am 20 years old, and plan on brewing as soon as I get my apartment (in Sept.). I know that legally I cannot brew beer until I'm 21, but can I buy supplies as a "minor"? It seems to me that anyone should be able to buy a bucket and some grains. Does anyone know the laws that apply here? Thanks for your help.  
- --Kris

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Date: Thu, 15 Jul 93 08:59:06 EST  
From: "John DeCarlo" <jad@pegasus.mitre.org>  
Subject: "Seriously Stupid Advice"

OK, several people have misread my previous posting, so let me try again:

1) Thank you Al, for posting and then *\*refuting\** seriously stupid advice from some retailer. It is definitely the case that some who sell homebrewing supplies know something about brewing while others know absolutely nothing and spread bad advice.

2) Starting a siphon with your mouth is probably a bad thing. However, while it is certainly *\*possible\** to get an infection in your beer this way, I personally would put this as not in the top 20 most likely ways of infecting your beer. So, I just wanted to say that Al was going a little overboard in implying that this would certainly result in an infection.

John "I thought everyone was reading this in the context of Al's nice little series. Oh well, sorry for the possible misinterpretation."  
DeCarlo

Fidonet: 1:109/131    Internet: jdecarlo@mitre.org

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Date: Thursday, 15 July 93 09:17:35 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: sugar

Howdy,

I've seen discussion brewing (haha) on the topic of sugars. One thing I've noticed is that folks have been saying brown sugar is white sugar with molasses added. Actually, it's more the opposite; it's sugar without the molasses-type syrup removed. When sugar cane is processed (they don't make brown sugar out of beets cuz it tastes nasty), it basically is in a syrup form. It goes through a centrifuge, where the unprocessed white sugar is removed. Brown sugar is then extracted from the syrup. The crystals are covered with a film of colored, highly refined molasses flavored syrup. After this, the remaining syrup is what molasses comes from. You get two kinds, light & blackstrap. They take the light off first, then the rest is blackstrap. The whole process works out to light to dark, crystals to syrups, pure sucrose to lotsa leftover goodies.

Turbinado is the stuff that comes off first but is not completely refined. It's 99% pure sugar. Light molasses is 90% sugar, & blackstrap is 50% sugar & 2.8% protein, with lotsa trace materials, including ash, vitamins, rat hairs, etc. As with brown sugar, beet molasses is too nasty tasting to use.

So, that's the sugar scoop.

Alan, Austin

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Date: Thu, 15 Jul 93 10:24:30 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Irish Moss/polyclar

Let me relate a story: Last fall a fellow brewer (Josh) & I made 10 gallons of Vienna. We split the wort into two fermenters, pitched the same yeast into both, and each took one home. We fermented at the same temperature for about the same time. At this point, our paths diverged. Josh fined his with PolyClar, bottled, conditioned, and then lagered. I lagered in secondary, then bottled & conditioned. When it came time to taste, we found that

1. Josh's beer was (slightly) clearer,
2. My beer had more of that yummy malt flavor.

Draw your own conclusion.

=S

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Date: Thu, 15 Jul 93 10:36:13 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Hot Break Terminology

What Jeff says meshes nicely with some of the books on historical brewing I've been reading recently (things like The English Housewife ..., by Gervase Markham around 1600; Wines & beers of old New England, S. Brown, 1978). You find statements like "boil it until it 'breaks'". This seems to imply that the break happens at the end.

=S

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Date: Thu, 15 Jul 1993 10:50:34 -0400 (EDT)  
From: CBRAGG@bentley.edu  
Subject:

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Date: 15 Jul 93 10:14 CST  
From: Wolfe@act-12-po.act.org  
Subject: Mint Beer

The other day I was eating a bowl of mint chocolate chip ice cream that I happened to be washing down with a homebrew (I know, it's sick.), when I got an idea for that mint plant in our yard that has turned out to be more of a tree than an ornamental plant. (I live in Iowa, and those things must love the rain. It is HUGE! I'm talking, about 20 stalks almost 3 feet tall. And I transplanted it from a single sprig in April.). I'm envisioning a mint beer that has an aftertaste that kind of makes you cock your head to one side and raise an eyebrow (like the ginger beer that I just brewed).

Anyway, I've looked all over for a recipe and have yet to find one for mint beer. Has anyone out there experimented with mint? I've used leaves off of this plant in cooking a lemon herb chicken, and it tasted great. I've also used the leaves in tea. I was thinking about brewing about a gallon of mint tea (to see the ratio of mint to water) and using about six times the weight in mint for a five gallon batch of beer (six times, rather than five, because I figured the malt would cover up some of the mint taste).

Any suggestions?

Ed Wolfe  
WOLFE@ACT-12-PO.ACT.ORG  
Iowa City, IA

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Date: 15 Jul 1993 11:41:20 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.edu>  
Subject: Anchor Dry Hops

Subject: Anchor Dry Hops Time:10:08 AM Date:7/15/93  
Al Says:

>more difficult to remove the hop bag than loose hops  
>from a carboy (not an issue for Anchor, with their open fermenters)

Sorry Al, Anchor only uses the open fermenters for primary fermentation.  
The  
dry hopping occurs in the secondaries which are closed. The hop bags are  
pillow  
case size.

And...

>It's not NO2 and I don't believe there's any nitrogen at all in the  
cans.

While you are correct that the Draught in the cans is a unique recipe and  
so  
tastes considerably different from what we are used to (the bottled  
version)  
there "is" liquid nitrogen added to the Draught as it is canned. This is  
used  
to increase the pressure in the can to insure that the velocity of the  
beer  
going through the pin hole as it exits the plastic pillow is correct upon  
opening. The nitrogen is really a mechanical device in this respect since  
it  
does not dissolve into solution like CO2 does. It should not add any  
flavor to  
the beer but might be said to alter the "taste" as it is responsible for  
the  
creamininess of the head which will certainly be a factor to one's  
perceptions.  
Using the nitrogen/CO2 combined gas (or guinness gas as our local  
distributor  
calls it) will not in itself alter a homebrewed stout's taste or head  
creation.  
You'll need a tap designed to produce the head coupled with the special  
gas.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / 474-8126

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Date: Thu, 15 Jul 93 14:10:57 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: Jever....?

Ok, here's a question from my homebrewing partner...does anyone out there know anything about the beer Jever...on the label it says something about using "freisian herbs" (where's fresia?!) ... does anyone know what these things are - has anyone tried to replicate this brew ... in general, can anyone give us the low down on this beer (its not in Jackson, Finch or anywhere in Papazian) ... thanks.  
good luck and good beer,

Chris

=====  
|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
=====

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Date: Thu, 15 Jul 93 09:04:28 CDT  
From: Dave Justice <DD24005@UAFSYSB.UARK.EDU>  
Subject: Trip to Belgium

Greetings! I hope this an appropriate question for this forum. I'm off to Europe 2 weeks from today and could use some suggestions on beer and brewing related places to visit in Belgium. I'll be there 2-3 days, arriving in Oostende and eventually making my way to Bonn, Germany. I suppose anywhere in the country is possible since it's fairly small. Any recommendations based on your experiences are welcome.  
TIA - Dave J.

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Date: Thu, 15 Jul 93 09:50:40 -0500  
From: cwvandev@hwking.cca.cr.rockwell.com (Craig Vandeventer)  
Subject: BruHeat Insulation

I also had trouble with the BruHeat holding it's heat. I was constantly turning on the element to maintain mash temperatures(a royal pain in the butt). I scorched the element a couple of times even. What I did to fix the problem was I wrapped 2 layers of pipe insulation tape around the entire bucket and then taped it down securely with duct tape. I used an Xacto knife to cut the holes for the spigot and heating element. On my last mash I didn't have to turn on the heating element to maintain mash temp. It also boils alot faster now, too.

Craig Vandeventer

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Date: Thu, 15 Jul 93 11:20:05 PDT  
From: sc@vcc.com (Steve Casselman)  
Subject: stuff

So let's see ... sucrose is used to store the yeast so they don't swell and burst from osmosis. sucrose is a disaccharide of glucose and fructose that has at least two stable configurations, normal and inverted. Yeast cannot metabolize (break down) normal sucrose without first inverting it with invertase. Inverted sucrose then is more digestable by the yeast - which means it takes less energy to metabolize it and therefore there are less side reactions (and by-products no doubt) in the process.

I also wanted to share an experiment I did regarding bacteria in the mouth and on the hands. I took a plate (agar) and put my thumb and finger prints on one half and spit on the other half. By far the worst offender were the thumb prints which grew over night, the finger prints came next and about day 4 something was growing out of the spit side. This makes sense since the mouth does have a changing pH during eating which prohibits bacteria growth (a good defence for an animal that eats just about anything). My conclusion is that contamination comes not when putting lips to hose but touching said hose with the hands and sticking that into the carboy.

Also I'm going to be up in portland hangin' with the gang and am planing to bring my guitar and harp for acoustic fun if you want to join in!

The number for Brewers Resource is 1-800-8BREWTEK (the K is silent) 1-800-827-3983

For the people who like chewy beer I suggest roll oats roll barley or wheat the chewyness comes more from the proteins than the dextrans.

The hot break begins at the beginning of the boil, anyone unclear on this should bring an all grain (extracts have small hot breaks) beer just to boiling and then turn the burner down to observe the flocculation of proteins. IMHO no hops should be added until a hot break occurs as hops introduce nucleation sites that would otherwise be started by the larger proteins. This will give a brighter beer. By the way the hot break happens when the larger proteins come in contact with the interphase between steam and wort cooking them just as blood will form a solid when heated. I've seen flocs the size of dollar bills in my 40-gal brew system allways at the beginning of the boil.

Steve Casselman

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|Massively Reconfigurable Logic|

| Out Performs |  
| Massively Parallel Processors |  
| Virtual Computer Corporation |

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Date: 15 Jul 93 10:42:21 CST  
From: "Dennis Lewis" <DLEWIS@jscdh6>  
Subject: Weihenstephan #66

I've seen a couple articles lately about German wheat beer yeasts. Thanks to the person who posted the The Brewer's Resource (BREWTEK) phone number for the wheat beer strains. The guy I talked to was extremely helpful.

Is the Weihenstephan #66 weissbier yeast available commercially? (like from Wyeast or GW Kent...) Phone numbers of known suppliers would be greatly appreciated.

BTW, we had a wheat beer tasting at my last homebrew club meeting. Every German wheat beer brewed was fermented with the Wyeast 3056 strain (the 50/50 mix). And without fail, every beer tasted like an ale with plastic in it. I have used this yeast and found it to be terribly lacking. If you are planning a wheat beer, do yourself a HUGE favor and seek out a good yeast (ie, not the 3056).

I have a dunkles weissbier going now with the 3068, and it tastes terrific! Can hardly wait to bottle this liquid gold.

Dennis Lewis  
Homebrew, The Final Frontier.

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Date: Thursday, 15 July 93 11:03:27 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: More sugar

Howdy,

Here's more info on sugar (I had to look this stuff up).

Invert sugar is primarily used by the food industry. It's sucrose that has been broken down into it's two constituent molecules by hydrolyzation. The two molecules are dextrose (glucose) & levulose (fructose). It has moisture retaining properties good for baked goods, icings, & preserves. I can't see why one would want to brew with it, but who knows, you might discover something really cool & groovy.

I think that candy sugar is 80% white sugar & 20% corn syrup that's been boiled in water. Again, I think it is, but am not sure. Because of variances in language development & because there is an ocean between us, Belgians might be using something different & calling it candy sugar.

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Date: Thu, 15 Jul 93 20:09:40 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re : Irish Moss

This Irish Moss thread got me reading a CAMRA brewbook by Wheeler this morning.  
Normally, I regard him as a touch light-weight, but he claims that it is impossible to achieve a decent cold break with home chilling equipment, and that Irish Moss is a good alternative to forced chilling of the wort in order to precipitate trub. In fact, this auxiliary fining effect is supposed to linger on into the bottling stage, where it can be cancelled by oppositely charged finings such as isinglass. Note that Wheeler doesn't seem to have any experience with counterflow chillers, BTW. Over to Miller. He ventures that IM could be useful for ales which have not received a protein rest. As ale malt is not reputed to contain protein digestion enzymes anyway, I presume the problem that Miller is really referring to is that of using wheat malt and/or flaked cereals without a protein rest.

- - -  
Conn V Copas  
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Date: Thu, 15 Jul 1993 09:27:16 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: Parking in Portland

/Don sez:

>Btw, it`s also worth mentioning that the conference hotel does not  
>provide a  
>free shuttle bus to/from the airport. There`s a private bus that serves  
>several of the downtown hotels, however. Yet another cost to add to  
>your  
>budget for the week.

If a bunch of us arrive at the same time, we could share cabs...

Just a thought.

have fun  
gak

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End of HOMEBREW Digest #1183, 07/16/93  
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Date: Thu, 15 Jul 93 14:21 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: **Plastin, Hotbreak**

>From: "/platinum/homes/hethmon/.signature" <hethmon@cs.utk.edu>  
>Subject: Plastic Fermenters

Oh Boy! This is my favorite topic.

>I noticed a definite lack of bubbles coming up through the fermentation lock. I asked at my homebrew store and he said it was hard to make a good seal between the lid and pail.

It is difficult to get an airtight seal but the necessity to do so is the great issue here.

It seals well enough to keep anything from falling in and few things are capable of crawling up, under and into the fermenter via the tiny leaks. Furthermore, during fermentation, CO2 is trying very hard to get out through these leaks and tends to keep other stuff from getting in.

The hole in the lid is simply an evil plot by the retailers to force you to buy a fermentation lock to fill the hole. There is enough CO2 generation initially to make it look cool but when the pressure drops off, it looks like fermentation is done but the gas is just leaking out the easy way.

I have been fermenting for several years in a SS kettle with a lid that just rests on and makes no attempt at an airtight fit and see no need to worry about the fit of the lid on the plastic fermenter.

The idea of using a carboy and blow-off system still gives me a headache. It seems to be another one of those solutions to a problem that does not exist.

That is not to say that after primary fermentation is complete, that is should not be transferred to a carboy for secondary and clearing.

>From: gummitch@techbook.com (Jeff Frane)  
>Subject: Hot Break Terminology

The definition you quoted reads a lot like Noonan's but is a bit more clear.

I find it interesting to point out the additional confusion that is created by the fact that in order to test for "hot break", the wort must be chilled.

The stuff at the bottom after chilling, must of necessity be called the "cold break". This leaves us where I proposed several years ago, viz., the hot

break is a point in time, not stuff.

It would be beyond reason to call the stuff hot break while hot and cold break when cold if it is indeed the same stuff. One only knows that one had

a proper "hot break" by chilling the wort and looking for its absence. The

stuff on the bottom is irrelevant because you don't know if you got it all

without looking where it aint no more.

js

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Date: Thu, 15 Jul 93 9:36:34 PDT  
From: "Donald G. Scheidt" <dgs1300@aw101.iasl.ca.boeing.com>  
Subject: Re: dextrose

In HOMEBREW Digest #1182, Thu 15 July 1993,  
KLIGERMAN@herlvx.rtpnc.epa.gov (Andy Kligerman) writes:

>Subject: dextrose, hot break  
>  
>F.J. Dobner writes"..my understanding of dextrose is that it is not  
largely  
>fermentable (by commonly used yeast)."...  
>He must be confusing dextrose with some other sugar. Glucose, dextrose,  
>corn sugar, and grape sugar are synonymous (The Merck Index 10th  
Edition)  
>These are all fermentable by common yeast.

I wonder if someone is confusing dextrose with dextrans here. Dextrose,  
of  
course, is a sugar, and quite fermentable, thus contributing to alcohol  
content and priming/conditioning; dextrans are somewhat sugar-like, and  
contribute to body and mouthfeel, but are not very fermentable by beer  
yeasts. Just an attempt to clear up a little possible confusion here,  
certainly no flame intended.

- - -  
// / | | Don Scheidt | // /  
/ / / | Boeing IASL, 777 Cab Development | / / /  
/ / / / | dgs1300@aw101.iasl.ca.boeing.com | / / / /

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Date: Thu, 15 Jul 93 14:20:36 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Hello? Anyone Home?

Salutations!

Is anyone getting this newsletter? I haven't recieved one for the past three days. Hello? Anyone out there? Sorry to waste the bandwidth...

Gene in Duluth

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Date: Thu, 15 Jul 93 11:04:23 PDT  
From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)  
Subject: possessed keg and 1.018 is the number of the FG

So I thought I'd be smart and start with a keggng system since I could borrow most of the equipment from a friend who is in quiescent brewing mode right now. I've kegged two batches so far and had the same problem each time. The beer comes out somewhat translucent. It sort of looks like watered down but dark chocolate milk. Also, there is a noticable spicy flavor which some people think tastes like ginger.

When I racked each keg, I also bottled a pint from the batch in a Grolsch bottle. The bottled pint turned out very clear and didn't have as strong of a ginger taste.

Tonight, I'm going to completely disassemble the keg and replace ALL of the rubber, including the poppets. I've got a brush to scrub out the dip tube so I think that it should be completely clean this time. However, I'm not completely confident that this keg has been exorcised from whatever bug is contaminating it, so I've "invested" in some more bottling gear. The third batch, I plan to put 1/2 into the 5 gallon Cornealius keg and the other half into bottles. Am I doing something completely stupid by only filling the keg half way? Of course, I plan to leave the check valve open long enough after priming to allow enough CO2 to evolve and force the O2 out of the large head space, but I really don't know how long is enough time.

Speaking of the check valve, I tried to remove it last night, but it seems to be made of plastic. My mental torque wrench told me that I was straining it too much for the material when I tried to remove it. Is there any recommended method for removing it? Maybe I'll just soak the whole thing in sanitizer.

On another point, all three of the batches that I have made so far (kits supplemented with various other unhopped malt extracts) have ended at a final gravity of 1.018. This seems to be a strange co-incidence since I used different amounts of ingredients each time. Also, the FG seemed stabilize rather quickly, like 4 or 5 days after pitching the dried package of yeast included with the kit.

OK, now back to the yellow pages to look for an exorcist.

Bart

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Date: Thu, 15 Jul 93 07:41:18 PDT  
From: mike@notorious.lbl.gov (Michael P. O'Neill)  
Subject: international brew transport?

It's been a year since following this newsletter, so if this question has been answered recently, thanks for your indulgence!

I was glad to find out that the company i read about in  
HOMEBREW Digest #773Tue 03 December 1991  
i.e. Beers Across America, was still in business and was actually  
sending brews to all except maybe 4 states;  
but they don't (can't) do it outside the states.  
I'm interested in sending a sample of a few California  
brews to a friend I made while traveling; he lives in Finland.  
Anybody have any ideas as to how to do this without having  
to open a business and obtain a license and such?  
Thanks for any and all replies; please send to

mike@notorious.lbl.gov

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Date: Thu, 15 Jul 93 12:00:36 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: re: more on sugar in beer

In HBD #1182 Bryan L. Gros asks about sugars. Here's what I've figured out so far. I'll try to give source where appropriate.

To the best of my knowledge there are two reasons for adding sugar to beer: 1) to add a certain flavor, 2) to add additional fermentables without adding much flavor. These are obviously two different purposes.

In the flavoring category are:

Brown sugar: Sucrose w/varying amounts of molasses added  
Molasses: What's left over from refining sugar, strength and character of flavor vary w/brand and type.

Treacle: I don't know if this is simple a British term for molasses or a specific kind (help from the UK please). Anyway Lyle's treacle is called for in some British ale recipes and is readily available at upscale US grocery stores.

Turbinado, demerara: Amber colored sugars, supposedly only partially refined. According to FDA types all sugar sold in US must be refined so I don't know what these really consists of. (Help from you FDA type or food science folks)

C & H sell a product called "Wash raw sugar" which is described as "turginado-style". I haven't used it but in HBD#1141 Paul dArmond says it "doesn't give a cidery taste, and at the 1# level leaves a yummy sweet \*aftertaste\*"

Piloncillo: Mexican brown sugar, various color available. The ones I've found all say refined sucrose.

Dark sucre-candi: Philip Seitz says as near as he can tell rock candy=

sucre-candi. Piere Rajotte says in Brewing Belgian Ales that sucre-candi is sucrose. The dark sucre-candi is caramelized before being crystalized. Nobody seems to have a US source. I've tried camelizing my own sucrose. It's not hard to do.

I don't know how to assess the flavor added by any of these except to try one and taste the finished product. I recently tried a very dark piloncillo and didn't like the flavor it added--a sort of tart edge.

In the adding fermentables category there are:

Sucrose: A double sugar made of one glucose and one fructose molecule. Invert sugar is just sucrose that has already been split. It is used in confectionaries for reasons I know nothing about. Yeast must split

sucrose in order to metabolized it. This happens outside the cell wall

by enzymes secreted by the yeast (per<Spencer.W.Thomas@med.umich.edu>)

However, if the sugar is already inverted it's less work for the yeast.

To my mind this doesn't make it more fermentable just more easily fermented.

Glucose aka corn sugar: A simple sugar directly metabolized by yeast.

White candi-sugar: Per Rajotte, large crystals of sucrose.

There is strong consensus that too much sucrose adds a characteristic cidery taste. According to Miller, it's the fructose half of sucrose that's responsible for the cidery taste. However, some brewers say that even glucose will add a cidery taste in large quantities [per, cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)]

Most brewers agree that replacing maltose with glucose or sucrose in beers meant to derive their sugar from malt is a bad idea. At best you brew will have a thin body and flavor. On the other hand high gravity Belgian ales call for sugar as an adjunct. The purpose is to lighten the body and maltiness of these high gravity beers. This is one thing that makes them distinct from say Barley Wine. Rajotte says Belgian brewers may add either glucose or sucrose to their high gravity beers. Some say the already high maltose content hides the cidery flavor. Then again maybe it's the lousy weather they have there most of the year, who knows?

Sante', WAK

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Date: Thu, 15 Jul 1993 08:16:30 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: re: Parking in Portland

If you're coming to Portland, be ready for parking shortages. The city Fathers and Mothers decided that persuading everyone to kill their cars was a good idea for the 21st century, so they passed an ordinance that limits the number of parking spaces per downtown block. Ride the bus, eh?

I called the Mariott and spoke with Kim at the front desk. Here's the deal...

The Mariott has limited parking space, it all valet parking @ \$14 per day, if you have a room there or not... Right behind the Mariott, connected by a skybridge, is a city lot @ \$9 per day, plus some in/out fees. I've heard that Portland has pretty good public transit (hey, Jeff! what's it like?), so maybe that will help. Considering what a lot of us will be doing, riding the bus or light rail or whatever the heck it is that they have there might be a good idea while we're wearing the knees out of our trousers looking for more and more good beer.

Paul.

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Date: Thu, 15 Jul 93 07:56:47 PDT  
From: tima@wv.MENTORG.COM (Tim Anderson)  
Subject: The last bottle

In korz.digest #1182, Dave Hinz writes:

>ObHomebrewComment: Don't you just HATE finishing the last bottle of a batch?

>It's sort of sad to know that the whole thing is history...

Not at all. It's wonderful. Once you've made a bad batch and had to pour beer down the drain (now there's something to hate!), there is great joy in knowing that every single bottle has been a source of pleasure.

By the way, I use one clear bottle in each batch, and it's the last one I open.

When my wife sees me trudging up the basement stairs cradling a clear bottle of beer in trembling hands, she knows to keep a reverent and respectful silence until the glass is drained. Hmmm, maybe I should us more clear bottles.

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Date: Thu, 15 Jul 1993 10:08:37 -0400 (EDT)  
From: Tom Rush <trush@mhc.mtholyoke.edu>  
Subject: Hop harvest and Chico yeast

I have quite a different report on my hops than the one I posted last year (large yields and lush plants) the summer has been and continues to be hostile to all growers. The drought and heat has been a disaster for farmers and home gardeners alike, the prolonged heat wave withers plants even if irrigated--it seems worse in this area since Ct,VT,NY,etc. are hurting but not as badly.

Anyway, my cones are all coming early, very few, and the vines have stopped growing. The Japanese beetles have returned with a vengeance, they invited potato beetles and I have a strange green caterpillar munching on the cones and leaves (this may be a rare type of moth/butterfly which feeds only on hop vines according to a reference book) that's all I need a "spotted-owl" endangered worm and Sierra will be checking on me. I can see where hop growers can have "feast or famine" cycles. Only consolation my "Hersbrucker" is alive and well which I thought I lost last year (only grew 4 inches after being stepped on and crushed also the two Saaz I planted this year are thriving).

Has anyone encountered or has an answer to the following: I use Chico yeast cultured from SNPA, use my own hops, aerate after boiling and cooling to the point of using a sterilized chef's omelet mixer (reason follows) it foams up the wort 3-4 inches but subsides quickly and the yeast is perking overnight. The problem is, the primary gets stuck by the second day--I transfer to the secondary VERY CAREFULLY AVOIDING FURTHER AERATION and the batch takes off again. It works so much in the secondary I can't use an airlock and have a blow-off tube in a bucket to catch the overflow. The beer comes out perfect (deeeeliciuuus) but the procedure troubles me.

Any suggestions or theories are welcome,

-tom

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Date: 15 Jul 1993 10:48:44 -0600 (CST)  
From: CMACK@ssc.wisc.edu  
Subject: Smells like crap!

Hi -- first I'd like to thank everybody for suggesting breweries and pubs in San Francisco and San Diego. Other folks have gone on about how helpful the people on this list are, so I'll let it go and get on with my question.

I'm still relatively new to homebrewing, and on my 6th batch (an Anchor Steam clone), something odd is happening. I thought the smell in my basement was coming from somewhere else, but when I sniffed above the airlock of the primary fermenter, I almost gagged on this nasty, sulfurous odor. Maybe it's just my imagination, and the fermenter isn't actually \*distended\* from the gas production, but it still has me spooked about this batch's chances. (At least I don't have to worry about oxidation?) As far as I know, this was a standard extract recipe, not so different from Papazian's Steam in TNCJoHB. Can anyone tell me what's gone wrong?

Thanks,  
Chris Mack

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| friendship I share with my collection |(AKA J. Hunter Heinlen) |  
| of singing potatos. |(Bitnet:STBLEZA@IUP) |  
| |(Internet:STBLEZA@GROVE.IUP.EDU) |

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WATCH THIS SPACE! DON'T LET IT GET AWAY! | The SCA... A Dream to Some,  
| A Nightmare to Others!

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Date: Thu, 15 Jul 93 07:29:17 -0400  
From: Rich Ryan <ryancr@install4.swin.oasis.gtepsc.com>  
Subject: Carboys

I received numerous posts in response to my request on where to find a low cost carboy. A number of individuals suggested a Corning/Revere Factory Store. They carry 5 gallon carboys for \$9. If you are interested in finding a store in your area you can call 800-999-3436 0800-2400 EST. I was able to find a few locations.

Rich

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Date: Thu, 15 Jul 93 17:25:00 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: kegging info - Help!

Well, I'm taking the plunge into the world of kegs. I found 4 5-gal soda kegs (with syrup - bleach!) for \$5 each, regulator for \$15, Co2 tank for \$20, and tap/dispenser for \$15. (how are these prices, btw?)

I need to know what I need to do to these tanks before using them (besides replacing all the rubber seals as someone mentioned), and where to get parts, rebuild kits, etc. I've got a batch of beer ready to bottle, er, keg right about now....

thanks,  
jim

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Date: Thu, 15 Jul 93 15:37:46 PDT  
From: Victor Stevko (Human Genome Center, LBL) <stevko@genome.lbl.gov>  
Subject: Use of sucrose solutions in long-term yeast storage

The purpose of putting sucrose ( or glycerol/glycerin ) in a yeast culture to be stored long-term in a freezer is to keep the yeast from exploding. That is, normally yeast can't survive freezing temperatures - the water inside the yeast freezes, breaking their outer membranes and killing them.

Adding 10-15% glycerol will change the osmotic balance of the yeast and keep them from freezing to death. It should also keep your stocks liquid at freezer temperatures. This is a standard method of keeping bacterial and yeast stocks long-term in the lab, though we usually freeze to -80 C. -20 C, freezer temperature, is fine for stuff you'll use in a year or two, though.

---Vic

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Date: Thu, 15 Jul 93 16:21:14 PDT  
From: toma@xcski.llnl.gov (Tom Altenbach Room 2039)  
Subject: **Brewers Warehouse propane stove**

Glenn Raudins writes in HBD 1182:

>re: Brewer's Warehouse

> Has anyone out there bought their propane burner? It appears to be in  
a

>ceramic base of some nature, which probably would solve the need to  
build a

>heat shield.

I have purchased two of their stoves. They are solidly constructed  
entirely of metal, have sufficient power to easily boil 13 gallons of  
wort,  
and are easy to control at low flame for simmering or mashing too. The  
base  
is NOT ceramic, however I do sit my stoves on top of ceramic tiles in my  
brewery. You can call them directly for more info. They have been very  
helpful  
to me when I have phoned, (206-527-5047). [standard disclaimers apply]

Tom Altenbach

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Date: Thu, 15 Jul 1993 21:05:19 -0400 (EDT)  
From: SMUCKER@UTKVX.UTCC.UTK.EDU  
Subject: Nitrogen and Carbon Dioxide Regulators.

There have been some question lately about gas regulators. Some general information: Gas regulators are all built on the same principle but with some important differences for different gases. For one thing they have different fittings, threads etc. for different gases. This is for our safety so that you don't get the wrong regulator on the wrong gas. I believe that these difference have been set up by the American Welding Society and are regulated by the Interstate Commerce Commission. As was point out several days ago (I sorry I lost the author) in the case of oxygen this is so you don't kill someone by putting a contaminated regulator on a oxygen tank in the future.

Second oxygen and nitrogen regulator are built to take full cylinder pressure of 2500 psi plus a safety margin. Carbon dioxide regulators on the other hand generally have a different spring in them to account for the lower pressure from the head space gas over the liquid carbon dioxide in your cylinder. Also most carbon dioxide regulators are designed to limit freeze up, which if it occurs can allow high pressure gas or even some liquid carbon dioxide to pass. Not what you want.

A good place to purchase a carbon dioxide regulator is you welding supply store. A generic brand for low flow rate should run about \$ 40.00. You may have to replace the low pressure gauge because it likely will be calibrated for flow rate rather that pressure but your welding dealer will have a replacement gauge and maybe willing the swap one out. My was, but then I buy welding supplies too.

Dave Smucker, Brewing beer, not making jelley!!

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Date: Thu, 15 Jul 93 10:11:24 EDT  
From: kstiles@woomera.att.com  
Subject: Neuweiler's Stock Ale

Matthew Mitchell writes:

>Another excellent contract brew from Lion in Wilkes-Barre is the  
Neuweiler's  
>Stock Ale, brewed for Neuweiler's of Allentown. I think they have their  
>own brewery, right? They've been around a while and I never looked  
twice

A few years ago Neuweiler's started up as an upscale-type beer contract  
brewed at Lion in Wilkes-Barre. They bought the name from Neuweiler's,  
which went out of business in the late 60's. Supposedly, the new  
company wanted the name only - the original Neuweiler's was a  
blue collar-type beer, so they didn't use the recipes. The old  
brewery still stands (unused for much of anything?) in Allentown. It's  
a very interesting building with big copper gargoyles and beer mugs.

>So is stock ale a defined style? The last one I had was the Molson  
Stock Ale  
(which had an anchor in the hexagon molson label ref to sea voyage like

>The label says that the story is that the beer was reserved for  
stockholders

That's my understanding - it was distributed to stockholders in lieu of or  
in addition to dividends. Of course, today it is just marketing hype to  
imply it is a higher quality beer. I don't think it qualifies as a  
defined style. I agree that it's a pretty good bargain - not in the  
same class as, say, Stoudts, but a good deal at \$12/case here in  
Allentown.

-Kevin Stiles

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Date: Thu, 15 Jul 93 08:43:54 CDT  
From: pyeatt@Texaco.COM (Larry D. Pyeatt)  
**Subject: Neuweiler's Stock Ale**  
Subject: weevils

Chuck Cox writes:

> Does anyone have any experience eliminating weevils? I now only have  
one  
> living plant left, and am concerned that predators may not be effective  
> on a single plant. Perhaps I should simply kill the weevils by hand.

This may not be of any use to you, but when I was growing up on  
the cotton farm in Texas, we occasionally had infestations of  
boll weevils. The organic solution was to distribute ladybug eggs.  
There is also another insect which will prey on weevils, but I  
don't remember what it was. Check with your county extension  
agent (if you have one), maybe he will know something.

Larry D. Pyeatt This article does not reflect the views  
( pronounced "Johnson" ) of my employer or of myself. Any simi-  
Internet : pyeatt@texaco.com larity to the views of anyone, real or  
Voice : (713) 975-4056fictional, is purely coincidental.

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Date: Fri, 16 Jul 93 09:28:56 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: yet another question - alternative brew vessels

I was rooting around in the place i found the kegging stuff the other day, and noticed several interesting vessels. One was a 100-gallon coffeepot, complete with electric pump. There were two other vessels, with stream heating elements surrounding about a 15-20? gallon reservoir. All were stainless.

Any ideas if these could be readily used for brewing? Or what I would need to consider/look out for to decide for myself?

The 100 gallon coffeepot was a lot cheaper, but it wasn't obvious how to get a heating element/burner 'under' it as it's built on a(n open) stand. It does say "max temp 300 degrees F on the plate.

jim

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Date: Fri, 16 Jul 1993 09:40:50 EST  
From: Kristof\_Mueller@voyager.umeres.maine.edu  
Subject: RE: Mint Beer

Hmmm, mint beer, huh? Why I dont have a recipe, I have tries something like it. Colt .45 came out with a product called Colt .45 Cool. The first sip was tasty, but everyone I knew who attempted to drink more than 6 ounces threw up, so just be careful when you make your brew. I imagine that it could be good, but my only experience with a mint beer was not good.  
- --Kris

Beer, Beer  
Starts with a B  
Ends with an R  
And has two E's

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Date: 16 Jul 1993 09:09:11 U  
From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
Subject: Mint in beer

Ed Wolfe asks about using mint.

I have very vigorous mint plants in my back yard, and use them for my annual Christmas spiced ale. I pick about two ounces of fresh mint leaves and drop them in the kettle just at the end of the boil. This gives a mild, but definitely noticeable mint flavor. If you want a strong mint flavor, I would suggest three ounces (this is for a five gallon batch). This is one of my favorite brews of the year, and I use other spices as well, but the minty note is what really makes it special for me.

Ed Westemeier    Cincinnati, Ohio    westemeier@delphi.com

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Date: Fri, 16 Jul 93 10:13:34 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: step infusions

chuckm@pbn73.cv.com asks:

Does anyone have a formula that will help me with Step infusions in order to hit proper temperatures. eg. I mash in a cooler tun. If I have X pounds of grain at Y degrees, how much 212 degree water must I add to raise the temp Z degrees. Given that I know X, Y, and Z all I need to find out is the 'how much'.

In my experience the answer of how much is "too much".

I do a protein rest using 1 quart of water to 1 pound of grain at 50C (122F). I then add 1/2 quart per pound grain of boiling water. This brings the temp up to about 60C (140F). This is a fairly reasonable mash - consistency wise. I wouldn't want to make it much thinner than that. Besides, given an 8 or 9 pound grain bill, this brings the total volume up to the limit for my 5 gallon stainless steelmash tun. What I wind up doing is putting the mash on the burner to bring the temp up (stirring constantly) to sacchrification temperature.

I understand that with a cooler tun, this option is not available to you unless you resort to decoction mashing. IMHO, With your set up I would recommend mashing only with fully modified malts and forgetting about step infusion.

However, assuming to have the space in the mash tun and you are willing to use a much thinner mash, to answer your original question, the formula would be (check me on this HBDers):

Given:

- heat = temperature times mass.
- absolute temerature (kelvin) is 273 plus mash temp (centigrade).
- water boils at 100C.
- The US system of weights and measures suck and we should join the rest of the world and convert to metric.

Assumption:

on the eath's surface, weight and mass are numerically identical.

terms:

sw = starting weight  
st = starting temperature (absolute)  
ft = final temperature (absolute)  
bt = boiling temperature (absolute)  
x = water at boiling temperature to add

$$sw(st) + (bt)x = (sw + x)ft$$

example:

Assume

1 quart of water weighs 2 pounds - about a 10% error, but close enough. (1 gallon of water = 7.5 pounds).

you have a mash of 10 pounds grain and 10 quarts water for a total weight of 30 pounds.

you have a protein rest at 50C (122F) and you want to raise it to sacchrification temperature of 67C (152F).

$$30(273+50) + (273+100)x = (30 + x)(273+67)$$

$$9690 + 373x = 10200 + 340x$$

$$510 = 33x$$

$$x = 15.5 \text{ pounds of boiling water to add (about 2 gallons).}$$

This is off the top of my head, I haven't actually tried it - I could be wrong.

This formula ignores pesky little things like heat stored by the container  
(ya gotta heat the mash tun as well as the mash).

- --Tony Verhulst

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Date: Fri, 16 Jul 93 09:50:22 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Hops for Lambic

I was reading Mark Garetz' article on hop deterioration and storage (very informative--thanks) and it reminded me of a question I've always wanted someone to answer. I've read (Jackson and elsewhere) that the lambic brewers in Belgium use old hops, like up to 2 years old! The most sensible explanation I've read is that the aging removes most (all?) of the bittering capability of the hops but they still impart an important flavor to the beer. So my questions for you hop experts are: What's left in two year old hops? What varieties are used for lambic? Should I buy a couple of pounds of hops now and put them in my 90F garage so I can start brewing lambic-type beers in two or three years?

Sante' WAK

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Date: Fri, 16 Jul 93 08:56 MTS  
From: Chuck Coronella <CORONELLRJDS@CHE.UTAH.EDU>  
Subject: Reno BrewPubs, homebrew clubs, etc?

Just found out yesterday that I'll be moving to Reno in mid August. At last I'll be able to brew legally. (Homebrewing in Utah is decades away from legalization.) So what's the beer situation out there? Brewpubs? Homebrew clubs? Microbreweries?

Thanks, and looking forward to seeing you in Reno (if I can finish my dissertation in time...),

Chuck

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Date: Fri, 16 Jul 93 10:42:44 EDT  
From: rgarvin@btg.com (Rick Garvin (703-761-6630))  
Subject: Irish Moss

Another data point for Irish Moss usage. I have used it off and on over the last seven years when I remembered. It is recently that I have become a believer. This spring I began using a 15.5 gallon keg (capacity 15 gallons) as a boiler and a 48 qt Coleman cooler as a mash tun. Previously I had used a ZapAp for lautering. The switch came about to reduce HSA and increase capacity; 30 lbs vice 12-17 lbs (mash thickness dependent).

Well, the classic copper manifold lautering approach does not (for me) produce as clear a run-off as the ZapAp. I started out with the cooler/copper manifold approach in 1987 and when I made the switch to ZapAp I noticed better clarity.

Lately I have been using one Tablespoon of Irish Moss per 12-14 gallons of boiling wort. I have noticed a clearer wort post-boil and better clarity post-fermentation using the Irish Moss. In my next brew I will try using one Tablespoon per 5 gallons in my next batch.

Alex (alexsi@microsoft.com) talks of using PolyClar successfully. I have used it in the past also with dramatic results. My experience has paralleled that of Dan Carter, BrewMeister at Oxford Brewing Co in Baltimore. They chill their infusion mashed ales, do a course DE filter and place the beer in a bright beer tank. Here they chill to 2-4C and add "two scoops" of PolyClar. What Dan feels he gains by this is prevention of chill haze without doing a sub-micron filtration thereby negatively effecting mouthfeel.

Hot Break:  
- - - - -

It is good to see someone has finally made some sense in the hot break thread. Steve (sc@vcc.com) has described exactly my observations on hot break.

> The hot break begins at the beginning of the boil,  
> anyone unclear on this should bring an all grain  
> (extracts have small hot breaks) beer just to  
> boiling and then turn the burner down to observe  
> the flocculation of proteins. IMHO no hops should  
> be added until a hot break occurs as hop introduce  
> nucleation sites that would otherwise be started  
> by the larger proteins. This will give a brighter  
> beer. By the way the hot break happens when the  
> larger proteins come in contact with the interphase  
> between steam and wort cooking them just as blood  
> will form a solid when heated. I've seen flocs  
> the size of dollar bills in my 40-gal brew system  
> allways at the begining of the boil.

In my 15 gallon boiler fired by the Kin Kooker rocket engine I see hot break within 15 minutes. For my recent 60/40 Weizen (I am bring a 5 gallon keg to Portland) I did a one hour boil before adding hops. I did indeed see protein goobers the size of canned hams within 15 minutes.

Now, in summer time I use a two stage heat exchanger. I use an

immersion chiller with 40 ft of 3/8" soft copper to get the wort to ~100F. Next, I have 20 ft of ice packed 3/8" copper that I gravity feed the wort through to get the final chill. on a 90F day I have beer going into my fermenters at 45F. It is really nice to see that condensation on the fermenters.

Why do you care how I chill my beer? Well in the winter with only an immersion chiller I get almost no cold break. With the combo chiller I see a dusting of cold break. Make of this what you want.

Summary:

Hot break: happens at the beginning of the boil. Consists of coagulated proteins that are insoluble at 212F.

Cold Break: happens when the beer is chilled. Consists of proteins (not necessarily coagulated) that are insoluble at pitching temperatures.

Chill Haze: happens when beer is chilled to serving temperatures. This is, essentially, the "colder break" that occurs when beer is chilled below fermentation temperatures and those proteins that are left over after the cold break that can precipitate at temperatures somewhere above 32F come out of solution into suspension.

See you in Portland.

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Fri, 16 Jul 93 10:24:43 CDT  
From: Fritz Keinert <keinert@iastate.edu>  
Subject: Re: Purchasing Supplies

In #1183, Kristof\_Mueller@voyager.umeres.maine.edu asks

> I was just wondering, I am 20 years old, and plan on brewing as soon  
as I  
> get my apartment (in Sept.). I know that legally I cannot brew beer  
until  
> I'm 21, but can I buy supplies as a "minor"? It seems to me that  
anyone  
> should be able to buy a bucket and some grains. Does anyone know the  
laws  
> that apply here? Thanks for your help.

The laws may vary from state to state, but it is definitely legal in Iowa to purchase brewing supplies as a minor, and even to brew and drink your own beer (in the privacy of your home)! The various alcohol laws cover purchase of alcohol and public consumption, but not this case. I think you are not allowed to give this beer to underage friends, though, even in your own home.

Your best bet is to ask at a good homebrew supply store in your state; that's what I did here in Iowa. If you ask the police or some other state agency, they probably won't really know and just tell you "no, you can't do that". I found that out when I tried to call the Chicago airport customs office about details on beer importing: they are supposed to enforce the laws, but they don't really know the details themselves.

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Fritz Keinert phone: (515) 294-5223  
Department of Mathematics fax: (515) 294-5454  
Iowa State University e-mail: keinert@iastate.edu  
Ames, IA 50011

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End of HOMEBREW Digest #1184, 07/19/93  
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Date: 16 Jul 1993 12:14:27 U  
From: "Westemeier\*, Ed" <westemeier@pharos-tech.com>  
Subject: Kegs to kettles

Mike writes:

> Hi again. Last week I requested a copy of a bygone HBD article posted  
> on  
> converting 1/2 bbl kegs. I never got a response. What I did get,  
> however, is lots of email expressing interest, so I felt compelled to  
> ask again for the article in question. This time my request is for a  
> repost, though, since there seems to be lots of interest...

OK, I don't know about the original article, but maybe it would be useful  
to describe my own equipment.

#### START WITH THE KEG

Obtain a half-barrel stainless steel keg (the Budweiser ones seem to be  
the best, but most should work). Be sure you obtain one legally, as  
these are the property of the brewery and cannot normally be sold except  
by a licensed reconditioning firm. The fact that you can obtain one  
easily by simply getting a keg of beer for a party, then failing to  
return it to the distributor and forfeiting your ten dollar deposit,  
does not mean that you should even consider this method, I strongly  
advise against it, and sundry other assorted disclaimers.

#### CLEAN AND GUT THE BEAST

Make CERTAIN the keg is empty and that there is NO pressure left in it.  
Press down hard on the ball bearing in the top to be sure. Remove the  
built-in valve as follows: Take a small flat blade screwdriver and  
insert it just under the lip of the housing. You will find that a flat  
circular strip of spring steel is holding the assembly together. Pry  
under the end of this ring until you can coax it out toward the center,  
then grab it with a pair of pliers and pull it completely out. Then use  
your pliers again to grab one of the two opposing lugs, turn the whole  
assembly counter-clockwise about half an inch until it lines up with the  
openings in the housing. Then simply lift it up and out of the keg,  
tube and all. This may not sound simple, but if you read this with an  
actual keg in front of you, everything will be quite obvious.

#### PERFORM SURGERY

You need to cut out the top and make a hole in the side. Here's the way  
I did mine: Draw a 12-inch diameter circle with a magic marker on the  
top of the keg, centered. That's plenty of opening, and allows you to  
leave the top rim attached, with its built-in handles. Mark a spot on  
the side, an inch or so up from the bottom rim. That's where your  
spigot will be. I used my power drill to cut a hole at that spot just  
large enough to accommodate a half-inch ID Stainless coupling. I took  
the keg to a friendly neighborhood welder who specializes in TIG  
welding, and had him use a plasma cutter to remove the 12-inch circle on  
top. First, he partially filled the keg with water to catch the sparks  
dropping inside (made later cleanup much easier). Then he welded the SS  
coupling in the side hole, about half inside the keg and half outside,  
grinding and polishing the weld for smoothness. Cost me \$30 and well  
worth it. Stopped at the kitchen gadgets section of a local store and  
picked up a pot cover for the top for a few bucks.

#### SIMPLE PLUMBING



Date: Fri, 16 Jul 93 09:43:18 PDT  
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)  
Subject: hot break

I think the confusion about when the hot break happens is coming from the fact that we are trying to pinpoint an exact moment in time that it happens. In hbd 1183, Steve Casselman writes:

>The hot break begins at the beginning of the boil,  
>anyone unclear on this should bring an all grain  
>(extracts have small hot breaks) beer just to  
>boiling and then turn the burner down to observe  
>the flocculation of proteins.

the key word here is \*begins\*. The hot break does begin at the beginning of the boil but takes about 60 minutes to complete. I think the key about adding hops is to wait until enough of the hot break has occurred to give the uncoagulated proteins nucleation sites of other protein instead of hops.

Darren Aaberge

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Date: Fri, 16 Jul 1993 09:59:31 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Sprecher Brewery**

My understanding of what happened at the Sprecher Brewery in Milwaukee is that a barge ran aground and smacked into the building. This little bit of info is from Mrs. Sprecher (Randy's mom) by way of his sister Cindy (who works here). This collision may have been the trigger for the events described by Roger Deschner. I'll post it as I hear it.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Fri, 16 Jul 93 10:16:57 PDT  
From: nuke@reed.edu (Bill Newcomb)  
Subject: Regulators

Someone asked about regulators for nitrogen (N2) and carbon dioxide (CO2) specifically whether there is any difference between the two. The main difference between two such regulators in a scientific catalog would probably be either the range of output pressure adjustability, or the graduation of the gauges, as CO2 has a much lower primary (tank side) pressure than N2 (800 vs. 2100). Oh, and the connection to the tank is a different "nipple" (not my word) for different gases, except that most of the real inert gases (He, Ar, N2) use the same one (#580). Interestingly, the CO2 fitting (#320) is also used for some freons.

Caveat: Your homebrew store regulator may not be rated to such a high tank side pressure, as it may have been designed with CO2 expressly in mind. Simply connecting the correct nipple for N2 to it (most of the connections to the regulator are 1/4" NPT) might not be such a good idea. This is based on a certain regulator I saw once that was mostly machined aluminum. For all I know, it's probably fine. YMMV.

Bill

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Date: Fri, 16 Jul 93 13:57:53 EDT  
From: bszymcz@ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: Jever Pils

In HBD1183 Chris Pencis asks:

>Ok, here's a question from my homebrewing partner...does anyone out  
>there know anything about the beer Jever...on the label it says  
>something about using "freisian herbs" (where's fresia?!) ... does  
>anyone know what these things are - has anyone tried to replicate this  
>brew ... in general, can anyone give us the low down on this beer (its  
>not in Jackson, Finch or anywhere in Papazian) ... thanks.

I had the pleasure of having Jever (pronounced yay-ver) while in Ekenforde, Germany last year. This is a beer in the north German pilsener style, which in general is very dry with lots of hop bitterness, but Jever is even more so. I think the "fresnian herbs" are simply referring to the flavoring hops used, which give a nice spiciness to this beer. I'm not sure which type although I would guess Satz. When I first tasted this beer I thought it was too bitter for my tastes, but since returning home, I've been longing for more.

By the way, Jever is mentioned in Jackson's pocket guide, in the northern German section (I don't have my copy handy). It is one of his 4 star beers. Fresnia is the name of a province in Northwestern Germany.

Bill Szymczak  
bszymcz@ulysses.nswc.navy.mil

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Date: Fri, 16 Jul 93 11:28:09 PDT  
From: mrozek@gandalf.etsdesg.TRW.COM (Eric M. Mrozek)  
Subject: Re: Irish Moss - Extract vs All Grain

In hbd #1183 lyons%adc3 asked:

> I've noticed in Charlie's book that he lists Irish Moss as an  
> ingredient for All Grain recipes, but not for Extract recipes. Am I  
> correct to conclude that only All Grain recipes will benefit by  
> using Irish Moss during the last 15 minutes of the boil?

Up until last Fall, I was only brewing with extract and adjuncts, and I  
"always" used Irish Moss. The "break" material would settle out and I  
wouldn't have any chill haze. The couple of times that I did forget the  
Irish Moss, chill haze was a major problem. I'm not sure how much of the  
haze  
was from the extract as opposed to the adjuncts (I always used adjuncts)  
. In  
any case, I strongly recommend using adjuncts if your brewing with  
extract  
(past HBD issues have had lots of discussion on the merits of using  
adjuncts),  
and using Irish Moss (or some other clarifying agent).

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Date: Fri, 16 Jul 93 11:58:40 PDT  
From: Mike Peckar 16-Jul-1993 1458 <m\_peckar@cscma.enet.dec.com>  
Subject: Re: 1/2 bbl SS keg as brewpot (again)

Well, this time around I got lots of great suggestions. Thanks to all who replied to me directly. When I've completed my project, I will roll up all the good advice and repost.

A thorough read of /pub/homebrew/docs/all\_grain\_equipment.Z in the hbd archive was invaluable as well. Thanks to Ray Brice for that pointer.

Mike

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Date: Fri, 16 Jul 93 16:33 CDT  
From: korz@iepubj.att.com  
Subject: Irish Moss Fest/Hop storage/Turbo Dog

lyons writes:

>I've noticed in Charlie's book that he lists Irish Moss as an  
>ingredient for All Grain recipes, but not for Extract recipes. Am I  
>correct to conclude that only All Grain recipes will benefit by  
>using Irish Moss during the last 15 minutes of the boil?

Both may benefit, but I suspect that some of the hot break that occurred during the production of the extract has been removed (judging from the much smaller amount of hot break in extract brews). I'd also like to add that I just read the article by George Fix that Jeff referred to in his post and that, based on George's tests, different forms of Irish Moss behaved very differently. All reduced haze in varying amounts, but some also reduced head retention significantly. The best results, in my opinion were from "refined flakes" at a rate of 1/8th grams per liter, which performed slightly better than "large flakes" and much better than "powdered flakes." I'm not sure what type of flakes I was using -- they were not powdered and were on the order of 2mm wide and 10mm long -- so I'm off in search for a supplier of "refined flakes!"

\*\*\*\*\*

Mark writes:

>deteriorate. Oxygen also causes the alpha acids to oxidize and one of the  
>oxidation components is responsible for the "cheesy" aroma of old hops.  
The

and then later:

>The oils also deteriorate and oxidize over time. It is believed that  
some  
>oxidation of the oils is beneficial to the hop aroma. Since most  
homebrewers

I've read somewhere that Hallertauer hops benefit from a small amount of aging (most certainly under controlled conditions), but don't recall where.

I'll look for that source over the weekend and see if I can post something about it on Monday.

Since I brew pureculture Lambieks, I intentionally have been buying more hops than I can use and then storing part of them at room temperature in bags open to the air. As has been reported in various articles (one that quickly comes to mind is in the Hops Special Issue of Zymurgy) different

the bouquets of different varieties of hops change differently with age.  
I

have at least six varieties of hops aging and I can attest that some age more gracefully than others. The dominant bouquet of well-aged Fuggles is

"cheezy." No doubt about it. No other hops have as much of this "cheezy"

aroma as do the Fuggles. Hallertauer and Willamette have a definite "piney" smell which is quite pleasant, but the Willamette also have a "grape soda"

aroma which is highly distracting when associated with beer. Goldings seem to age incredibly gracefully, their "candylike" classic aroma just simply fades. Perhaps a bit of a grassy aroma is also evident, but only very slightly. Well-aged Cascades also have the "piney" aroma, but their characteristic "citrusy" aroma is still noticeable, even after two years!

The point I'm trying to make is that "cheezy" aromas are not the only ones that manifest themselves as hops age. The other lesson to be learned here is that for pLambieks, Hallertauer and East Kent Goldings are the best choices of the hops I happen to have tried (reportedly Saazer hops are also very good for pLambieks, but I've yet to take them out of CO2-purged/oxygen-barrier cold storage -- I will when this year's crop becomes available). I feel that Willamette and Cascades may be a bad choice, but the Willamette are not that old yet, so time may tell otherwise.

Also:  
>Variety % Alpha Remaining after 6 mo.  
> at 20C or Storage Quality

>Liberty 40%

>Perle 85%

While the data I have (from HopUnion) is consistent with all the other storagability factors Mark listed, the averages I have are 45% for Liberty and 83% for Perle.

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Jim writes:

> Abita Amber - nice amber beer. good stuff  
>  
> Abita Golden - only tried a small bit of this, seemed OK, but nothing  
> real notable  
>  
> Turbo Dog - an interesting dark beer. kinda (excessively) roasted  
> malty tasting to me, you might like it if you like dark beers, hard  
> to say. About the name - "yeah, the owners were sitting around  
> drinking one day after brewing the first batch and came up with that"

The story I heard was that it was selling poorly under another name and when they changed the name to "Turbo Dog" they couldn't brew it fast enough.

Al.

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Date: Fri, 16 Jul 93 16:42 CDT  
From: korz@iepubj.att.com  
Subject: Hot break & hop utilisation

Spencer writes:

>What Jeff says meshes nicely with some of the books on historical  
>brewing I've been reading recently (things like The English Housewife  
> . . . , by Gervase Markham around 1600; Wines & beers of old New  
>England\_ , S. Brown, 1978). You find statements like "boil it until  
>it 'breaks'". This seems to imply that the break happens at the end.

Then Steve writes:

>The hot break begins at the beginning of the boil,  
>anyone unclear on this should bring an all grain  
>(extracts have small hot breaks) beer just to  
>boiling and then turn the burner down to observe  
>the flocculation of proteins. IMHO no hops should  
>be added until a hot break occurs as hop introduce  
>nucleation sites that would otherwise be started  
>by the larger proteins. This will give a brighter  
>beer. By the way the hot break happens when the  
>larger proteins come in contact with the interphase  
>between steam and wort cooking them just as blood  
>will form a solid when heated. I've seen flocs  
>the size of dollar bills in my 40-gal brew system  
>allways at the beginning of the boil.

With all due respect to Jeff and Spencer, I have to say that in my experience, the majority of the hot break occurs within the first 15 minutes of the boil. When I got home yesterday, I checked Papazian, Miller, Noonan, Fix and Hough (The Biotechnology of Malting and Brewing)

Papazian says: "After a short period of boiling, your wort begins to exhibit a cloudiness and has flakes of coagulated protein floating in it." Miller does not say exactly when he feels the break begins to occur, but does mention that "wort can stand at the boiling point for any length of time and, unless it is agitated, will remain turbid. It is the rolling action of the boil which bumps the protein molecules into one another, causing them to clump together." From this I'd like to point out that the geometry of the boiler, whether or not there are mechanical stirrers and the intensity of the heat source all are factors in the intensity of the hot break and it may be \*that\* which influences various authors' opinions on when the break occurs. Personally, I noticed a much quicker hot break when I switched from my electric stovetop to a 12,000BTU gas burner. I'm only speculating, but since the Electric Bins are quite popular in the UK, perhaps Line's experience has been with these types of heat sources and not with the significantly hotter heat sources some of us are using (I know brewer's around here using upwards of 100,000BTU burners! Jack? Tim?).

Moving on to Noonan, this is another one of those sources that Jeff mentioned, that is quite unspecific as to when the hot break occurs. Fix appears to confirm Jeff's position: "For standard boiling temperature (100C), the precipitate increases sharply during the first hour, and often continues to rise (though at a diminishing rate) for 1 1/2 to 2 hours. Excessive boil time (3 hours or more) can lead to a redissolving or the precipitate." However, this is still does not contradict my assertion that a large portion of the hot break occurs during the first 15 minutes of the boil. Later, he says: "[hot

break] comprises the the coagulated material and gums suspended in otherwise clear hot wort at the end of the boil." I'd like to caution reading this statement as if the "end of boil" means that that's when the break occurred, rather that at the end of the boil, this material is \*still\* suspended in the hot wort.

Finally, Hough also is not clear as to when the break occurs, but has a very detailed description of the protein reactions during the boil. Several interesting points are: "The larger denatured [protein] molecules tend to exceed their solubility, especially if close to their isoelectric point [this is dependent on the pH of the wort]. When they coagulate, often tanned by the malt and hop polyphenols, hop resins tend to adsorb to them and so valuable hop material is lost. Indeed it is common for only 30-50% of the alpha acid material to be represented as iso alpha acids in the wort. The utilisation falls to 20-40% by the time that beer goes into package."

Al.

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Date: Fri, 16 Jul 93 16:46 CDT  
From: korz@iepubj.att.com  
Subject: Guinness cans/Protein rest

Russ writes:

>>It's not NO2 and I don't believe there's any nitrogen at all in the cans.  
>  
>While you are correct that the Draught in the cans is a unique recipe and so  
>tastes considerably different from what we are used to (the bottled version)  
>there "is" liquid nitrogen added to the Draught as it is canned. This is used

I stand corrected... nitrogen is added to the cans, but I think the \*liquid\*  
nitrogen part was created by someone on the HBD. The most definitive post  
was a copy of an article posted to the HBD -- here's part of it:

>>> "The extra ingredient in a can of draught Guinness"  
>>> NEW SCIENTIST, 22 July 1989 p. 34  
>>>  
>>> Written by Andy Coghlan  
>>>  
>>> According to Alan Frage, the product development director at  
>>>Guinness...  
>>>  
>>> Draught Guinness owes its creamy texture to a surge of bubbles in  
>>>the beer as it passes through a series of tiny holes in the special  
>>>dispensing tap. The tap has a system of tiny holes which creates  
pressure  
>>>differentials.  
>>> These differentials force the gases out of solution and produce a  
>>>"surge". Unfortunately, the gasses wil remain in solution if people  
simply  
>>>pour Guinness from the barrel into a glass.  
>>> The new system essentially mimics this process from the inside of a  
>>>can. The device is a plastic chamber with a minute hole at the top,  
which  
>>>sits on the base of the cans.  
>>> For the system to work, the pressure in the can must exceed  
>>>atmospheric pressure. The canners fill the can with beer that is cold  
>>>enough, at between 0 C and 1 C, to retain gas that would bubble out of  
>>>solution at higher temperatures.  
>>> The canners put 440 milliliters of Guinness in a can that can hold  
>>>500 milliliters, in order to leave enough room for the creamy head to  
form.  
>>>They also "dose" the beer with extra nitrogen, which raises the  
pressure  
>>>when the can is opened.  
>>> Once the lid is on, the pressures in the can and inside the chamber  
>>>reach an equilibrium that forces beer and gas into the device. When  
someone  
>>>opens the can of beer by pulling the ring-pull, it initiates the same  
>>>process that happens in a tap for Draught Guinness.

\*\*\*\*\*  
Conn writes:

>could be useful for ales which have not received a protein rest. As ale  
malt  
>is not reputed to contain protein digestion enzymes anyway, I presume  
the  
>problem that Miller is really referring to is that of using wheat malt  
and/or  
>flaked cereals without a protein rest.

I just checked Miller's TCHoHB and I can't find where he says that Pale  
Ale  
malt deficient in proteolytic enzymes. He does say that the higher  
kilning  
temperatures mean that Pale Ale malt is lower (overall) in enzymes, but  
does not specifically say that proteolytic enzymes are denatured  
excessively.

Pale Ale malt actually has less need for proteolytic enzymes because of  
the  
fact that it is more fully modified (than traditional, undermodified  
Lager  
malt) and therefore more of the proteins have been broken down during the  
malting process (this is from Papazian's TCJoHB).

An additional piece of interesting data I recalled from re-reading Miller  
was that just as there are two main types of amylase enzymes (that break  
starches down to dextrins and sugars), similarly there are two main types  
of proteolytic enzymes: proteases and peptidases. The optimum range for  
the action of the proteases is 122 to 140F and for peptidases, the  
optimum  
range is 113 to 122F. The proteases prefer to work on larger proteins  
and  
the peptidases can only break down smaller proteins. Sound familiar?  
Therefore, a higher temperature protein rest will favor the proteases and  
leave more small proteins (which we want for head retention, body, etc.)  
and a lower temperature protein rest will favor the peptidases and cut  
more of the smaller proteins down to amino acids. Miller does mention  
that a high-temperature protein rest could result in a wort low in the  
amino acids needed by the yeast for nutrition, but adds that well-  
modified  
grain already has quite a bit of the amino acids already (this is  
confirmed  
in Papazian) and thus should not be a problem. Since there are few  
modern,  
severely undermodified malts available, I don't think this should be a  
problem for us to worry about. In any event, this is just one more  
factor  
that we should be wary of when considering the big protein/small protein/  
amino acid composition of our wort, and not just write "I did a 30 min  
protein rest, then raised the temperature to..."

Al.

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Date: 16 Jul 93 23:40:54 MDT (Fri)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: correct measurement of alcohol?

Anybody know how to do accurate alcohol measurement? I'm looking for the equipment to do a single post-fermentation measurement; I'm trying to get away from the initial/final SG "potential alcohol" approach. I know the principle: distill a known quantity enough to get all the alcohol, add water to get a known final volume, measure gravity of result. What I \*don't\* know is where to get the equipment to do it with reasonable accuracy, and the details of the procedure. It doesn't seem like it should be rocket science. (Aside: is there a procedure other than the one I've described?)

Also, since I mentioned the naughty "d" word in the process...and since I'm not interested in meeting any of the nice government folks who watch weapons, beverages, and carcinogens...what are the legal implications of measuring alcohol by the process I described?

Incidentally, the reason I need to get away from initial/final measurements is that they don't work when you've got lots of fermentable solid matter (such as fruit pulp) at the start of fermentation.

---  
Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
...Simpler is better.

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Date: 16 Jul 93 23:19:58 MDT (Fri)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: 6oz bottles, bottling mead

Rex K. Perkins <70651.1611@CompuServe.COM> asked:  
> I am about to start my first mead and was recently pondering the  
problem  
> of bottling the stuff. As it is going to be mighty strong, I won't  
really  
> want to drink it 12oz at a time...

Let me interject before we get to the main point: Are you sure you won't want 12 oz bottles? My experience is that most of the meads I've made, I've wanted either in 12's or a combination of 12's and 25's--the latter for parties, the former for home. The only exceptions for me have been a rather dearly obtained prickly-pear melomel, and a very strong, spicy, sweet metheglin that's almost like a liqueur.

I reason thus: Most mead is comparable to wine, both in alcoholic strength (10-12%) and in general character and strength of taste. The standard size of a wine bottle is just over 25 oz, and that's just right for two people. Thus half of that (a standard 12 oz beer bottle) is theoretically right for one person.

Two more bits, one on either side. In favor of small bottles, mead is precious stuff; you don't want to be pouring heavy just 'cause that's the bottle size you've got. BUT!...remember that a mere 5-gallon batch is one \*hundred\* 6-oz bottles! If you like bottling as much as most of us do.. need I say more?

But all of that is just an "are you sure...?"

> It will also be sparkling, so re-sealable  
> screw caps won't help either. So, the natural solution would be for  
> smaller bottles.

...  
> My question is: Where can I get 6-8oz bottles from?...

Old Foghorn (Anchor's barley wine) comes in 187 ml (6.3 oz) bottles... that's an excellent way to get some. Now, you may object "But if I get the bottles that way, they'll already have something in them!" This, however, turns out to be an easy problem...;-)

Thomas Hardy's Ale (another barleywine) comes in 180 ml bottles, so there's another source, but quite expensive.

Both OF and TH are nice bottles, though. It's probably not an immediate solution to your problem (people don't seem to drink much barleywine in mid-summer) but over the longer term it's a way to acquire nice bottles, a taste for very strong beer, and either incipient liver damage or a bunch of friends who are glad to help you obtain empty bottles.

My turn to ask: Since Anchor has had to obtain the little bottles,

somebody somewhere makes them in substantial-but-not-staggering quantities.

Might it be possible to find out who supplies the bottles to Anchor and see

if they'll supply in few-case quantities?

---

Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
    ...Simpler is better.

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Date: Sat, 17 Jul 1993 02:09:10 -0400 (EDT)  
From: waltman@BIX.com  
Subject: Breweries under water/Alsacian (sp?) beers

Roger Deschner (U52983@UICVM.UIC.EDU) asks in HBD #1183 about breweries clobbered by the Great Flood of '93:

CNN had a story last week about a brewpub near the riverfront in Davenport, IA that had just opened this year, had had some minor damage in a spring flood and was pretty much wiped out by the current deluge. I did not catch the name of the pub or the owner. It was sad to listen to him as he told how all of the tanks had to be dumped. As a former Iowan, I am proud of how civilized people are still with all the tribulations. I doubt that here

without running water and/or electricity.

I have always liked Alsacian beers and was wondering if anyone had any ideas or suggestions for duplication. Thanks in advance.

Fred Waltman.  
waltman@bix.com

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Date: Sat, 17 Jul 93 10:51:36 +0300  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
Subject: Going to Israel?

If you are planning a visit to the HolyLand any time in the present or future,  
please give me a call. I'll make sure you won't miss your homebrew while here.  
At least I give it a try.

Nir Navot  
Tel 972-8-474580  
Email LCNAVOT@weizmann.weizmann.ac.il

-----

Date: Sat, 17 Jul 93 11:03:18 +0300  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
**Subject: Recipe Needed**

I need an all grain recipe for a dark, sweet, non-bitter ale of O.G.  
around  
1.040. Yes, I have looked through the Cat's Meow.  
Please reply by private Email. Many thanks.  
Nir Navot

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Date: Sat, 17 Jul 1993 08:05:44 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Burton water treatment**

I recently bought some Burton Water treatment salts from Alternative Beverage. Unfortunately there is no info on what is in it or how much to use to attain a target PPM. Any help would be greatly appreciated.

Also the stuff contains Papain (not mentioned in the catalog!). Since Papain acts at pretty low temps (~120-125) I assume that it is deactivated in a single step infusion mash at ~150-155?

Why would someone add Papain to a water treatment. Isn't it generally used in the secondary? And why wasn't it mentioned in the catalog?

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Sat, 17 Jul 93 17:47:50 EDT  
From: Joe Rolfe <jdr@wang.com>  
Subject: Belgian Ale Book Reply - At last

hi all,

sorry for the long delay - to refresh your memories - many months ago several people posted directly to me questions about Pierre Rajjottes book Belgian Ale. The questions were delivered to Pierre (just after the blizzard) started this past winter/spring. Pierre has been very busy looking up source to give the best answers possible. I now have the answers in hand.

only a small problem prevents me from posting them here: they are on MAC formatted disks and hard copy - i have a dos PC - damn computers. any way what i am going to do is either scan and ocr them or c convert the media. in either case i will post the results to the net of your choice. if the original posters could email me at jdr@wang.com i would thank you : the original posters i have are:

Al Korzonas  
Conn Copas  
Tim Fahrner  
Martin Lodahl  
Jim Liddel

The document Pierre has given me (today, in person) is about ten pages long and contains several pointers to other docs. Sorry if i have missed anyone e else that has posted questions to me - but Pierre has mentioned that you may contact him directly in Montreal. Please do not post messages thru HBD as of late i do not read this list as often as i would like. please reply to me directly at the email enclosed.

again pierre is sorry for the large delay as am i. we both hope the info resolves the errors/problems you have had.

later.....and good brewing.....

- - -

joe rolfe - President/Brewer - Ould Newbury Brewing Company  
jdr@wang.com - X Wang Employee, but still have an account  
508-462-1980 - the brewery

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Date: Sat, 17 Jul 1993 22:43:41 CST  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: Weather in Portland

I was interested in how to pack for Portland, and I thought others might be interested, but not have access to a server, so...

Weather Conditions at 8 PM PDT on 18 JUL 93 for Portland, OR.

| Temp(F) | Humidity(%) | Wind(mph) | Pressure(in) | Weather |
|---------|-------------|-----------|--------------|---------|
| =====   |             |           |              |         |
| 6863%   | NORTH at 12 | 30.17     | Partly       | Cloudy  |

PORTLAND METROPOLITAN AREA FORECAST  
NATIONAL WEATHER SERVICE PORTLAND OR  
345 PM PDT SAT JUL 17 1993

TONIGHT...A FEW EVENING SHOWERS TAPERING OFF WITH PARTIAL CLEARING.  
LOW 50 TO 55. WEST WIND TO 10 MPH.  
SUNDAY...PARTLY SUNNY AFTER MORNING CLOUDS. HIGHS ABOUT 75.  
NORTHWEST WIND 10 MPH.  
SUNDAY NIGHT...FAIR. LOWS 50 TO 55.  
MONDAY...PATCHY MORNING CLOUDS...OTHERWISE PARTLY CLOUDY.  
HIGHS 75 TO 80.  
CHANCE OF MEASURABLE RAIN 30 PERCENT TONIGHT AND 10 PERCENT SUNDAY.

If I dont get flamed off the net for posting this and there is a significant change in the weather conditions, I'll post it in right before the CRAZY TRAIN leaves Chicago. I was just interested in the normal HI/LO temp.

cheers,

- - -

John L. Isenhour internet: isenhour@lambic.fnal.gov  
Library Systems, et al NASA/NSF/ES/HEP decnet: lambic::isenhour  
Fermi National Accelerator Laboratory bitnet: isenhour@fnlib  
"When your work speaks for itself, don't interrupt" - Henry Kaiser

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Date: Fri, 16 Jul 1993 10:48:34 -0600 (CDT)  
From: jim@n5ial.mythical.com (Jim Graham)  
Subject: Advertising / Beer in the White House

Regarding the subject of adverts here, I think I might have a solution that would make everybody happy. I, for one, would prefer to keep a list of my options in terms of who I buy liquid/dry extract, hops, kits, etc.

from, and when I eventually get the money and space for mashing, there'll be a lot more that I'll want to keep up-to-date on. But not everyone wants that here on the digest, which is a side I can see, as well (I don't necessarily agree with it, but I can understand it).

A list could be published here on the digest either every two weeks or every month (probably once/month would be enough) of all of the people here who own mail-order homebrew supply shops. As far as the digest would be concerned, it ends there.

This list, however, would give an e-mail address for each supplier. The suppliers could then keep a mailing list of people who want to receive new product announcements, price lists, etc., and could then send that stuff along via private e-mail (this would need to be indicated in the list published on the digest in order to really work).

In other words, you get the list of the homebrew suppliers here, and a pointer to the address for getting the rest via e-mail.

Sound like a good idea?

- - - - -

Now, regarding the White House beer recipes listed here by scott.powell@amail.amdahl.com, I've got a few questions.....

First off, are these actually beers, or are they more along the lines of something like root beer (which, btw, is something I'd like to try brewing sometime, too, if I ever find out how)?

> Hop Beer  
>  
> Take five quarts of water, six ounces of hops, boil it three hours;  
then  
> strain the liquor, add to it five quarts of water, four ounces of  
bruised  
> ginger root; boil this again twenty minutes, strain and add four pounds  
of  
> sugar. When lukewarm put in a pint of yeast. Let it ferment twenty-  
four hours  
> it will be ready for bottling.

Let's see if I've got this right.... Five quarts (not gallons) of water, a \*pint\* of yeast, and it only needs to ferment 24 hours? Is that just because of the incredibly large amount of yeast? (Well, wait a minute, the next recipe doesn't use that much yeast, and it still looks like a 24 hour ferment.)

> Ginger Beer  
>

> Put into a kettle two ounces of powdered ginger root (or more if it not very strong), half an ounce of cream of tartar, two large lemons, cut into slices, two pounds of broken loaf sugar and two gallons of soft boiling water. Simmer them over a slow fire for half an hour. When the liquor is nearly cold, stir into it a large tablespoon of the best yeast. After it has fermented, which will be in about twenty-four hours, bottle for use.

What exactly is ``broken loaf sugar'' ??? Where would one get powdered ginger root to use for this? And again, only 24 hours?

Final question---how long would these need to age in the bottle? Anyone have any idea?

Thanks,  
--jim

- - -  
#include <std\_disclaimer.h> 73 DE N5IAL (/4)  
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INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.32W  
AMATEUR RADIO: (packet station temporarily offline) AMTOR SELCAL: NIAL  
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E-mail me for information about KAMterm (host mode for Kantronics TNCs).

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End of HOMEBREW Digest #1185, 07/20/93  
\*\*\*\*\*  
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Date: Fri, 16 Jul 1993 09:57:33 -0600 (CDT)  
From: jim@n5ial.mythical.com (Jim Graham)  
Subject: Update on cidery beer / siphoning / Spec. Prod. Intl / etc.

First off, an update to my last post about the two batches that came out tasting cidery. Shortly after I'd posted that, I had to run to the local homebrew supply store anyways, so I took a bottle of one batch with me. The owner tried it, and most of the cidery taste was gone...or so it seemed. He was pretty sure that it just needed to age out.

Well, as time went on, the cidery taste actually started getting worse..  
.or  
so it seemed..... As it turns out, I discovered last night, while dumping some of the bottles down the drain to re-use when I ran out of bottles while preparing to bottle some more beer, I noticed (after opening an entire 6 of the ``bad'' batch's bottles) that some of the bottles from that batch seemed fine. Others could kill you by the smell alone.

It seems that the severity of the problem varies from bottle to bottle, which leads me to believe that there \*WAS\* an infection, and that it was caused by improperly sanitized bottles.

But there's only one small problem in that theory---a coincidence that's just too much to believe. The next two batches, which also relied simply on boiling water (as opposed to bleach water, which is what I'm using now), came out just fine. Also, the two batches that went bad were both the same brand, and I'm told that sometimes, quality control within different companies can cause some brands to behave differently at times.

Could it be, for some reason, that this particular brand of extract is more susceptible to infection? Or is it just a wild coincidence?

Oh well, it's more or less a non-issue now.... It's a lesson learned, but I'm sanitizing bottles with the same strength of (HOT) bleach water that I use on dishes (pretty strong!)...and no bacteria is going to survive that!

As for the bad batches, I'm basically taking the advice someone here gave me---keep 'em around until I need the bottles. Every so often, I put one in the 'fridge and see if it tastes ok. I've yet to find one that did (well, there were those 6 last night, but room temps here aren't exactly at a level you'd want to drink beer at...78 deg beer doesn't sound too great!).

- - - - -

Now, someone had asked about siphoning into two different carboys at the same time to do some experimenting, and was wondering about using a Y-shaped siphon hose, etc., to avoid any possible problems with different strengths/flavors of beer by siphoning one, then the other.

I have a simple solution for you (as far as I know, there's nothing wrong with this suggestion...someone please correct me if there is)---use two siphon hoses side by side. Nice and simple...and cheap.

- - - - -

> From: Elaine <EBORIS@UGA.CC.UGA.EDU>  
> Subject: re: Specialty Products Intl  
>  
> About the review of "Home Beermakers Guide" by Leigh P. Beadle  
> Sad but true:  
> When I first tried my hand at brewing over 10 years ago I bought an  
> equipment kit which included Superbrau and L.P. Beadle's ~guide~.  
> Looking back, I am amazed that I didn't get any truly BAD beers from  
> following his advice. It took some time (and much better books on  
> homebrewing) to rid myself of bad brewing techniques I gotten from that  
> book.

I found the review interesting, too...but for different reasons.

When I got into homebrewing early this year, my starter kit also included the ``guide'' and Superbrau, but with one big difference---the owner of the store made some modifications to the guide. He basically went through the instructions one by one, and said things like: ``Ok, see where he says to do this? IGNORE IT. Do it this way instead. See where he says to do things in this order? That's backwards. Here's how you really do it.'' And so on.

When I read the review here, I was going through the changes marked up in my own copy, and for the most part, they all matched.

Either way, I quit using that particular reference after the first two batches, anyways (I'd learned the mechanics, which is about all the modified version of that really covered).

- - - - -

Final note.... I'm going to be brewing what I hope will turn out to be a very nice batch either today or tomorrow. It looks something like this:

BierKeller Premium German Malt Extract (Unhopped Dark)..... 3.3  
lbs  
Munton & Fison dark malt extract (dry) instead of corn sugar..... 4  
cups  
One packet bullion hop pellets

In other words, more or less the instructions on the can, except using malt extract instead of corn sugar. I've also got the same basic batch in bottles right now, except it uses corn sugar (it'll be ready in about another 8 days or so).

One question: Is this going to give me a true German bock beer? Or are there enhancements I need to make the next time around? I'd like to brew a \*REAL\* bock, and possibly even a doppelbock. So far, as far as I know, the closest thing I've had to a real bock was a German import, Fiedlers Bock im Stein (in those nice re-usable stone bottles). I like it enough to know that I'd like to brew a true bock. I also know enough to know that if it comes from a store, it probably isn't....

Suggestions? Comments?  
--jim

- - -

#include <std\_disclaimer.h> 73 DE N5IAL (/4)

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INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.  
32W  
AMATEUR RADIO: (packet station temporarily offline) AMTOR SELCAL: NIAL  
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E-mail me for information about KAMterm (host mode for Kantronics TNCs).  
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Date: Sun, 18 Jul 1993 17:38:22 +0700  
From: ifby546@ccwf.cc.utexas.edu (Joe H. Barfield)  
Subject: Irish Moss vs. Hog's Nose Cartilage; Jever heard of Friesia?

Hi. My name is Joe and I use Irish Moss.

I boil the wort for about an hour and add the IM anywhere from 10-30 minutes before the end of the boil. I add somewhere between a heaping teaspoon to a tablespoon to a shake or two of the bag when there aren't any utensils handy. Never very much. By the way, I've been brewing on the porch lately. The sight of a 10 gallon pot on a cajun cooker will often elicit queries from even the shyest of neighbors. I get a little porch time, meet some neighbors (they love chucking in the hops), spread the quality beer gospel, water the lawn with the immersion chiller run-off, and end up with 2 logs of quality beer. Plus, I don't have to scrub boil overs, I just hose them down.

Back to the IM.- Sometimes I do a little experiment: When the boil is over, I scoop out a cup of stirred up hot wort, pour it into my hydrometer test jar and watch the hot break settle. Then I cool the wort to, say, 80 degrees, creating a discernible cold break. After rousing the break by gently stirring, I take another sample and put it in my other hydrometer test jar. (They are both actually the cheap plastic tube the hydrometer & thermometer came in.) Five minutes after collection, the break matter settles out. The sample from the cooled wort is always deeper than the sample with only the hot break. No surprise, but it's neat to actually see a quantitative demonstration of what we're talking about when discussing the hot & cold break.

I lay out my hops and irish moss before I start the brew. That way I don't have to think too much. One day my little experiment didn't work. The hot break sample resembled suspended goo (or "juj", the technical term). It didn't go anywhere. The cold break sample was even cloudier. I said to myself "HMMMMM what happened?" whaddya know? The Irish moss was still on the counter (this was when I still brewed in my kitchen); I hadn't added it. I am a true believer in Irish Moss. I know it works. So does Break Brite. And it's a lot easier to find (in my part of town) than ground hog's nose cartilage.

Send beer, quick!

Joe "Noise" B. from Austin, brewpub mecca of America - just you wait and see...

p.s. in response to Chris Pencis' query: Friesia is in the Netherlands. I think. It's supposed to be chilly there, but the highly productive milk cattle there dig it that way. Any folks from the Netherlands read the HBD?

If so, send parsley so we can make some Jever! Maybe the Friesian spices the Jever label referred to were hops. Like those skunky things in Heineken.

-JB 4 days b4 printing.



-----  
Joe Barfield, Publisher, Southwest Brewing News, ifby546@ccwf.cc.utexas.  
edu  
Brewnews from Arkansas, Arizona, Louisiana, New Mexico, Oklahoma & Texas.  
406 W. 35th, Austin, TX, 78705. 512/467-2225. (FAX)512/282-4936. \$12/yr  
---- "We put the Lick in Publication" ----  
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Date: Sun, 18 Jul 93 19:41:16 PDT  
From: tinsethg@ucs.orst.edu (Glenn Tinseth)  
Subject: hop\_storage

In the July 1 HBD, Jonathan Knight asks about storing whole hops, (having been caused to worry too much by something he had read in some hop catalog;^) Let me first apologize for contributing to your stress levels and second try to assuage any worries about hops instantly turning to a quivering pile of moldy cheese if improperly stored.

I *have* to worry about storing hops because I need to keep them year round in top condition, ready to send out. Barrier bags, exclusion of light, and sub-freezing temperatures are how I slow the inevitable deterioration of whole hops. I also try to start with the highest quality I can find. You are already able to provide three of these four requirements:  
Buy (or grow) the best hops possible and store them in your freezer (after first making sure that the light *really* does go out when you shut the door:) At this point you are doing a better job than even some homebrew supply retailers I have seen, frequent contributors to the HBD excepted of course (Al Korzonas packs his hops for his Sheaf and Vine business as good as I have seen anywhere). Big (and small!) breweries rarely store their hops properly relying on the fact that they use hops quickly to prevent problems.

In order to exclude oxygen, two things need to happen: The hops need to be in a container that won't let O<sub>2</sub> (or H<sub>2</sub>O) in, and that container needs to be purged of O<sub>2</sub> before sealing. Glass mason jars fit the bill for the first requirement, wide mouth being the easiest to load. Some homebrew suppliers carry barrier zip-lock bags that will also do the job. The second requirement is a matter of degree. In my research in P-Chem, I worked with equipment that could get down to 10e-10 torr. A good bag sealer should be able to get to 150 torr (0.2 atm) or less. For long term storage I would say that vacuum removal of the air is the only way to go. However if you don't keep opened bags of hops around for very long I think that a vacuum sealer is definitely overkill. Pack a jar (or barrier zip-lock) as tightly as you can with hops and seal it. Put it in the freezer, and...RDWHHB. If you happen to have CO<sub>2</sub> around go ahead and use it to purge the air from the jar or bag before packing the hops for added O<sub>2</sub> removal.

The bottom line is if you get your hops from a reputable supplier (or grow them yourself) and use common sense in storing them, you'll have no problems.

Glenn (tinsethg@ucs.orst.edu)

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Date: Mon, 19 Jul 1993 10:26:49 -0400 (EDT)  
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov  
Subject: cider

Help!

I recently made a cider using the dregs of my last cider which turned out beautifully clear and dry. I added nonpreserved apple juice concentrate directly to the drega in a glass carboy and allowed it to ferment.

After six months it still hasn't cleared and when chilled gets a flocculant

haze. I tried adding gelatin fining without much success and also tried rechilling to about 32F. Has anyone used pectinase with success? Can I add pectinase at this stage and if so how much do I add to 5 gallons and how do I prepare it? By the way I also added sucrose dissolved in water to try to clear this. After about a month a one inch clear layer formed

on the top with a white fluffy haze below.

Thanks

Andy Kligerman

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Date: Mon, 19 Jul 1993 10:01:51 +22306512 (CDT)  
From: dhholscl@rs6000.cmp.ilstu.edu (David Holsclaw)  
Subject: Use of B.E.S.T. Sanitizer

Help!!!

I have had my last three batches head south with a strange medicinal type of a smell and taste. I pitched the first two but am letting the third sit in the secondary (hoping the flavor will mellow). I have just figured out that the beginning of these off-flavors corresponds to my purchase of a bottle of iodophor. I also noticed that the sanitizing solution seems to have the same medicinal taste/smell as the beer.

My question is. How do those of you that use iodophor, use it. I have been using it like bleach: mix up solution in a 5 gal. bucket, let the utensils, carboy, etc. soak for about twenty minutes, rinse well, use assuming sanitation.

I have reread the bottle of B.E.S.T and it says that the stuff does not need to be rinsed, but should air dry. Is the stuff impossible to rinse off?? What is the networks accepted method for using this stuff?

Do you think the beer is 'safe' to drink. I tastes funky (but after loosing three batches my supply is dwindling).

I think I'm going back to bleach!! At least until this problem has been identified.

-----

Date: Mon, 19 Jul 93 12:12:18 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 19-Jul-1993 1210  
<macneal@pate.enet.dec.com>  
**Subject: Hot break**

While brewing a batch this weekend I kept a somewhat watchful eye on the boil. When the wort got to the "egg drop soup look" I stuck a thermometer in and read a temperature of around 140 deg. F.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Mon, 19 Jul 93 9:32:12 PDT  
From: Bruce Mueller <mueller@sdd.hp.com>  
Subject: Petri dishes - source

A while back, some of those interested in yeast culturing were looking for reasonably priced petri dishes. I received a catalog recently which had some for a decent price, just above their minimum order amount (\$35). For 100 mm dia by 10 or 20 mm high dishes, with cover, the cost is \$41.51/12.

The company info:

J & H Berge, Inc.  
The Lab Mart  
4111 So. Plainfield, NJ 07080  
(908)561-1235

Hope this is useful to a few.

-----

Date: Mon, 19 Jul 1993 11:18:16 CDT  
From: "Roger Deschner " <U52983@UICVM.UIC.EDU>  
Subject: Alcohol as a sterilizing agent

Many of us have switched to ordinary vodka for sterilizing critical things where bleach residue would be bad. Just buy the cheapest rot-gut store brand vodka in your liquor store. I keep it in a plastic garden sprayer, and spray things I want to sterilize, such as stoppers, fermentation locks, etc, and then I always use vodka to fill the fermentation lock itself. If some gets sucked in, who cares? Why use vodka and not some other form of alcohol? Because vodka is "food-grade" - i.e. it is intended to be fit for human consumption. With vodka you are sure that you are not accidentally using one of the other forms of alcohol that is SERIOUSLY poisonous.

And for rinsing out carboys, kegs, and such which have been sterilized with bleach solution, just use the cheapest lawnmower beer. Finally somebody found a use for Old Milwaukee Light Dry Draft.

-----

Date: Mon, 19 Jul 93 10:27:26 PDT  
From: Don\_Doyle@Novell.COM (Don Doyle)  
Subject: Questions on PTS/LB/GAL

Could someone help me with extract rates. In Dave Millers book he has a formula for degree of extract that says  $DE=SG*GAL/LBS$  of GRAINS. What does this tell me?

If someone has other info, it would be very helpful.

As a real example, I brewed 11gals with 26.5 lbs of grains and got a 1.065. What extraction am I getting and is it good?

Thanks in advance,

Don Doyle

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Date: Mon, 19 Jul 93 10:57:52 PDT

From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)

**Subject: lost pot coating**

A patch of ceramic coating came off of my 22 quart "ceramic on steel" brew pot. Should I never use it again for boiling wort ? I've only been making extract brews lately. Will the iron leech out and ruin my beer ?

Disaster Bart

Brewing equipment destroyed so far : 1 hydrometer, 1 brewpot

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Date: Mon, 19 Jul 93 10:36:59 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: carboys?

I saw the post about Corning/Revere Factory stores as a source for Carboys @ \$9. Thanks!

I called the 800 number (999-3436), but no one I talked to there or at the three locations she pointed me to in South Carolina seemed to even know what a carboy was, and all three stores denied having anything like a glass container for a drinking water dispenser (my explanation of what a carboy was).

Any ideas? Do the stores you found know what a carboy is? Do they have them? Do they ship?

jim

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Date: Mon, 19 Jul 93 13:23 CDT  
From: korz@iepubj.att.com  
Subject: cloudy keg beer/high FG/Raw Sugar/Sulfury ferment

Bart writes:

>So I thought I'd be smart and start with a keggng system since I could  
>borrow most of the equipment from a friend who is in quiescent brewing  
>mode right now. I've kegged two batches so far and had the same problem  
>each time. The beer comes out somewhat translucent. It sort of looks  
>like watered down but dark chocolate milk. Also, there is a noticeable  
>spicy flavor which some people think tastes like ginger.

>When I racked each keg, I also bottled a pint from the batch in a  
Grolsch  
>bottle. The bottled pint turned out very clear and didn't have as  
strong  
>of a ginger taste.

Well, several things can cause cloudy beer. Yeast is a common one. Some  
bacterial infections can give you a cloudy beer too. Since the beer you  
bottled cleared nicely, I suspect one of several things. Both wild,  
poorly-flocculating yeast can give you a permanent haze and your pitching  
yeast can too. Remember that your keg is much taller than a bottle and  
that it will take proportionately longer for your pitching yeast to  
settle

into the bottom of the keg than it took in the bottle. Another problem  
may be that you carried over a lot of yeast from your fermenter and thus  
have a lot of yeast in the bottom of the keg. Even after it settles, it  
may take a couple of glasses of beer before it starts to flow with good  
clarity. Note that every move of the keg will stir up the yeast a bit  
and thus you may get some cloudy glasses for a while. I've cut about  
1 inch off the end of my liquid dip tubes and thus I can't get the last  
4 ounces of beer out, but then again, most of that is yeast anyway.  
I strongly suggest that you use a tubing cutter or you will have a hard  
time getting the tube back into the keg (if you don't want to buy one,  
just see if you can bring the tube into a hardware store and use theirs)

.  
It may be better to leave the dip-tube full length because you can  
eliminate  
some of the yeast that would otherwise just sit there in the keg  
(potentially  
autolysing) and minimize the amount of yeast that will get shaken up  
when you move the keg. I don't know which would be better -- ideas?

You may also have an infection, but I suggest you let the beer carbonate  
or force-carbonate the beer and then put it in the fridge to help the  
yeast settle faster. Give it about a week for the yeast to settle. Don't  
expect crystal-clear beer for the first glasses. If this works, then you  
don't have an infection problem. If it doesn't, then you will have look  
more closely at your sanitation techniques.

>On another point, all three of the batches that I have made so far (kits  
>supplemented with various other unhoppped malt extracts) have ended at a  
>final gravity of 1.018. This seems to be a strange co-incidence since I  
>used different amounts of ingredients each time. Also, the FG seemed  
>stabilize rather quickly, like 4 or 5 days after pitching the dried  
package  
>of yeast included with the kit.

It depends on the Original Gravity. If the OG was 1070, then perhaps 1018 is not unreasonable. Another thing that can cause your OG to be high is insufficient aeration. Finally, if you temperature-shock the yeast or ferment at too-low a temperature, your yeast can settle out prematurely leaving a high FG.

\*\*\*\*\*

WAK writes:

> C & H sell a product called "Wash raw sugar" which is  
> described as "turginado-style". I haven't used it but in  
> HBD#1141 Paul dArmond says it "doesn't give a cidery taste,  
> and at the 1# level leaves a yummy sweet \*aftertaste\*"

I put 2# of C&H Raw Sugar (from my local supermarket) in a recent batch of IPA. The OG of this beer was 1065 and was hopped with 45 or 50 IBU. It turned out, in a word... "cidery" at first. As it ages, it is smoothing -out. Initially, there were two distinct flavors present -- beer and this "cidery" flavor. It was almost as if you mixed some alcohol with water and a few teaspoons of sugar in a glass and then took a sip of that, swallowed and then followed this with a sip of a relatively decent beer. It was amazing how the flavors were distinct. They are blending better now (after two months of aging) but it's still not a good beer. I now feel that 2 pounds is just too much sucrose for a 5 gallon, 1065 OG batch. But maybe it will be great in a few more months. Perhaps I should ship it to India and then have them ship it back to me?

\*\*\*\*\*

Chris writes:

>I'm still relatively new to homebrewing, and on my 6th batch  
>(an Anchor Steam clone), something odd is happening. I thought  
>the smell in my basement was coming from somewhere else, but when  
>I sniffed above the airlock of the primary fermenter, I almost  
>gagged on this nasty, sulfurous odor. Maybe it's just my

Some yeasts produce sulphury odors during fermentation -- this is especially true for some strains of *S. Uvarum* (lager yeasts) -- fear not, your beer is probably just fine.

Al.

-----

Date: Mon, 19 Jul 93 13:25 CDT  
From: korz@iepubj.att.com  
Subject: alcohol sanitizer/double ferment/kegs/pLambiek hops

Jacobus writes:

>First: Is it possible to use high proof (150 proof, 75 % +) alcohol to  
>sterilize equipment with?

Yes, but I've read that the contact time should be quite long -- sorry, I don't know how long.

>Third: Has anyone on the digest tried to use a double fermentation on beer?

>I heard about the process, and was thinking of trying it, but I decided to

>consult higher authorities first. For those un-familiar to the process, you

>pitch a yeast with a low alcohol tolerance (ale and lager yeasts) into your

>primary, then wait until the fermentation slows due to alcohol abundance,

>transfer into a secondary, and pitch a second yeast in that has a higher tolerance (such as a wine or champagne yeast). What effects would this have?

>Is it at all desirable? Has anyone done this? Is there any literature on

>this topic (I can't find the source that gave me the idea for this)?

Have I

>finally gone off the perverbial 'deep end'?

This has been done and with success. I wish I had done it on my last Imperial Stout (which finished at 1050 (down from 1120) and then would not carbonate -- see what happens when you try to rush a beer?) It's a good idea if you want to get some characteristic of a particular ale or lager yeast, such as the woodyness of Wyeast #1028 or the raspberry esters of Wyeast #2035 (fermented at 65F) and then finish off the rest of the sugars with a more alcohol-tolerant yeast.

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Jim writes:

> Well, I'm taking the plunge into the world of kegs. I found 4 5-gal  
>soda kegs (with syrup - bleach!) for \$5 each, regulator for \$15, Co2  
>tank for \$20, and tap/dispenser for \$15. (how are these prices, btw?)

Very good.

> I need to know what I need to do to these tanks before using them  
>(besides replacing all the rubber seals as someone mentioned), and  
>where to get parts, rebuild kits, etc. I've got a batch of beer ready  
>to bottle, er, keg right about now....

I recommend, of course, that you replace all the rubber seals, and then clean and sanitize (I recommend iodophor for SS -- some disagree with me) the keg. I simply fill the kegs with hot water, seal and shake, dump, repeat. I do this perhaps 5 or 7 times to get all the syrup out of the keg. If there's some dried on, you may have to let it soak. Don't use hot water with the iodophor -- use cool water! I know that B.E.S.T. and B.T.F. iodophors have surficants, which should help clean a bit also. I recommend that you use plain water for the first 5 or 7 rinses and then iodophor on the last one. I rinse then with a little hot water or industrial beer (a good idea if you suspect your

water to have bacteria in it) -- just a couple of cans of Bud Lite (nothing will live in that!) swished around and then dumped. I pump a half-gallon or so of each rinse out of the keg with CO2 to clean the inside of the dip tube and connector too. Note that the makers of iodophor say that if you let it air-dry, you don't need to rinse out the iodophor. I'm usually in a hurry, so I rinse either with hot tapwater, boiling water or industrial beer that some of the well-meaning, as-yet-uninitiated have left at my house during a party.

Keg reconditioning parts: Foxx Equipment, KC, MO -- 1-800-821-2254. Ask for Scott. As much as I'd like to say you can get these parts from me, I have neither the space nor capitol at this time to stock the 100 or so parts for all the various kegs... perhaps some day... till then, Foxx is the best place I've found.

\*\*\*\*\*

WAK writes:

>always wanted someone to answer. I've read (Jackson and elsewhere)  
>that the lambic brewers in Belgium use old hops, like up to 2 years  
>old! The most sensible explanation I've read is that the aging  
>removes most (all?) of the bittering capability of the hops but  
>they still impart an important flavor to the beer. So my questions  
>for you hop experts are: What's left in two year old hops? What  
>varieties are used for lambic? Should I buy a couple of pounds of  
>hops now and put them in my 90F garage so I can start brewing  
>lambic-type beers in two or three years?

2 to 3 years old, actually. This aging removes virtually all the bittering and (in my experience) flavoring potential of the hops. It is the preservative quality of the hops that still remains and is what is desired. My suggestion is to strike a deal with a retailer in which you will buy his/her old whole hops (pellets age much more slowly and unpredictably) at a discount when they get fresh hops in. By the way, I used 3 ounces of 1.5 year old Hallertauers, baked for 20 minutes at 250F. Also, I suggest that you use hops such as Hallertauer, Saazer, Tettnanger, Mt. Hood, Liberty, and East Kent Goldings, and not hops such as Cascades which have a characteristic aroma that is not normally associated with Lambieks. Also, if you age them yourself, high temperature will increase the rate of aging, but make sure the humidity is not too high or they may begin to mold.

Al.

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Date: Mon, 19 Jul 1993 11:41:58 -0600 (CST)  
From: John Mare <cjohnm@ccit.arizona.edu>  
Subject: RE: Jever? Fresia? More on IPA

Chris Pencis asks about "Jever" and about "Fresia", what is the former, where is the latter? "Jever Pils" is in my opinion one of the truly exceptional German Pilsners, brewed in N. Germany near Hamburg. I tasted a draught version on a recent beer tour of Britain, and was extremely impressed with its exceptional hop aroma, its pleasant bitterness, and a good malt presence. The hops used are Hallertau and Tettnanger, the latter probably imparting the delightful aroma. I hope to find a bottled or kegged version of this fine lager in the US. Any suggestions? Friesland is that part of N. Germany adjacent to both Holland and Denmark. I was not aware of the fact that the hops in "Jever" are from Friesland.

On another subject, Jim Busch in commenting on my earlier post re IPA's noted the high OG (1.048) of the R&D Deucher's IPA which has a final ABV of 3.9%. Sorry Jim, a typo slipped in! The OG is 1.038, not 1.048 as posted. This truly exceptional ale by Caledonian Brewery of Edinburgh is available in Scotland and parts of England as "real ale" in cask (not keg! They don't keg any of their beer!)  
>From John's Alehouse, where "the ale cures what ails ye".

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Date: Mon, 19 Jul 93 15:31:44 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Jever / Oostende / W66

> From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
> Subject: Jever....?  
>  
> Ok, here's a question from my homebrewing partner...does anyone out  
> there know anything about the beer Jever...on the label it says  
> something about using "freisian herbs" (where's fresia?!) ... does  
> anyone know what these things are - has anyone tried to replicate this  
> brew ... in general, can anyone give us the low down on this beer (its  
> not in Jackson, Finch or anywhere in Papazian) ... thanks.

Not sure if this is the one you mean, but I had  
Jever Pils on tap in Eidelstadt (hope I spelled it  
right) just outside of Hamburg. It was local to the area.  
I think I also saw some info on Jever in Jackons large beer book  
(what ever the name way be), even had a a picture of the Jever  
brewmaster holding his 5 litre glass of Jever Pils!!!

Can't help with the Herbs.

> From: Dave Justice <DD24005@UAFSYSB.UARK.EDU>  
> Subject: Trip to Belgium  
>  
> Greetings! I hope this an appropriate question for this forum. I'm off  
> to Europe 2 weeks from today and could use some suggestions on beer  
and  
> brewing related places to visit in Belgium. I'll be there 2-3 days,  
> arriving in Oostende and eventually making my way to Bonn, Germany.  
> I suppose anywhere in the country is possible since it's fairly small.

Unfortunately, my experience in Belgium is limited to Oostende, as thats  
where I was to drop off a rental and get on the ferry to Dover,  
but there is a bar in Oostende, across from the ferry terminal  
that served generic 'trappist dark and trappist blonde'  
Very good beers. One of the standouts of European beers,  
after a week in southern Germany!  
If you can visit this bar, its a great little place, sorry I don't  
remember  
the name. (strange how that happens)

> From: "Dennis Lewis" <DLEWIS@jscdh6>  
> Subject: Weihestephan #66

Sorry for the personal note: Dennis, I've tried emailing you and  
all paths bounce. Please email me a good path or address.

Tim

- ----  
Timothy J. Dalton<tjdalton@mit.edu>  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Mon, 19 Jul 93 15:58:18 EDT  
From: bszymcz@ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: Jever Corrections

In the last digest I tried to answer Chris Pencis question about Jever:

>>Ok, here's a question from my homebrewing partner...does anyone out  
>>there know anything about the beer Jever...on the label it says  
>>something about using "freisian herbs" (where's fresia?!) ... does  
>>anyone know what these things are - has anyone tried to replicate this  
>>brew ... in general, can anyone give us the low down on this beer (its  
>>not in Jackson, Finch or anywhere in Papazian) ... thanks.

To which I responded:

>I had the pleasure of having Jever (pronounced yay-ver) while in  
>Ekenforde, Germany last year. This is a beer in the north German  
>pilsener style, which in general is very dry with lots of hop  
>bitterness, but Jever is even more so. I think the "fresnian herbs"  
>are simply referring to the flavoring hops used, which give a nice  
>spiciness to this beer. I'm not sure which type although I would  
>guess Satz. When I first tasted this beer I thought it was too  
>bitter for my tastes, but since returning home, I've been longing  
>for more.

>By the way, Jever is mentioned in Jackson's pocket guide, in  
>the northern German section (I don't have my copy handy). It  
>is one of his 4 star beers. Fresnia is the name of a province in  
>Northwestern Germany.

This beer is also described in Jackson's New World Guide to Beer.  
According to Jackson the hops used is Tetnang. The region in  
Germany is called Fresland, not Fresnia. Jackson also has a  
picture of the head brewer holding up a 5 liter glass of Jever.

Bill Szymczak  
bszymcz@ulysses.nswc.navy.mil

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Date: Mon, 19 Jul 93 14:33:26 PDT  
From: Robert Pulliam <Robert\_Pulliam@rand.org>  
Subject: Counterflow Chiller

If anyone has an easy-to-build plan for a counterflow chiller and would send me a copy, I'd greatly appreciate it.

THANKS

Robert J. Pulliam |+|all thoughts, statements, and opinions, |+|  
Los Angeles, CA. |+|demented or not, should be my own; and |+|  
pulliam@monty.rand.org |+|I'm certainly not associated . . . . . |+|

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Date: Mon, 19 Jul 1993 17:51:34 -0400 (EDT)  
From: Ignatios Alexander <ia0n+@andrew.cmu.edu>  
Subject: Is a trip to Yakima worthwhile?

In August I am planning to visit Seattle and make side trips to Portland, Oregon and Yakima, Washington. I've been to some brewpubs in Seattle and the Tumwater (Olympia) brewery .

Is the trip to Yakima worth it to visit Grant's? Are there other breweries or brewpubs in Yakima? What else is there in Yakima?

What are the best breweries and brewpubs in Portland?

Ignatios Alexander  
Pittsburgh, PA

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Date: Mon, 19 Jul 93 17:06 CDT  
From: "Michael Barre" <MBARRE@NOMVS.LSUMC.EDU>  
Subject: Batch #2 and Cheap Carboys

Firstly, I would like to thank everyone who sent suggestions for improving my brew methods. Reading TNCJOH more closely, I noticed that Papazian stated that you MUST use the blow off method for the primary fermentation when using pellettized hops, which I neglected to do. My second batch, made from Wyeast American Ale, Northwestern malt extract, Cluster hops, spring water and gypsum, has been in the primary fermentor since Thursday and is beginning to settle down. It smells as much cidery as malty, but I am not worrying.

I seem to have found the cheapest carboys. I called four or five bottled spring water companies until I found one using glass. I then signed up to get 5 gallons of spring water every two weeks (the minimum obligation) delivered to my house for \$4.75 a carboy. The first 10 gallons were free, and the deposit on the two carboys was \$10.50. Even the dispenser was free.

p.s. Singing potatoes?

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Date: Mon, 19 Jul 93 18:27 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: PPP

Boo hoo, there's a parking problem in Portland.

Well I don't know about the rest of you yahoos but I for one and GLAD there's a parking problem in Portland. I hope it rains the whole crummy week (sniff). Who the hell wants to go to Portland anyway. You couldn't PAY me to go there (sniff). The city is just a suburb of L.A. anyway and the people there couldn't tell you what color the sun is. The beer is lousy, the farm produce sucks, the seafood is even worse and the scenery reminds you of the Jersey Turnpike on acid (sniff sniff). And another thing, don't even mention the word "slugs".

Glad I say. Glad.

chris campanelli

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Date: Mon, 19 Jul 93 23:23:58 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: Measuring color, how?

I have a beer that is somewhere around the color boundary for brown-robust porter and would like to enter it in competition in the right category. However, try as I might I could not find the definition of SRM or EBC anywhere. The best I found was Eckhard's conversion between the two. I have access to spectrophotometers and sticking beer in is trivial if I know what to do with the absorbance figures when I measure them. So can some kind soul out there please email me definitions of either or both of these color conventions.

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'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem. Eng.

    Pabst Blue Ribbon!' | Notre Dame IN 46556  
    |     ulick@darwin.cc.nd.edu

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Date: Tue, 20 Jul 93 8:19:08 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: Samuel Smith/Anchor Brewery Yeast

Thanks for the responses on burners for use in yeast culturing. Just about everyone suggested a propane torch. I got one, and it works great. Thanks.

Samuel Smith and Anchor Brewery of Salisbury (makers of Bishop's Tipple under the name of Gibbs Mew (?))

I know this may be a shot in the dark, but living the `BAMA beer waste land

I miss the smooth ale flavor these breweries produce. Does anyone know of

a sole who has slants of the yeast from either of these breweries? It doesn't appear that Paul Farnsworth has them judging from his recent list.

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Tue, 20 Jul 93 09:43:04 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: A request

I'd like to request that those of you whose e-mail addresses do not easily imply a physical location (xxx.com, or xxxxx.yyyyy@compuserve.com, e.g.) please include your city/state/country (whichever is most appropriate) in your signature. It's sometimes hard to give advice or respond to a query without that information (e.g., when considering availability of materials, or fermentation temperatures, etc.). Besides, I'm curious!

My signature (which I don't normally include, as it takes up extra space, and "umich.edu" is self-explanatory, right ?:=)

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Tue, 20 Jul 93 10:17:28 CDT  
From: krueger@comm.mot.com (Kevin Krueger)  
Subject: What happened to Sprecher??

What happened to Sprecher? That is a loaded question.

I just caught someone's comment about a barge hitting Sprecher? Was this discussed previously? I went through my old HBD's and didn't see any discussion about this event, so can someone please fill me in on the latest.

BTW, would the barge have anything to do with the downfall of Sprecher (in my eyes)? Yes, I said downfall. I was there at Sprecher when it was but an infant . . . when the tours were 5-6 people and the beer was better than sex. Actually, I was only getting beer at the time, so it's an unfair comparison :@)

Anyway, I think Sprecher has gone downhill based mainly on the quality of the recent beers I've had and also the fact that they use twist top bottles. I was a bar in Milwaukee recently and had their Special Amber and it was weak. In fact, I even considered drinking Beck's Dark instead! Even so, that hasn't been the first time that I thought their brew was weak. What has happened to the almighty Sprecher?!?!?!?

Here is some news from the rumor mill . . . someone in Milwaukee please comment.  
The East Side Lakefront down by the River Brewery has burnt down. Is this true?  
I heard it was the brewery and I also heard it was just the store for the brewery. Beans and Barley and the dance hall Esoterica also went up in flames (for those present and former East Siders.)

Kevin

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Date: Tue, 20 Jul 93 10:32 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Hotbreak

>From: korz@iepubj.att.com

>but since the Electrim Bins are quite popular in the UK, perhaps Line's experience has been with these types of heat sources and not with the significantly hotter heat sources some of us are using (I know brewer's around here using upwards of 100,000BTU burners! Jack? Tim?).

Like Pavlov's dog, I respond to my name.

I don't have a clue as to how to determine tthe BTU's of my heat source but it is a NG/forced air furnace I designed for melting aluminum for MM castings. It will melt 4 lbs of aluminum in 20 minutes. However, it is not terribly efficient when used to boil beer because the flame is directed horizontally instead of up toward the kettle. I put a firebrick in at a 45 deg angle to help facilitate that. Having said all that, it will boil 14 gallons of wort furiously and I normally do not run it wide open.

I previously reported an interesting experience when I recently made a batch of EASYBEER on the kitchen stove to verify the procedure in the EASYMASHER brewing instructions. My stove barely will boil 6 gallons of wort but I managed to evaporate the required amount of liquid in the 90 minutes allotted and produce a decent beer. What was noteworthy was the fact that the coagulated protein floating around was several orders of magnitude larger than what I am used to seeing in my normal, more vigorous boil. Clearly the size of the so-called "hot break" is totally irrelevant and it is the quantity that settles out after chilling that is important. The vigor of the boil seems only to effect the amount of time it takes to achieve the evaporation required.

I would also like to propose that the "hot break" phenomenon could be more easily comprehended if we just changed the term to agglomeration, coagulation or some other such expression. "Break" implies that there is some sort of sudden transition when, in fact, there is no such thing. It is a continuous process that gradually diminishes as the boil proceeds.

js

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End of HOMEBREW Digest #1186, 07/21/93  
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Date: 20 Jul 1993 13:42:51 -0500  
From: Chris McDermott <mcdermott@draper.com>  
Subject: On sugars

On sugars  
In HBD #1184 William A Kitch says:

> Dark sucre-candi: Philip Seitz says as near as he can tell rock  
candy=  
> sucre-candi. Piere Rajotte says in Brewing Belgian Ales  
> that sucre-candi is sucrose. The dark sucre-candi is  
> caramelized before being crystalized. Nobody seems to have  
> a US source. I've tried camelizing my own sucrose. It's  
> not hard to do.

Correct; but more specifically it is inverted sucrose. This seems (at  
least to  
me) to be important.

While I have not tried it myself, I know of at least one person that has  
used  
carmalized sucrose in belgians with sucess. I think that carmalized \*  
inverted\*  
sucrose would work even better. If you want to carmalize it yourself you  
can  
do so in a sauce pan over the stove. Remember to use \*low\* heat and stir  
\*continually\*.

>There is stong consensus that too much sucrose adds a characterist  
cidery  
>taste.

I agree with this to a point. My experience leads me to beleive that if  
sucrose (or almost any sugar for that matter) is used judiciously that  
cidery  
flavors can be easily avoided. I think the key is to avoid sugars in all  
low  
gravity beers (say < 1.040) and in moderate (say 1.040 - 1.60) gravity  
beers  
not to exceed 20% extract from sugars. I think that extract brewers  
should be  
carefull here to really consider that quality of the extract that they  
are  
using. Some of the cheaper extracts may contain a significant quantity  
of  
non-malt sugars to start with. In higher gravity brews (say > 1.060) I  
think  
that the amount of sugar that can be used is only limited to what the  
yeast can  
ferment. What I mean by this is that you could use an infinite amount of  
sugar, but after a point even the most ethnol-tolerant strain will quit  
fermenting and leave the remaining sugar as is.

>On the other had high  
>gravity Belgian ales call for sugar as an adjunct. The purpose is to  
>lighten the body and maltiness of these high gravity beers. This is  
>one thing that makes them distinct from say Barley Wine.

I think everyone would agree with this. An all-malt tripple having the  
body of  
a dopple bock just wouldn't cut the mustard, so to speak.

>Rajotte says  
>Belgian brewers may add either glucose or sucrose to their high gravity  
>beers. Some say the already high maltose content hides the cidery  
flavor.

I read this in a slightly different light. What I got out of it is that  
with a  
significantly high proportion of malt to sugar, the yeast would not  
produce  
those cidery flavors. What's your opinion?

—  
Christopher K. McDermott Internet: mcdermott@draper.com  
C.S. Draper Laboratory, Inc. Voice:(617) 258-2362  
555 Technology Square FAX: (617) 258-1131  
Cambridge, MA 02139 (USA)

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Date: Tue, 20 Jul 93 14:41:00 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Brewing Techniques, Issue 2

Issue 2 of Brewing Techniques arrived yesterday.

Only 42 pages, but packed with info.

Feature: Diacetyl: Formation, Reduction and Control, George Fix.

Articles: 1) Malt Extracts: Cause for Concern, Martin Ladahl  
2) Methods of Sanitation and Sterilization, Maribeth Raines  
3) Quick Results for Quality Assurance: Simple Lab Methods  
for Microbrewers, Frank Commanday.

Columns: 1) Troubleshooter, Dave Miller

2) Brewing in Styles: Oktoberfest Alternatives, Roger Bergen

Forum: Blending and the Art of Salvage, Chris Studach

Plus a pile of departments...

Looks good!

I'm glad I subscribed to this one. The level of writing is geared towards advanced home brewers and micro's & brewpubs. Its refreshing to have a brewing magazine that doesn't talk down to you.

Tim

#include <standard.disclaimer>

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Timothy J. Dalton [tjdalton@mit.edu](mailto:tjdalton@mit.edu)  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Tue, 20 Jul 1993 14:51:25 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: The Tumbleweed Report (Part 2)

On to the brewing equipment decisions we've made.

The Brewhouse:

The brewhouse is literally a house. A 12' x 12' bedroom was plumbed and gas lines run in to give us our brewing room. The boiler sits on top of 4 or 5 courses of concrete blocks encased by 2 x 4's. It's located right by a window. A window fan vents the place. It gets a little hot in the summer. But we're working on cooling the place down now by adding more fans to the other windows. In the winter it's fine.

The old living room (14 x 24') is our "fermentation chamber" and office. Nothing fancy. In one corner of the room we have an 8' x 8' walk in cooler. Four insulated walls were built in one corner of the room along with a raised floor on 2 x 4 "floor joists". Plywood floor and walls. A compressor cools the room. Cost was around \$2000. The restaurant uses the cooler some but mostly we have it filled with kegs going through final conditioning before being taken to the restaurant. We store our malt and hops in there as well.

In the winter we used a thermostatically controlled heater to keep the fermentation room around 65 degrees. This past winter we had temperature fluctuations of plus or minus 5 degrees. This isn't ideal, I know. But it works. We've made some modifications to things this summer, so I think we can do better next winter and hold temps within 5 degrees. That's good enough by anyone's standards.

During the summer, we use a common, garden variety window air conditioner.

We just put a 11,000 btu air conditioner in a couple of weeks ago and with temperatures above 90 degrees, the fermentation room has been staying right at 65 degrees. Again, pretty good.

Fermenters:

When Burton and I arrived in November, Tumbleweed was fermenting in 6 1/2 gallon carboys. Some of you know that I designed the BrewCap. Since Burton was a BrewCap fan, too, the first thing we did was attach BrewCaps to each of the carboys Tumbleweed had and turned them all upside down. At one point, we had 50 carboys turned upside down in a two-tiered rack merrily fermenting away! For me it was one of the most beautiful sights I'd ever seen! But after a month, we realized the care and feeding of 50 glass fermenters was too labor intensive even using BrewCaps. While the BrewCap works great for the average home-brewing operation, things were getting out of hand at the brewery. Moreover, in December darned if Bart didn't trade for a 42 gallon stainless steel pot that had been salvaged from a cheese factory about 40 miles away. So Burton and I found ourselves dealing with 40 gallon batches after just one week of brewing at 30 gallons.

It had become clear that we had to move away from carboys. And I want to place the blame squarely on the shoulders of one this forum's esteemed members for being the prime cause for us having to move up in size. We were using Larry Barello's idea for a wort aerator and it was foaming the

beer up so badly (nicely?) that we could only fill a carboy half-full before moving on to the next one and by the time we had come back to the first one, the foam usually hadn't settled down so we had to shake and stir and do whatever to collapse the foam head so we could get the blasted carboys full!! Thanks, Larry! :-) Filling carboys had become a nightmare.

But what to do? Glass is one of the best materials in which to ferment and carboys weren't working out. Stainless steel would have been great but we couldn't find them much less afford them. Bart, on the recommendation of someone in the brewing industry had purchased three 31 gallon black HD polyethelene drums back in October but we were reluctant to use them, being well aware of the complaints about fermenting in plastic. At the same time, I also know of some world-class brewers who ferment in plastic. Darryl Richman comes immediately to mind. I had always figured that most of the problems people have with plastic fermenters stem more from not cleaning and sterilizing them IMMEDIATELY after using them than anything having to do with the plastic itself. So with Bart hounding us to give the drums a try, we took the plunge.

I'm happy to say that, on the whole, they've worked very well for us and I would heartily recommend them to anyone wanting to brew on this scale. We use open-head fermenters. That is to say, the entire lid comes off the top so you can get down inside them and scrub off the resins and junk that forms during primary fermentation. These jewels cost about \$50 each delivered. Can't beat the price. Once used, they never see the light of day again. Immediately after using them, we fill to the brim with clorox and water and let 'em pickle until the next time we use them. We've had no infections and I don't anticipate any -- at least from the fermenters.

We are currently using 18 fermenters. We always need one free for transfers so we can have 527 gallons of beer fermenting at once. Total investment in fermenters is roughly \$900.

Cam makes up homemade dollys to put them on and we wheel the drums around the brewhouse from that point on. The dollys cost about \$35 each to make. Total investment: around \$600.

(To be continued...)

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Date: Tue, 20 Jul 1993 14:52:47 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: The Tumbleweed Report (Part 3)

Brew Kettle:

As mentioned earlier, we found a 42 gallon stainless steel pot that had been salvaged from a cheese factory. We had had enough experience with the 30 gallon fermenter to know that we had to get away from siphoning through our wort chiller. So we had a 1" pipe welded about 4" up from the bottom of the pot to allow for the settling of the hops and trub left over from the boil. We have a copper pot scrubber tied around the end of the pipe that sticks into the kettle. This keeps the hops from clogging the pipe and stopping the draining of the wort.

On the other end of the 1" pipe we have a reducing "T" fitting (reduces down to 1/2") that splits the draining wort into two directions. First stop is our hop back.

Hop Back:

If any of you read my article in the Special Gadgets issue of Zymurgy you know I'm a big fan of the hopback so it was high on our list of improvements to make to the brewing operation. We even used the mason jar hop back for a couple of batches when we were brewing 30 gallons at a time. The hassles of changing the hop back every time we switched carboys caused us to rethink things for the 42 gallon pot. We settled on using two 1 gallon stainless steel pressure cookers. 1/2" from the top we had 5/8" OD holes drilled, into which we placed a 1/2" ID bulkhead union to receive the 1/2" copper tubing carrying the wort from the reducing "T". 1/2" from the bottom of the hop back, we had another 5/8" hole drilled and fitted with its 1/2" bulkhead union. The wort flows from it to our counterflow wort chillers. We tie our hops up in paint strainer bags, the kind made from mosquito netting, and tie the bag around the inlet pipe at the top of the pressure cooker. The vent on the lid of the pressure cooker was welded shut so when the lid is closed we have an airtight fit. Works great. And the bag of hops gives yet another filter for the trub that makes it past the chore boy in the kettle.

Wort Chiller:

We use 30' of 1/2" copper tubing inside of a 5/8" garden hose as a wort chiller. In the winter, we can flow full force through the chiller into the fermenters. In the summer, we have to prechill our cooling water to get a decent flow into the fermenters. On the wort outlet side of the chillers, we have a gated valve to restrict the flow of wort. We back this up or down until we achieve our desired pitching temperature. We shoot for 70 degrees.

Kegs:

We keg in cornelius kegs. We've scrounged them from several sources. We have right at 80 kegs now. About half of them we bought for around \$25. The other half cost us an average of \$15 each. All were rebuilt. We spent about \$130 rebuilding the kegs. We can do it for less now. We have approximately \$1600 in kegs + the \$130 for rebuilding.

Dispensers:

We dispense in two dual tower keg dispensing units, the kind that holds

one standard 15 1/2 gallon commercial keg. So we have four beers on tap at all times. Again, Bart the scrounge found these used and I assume we got 'em for a song. I'm not sure of the price. But I doubt he paid more than a hundred or so dollars for each one. (To be continued...)

I'm off to Seattle Thursday and then to Portland for the AHA conference. I'll continue these musings when I get back. Hope to see some of you renegades at the conference!

Cheers!

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Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.  
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Date: Tue, 20 Jul 93 08:49:04 EST  
From: boomer@sylsoft.com (Richard Akerboom)  
Subject: Re: Jever Pils

In Regards to your letter <9307200700.AA09587@hpfcmi.fc.hp.com>:

> Date: Fri, 16 Jul 93 13:57:53 EDT  
> From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
> Subject: Re: Jever Pils  
>  
> In HBD1183 Chris Pencis asks:  
>  
> >Ok, here's a question from my homebrewing partner...does anyone out  
> >there know anything about the beer Jever...on the label it says  
> >something about using "freisian herbs" (where's fresia?!) ...  
> [stuff deleted]  
>  
> I had the pleasure of having Jever (pronounced yay-ver) while in  
> Ekenforde, Germany last year. This is a beer in the north German  
> pilsener style, which in general is very dry with lots of hop  
> bitterness, but Jever is even more so. I think the "fresnian herbs"  
> are simply referring to the flavoring hops used, which give a nice  
> spiciness to this beer. [stuff deleted]

Had the pleasure of drinking a lot of Jever at our regular pub while I lived in Germany. I believe the correct phrase that people are refering to is "Friesisch Herb", which means bitter (or dry, astringent, etc) in the Frisian style. The Frisian islands are a chain that run along the North sea coast from the Netherlands along the German coast, perhaps as far as the Danish border (little shaky on my Geography there). Jever is very close to the coast, just across the water from these islands.

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Date: Tue, 20 Jul 1993 12:27:56 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Noble Aroma Hops

Last December I wrote to Al Haunold, who is the acknowledged expert on hops in the US (he's in charge of Hop Breeding and Genetics for the USDA in Corvallis, Oregon, and developed, among other things, Liberty and Mt Hood hops). I wanted to understand what "noble aroma hop" meant and got a very authoritative answer.

I just received your letter regarding the term "noble aroma" hop and I will try to answer it.

The Germans and the Czechs (remember, Saaz--now called Zatec was a German town in what is now Czechoslovakia--soon to be only the Czech republic)--anyhow they instilled in the older brewing generation (turn of the century and earlier) the idea of a "hochfeines Aroma, Edel-Aroma" if you know German you would know what it means-- it is very hard to translate into English but would be something like "super-fine aroma, Noble Aroma, etc" On and off these terms are found in the literature, but there is always a clear distinction between continental hops (German, Czech, perhaps also Polish) but never are English hops included in this category, nor are the Yugoslavian (Slovenian) hops included in this group.

The EBC (European Brewery Convention) and the IHGC (International Hop Growers Congress) have repeatedly used such terms to differentiate from kettle-aroma hops (also called kettle hops) and the high alpha hops (now often referred to as super-aroma hops). I have simply used the term (admittedly not always consistently) in some of my publications to refer to the similarity of our newer continental (European-type) aroma hops with the older aroma hops which the Germans called Deutscher Edelhopfen--and which they often stated can only be grown in certain areas of the world, where the climate, the soil and the know-how of the grower produce such superb results. A lot of it is humbug, but there are certain traits which these noble aroma hops share: balanced alpha and beta, relatively low alpha and beta (5 to 3, sometimes as low as 2), relatively poor storage stability (typically lose 50% of the original alpha through transformation), low cohumulone content, low myrcene in the oil (below 50% of the oil), high humulene in the oil, ratio of humulene/caryophyllene above 3, preferably above 3.25. Thus we come back to Hallertauer mittelfruher, Tettninger, Saazer, Lubelski (Polish) that is it. (Hersbrucker is not in that illustrious group although they have tried to include it after Hallertauer mittelfruher had to be thrown out because of Verticillium problems -- they also tried to include Perle -- not many brewers agree!) There are now two new German hops, Hallertauer Select and Hallertauer Tradition which are supposedly noble aroma hops. Goldings and Fuggle are not included, although Fuggle and perhaps Goldings (a large diverse group) come close. We think Mt Hood and Liberty come close also.

I always hate to ruin a perfectly good opinion with data, but certainly Dr. Haunold comes as close to the Word of God as we can get, I think.

- --Jeff

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Date: Tue, 20 Jul 93 16:33:25 EDT  
From: Alexander R Mitchell <ARMITC01@ULKYVM.LOUISVILLE.EDU>  
Subject: Mash volume

Prog/Analyst II C & T  
Phone: (502)588-5626

What is the volume of one pound of grain with one quart of mash water?  
Any rules of thumb? I've always had plenty of room in my cooler, so I  
never worried about it.  
Thanks.

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Date: Tue, 20 Jul 93 16:39:44 -0700  
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
Subject: Another data point in the hot break debate

After reading this forum recently, I decided to let my latest all-grain stout hot break *\*before\** adding the hops.

After half an hour of rolling boil there wasn't a sign of a hot break, so I added the hops. Bang! I got a hot break within 5 minutes. I guess this may be showing that hops do promote the coagulation of proteins.

Since I've never done this before maybe I didn't wait long enough. I've always added the hops at the very beginning of boil, and seen the hot break start within 20 minutes or so.

How can I get the hot break to occur *\*without\** adding the hops? I'm on an electric stove, so the boil can't be made *\*really\** turbulent (it's a big burner, but not that big). What other options are there?

- --arne

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Date: Tue, 20 Jul 1993 16:48:38 -0700  
From: Bob Devine <devine@postgres.Berkeley.EDU>  
Subject: sharing articles?

Nearly every club has a newsletter. However one of the persistent problems is coming up with a source of articles.

Is there any interest in having a shared collection of articles? For example, if someone writes about experiences with a new yeast, that information is likely to be of interest to several newsletters. Through the wonders of the internet (and other billboards), the sharing would be very easy.

I giving this as an "idea" posting, not a "I have the time" posting. Spencer Thomas informed me of the newsletter archive at Cornell but it is not used for sharing articles.

So, I suggest that when someone writes an article, it be placed in a convenient spot (perhaps at [sierra.stanford.edu](mailto:sierra.stanford.edu)).

Bob Devine

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Date: Wed, 21 Jul 93 01:50:08 PDT

From: jeff@rdii.com (Jeff Cook)

**Subject: Belgian yeast strains**

A friend of my brought back two Belgian beers from a trip to Europe. One of the bottles is labeled Maredsous, the other is labeled Lucifer. >From the sediment of each bottle I have plated out a yeast culture. Does anyone know anything about either of these yeast strains. Will either of these yeast strains be suitable for fermentation, or are they just used for bottle conditioning?

Also, does anyone know anything about either of these beers? I cannot read either label, and I do not know what style either of these beers are.

Thanks.

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Date: Wed, 21 Jul 93 09:07:26 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: uh-oh!

I know my beer has an infection. The question is:

What to do about the beer and the (plastic) fermenter?

I was experimenting with adding fruit to beers by racking ~ a gallon of beer from the primary or secondary to a gallon jug with fruit. One of the jugs had about 2 lbs of cherries, and apparently (verified by experiemntal evidence :-)) not enough airspace. The airlock clogged, the pressure built up, and we had to clean cherry beer off the walls.

Most of the beer and cherries were still in there, so i figured i'd keep going and see what happened. I racked it to an empty plastic fermenter (I know, should keep those things filled at all times with fermenting beer :-)). Went off on vacation, came back, and decided to bottle the stuff last nite.

The strawberry and raspberry versions seemed fine, but the cherry beer had a coupla small 'colonies' of white-ish, grayish, blue-ish thingies floating on the top of the cherries. The wort had an acid taste.

Have I just re-invented the ~pLambic beer infection?

(how can tell if) Is the beer safe to drink?

Will i ever get the 'bugs' out of that plastic ferementer? I left it soaking overnite (so far - still going) in a very strong bleach solution, filled to overflowing.

jim

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Date: 21 Jul 1993 10:37:34 -0500 (EST)

From: ADM\_WWIBLE@VAX1.ACS.JMU.EDU

Subject: Cheap Carboys

Well, I've been to two Corning/Revere factory stores (both in VA), and neither of them had carboys, for \$9 or otherwise.

Someplace I can vouch for is the Williamsburg, VA Pottery. Huge place, and well worth driving several hours to go shop at. They definitely have 5 gal. glass carboys in very good shape, for \$10. I got three. <g> Now, I can start that batch of mead I've always been meaning to try (of course, I never let it interfere with my regular batches of brew...you have to keep your priorities straight, after all; besides, I didn't want to use wine yeast in a container that had beer yeast in it).

Anyway, there you go. For people anywhere near VA. And no, I don't think they ship.

Will

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Date: Wed, 21 Jul 93 07:52:40 PDT  
From: 21-Jul-1993 1039 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Keg parts supplies, BCI in Brighton TN

Al writes:

>Keg reconditioning parts: Foxx Equipment, KC, MO -- 1-800-821-2254.  
>Ask for Scott. As much as I'd like to say you can get these parts  
>from me, I have neither the space nor capitol at this time to stock  
>the 100 or so parts for all the various kegs... perhaps some day...  
>till then, Foxx is the best place I've found.

I've used BCI in Brighton TN (800-284-9410) for my parts and kegging needs. They sell all the seals (very cheap) and lots of re-conditioned equipment. Reconditioned, tested 10# CO2 tanks for \$36 or so. Recond 5 gal soda kegs for \$26.50, etc,etc. They even sell recond. half-barrels, Sankey kegs, etc for \$35 so odd \$\$ or so. Ask for Chuck Young; tell him that JC from Littleton MA sent ya. Shipping costs on the heavy bulky stuff does add up, but, on some items, it is still a good deal (the CO2 tanks especially!).

BTW, I don't think Foxx accepts CC orders, nor does BCI. My first order w/ BCI I had to send 'em a personal check up front, then they sent me my stuff. Ever since "establishing" myself, I've ordered things and they bill me (I get the stuff in 3 business days from TN to MA!)

JC

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Date: Wed, 21 Jul 93 10:59:39 EDT  
From: Jerry M. Trott <jmt@uncecs.edu>  
Subject: info on Welsh ale and/or bitter

The Tom part of Tom and Jerry's Beer is of Welsh extraction. Because of this heritage he was interested to note that Thames America Trading Company Limited is offering Welsh Ale and a Welsh Bitter.

Anybody tried Welsh Ale or Bitter? What's it like?

We are interested in doing a Welsh brew and any help or suggestions for sources of extract recipes would be greatly appreciated

-Jerry

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Date: Wed, 21 Jul 93 11:11:54 -0400  
From: Rich Ryan <ryancr@install4.swin.oasis.gtegs.com>  
Subject: carboys

Jim writes:

>I saw the post about Corning/Revere Factory stores as a source for  
>Carboys @ \$9. Thanks!

>I called the 800 number (999-3436), but no one I talked to there or  
>at the three locations she pointed me to in South Carolina seemed to  
>even know what a carboy was, and all three stores denied having  
>anything like a glass container for a drinking water dispenser (my  
>explanation of what a carboy was).

> Any ideas? Do the stores you found know what a carboy is? Do they  
> have them? Do they ship?

You're not the only one a little confused. I visited an outlet store  
in Martinsburg, WV and initially the lady at the counter said they  
didn't stock them. She asked someone in the back of the store and  
came up with two 5 gallon carboys, btw, they call them water  
bottles. I bought the last 2 carboys in the store. You may just  
have to be a little persistent since it's an item they carry in  
other areas. For \$9 its a great deal. Good luck.

Rich

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Date: Wed, 21 Jul 93 10:25:04 CDT  
From: root@hpuspma.stpaul.msr.hp.com  
Subject: Very Smooth Ales

I am new to homebrewing (on my 5th batch) and am wondering if anyone out there has any ideas....

I tasted 2 totally AWESOME beers at a brewpub in the Twin Cities called Sherlock's Home, a Scottish Heavy and a Traditional Porter. The beers were dark in color (pub listed the OG's at 1.046 and 1.042) but extremely light, creamy and smooth in texture. Does anyone know what the secret is to this texture?? Could it be some kind of mollasses or maybe a special carbonation trick. I have tasted beers on tap and in the bottle from all over (including Scottish Heavy's right from the source in Edinburgh) and have never had anything like this. I'd like to try and emulate it with my homebrews.

By the way if you're ever in Minneapolis or St.Paul, check out:  
Sherlock's Home - at Shady Oak Drive and Hwy 62 in Minnetonka  
Britt's Pub - on Nicolet Ave downtown Minneapolis  
Johnny's - on Univ. Ave just East of Hwy 280 betw. Minneapolis/St.Paul  
and the Summit Brewery - just across the street from Johnny's

Anybody know of some good brewpubs in Indianapolis or Chicago?

Cheers,  
Mike Westra  
mwestra@stpaul.msr.hp.com

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Date: 21 Jul 1993 08:37:05 U  
From: "Rad Equipment" <rad\_equipment@rad-macl.ucsf.edu>  
Subject: Guinness Cans

Subject: Guinness CansTime:8:26 AMDate:7/21/93  
AL Says:

>I stand corrected... nitrogen is added to the cans, but I think the  
>\*liquid\* nitrogen part was created by someone on the HBD.

Well Al, when I went to the unveiling of Pub Draught Guinness in San Francisco I met the man who designed the plastic pillow. (Sorry but his name escapes me. It could have been Alan Frage. I'm sure it's in the original article (posted here) I wrote after the event.) To quote him, "a dollop of liquid nitrogen is added to the can just prior sealing." I remember trying to visualize this at the time and I'd still be interested in watching the process. Hope that clarifies the source.

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmacl.ucsf.edu - CI\$: 72300, 61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / Home (707) 769-0425

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Date: 21 Jul 93 13:03:40-0400  
From: JOHN.L.HALE@sprint.sprint.com  
Subject: Is Pete's a real Micro? / Pub List Changes

I 've been seeing Pete's Wicked Ale in the stores for some time now and decided to give it a try. Actually I went in for the Wicked Ale and came out with their Golden Lager. It tasted fine with much more body than most American lagers. Now I have a question about this Brewery.

I've heard in the past that some larger breweries were jumping on the micro bandwagon by selling beers that looked the part. I was wondering if someone from St. Paul was familiar with Pete's. I realize that the term "micro" is somewhat undefined (I've heard under 15,000 bbl/year), but I'm wondering what the thoughts are on this.

Next topic: is there an e-mail address to submit additions to the publist?

Thanks,  
John Hale  
(John.L.Hale@Sprint.Sprint.Com)

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Date: Wed, 21 Jul 93 10:01:46 MDT  
From: mlh@cygnus.ta52.lanl.gov (Michael L. Hall)  
Subject: Heat Output of Stoves

Jack Schmidling says:

> I don't have a clue as to how to determine tthe BTU's of my heat source  
but  
> it is a NG/forced air furnace I designed for melting aluminum for MM  
> castings. It will melt 4 lbs of aluminum in 20 minutes.

Wow, that's a hell of a way to measure the heat output! Actually, you \*  
can\* get  
an estimate of the heat output from this. Although I realize that Jack  
was just  
using rough numbers and that you can only tell how much heat was \*  
absorbed\* by  
the aluminum, not how much was put out by the flame, I am going to forge  
ahead  
and figure out what this means in terms of BTUs/hr.

Say that you start out with 1.82 kg (4 lbs.) of Al at 300 K (80 F).  
First,  
raise it to the melting point of Al, 931 K (1217 F):

$$\text{Heat} = (931 \text{ K} - 300 \text{ K}) * 1.82 \text{ kg} * 215 \text{ cal/kg/K} = 247,164 \text{ cal}$$

Then, melt it:

$$\text{Heat} = 1.82 \text{ kg} * 94500 \text{ cal/kg} = 171,990 \text{ cal}$$

Then, figure out the rate:

$$\begin{aligned} \text{Heat output} &= (247,164 \text{ cal} + 171,990 \text{ cal}) / 20 \text{ min.} = 20,957 \text{ cal/min} \\ &= 4,982 \text{ BTU/hr} \end{aligned}$$

Let's compare this with a stove that will heat 5 gallons of water from  
20 C to 100 C in 20 minutes:

$$\text{Weight} = 5 \text{ gal} * 8\text{lbs/gal} * 1000\text{g}/2.2\text{lb} = 18,181 \text{ g}$$

$$\begin{aligned} \text{Heat output} &= 18,181 \text{ g} * 80 \text{ cal/g} / 20 \text{ min} = 72,727 \text{ cal/min} \\ &= 17,305 \text{ BTU/hr} \end{aligned}$$

These last numbers were for a stove quoted at 35,000 BTU (probably per  
hour), which gives a heat efficiency factor of about 50%. Then again,  
this calculation gets the water right to the boiling point, and any  
additional heat will go into the production of steam, so the efficiency  
could be higher.

Bottom line:

1. You probably lose up to half your heat in a regular brewing setup.
2. Jack's setup is either lower in heat output or heat efficiency than a regular brewing setup. Of course, I realize that these numbers were just quoted quickly by Jack and may not be his true numbers. This is especially true since Jack also states that his setup will "boil 14 gallons of wort furiously". Don't look at me,

I'm just doing the numbers :-)

Reference numbers:

Specific heat of Al at 25 C: 0.215 cal/g/K

Heat of Fusion of Al: 94.5 cal/g

Mike Hall

Thermohydraulic Nut

Los Alamos Atom Mashers

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Date: Wed, 21 Jul 1993 14:04:54 -0400  
From: "Thomas J. Baker" <tjb@wintermute.unh.edu>  
Subject: Dry Hopping

I'm dry hopping my steam beer and was wondering how long is too long to dry

hop? I moved the beer to the secondary and added the hops on Sunday, planning

to go on vacation Tuesday. As it turns out, I'm now not going on vacation

until Friday which means if I leave the hops in the secondary, I'd be dry hopping for two solid weeks (last Sunday to next Sunday). Is this too long?

I've read that dry hopping is best done the last 5 to 7 days. I could remove

the hops on Friday but I wouldn't be bottling for a least a week after that.

Any suggestions would be appreciated.

tjb

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Date: Wed, 21 Jul 93 14:07:48 EDT  
From: Kevin V Martin <kmartin@magnus.acs.ohio-state.edu>  
Subject: Siphoning

I recently made two changes to my brewing procedures. I bought a wort chiller and used hop pellets for the first time. After cooling my last batch of hot wort, I tried to syphon the cool wort. I ended up clogging the syphon with trub and pellet remnants. Does anybody have a good way to syphon off the good stuff and leave the trub behind? Thanks,  
Kevin Martin  
kmartin@magnus.acs.ohio-state.edu

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Date: Wed, 21 Jul 93 14:49:32 EDT  
From: billok@aol.com  
Subject: How do I read HB files via FTP?

This is not a question about Home brew but about HOMEBREW Digest.

I am new to the HOMEBREW Digest and the internet. I would like to download some back issue's of HB Digest, but I'm having a problem. I know that back issues can be found via ftp at sierra.stanford.edu and I can transfer them to my PC (A Gateway 486 running DOS 5.0 and Windows 3.1). But these files are not readable. They have names like "HB1173.Z". I think the they may be compressed somehow but I am not familiar with UNIX and I don't know how to read these files.

I would appreciate any help with this, so next time I can ask a question about beer brewing!

Thanks,  
Bill Okula  
Rocky Point, NY  
BillOk@delphi.com  
BillOk@aol.com

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Date: Wed, 21 Jul 1993 09:50:44 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Yakima & Portland

Yakima worthwhile?

>  
>

> In August I am planning to visit Seattle and make side trips to  
Portland,  
> Oregon and Yakima, Washington. I've been to some brewpubs in Seattle  
and the  
> Tumwater (Olympia) brewery .

>  
> Is the trip to Yakima worth it to visit Grant's? Are there other  
breweries  
> or brewpubs in Yakima? What else is there in Yakima?

>  
Yakima is smack in the middle of the largest hop-growing area in the  
U.S. I haven't been in the brewery for years, but they used to offer  
Grant's beers as cask-conditioned ales. In those days it was the only  
place that this was true, and may still be so.

> What are the best breweries and brewpubs in Portland?

>  
>

Well, there's a subject for debate! Try the Pilsner Room, where John  
Harris brews Full Sail beers and his own incredible pilsner. Try B  
Moloch, which is connected to the downtown Widmer brewery, has a wide  
range of local micros on draught, and excellent food. Try the brewpub  
at BridgePort, where several of their beers are available as  
cask-conditioned ales, and the pizza is excellent. You can walk from  
there to the Portland Brewery, where their beer is quite good (eschew  
the Timberline Ale) -- I generally don't drink it anywhere else.

There is also the McMenamin Empire of brewpubs, which are scattered all  
over the Portland area and throughout the state. Several of them  
feature movies in conjunction with the beer. It is occasionally  
possible to get a potable beer at one of these places, depending on who  
the local brewer is. A lot of people love their beer; I personally  
avoid it whenever possible.

I'm out of touch; there are other brewpubs that have started up which  
I've never visited. One called Star, I believe, and others which I  
haven't even heard of. There is a brewery producing "lagers", the  
Liberty Brewery, but frankly the beers I've tasted were terrifically  
boring.

There are also two connected breweries in Newport and Ashland, bottling  
and kegging their beers as Rogue. These are terrific, IMO, and brewer  
John Maier, once AHA Homebrewer of the Year, is one of the most creative  
and consistent brewers in the Northwest. Teri Fahrendorf makes  
excellent beers down in Eugene, which are, I believe, only available at  
the brewpub. Another former homebrewer is brewing good stuff down in  
Cave Junction. ?? where? etc etc etc

Oregon \*IS\* beer heaven. Sorry, Chris.

- --Jeff



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Date: Wed, 21 Jul 93 16:06:38 EDT  
From: jdsgeoac@osg.saic.com (Karen Jdsgeoac Hyrum GEOACOUSTIC)  
Subject: CO2 Cylinder filling and gas

I just had my CO2 cylinder refilled for the second time and I think I was ripped off. To 'fill' my cylinder the people connected my small tank to their big tank for about 30 sec and handed it back to me. This was done at a bar. They did not weigh my tank or use any pump to transfer the CO2. I think all I got was about 875 psi of gas, but not a full 10 lb CO2 tank.

The first time I filled the tank, I took it to a fire ext. company. When they filled the tank it took about 5 min and they used a loud machine which sounded like a pump. They also weighed the cylinder before and shut off the pump when the tank was 10 lbs heavier.

Questions: What is the proper way to fill a CO2 tank? Did the bar's method work? Is the gas from a fire company safe to consume?

Thanks

Hyrum Laney  
jdsgeoac@typhoon.saic.com

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Date: Wed, 21 Jul 93 23:59:18 EDT  
From: demosth236@aol.com  
Subject: Papain -how does it work?

Recently I saw papain in my local homebrew supply store for use as a preventer of chill haze. I am familiar with papain as a meat tenderizer, and I know it "digests" proteins, but I was wondering exactly how it works in beer-making. Any information would be appreciated.

Rachel Patrick  
epatrick@pearl.tufts.edu

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End of HOMEBREW Digest #1187, 07/22/93  
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Date: Wed, 21 Jul 93 12:25:03 MST  
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
Subject: hops: Arizona/hermaphrodite/antique

Arizona Hops:

I am taking a stab at growing hops here in Phoenix. I planted rhizomes of Tettnanger, Nugget, Cascade, and Centennial in April in good soil, using an automatic drip system for watering. The plants grew in fits and starts, but all except the Tett are about 8 ft long now, with hop cones on them in various stages of maturity.

If anyone is interested in this experiment, or has tried this and would like to compare notes, let me know.

Hermaphrodite Hops:

I have discovered that one of the Centennials has a few male flowers on it. Is this common? If so, how do commercial growers prevent pollination?

Should I allow the male flowers to pollenate the other cones? I believe that Centennial is a hybrid, and therefore that the offspring may not be true to type. Still, I was wondering how bad they will be. Any ideas?

Antique Hops:

A portion of my parent's farm in Oregon was once used for raising hops. Apparently this was a fairly large scale operation, since there was a rather large outbuilding dedicated to hop drying (oast?). The previous owners probably quit hop farming in the thirties or forties, but some hop plants have persisted in the wild.

Could anyone hazard a guess as to the variety of these hops? I suspect that they are not considered a desirable type any longer, but I would like to brew a batch with them, for sentimental reasons, and I would like to get as much information as possible beforehand.

BTW, their farm is in the Willamette Valley.

Thanks in advance for your help.

Joel Birkeland  
Motorola SPS  
(602) 897-4359

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Date: Wed, 21 Jul 93 10:34:54 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Briess Malt

I'm looking for some input from those of you who have used Briess Malt Extract successfully or unsuccessfully. After 6 months of extract brewing with mostly Northwestern Malt extract, my roommate/brewmate and I went halves on a 60 lb pail of amber Briess in the interest of economy. Between the two of us, we have yet to make a decent batch of brew with it. In my own humble opinion, I was making pretty good beer with the northwestern, and I have not grown lax in sanitation or other brewing technique. My brews seem to have what I can only describe as an excessively estery (diacetyl?) aftertaste on the tongue and palate. As I do not have a trained beer palate (yet!) it is hard for me to accurately describe. On the other hand, my roommate's brews have an astringent (phenolic) quality up front, with the same aftertaste as mine. In between bad Briess brews I have brewed better brews with Northwestern (don't you just LOVE alliteration?) so I am wondering if I should waste more of my time/hops/expense/worry/etc using what may be an inferior (batch of) malt? (No offense to the Briess Maltsters.)

BTW, I took care to store the malt in a cool, dry place, and the batches made with malt taken from the freshly opened container were just as bad as later ones. My homebrew supplier (Brew and Grow) is staffed by helpful competent people who I don't think would have mishandled the Malt (i.e. leaving it in a 150 F warehouse for 5 years and then selling it to a customer.)

Help,  
Anthony Johnston  
Hopeless Brewer, Helpless Chemist  
anthony@chemsun.chem.umn.edu  
8]-<

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Date: Thu, 22 Jul 1993 08:40:03 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Siphoning through counterflow wort chillers

>From: Kevin V Martin <kmartin@magnus.acs.ohio-state.edu>  
>Subject: Siphoning

>I recently made two changes to my brewing procedures. I bought a wort  
chiller  
>and used hop pellets for the first time. After cooling my last batch of  
hot  
>wort, I tried to syphon the cool wort. I ended up clogging the syphon  
with  
>trub and pellet remnants. Does anybody have a good way to syphon off the  
good  
>stuff and leave the trub behind? Thanks,

Time for my periodic posting on filter-siphoning:

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Here is my pot-scrubber-in-a-mesh-bag technique for filtering hops:

Buy a copper wound pot scrubber and a fine mesh hop bag. (Get a Chore Boy. They are made from 100% copper. Also get a rather thick rubber band. It also helps to have a copper pick-up tube if you're going to siphon hot wort into your fermenter. If you're cooling it first, one of those plastic pick-up tubes will do the trick.

Tie the pot scrubber around the bottom of the pick-up tube (the end that's going into the wort). Then tie the fine mesh hop bag around that, in effect putting the pot scrubber in a bag. (Oh, yes, "No see-um netting" from a camping store works well, also.)

Tie a small 1/4" overhand loop in one end of the rubber band. Loop the other big end around and through the handle on your boiling pot. Now slip the pick-up tube through the small end of the rubber band. If you've tied the small loop small enough, the rubber band will grab the pick-up tube at whatever position you want. Suspend the pick-up tube a couple of inches below the top level of the wort. Start your siphon.

Note: By siphoning from the top level of the wort, you'll always be siphoning off the clearest portion of the wort. As the level of the wort recedes, slowly inch the pick-up tube down accordingly, always keeping it an inch or two below the surface. This technique will give you the cleanest possible run-off into the fermenter without clogging the siphon. (There are a couple of gizmos on the market now [one is made by Fermentech]

that clip to the pickup tube, attache to the rim of the brewpot and suspend

the pickup tube off the bottom of the pot.)The mesh bag/pot scrubber combo will effectively filter out all the hop leaves and particles. But the mesh can still clog and I consider it a flourish to the technique and not essential. Should it clog, the easiest thing to do is to just take it off and resume your siphon with the pot scrubber alone. An alternative is to raise the brewpot which increases the flow rate of the siphon.

It's also a good idea to stir the wort, just after the end of the boil, to create a whirlpool action in the kettle. This will cause the precipitate matter to settle out into a cone in the bottom of the vessel. At the end of the siphon you'll find a "moat" of wort around



the cone and be able to siphon off almost all of the cleared wort.

Cheers!

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Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.  
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Date: Thu, 22 Jul 1993 09:39:48 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Alcohol as a sterilizing agent

Well, let's see if the digestifier is happy now...

Roger Deschner writes about using cheap vodka for sterilizing, a great advantage being that its food-grade, and alcohol is a beer-component anyway.

I use the same spray-bottle approach, but instead of vodka (60 - 80 proof), I use Everclear(tm) which is like 98 proof grain alcohol, made for spiking punch or whatever. Its pretty cheap, and seems like just the ticket. You do get funny looks from liquor-store clerks when you go in and ask for the biggest bottle of Everclear they sell, though... 8-)

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Date: Thu, 22 Jul 93 09:14:01 EDT  
From: Lee=A.=Menegoni@necotech.com  
Subject: Filling CO2 bottles

When I had my CO2 bottle filled the process was similar to getting a propane tank filled. It took a few minutes, lots of noise and the operator WEIGHED the CO2 tank. I took it to a gas supply, welding etc, place. I called ahead of time and asked if they had CO2 for dispensing beverages. The vendor Northeast Airgas, Nashua NH, indicated that it was "beverage grade" CO2, I paid \$13 to get my tank filled I don't know its capacity, it's about 18" tall and about 5" diameter.

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Date: Wed, 21 Jul 93 10:36:38 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Beer Color and competitions

Taste not color should be the deciding factor into which category one enters a beer. Color only contributes 4% of total score, 2 out of 50 points while taste characteristics , flavor and body, contribute ten times more to the total score.

Suggestion for brown ale yeast: I brewed a brown ale using 1056 yeast, it ended up as a brown porter since the yeast was very attenuative. I think the recipe is good but the yeast selection wrong. Any suggestions for a brown ale yeast? How attenuative are 1098, 1028 and the Irish (stout) yeasts?

lmenegoni@nectech.com

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Date: Thu, 22 Jul 93 07:25:11 -0400  
From: Rich Ryan <ryancr@install4.swin.oasis.gtepsc.com>  
Subject: priming/sanitizing

I have read that there are three methods (possibly more) for priming your beer. The first method is to add 3/4 cup of corn sugar per 5 gallon batch. The second method is to add 1 1/4 cups dried malt extract. The third method is by adding a measured amount of gyle. Can someone discuss the pros and cons of each? Does your beer condition better using one over another?

On another note, I have currently been using B-Brite as a sanitizer, primarily because that's what my local homebrew shop recommended. Papazian talks about using chlorine (household bleach) as a sanitizer. I noticed that B-Brite does not contain chlorine, bisulfate or organic compounds. Am I wasting my money on B-Brite or does it do a superior job of sanitizing? Speaking of chlorine, how can you remove chlorine from your tap water without buying an expensive filter kit? I am presently boiling my tap water before using in the brewing process. What minerals are removed when you boil your water? TIA.

Rich Ryan  
GTE  
Chantilly, VA

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Date: Thu, 22 Jul 1993 08:17:31 -0400 (EDT)  
From: Kieran O'Connor <koconnor@mailbox.syr.edu>  
Subject: Brewing Techniques

HI--I saw Chris Dalton's article about Brewing Techniques--and had to drop a quick note

Issue 2 of Brewing Techniques arrived yesterday.

Only 42 pages, but packed with info.

Just what the heck is Zymurgy worth anyway?

These are the articles in summer Zymurgy:

- 1) Summer Brewin'
- 2) Boost Hop Bouquet
- 3) Stalking the Wild Meads
- 4) Institute for Brewing Studies (essentially a paid promo)

Total: maybe 15 pages.

Then there is the filler middle--buy a shirt for 20\$ deal (plus shipping)

'  
the standard row of letters stating how good Zymurgy is and how people dont know how they brewed without it, and 900 pages of ads.

There really isnt even a reduced price for AHA members for books like there used to be.

Frankly, I've found Zymurgy to be a bit lame. Most of the stuff in it is fluff-Brewgal Gourmet?

I guess Im a bit pissed in general at the AHA. As some of you know I did some research on brewing in the Spring. What better place to write than to the AHA--right? Wrong. I asked some fairly specific questions for sources and/or ideas--here's what I got:

- 1) A winner's circle card with a recipe.
- 2) An application to join the AHA (of which I was a member)
- 3) A how to brew a batch of beer sheet
- 4) An index of articles (which, I must say, was helpful).
- 5) No letter.

So I wrote to you know who--and actually got a reply. he said I know of no source where I cant point you to!

Then I wrote to the Institute of Brewing Studies, whose prowess is indicated in this months Zymurgy--no shit--i got the EXACT same handouts!

Anyway, I credit the AHA and Zymurgy with increasing homebrew awareness--but I dont even recommend it to brewers. i tell them to get online--its cheaper--especially if they are at a University.

To be honest with you--when mine runs out--I'll use the \$29 to buy a re-new on Brewing Techniques (BT) and use the \$5 to go buy a six.

Please don't send me hate mail--if you disagree lets discuss this intelligently. Thanks. :-)

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu  
Syracuse, N.Y. USA

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Date: Thu, 22 Jul 93 10:49:36 CDT  
From: stevie@spss.com  
Subject: Oostend?

Dave Justice <DD24005@UAFSYSB.UARK.EDU> (I assume he's not the Braves' all-star right fielder) asked about suggestions for stops in Belgium, to which Timothy Dalton replied about Oostende:

>Unfortunately, my experience in Belgium is limited to Oostende, as thats  
>where I was to drop off a rental and get on the ferry to Dover,  
>but there is a bar in Oostende, across from the ferry terminal  
>that served generic 'trappist dark and trappist blonde'  
>Very good beers. One of the standouts of European beers,  
>after a week in southern Germany!  
>If you can visit this bar, its a great little place, sorry I don't  
remember  
>the name. (strange how that happens)

Having just been in Oostende, I'd recommend (as Jackson does in his Belgian book) a visit to the Taverne Botteltje. It's at 19 Louisastraat, about 6 blocks NW from the ferry terminal, between the Wapenplein and the beach. After all, why go to a place offering up 'generic' stuff when you know what you're getting.

Taverne Botteltje has six beers on draft: DeTroch Kriek, Hoegarden Wit, Speciale Palm, Grimbergen Dubbel, Jupiler Pils, and Guinness. If you don't like that, you can opt for their well kept and served bottle selection. The thick, bound, beer menu offers pretty much anything you'd want. Trappist dark? Trappist blonde? You won't be offered anything like that here. How's about the full range from Chimay, LaTrappe, Westmalle, Rochefort...? And if you don't have at least one bottle of Cantillon (take your pick), you're crazy! You can also spend the night in the adjacent hotel, or have a meal in their steak house.

Jackson also recommends the t'Ostens Bierhuis, at 48 Kapucijnenstraat. I've not been there (it was a Tuesday, and the joint was closed), but it's probably cool. It's only about a block from the Taverne Botteltje (Kapucijnenstraat is the next street to the east).

- ----

Steve Hamburg (stevie@spss.com)  
SPSS Inc.  
Chicago, IL

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Date: 21 Jul 93 16:38:40 CST  
From: "Dennis Lewis" <DLEWIS%jcsdh6@jesnic.jsc.nasa.gov>  
Subject: Propane vs. Methane: Costwise

As I sat, tending my mash on my propane-fired Country Cooker, I wondered if it would be cheaper to fire up the cooker on natural gas (methane) as opposed to tanks of propane that are liable to give up the ghost in the middle of your boil.

According to the CRC Handbook:

Heat of Combustion

Methane (CH<sub>4</sub>) = 212.79 kg.cal/gram-molecular-weight

Propane (C<sub>3</sub>H<sub>8</sub>) = 530.57 " " " " "

A gram-molecular-weight is a "mass in grams of a substance numerically equal to it's molecular weight."

Essentially, it is one "mole" of this gas.

gram-molecular-weight of methane = 16.04 g

propane = 44.11 g

1 mole = 22.4 liters at STP (Std Temp and Press 25 deg C and 14.7 psi or 1 atm)

This is really nice because the heat output numbers are for burning the same volume of gas, namely 22.4 L or one mole. So we can see that propane puts out

$$(530.57/212.79) = 2.493$$

times as much heat a methane. That's why people who use methane note that it takes twice as long as propane-fired burners. So for it to be economical, natural gas has to be 2.5 times cheaper than propane (all other crap being equal).

Now on to the pricing. I pay \$8 to fill a 20# tank of propane. I also pay about \$0.65 per 100 cubic feet for natural gas at my house (The 0.65 is average. There's a base charge and use charges vary with the season. My total bill goes from about \$1.00 per 100 cu.ft. in the summer to \$0.50 cu. ft. in the winter.). This is delivered at 4 PSI. Converting cubic feet to liters:

$$100 \text{ ft}^3 * (30.48 \text{ cm})^3 / (1 \text{ ft})^3 = 2831600 \text{ cm}^3 \\ \text{and 1 liter is } 1000 \text{ cm}^3, \text{ so } 100 \text{ cu.ft.} = 2832 \text{ L @ 4 psi.}$$

Correcting for the volume change from 4 psi to STP,

$$V_2 * P_2 \quad 2832 * 19.7$$

$$\text{-----} = V_1 \quad \text{-----} = 3794.8 \text{ L}$$

$$P_1 \quad 14.7$$

So, dollar per liter of natural gas is:

$$\$0.65 / 3794.8 \text{ L} = \$0.00017128 \text{ per liter}$$

Now for propane, 20 lbs \* 0.4545 lbs per kg = 9.091 kg or 9091 g. Since 44.11 grams of propane equals a mole and a mole takes up 22.4 L at STP, we can convert directly from grams to liters:

$$9091 \text{ g} * 22.4 \text{ L} / 44.11 \text{ g} = 4617 \text{ L}$$

So at \$8 for 4617 L, we get \$0.001732 per liter. This means that propane is ten times more expensive than natural gas. But propane gives off 2.5 times more heat than methane during combustion. So for equivalent heat output, propane is 4 times more expensive.

\*\*Note: The prices are for Houston, Texas. Dealer invoice may not

reflect actual dealer cost. Your mileage may vary.

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: Wed, 21 Jul 93 07:06:54 CDT  
From: philb@pro-storm.metronet.com (Phil Brushaber)  
Subject: Re-Filling CO2 - Tank to Tank

I have a couple of 20 Lbs CO2 tanks. I can get them re-filled for \$10 so that's pretty cheap. I also have a 5 LBS tank which is much smaller and convenient to keep in the refrigerator (I haven't had the guts to drill through the fridge yet) to carbonate kegs.  
Question: Is it possible to re-fill a 5 LBS tank from a 20 LBS tank or is this a "don't try this at home kids"?

.

- - - - -

Internet: philb@pro-storm.metronet.com  
UUCP: metronet.com!pro-storm!philb  
Bitnet: philb%pro-storm.metronet.com@nosc.mil

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Date: Thu, 22 Jul 1993 10:24:07 CST  
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>  
Subject: CO2 filling

Hyrum Laney writes:  
Subject: CO2 Cylinder filling and gas

>I just had my CO2 cylinder refilled for the second time and I think I  
>was ripped off. To 'fill' my cylinder the people connected my small  
>tank to their big tank for about 30 sec and handed it back to me. This  
>was done at a bar. They did not weigh my my tank or use any pump to  
>transfer the CO2. I think all I got was about 875 psi of gas, but not  
>a full 10 lb CO2 tank.

>  
>The first time I filled the tank, I took it to a fire ext. company. When  
>they filled the tank it took about 5 min and they used a loud machine  
>which sounded like a pump. They also weighed the cylinder before and  
shut  
>off the pump when the tank was 10 lbs heavier.

>  
>Questions: What is the proper way to fill a CO2 tank? Did the bar's  
method  
>work? Is the gas from a fire company safe to consume?

If you got it filled from a bar with a standard regulator on it, you were  
had.

The way to do it is like you described by the fire ext. company. They  
put it  
on a scale and force liquid into it, the ones I've seen tend to blow CO2  
around  
all over while this is happening. I would never try to xfer liquid CO2  
from  
one tank to another at any bar I've ever worked at, if they had a really  
big  
tank that could tap liquid (which does not happen when you tap beverages)  
you  
could do it, but not thru a std regulator. I guess you could turn one  
CO2 tank  
upside down and have a direct superhi pressure hose going to the other  
one but  
it would be crazy to try it IMHO. I've been getting CO2 from fire ext.  
places  
for 12 years and I'm still alive, as I recall most CO2 found is produced  
by  
commercial breweries anyway (makes sense but I have no refs. on me)

John Isenhour - Portland bound.  
home: john@hopduvel.chi.il.us  
work: isenhour@lambic.fnal.gov

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Date: Wed, 21 Jul 93 9:09:12 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Re: Yeast Culturing

I would like to take the plunge into yeast culturing. I just read Rog Leistad's booklet "Yeast Culturing." My question is, where can I get cheap test tubes and other assorted tools recommended by Leistad? Does anybody follow the guidelines of this book? Thanks for your help. BTW way, I split my time between Los Angeles and San Diego.  
STEVE

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Date: Thu, 22 Jul 93 12:00:51 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: RE: kettle breaks

Arne asks about hot breaks:

<From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
<Subject: Another data point in the hot break debate

<After reading this forum recently, I decided to let my latest all-grain  
<stout hot break \*before\* adding the hops.

<After half an hour of rolling boil there wasn't a sign of a hot break,  
<so I added the hops. Bang! I got a hot break within 5 minutes. I  
<guess this may be showing that hops do promote the coagulation of  
<proteins.

<How can I get the hot break to occur \*without\* adding the hops? I'm  
<on an electric stove, so the boil can't be made \*really\* turbulent  
<(it's a big burner, but not that big). What other options are there?

One of the factors influencing the coagulation of proteins is the amount  
of calcium ions that survive into the kettle. Depending on your brewing  
water and whether or not you use gypsum in the mash, you may have a  
calcium deficiency in the kettle. Some brewers add a small amount of  
gypsum directly to the kettle to ensure adequate calcium levels. Be  
careful  
not to overdue this, as a "chalky" astringency may result. I would  
suggest  
a 1/2 tsp for an experiment (into a 5 gallon batch).

Jim Busch  
DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: Thu, 22 Jul 93 12:05:42 EDT  
From: Brew Free Or Die 22-Jul-1993 1206 <hall@buffa.enet.dec.com>  
Subject: My kind of town, Sam Adams is

This morning I received a poster advertising The Great New England  
Brewers'  
Festival, which is to take place in Northampton, Massachusetts on  
Saturday,  
July 24th. I was perusing the poster and came across something that made  
me  
chuckle. Here is exactly what is printed on a portion of the poster:

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25 participating microbrewerys and brew pubs bringing  
as many as 3 types of beer a piece. A sample of participants:

Northampton Brewery, Ma.  
Portsmouth Brewery, N.H.  
Catamount Brewing Co., Vt.  
John Harvard Brewery, Ma.  
Cambridge Brewery, Ma.  
Boston Beer Co.--Sam Adams, Ma.  
Commonwealth Brewery, Ma.  
Hartford Brewing Co., Ct.  
Frank Jones Brewing Co., N.H.  
Sunday River Brewing Co., Me.  
Mountain Brewers, Vt.  
Vermont Brewing Co., Vt.

-----  
-----  
Look at the entry for the Boston Beer Company. "Sam Adams, Ma." Ba ha  
ha!

I know what was intended but, still, it's funny. I envisioned poor old  
Jim Koch, chagrined that a nasty old judge wouldn't let him have  
exclusive  
use of the word "Boston". "Why, I'll show that old fart," I imagined  
little  
Jimmy saying. "I'll show them all! I'll start my own town, and  
trademark  
\*that\* name!"

If you happen to be passing through Sam Adams, Mass., and see Jim sitting  
on  
his porch, whittling and whistling "I Did It My Way", honk the horn,  
wave,  
and give him a wink.

- - -  
Dan Hall Digital Equipment Corporation MK01-2/H10 Merrimack, NH  
03054  
hall@buffa.enet.dec.com...!decwrl!buffa.dec.com!hall

"Adhere to Schweinheitsgebot  
Don't put anything in your beer that a pig wouldn't eat" --David Geary

Date: Wed, 21 Jul 93 08:44:25 PDT  
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)  
Subject: chlorine

At the risk of starting up the whole "my sanitation method is better than your sanitation method" discussion, I have a simple question on the use of chlorine. Should you use chlorine with hot or cold water? I have read somewhere that chlorine has a low boiling point and hot water will boil it off before it can sanitize. Is this true? Is this a momily?

Darren Aaberge  
Vancouver, Wa

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Date: Thu, 22 Jul 1993 02:10:03 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzner)  
Subject: What's there to drink in Dallas TX?

I'll be down there for a week or so, starting Sunday. Is there anything worth drinking? Local beers, micros, brewpubs, etc?

Please reply via email, I may not be able to get to the digest in time.

Mike

---

Michael Fetznerpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

-----

Date: Wed, 21 Jul 1993 11:32:47 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: PPP

Chris Campanelli kvetches:

>Well I don't know about the rest of you yahoos but I for one and  
>GLAD there's a parking problem in Portland. I hope it rains the  
>whole crummy week (sniff). Who the hell wants to go to Portland  
>anyway. You couldn't PAY me to go there (sniff). The city is just  
>a suburb of L.A. anyway and the people there couldn't tell you what  
>color the sun is. The beer is lousy, the farm produce sucks, the  
>seafood is even worse and the scenery reminds you of the Jersey  
>Turnpike on acid (sniff sniff). And another thing, don't even  
>mention the word "slugs".

Couldn't afford a ticket, eh Chris? :-)

have fun  
gak

Richard Stueven AHA# 22584 |-----| Drink up! Happy hour is now  
Internet: gak@wrs.com |----GO----| enforced by law.  
ATTMAIL: ...!attmail!gakhaus!gak |---SHARX--|  
Epicenter:209/15/19&20 |-----| Jello Biafra

-----

Date: Thu, 22 Jul 93 09:43:00 -0400  
From: paul@grammatech.com (Paul Anderson)  
Subject: Corning/Revere Factory store carboys.

>sims@pdesds1.scra.org (Jim Sims)  
>I saw the post about Corning/Revere Factory stores as a source for  
>Carboys @ \$9. Thanks!  
>  
>I called the 800 number (999-3436), but no one I talked to there or  
>at the three locations she pointed me to in South Carolina seemed to  
>even know what a carboy was, and all three stores denied having  
>anything like a glass container for a drinking water dispenser (my  
>explanation of what a carboy was).

I bought two 5gal carboys from the Corning/Revere store in  
Corning, NY about three months ago. They too were confused  
about what a carboy was. In any case, I still have the  
cardboard boxes which have an identifying label on them  
which should help people cut through the confusion when  
they speak to the mystified store assistants.

The label reads:

43109  
Water Btle 5 Gal Rib  
AR 39  
OUR PRICE: 8.99

They also have non-ribbed carboys.

Hope this helps.  
Paul Anderson

-----

Date: Wed, 21 Jul 1993 10:36:06 -0400 (EDT)  
From: Edward Croft <CROFTE@delphi.com>  
Subject: Fruit Chart, Cointreau extract

Well I didn't get any responses to my previous post. I was looking for a table that would tell you how much fruit you should add to the wort for the various types of fruit beers. I was going to use Alan Wrights ale recipe as a base to try my hand at fruit beers. The problem is where do you start, how much, when to add, how to prepare. I was looking to see if there was a chart that would look something like the following:

| Fruit   | Amt | Conditioning  | Wort | Primary | Secondary | Bottle |
|---------|-----|---------------|------|---------|-----------|--------|
| Apples  | 10# | Peeled, 1/4rd | x,   | last    | 5m        |        |
| Oranges | 5#  | Blanchedx     |      |         |           |        |
| Prunes  | 2ea | Rehydrated    | x    |         |           |        |

.....  
Since it appears that such a chart does not exist, maybe I should try to take the initiative. If I could get private E-mail with suggestions on fruits that people have tried, quantities used per 5 gal batch, Conditioning, and when to add the fruit to the wort, I'll try to compile the chart. Once I have everything together and charted, I can repost the completed chart. TIA, for the help.

\*\*\*

Spices, etc has a new line of extracts used in cooking. One of these is a Cointreau extract. I was wondering if it is possible to use these extracts in processing beer? With these extracts, you could possibly create whole new flavours. Possibly even Rum Beer, all the flavour of real rum without the heavy alcohol. Or how about, Beer Noisette, ah the distinctive hazelnut flavour emanating from the bottle. Okay, okay, so I'm going off the deep end. It was just a thought.  
Later, Ed.  
CROFTE@DELPHI.COM.

-----

Date: Thu, 22 Jul 93 12:02:47 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: Sprecher Update -AND- What a deal! -AND- Hunter Airstat summary

> I called Sprecher yesterday (I'm in the Milwaukee area) and asked about  
> the condition of the brewery. Yes, they lost a bit of dirt. According  
> to the gentleman on the phone, however, there was no barge involved,  
> and there is no crack in the brewing room you can see the river  
through.

> Tours and brewing are continuing as normal.

>

> So, Sprecher will still be around. I agree, however, that their beer  
isn't

> as good as it used to be, but that might just be that my tastes have  
changed.

>

> <include yesterday's note>

>

> Last night, through a strange sequence of events involving a kitchen  
fire

> and a county fair (I said it was strange, and NO, it's not my kitchen)

,

> I happened to become the owner of the mother of all refrigerators.

>

> To the point, I got to talking to a gentleman whose house we had put  
out

> the previous week, and we got talking about brewing, lagering,  
firefighting,

> and so on. My offer to buy his scorched (but working) refrigerator for  
lagering

> progressed into an upright freezer that I passed on. He told me "What  
you

need is a milk storage tank; they're temperature regulated around 35  
degrees".

> Nifty, I said.

>

> To cut a long story short, he happened to have one....sort of.

>

> So, I paid \$10.00 for a 200 gallon all stainless steel huge tank, with  
the

> refrigeration system torn apart. Seems he was going to use the  
compressor

> as an air compressor, then thought better of it. So, it's been open to  
> the air for a couple of years (ozone layer? what ozone!)

>

> How this works, I think, is that you fill the outer area with water,  
and

> the freon cools it (through copper piping running around the sides and  
bottom).

> The water transfers the cold <sic> to the milk (beer, whatever).

>

>

> Now as I see it, once I get this thing home and into my barn, I have a  
couple

> of options:

>

> 1> put the compressor back on, get it recharged, and lager in it

> 2> have the mother of all steam-heated mashing kettles

> 3> have the scrap guy come over, and pay me a couple of hundred dollars  
for

> the stainless - maybe?  
>  
> or 4> (insert suggestion here).  
>  
>  
> Now obviously it wouldn't work too well for mashing at my current  
volume  
> (5 gallon batches), as a 1/8" coating on the bottom is all I'd get from  
5  
> gallons of mash. So, what the heck shall I do with this?  
>  
>  
> Dave Hinz  
>  
> PS I had some trouble getting airstat replies to people, so here's a  
breif  
> summary of the replies I got that looked promising:  
>  
> (Author's names used without permission....sorry if that offends!)  
>  
> -----  
>  
> From TKACKOWS@ucs.indiana.edu Fri Jul 9 07:23:39 1993  
>  
> Dave, The address of the Hunter company is:  
>  
> Hunter Fan Company  
> 2500 Frisco Avenue  
> Memphis, TN 38114  
>  
> This information is copied directly from their 1991 ceiling fan catalog  
(no  
> telephone number is listed). On the back cover of this catalog is  
depicted  
> "other home comfort products for Hunter" such as programmable  
thermostats and  
> digital thermostats. I hope this helps.  
>  
> tj  
>  
> -----  
>  
> From thomas@ct.med.ge.com Fri Jul 9 09:17:38 1993  
>  
> Dave,  
> I got a Hunter at Fleet + Farm (the "orange" one) in Oshkosh. Try  
giving  
> the one in Menomonee Falls a call. I don't know if Farm + Fleet (the  
"blue"  
> one) carries the Airstat, but I don't believe it does. You could call.  
> I don't know if Builder's Square (West Allis, Racine, elsewhere)  
carries it.  
> Fleet may be reluctant to give you a price over the phone; it is their  
> store policy.  
>  
> Disclaimers  
> 1) this was last year  
> 2) in Oshkosh, not Menomonee Falls  
> 3) it was on a clearance table  
>  
> Good hunting.  
>  
> [Dave's note: locations are in Wisconsin, USA]  
>

> -----  
>  
>  
>  
> From oconnor@ccwf.cc.utexas.edu Fri Jul 9 09:21:29 1993  
>  
> I saw your post regarding the air stat. I have a mail order  
homebrewing  
> store in Austin Texas and I carry the hunter air stat. The price is  
\$39,  
> call me if you would like a catalog : (512) 832-9045.  
> Lynne  
> St. Patrick's of Texas  
>  
> [Dave's note: Note that Lynne didn't post this, I did. Flames to /  
dev/null]  
>  
> -----  
>  
>  
>  
> From trl@photos.wustl.edu Fri Jul 9 09:33:13 1993  
>  
> >Anyway, if someone could e-mail me an address or phone number for  
Hunter, or  
> >a mail-order source for these things, I'd appreciate the heck out of  
it.  
>  
>  
> St. Louis Wine & Beermaking  
> Koelle B. Paris, Proprietor  
> 251 Lamp & Lantern Village  
> Chesterfield, MO 63017  
> 314/230-8277  
>  
> I do (an increasing amount of) business here. Standard disclaimers  
apply.  
You  
  
> might also look in Granger Catalogs for thermostats. Every farmer  
probably  
has  
> a Granger catalog. And many mechanically-oriented tradesman-types like  
plumbers  
> will too.  
>  
> The Hunter AirStat is meant to control window air conditioners. (That's  
why  
it  
> only goes down to 40F). If you tell the hardware guys its an external  
> thermostat for window air conditioners it'll mean more to `em than  
"temperature  
> controller". But I guess there's not much call for air conditioners in  
> Milwaukee... 8-)  
>  
> t  
>  
>  
> -----  
>  
> From WAUTS@cwemail.ceco.com Fri Jul 9 09:38:47 1993  
> From: Tom StolfiWAUTS - CWE1IIN  
>  
> [.....] Back to brewing, I purchased an

> Air-Stat down here from Heartland Hydroponics, 708-816-4769, for \$21.  
> 95 on  
> sale. You might want to give them a call to see what their regular  
> price is.  
> I believe North Brewing Supplies, Franklin, WI, sells a thermostat, but  
> not  
> the Hunter. If you want their number email me back and I will bring  
> the  
> number to work on Monday. Hope this helps.  
>  
> Tom Stolfi  
> wauts@cwemail.ceco.com  
>  
>  
> -----  
>  
>  
>  
>  
> From spencer@goodman.itn.med.umich.edu Fri Jul 9 09:58:47 1993  
>  
> The problem is that you live too far north, so nobody has air  
> conditioners :=) Now down here in the sweltering southlands of  
> "southern lower Michigan", Builder's Square carries them.  
>  
> Ask for a "thermostat for a window air-conditioner", maybe. That's  
> what it's designed to be.  
>  
> =S  
>  
> -----  
>  
> From jbrooks@u.washington.edu Fri Jul 9 12:22:30 1993  
>  
>  
> David, there is a homebrew shop about three miles from my house that  
> does  
> a national mail order business (far bigger than their retail store) and  
> publishes a free catalog. They are:  
>  
> The Cellar Homebrew  
> 1441 Greenwood Ave. N.  
> P.O. Box 33525  
> Seattle, WA 98133  
>  
> ph: (206) 365-7660  
> fx: (206) 365-7677  
> order line: 1-800-342-1871  
>  
> They list the Hunter on page 8 of their May 1993 catalog:  
> Item #8-402 @ \$29.95 (plus shipping)  
>  
> I'm sure they'll send you a free catalog or answer any questions you  
> have  
> (Bruce Johnson is one of the three owners and quite knowledgeable.  
>  
> Hope this info helps!  
>  
> - John  
>  
> -----  
>  
> Happy Hunting!  
>



> Dave Hinz

>  
>  
>  
>

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Date: Thu, 22 Jul 93 12:50:27 CDT  
From: jlf@palm.cray.com (John Freeman)  
Subject: Pete's Wicked Ale

>  
>Date: 21 Jul 93 13:03:40-0400  
>From: JOHN.L.HALE@sprint.sprint.com  
>Subject: Is Pete's a real Micro? / Pub List Changes  
>  
>I 've been seeing Pete's Wicked Ale in the stores for some time now and  
>decided to give it a try. Actually I went in for the Wicked Ale and came  
>out  
>with their Golden Lager. It tasted fine with much more body than most  
>American  
>lagers. Now I have a question about this Brewery.  
>  
>I've heard in the past that some larger breweries were jumping on the  
>micro  
>bandwagon by selling beers that looked the part. I was wondering if  
>someone  
>from St. Paul was familiar with Pete's. I realize that the term "micro"  
>is  
>somewhat undefined (I've heard under 15,000 bbl/year), but I'm wondering  
>what  
>the thoughts are on this.

I've been to the Rathskellar room at the Landmark Brewery - maker of  
the dreadful Pig's Eye Pilsener. I was surprised to see they had  
Pete's Wicked Ale on tap, so I inquired about it. They make it on  
contract for Pete. It used to be contract brewed at Schell's in New Ulm,  
MN,  
but exceeded their capacity. What I don't know is how many other  
places contract brew Pete's Wicked Ale around the country. Of course,  
once I discovered the PWA, I didn't drink anything else they had to  
offer.

John Freeman  
jlf@cray.com

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Date: Thu, 22 Jul 1993 14:23:52 EDT  
From: "The road of excess leads to the palace of wisdom."  
Subject: Draught Guinness in Can

Here is a repost of an article on Guinness in a can.  
Maybe someone can place this text in the archives.

Rick

The article is titled:

"The extra ingredient in a can of draught Guinness"  
NEW SCIENTIST, 22 July 1989 p. 34

Written by Andy Coghlan

"Guinness, the maker of the black, creamy beer for which Ireland is famous, has managed the impossible. The company has succeeded in canning a form of Guinness that, until recently, was available only on draught in public houses and restaurants.

The world's seven million Guinness lovers have a choice between two products: draught Guinness, a thick, smooth stout with a creamy-white head and Guinness Extra, which is available in bottles and cans. Guinness Extra has a coarser texture than draught Guinness and a head that is less smooth and creamy.

According to Alan Frage, the product development director at Guinness, the majority of people who drink draught Guinness do not drink Guinness Extra. "We knew that draught Guinness in cans would give them the opportunity to enjoy their favourite brand at home as well as in the pub," he said.

Forage and his colleagues began working to solve this problem in 1984. After four years of development work costing 5 million pounds, Forage and his team had perfected a tiny diaphragm, made of plastic, that cracked the problem.

They tested more than 100 different techniques before settling on the so-called "in-can-system". People who buy draught Guinness in cans, which have been available throughout Britain since March, will find this system if they slice open the empty can. The device, which sits on the base of the tin, helps to mimic the tap in the pub.

Draught Guinness owes its creamy texture to a surge of bubbles in the beer as it passes through a series of tiny holes in the special dispensing tap. The tap has a system of tiny holes which creates pressure differentials.

These differentials force the gases out of solution and produce a "surge". Unfortunately, the gasses will remain in solution if people simply pour Guinness from the barrel into a glass.

The new system essentially mimics this process from the inside of a can. The device is a plastic chamber with a minute hole at the top, which sits on the base of the cans.

For the system to work, the pressure in the can must exceed atmospheric pressure. The canners fill the can with beer that is cold

enough, at between 0 C and 1 C, to retain gas that would bubble out of solution at higher temperatures.

The canners put 440 milliliters of Guinness in a can that can hold 500 milliliters, in order to leave enough room for the creamy head to form.

They also "dose" the beer with extra nitrogen, which raises the pressure when the can is opened.

Once the lid is on, the pressures in the can and inside the chamber reach an equilibrium that forces beer and gas into the device. When someone

opens the can of beer by pulling the ring-pull, it initiates the same process that happens in a tap for Draught Guinness.

As the ring-pull comes off, the resulting drop in pressure forces beer and gas out of the chamber through the tiny hole, creating small, stable bubbles.

As the bubbles rise up through the liquid, they act as centres where other bubbles form. This is what causes the characteristic surge. The

number of bubbles created and the small diameter of the bubble dictates the

density of the head of the drink and its creaminess. The smaller the bubbles, the creamier the texture, says Forage,

The only remaining problems for the designers related to the canning process. They had to invent a filling device that expels oxygen from the can, because the gas impairs the flavor of the beer.

Now, Guinness has patented the system and owns the registered designs of all the engineering equipment that is unique to the packaging line.

The secret for drinkers, says Forage, is to make sure that the can is cooled in the refrigerator for two hours before serving. Otherwise, the

beer bubbles out uncontrollably as too much gas has come out of solution to

create excessive pressure. He says that the product is selling much better

than expected"

|||

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End of HOMEBREW Digest #1188, 07/23/93

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Date: Thu, 22 Jul 93 13:43 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: BTU's

>From: mlh@cygnus.ta52.lanl.gov (Michael L. Hall)  
>Subject: Heat Output of Stoves

>Jack Schmidling says:

> I don't have a clue as to how to determine tthe BTU's of my heat source but  
> it is a NG/forced air furnace I designed for melting aluminum for MM  
> castings. It will melt 4 lbs of aluminum in 20 minutes.

<I am going to forge ahead and figure out what this means in terms of BTUs/hr.

I knew I could count on someone taking the bait.

>Say that you start out with 1.82 kg (4 lbs.) of Al at 300 K (80 F).  
First,  
raise it to the melting point of Al, 931 K (1217 F):

Correction here.... aluminum doesn't pour worth a damn at the melting point.

I pour at between 1600 and 1700 F.

> Heat output = (247,164 cal + 171,990 cal) / 20 min. = 20,957 cal/min  
> = 4,982 BTU/hr

Needs correction for pouring temp...

>Let's compare this with a stove that will heat 5 gallons of water from 20 C to 100 C in 20 minutes:

Some stove! My kitchen stove takes over an hour and I suspect electric ranges are even worse.

> 1. You probably lose up to half your heat in a regular brewing setup.

Considering the bricks all around and the crucible are red hot, I would suspect the efficiency is far worse than that.

> 2. Jack's setup is either lower in heat output or heat efficiency than a regular brewing setup. Of course, I realize that these numbers were just quoted quickly by Jack and may not be his true numbers. This is especially true since Jack also states that his setup will "boil 14 gallons of wort furiously". Don't look at me, I'm just doing the numbers :-)

You can only use the number you have but here is another one that should help a bit.

The furnace uses about 75 cuft of gas per hour, which comes out to about 25,000 BTU's in 20 minutes with the gas we get here.

That compares to 14 cuft for my stove burner and 36 cuft for the water

heater.

Hmmm.... seems like I already knew the number but didn't know I knew it.

>From: jdsgeoac@osg.saic.com (Karen Jdsgeoac Hyrum GEOACOUSTIC)  
>Subject: CO2 Cylinder filling and gas

>I just had my CO2 cylinder refilled for the second time and I think I was ripped off. To 'fill' my cylinder the people connected my small tank to their big tank for about 30 sec and handed it back to me. This was done at a bar. They did not weigh my my tank or use any pump to transfer the CO2. I think all I got was about 875 psi of gas, but not a full 10 lb CO2 tank.

Why think, just weigh it. A full 10 lb tank should contain 10 lbs of liquid CO2 and the empty weight of the tank is stamped on the outside somewhere.

js

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Date: Thu, 22 Jul 1993 10:57:55 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Brewcap / Spelt

Since Mr. Baughman mentioned his Brewcap, I thought I'd ask a question or three about it. First, there are two holes, one larger than the other.

The larger hole fits a siphon hose, airlock, or whatever. What, exactly, fits

in the smaller opening, or does the smaller opening fit into a siphon hose?

What sort of clamp do you use to hold it on, just a plastic strap? A pipe

clamp? And thirdly, is the material of the Brewcap completely inert in beer? I appologize if these questions sound ignorant, but the local brewshops sell the Brewcaps under the assumption that they are simply for racking upright carboys (ie stick racking tube in short wider hole, blow into

tall thinner hole to start the siphon).

On another note, I was in a bulk store yesterday and noticed what looked like flaked wheat, but the bag was labelled "Spelt, no wheat". The TerriblyUnhelpfulShopkeeper Explained to me that it was "Spelt, it's not wheat". Thanks. When pressed further, she said it was a grain "as old as

time...Biblical times...". Thanks again. I looked it up later, and it IS

in fact a wheat, Triticum spelta, used mainly for livestock feed. Of course, at the bulk store the labell extolled the virtues of the proteins in Spelt ad nauseum. Anyway, has anyone used spelt (flaked or otherwise) in brewing? If not, would anyone like to know the results of a side-by-side Wit brew-off between regular flaked wheat and spelt?

ed

---

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |  
| "I'm not racist, but..." |

+-----+

Diversity in all things. Especially beer.

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Date: Thu, 22 Jul 1993 13:48:22 -0500 (cdt)  
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>  
Subject: hop back

In Kinney Baughman's article(s) on his new microbrewery he mentions the "Mason jar hop-back." I am sort of familiar with the principle of the hop-back, but what is the Mason jar thing? Can anyone enlighten me?

Jonathan Knight  
Grinnell, Iowa

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Date: Thu, 22 Jul 1993 10:31:46 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Dry-Hopping, etc. etc. etc.

The Tumbleweed Report: The thing I love about this, Kinney, is that you are actively disproving the central theme of the brewpub explosion -- "you have to spend a lot of money on fancy stainless steel equipment, brew boring beer, or forget it." To avoid libel suits, we will call this the "California Brewpub Theorem", which \*requires\* startup costs of about \$500,000 to \$750,000. (The Hart Brewery, which makes Pyramid ales, was capitalized in about 1984 for \$20,000; there is very little that has changed since then for someone willing to put in some work.) Bravo, Kinney.

> From: Timothy J. Dalton <dalton@mtl.mit.edu>  
> Subject: Brewing Techniques, Issue 2  
>  
> Issue 2 of Brewing Techniques arrived yesterday.  
>  
> Only 42 pages, but packed with info.

>  
Don't forget, that's 42 pages with almost no advertising. So, it's 42 pages of real information; compare with the most recent issue of Zymurgy, which is a real embarrassment: what little editorial matter there is is almost indistinguishable from the vast amounts of advertising (including the AHA's own catalog stuffed in there), and most of what passes for editorial is composed of (a) self-promotion and (b) lists, lists and more lists.

> From: jeff@rdii.com (Jeff Cook)  
> Subject: Belgian yeast strains  
>  
> A friend of my brought back two Belgian beers from a trip to Europe.  
> One of the bottles is labeled Maredsous, the other is labeled Lucifer.  
>  
> Also, does anyone know anything about either of these beers? I cannot read  
> either label, and I do not know what style either of these beers are.

>  
Both of these are or have been available in Portland, and are reasonably good beers. The Maredsous is unremarkable, and I don't remember much about it; the Lucifer is a sort of Duvel knock-off, inferior to the original but still pretty good. Hey, the trick with those yeast strains is to culture them out, then add them to a small amount of 1.030, unhopped wort. You will be able to tell \*a lot\* about the flavor profile by tasting the resulting beer, and you can answer your own question about whether it seems suitable for brewing.

>  
> From: "Thomas J. Baker" <tjb@wintermute.unh.edu>  
> Subject: Dry Hopping

>  
Whoa, Thomas, get your terminal at 80 characters!

> > > Any suggestions would be appreciated.  
> > >  
> > >

No't te preocupes. Don't worry. The amount of time you dry-hop is dependent on how much hop character you want to draw off. Seven days really isn't enough, and two weeks is, IMO, a minimum to actually express some hop character. My own experience, going back six or seven years of dry-hopping, is that six weeks is optimal for a really

distinctive dry-hopped beer, but that's only a recommendation for kegged beers. (It also happens to gibe with the recommendation of the brewers at Sierra Nevada for their Celebration Ale.) Leave the hops in until you bottle.

> >

> Date: Wed, 21 Jul 93 14:49:32 EDT

>

> This is not a question about Home brew but about HOMEBREW Digest.

>

> I am new to the HOMEBREW Digest and the internet. I would like to  
> download some back issue's of HB Digest, but I'm having a problem.

> I know that back issues can be found via ftp at sierra.stanford.edu

> and I can transfer them to my PC (A Gateway 486 running DOS 5.0 and  
Windows

> 3.1). But these files are not readable. They have names like "HB1173.  
Z". I

> think the they may be compressed somehow but I am not familiar with  
UNIX and

> I don't know how to read these files.

> > >

You need to uncompress them on a Unix system with the "uncompress"  
command. As a fellow-Unix illiterate and DOS user, I sympathize, but  
how are you getting ftp service on a non-UNIX system? Me, I have a  
shell account at a local access site and dial them up from my DOS  
computer; the UNIX programs run there and if I want to I can transfer  
from that computer to mine. You can probably get a similar arrangement  
somewhere near you.

> >

- --Jeff Frane

> >

> >

>

>

>

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Date: Thu, 22 Jul 1993 16:44:55 -0400 (EDT)  
From: Stephen Brent Peters <sp2q@andrew.cmu.edu>  
Subject: Zima Clear Malt Liquor

Hey Gang,

Us East-Coast types have the good fortune (a little sarcasm, there) of being the test market for Zima Clear malt liquor. I haven't tried it. I hear it tastes like Fresca, and it really is H2O clear. Has anyone else seen this, or is it just being dumped in the pittsburgh area?

Steve Peters = sp2q@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Wed, 21 Jul 93 08:21:49 CDT  
From: pyeatt@Texaco.COM (Larry D. Pyeatt)  
**Subject: Zima Clear Malt Liquor**  
Subject: Degrees of Extract

Don Doyle writes:

> As a real example, I brewed 11gals with 26.5 lbs of grains and got  
> a 1.065. What extraction am I getting and is it good?

Well, plugging the numbers into the equation,  
 $DE = 1.065 * 11 / 26.5 = .44$   
or 44 degrees of extract. From this, I would guess that you  
added some malt syrup or adjunct.

Most malts are "theoretically" capable of producing about 35  
degrees of extract. I usually get around 32 degrees, which is  
pretty good. The degree of extract tells you how effecient your  
mash was. If you are getting less than 30 degrees, there is room  
for improvement in your technique.  
( My own personal opinion. )

Larry D. PyeattThis article does not reflect the views  
( pronounced "Johnson" ) of my employer or of myself. Any simi-  
Internet : pyeatt@texaco.com larity to the views of anyone, real or  
Voice : (713) 975-4056fictional, is purely coincidental.

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Date: Thu, 22 Jul 93 15:24 CDT

From: korz@iepubj.att.com

Subject: Iodophor use/Pts-per-#/Maredsous+Lucifer/Foxx/Pete's/dryhopping

David writes:

>I have had my last three batches head south with a strange medicinal  
>type of a  
>smell and taste. I pitched the first two but am letting the third sit in  
>the  
>secondary (hoping the flavor will mellow). I have just figured out that  
>the  
>beginning of these off-flavors corresponds to my purchase of a bottle of  
>iodophor. I also noticed that the sanitizing solution seems to have the  
>same  
>medicinal taste/smell as the beer.

>

>My question is. How do those of you that use iodophor, use it. I have  
>been

>using it like bleach: mix up solution in a 5 gal. bucket, let the  
>utensils, carboy, etc. soak for about twenty minutes, rinse well, use  
>assuming  
>sanitation.

>

>I have reread the bottle of B.E.S.T and it says that the stuff does not  
>need to

>be rinsed, but should air dry. Is the stuff impossible to rinse off??  
What is

>the networks accepted method for using this stuff?

The reason that often iodophor packages often advertise that iodophor  
does

not need to be rinsed is because some brewer's water has bacterial  
problems

and rinsing with the water can re-introduce bacteria. I've never had  
problems

with using hot, Chicago tapwater for rinsing, even in the summer (when  
everything is more microbiologically active -- that's why the water  
supply

often has increased levels of chlorine added in the summertime).

I'm quite confident that your problem was not from the iodophor, rather  
that

the medicinal flavor/aroma came from one of the following sources (in  
order

of probability):

1. yeast -- I've noticed that some dry yeasts, if not stored in a fridge,  
after

while, will produce increased levels of phenolics. Perhaps this is  
because

there was some more hearty wild yeast in the dry yeast or maybe it's a  
result

of poor storage. Other dry yeasts, even when stored properly produce  
phenolics.

2. airbourne wild yeast infection -- it seems as if your sanitation  
technique

is good -- could some wild yeast have gotten in via the air? Could your  
problem correlate with the warmer weather, when the air is more active  
microbiologically?

3. wild yeast infection from the water -- maybe you do have a problem with your rinse water... the solution would be to boil the rinse water or to air dry the iodophor-sanitized equipment.

\*\*\*\*\*

Don says he got 11 gallons of 1.065 wort from 26.5 lbs of grain and wants to know what his extraction rate is and is it good.

Well, the maximum extraction varies depending on the type of grain, but you got 65 "points" and this translates to:

$$65 * 11 / 26.5 = 26.98$$

or basically 27 points-per-pound-per-gallon, which is quite good for most types of base grain. Some get as much as 30 or even 31 points (Miller does this partly because he re-circulates the runoff an awful lot and this not only gives him great numbers, but also it has been reported that Dave's beer is on the astringent side).

\*\*\*\*\*

Jeff writes:

>A friend of my brought back two Belgian beers from a trip to Europe.  
>One of the bottles is labeled Maredsous, the other is labeled Lucifer.  
>From the sediment of each bottle I have plated out a yeast culture. Does  
>anyone know anything about either of these yeast strains. Will either  
>of these yeast strains be suitable for fermentation, or are they just  
>used for bottle conditioning?

I don't know whether Lucifer is bottled with the fermentation yeast, but my guess on the Maredsous is that it is a bottling yeast. My reason for this assertion is that Maredsous is made by the same brewery as Duvel (note the bottle shape is distinctive and the same as Duvel) and I've read (here in the HBD) that Duvel is packaged with a bottling yeast and not the fermentation yeast. Oh, yes, I recall the brewery -- it's the Moortgat Brewery in Breendonk, if memory serves correctly.

>Also, does anyone know anything about either of these beers? I cannot read  
>either label, and I do not know what style either of these beers are.

Maredsous is an Abbey ale, and it comes in four types which, I believe, are associated with the Belgian degrees of the OG. If memory serves, they are 4, 6, 8 and 10. I've had only two and the numbers were NOT on the label (stupid US laws!). One had a Gold and Black label and the other had a Gold and Green label. I'd be interested in the colors of your label and the number on the bottle, if you could send me email or post it. 4 Belgian degrees is 1040, 6 is 1060, etc.

I have not tried Lucifer, but have read about it in Jackson's pocket guide, big book (I forget the name too) and the Great Beers of Belgium book. Basically, it is a beer of the type that was originated in the beer Duvel. Duvel means devil and therefore virtually all the breweries that imitated this beer have chosen names that are associated with the devil: Lucifer, Satan, etc.

\*\*\*\*\*

JC writes:

>BTW, I don't think Foxx accepts CC orders, nor does BCI. My first order  
Hmmm, from Satan to JC... anyway, Foxx does now accept CC orders. This



is a pretty recent change.

\*\*\*\*\*

John writes:

>I've heard in the past that some larger breweries were jumping on the  
micro  
>bandwagon by selling beers that looked the part. I was wondering if  
someone  
>from St. Paul was familiar with Pete's. I realize that the term "micro"  
is  
>somewhat undefined (I've heard under 15,000 bbl/year), but I'm wondering  
what  
>the thoughts are on this.

Pete's Wicked Ale and their other beers are contract brewed by the  
August Schell Brewing Company in New Ulm, Minn. I don't know how  
big it is, but it's no industrial megabrewer.

\*\*\*\*\*

Thomas writes:

>I'm dry hopping my steam beer and was wondering how long is too long to  
dry  
>hop? I moved the beer to the secondary and added the hops on Sunday,  
planning  
>to go on vacation Tuesday. As it turns out, I'm now not going on  
vacation  
>until Friday which means if I leave the hops in the secondary, I'd be  
dry  
>hopping for two solid weeks (last Sunday to next Sunday). Is this too  
long?  
>I've read that dry hopping is best done the last 5 to 7 days. I could  
remove  
>the hops on Friday but I wouldn't be bottling for a least a week after  
that.  
>Any suggestions would be appreciated.

Leave the hops till you can bottle. The reason I posted that "you should  
not  
dryhop longer than 7 to 10 days" is that, empirically, I've found, that  
more  
than 10 days gives less hop bouquet than 10 days. This is for 65F or so.  
At cooler temperatures (although I haven't done this -- this is based  
upon  
what I've read about commercial breweries procedures), like 50F or so,  
two  
weeks seems to be the consensus.

Al.

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Date: Thu, 22 Jul 93 17:55:19 EDT

From: roberts735@aol.com

**Subject: Keg Parts**

I have purchased a pair of old but clean Firestone 3-gallon kegs similar to Cornelius. In the process of replacing the gasket for the lid, which is screw-down, and circular, not spring-clamp and semi-oval, I discovered the regularly mentioned suppliers do not carry the part.

The Firestone keg was manufactured by a company now called Spartansberg Steel Company in Spartansberg, South Carolina. They do not have parts, and say the keg is very old.

Help... does anyone know a source for the gaskets, or a functional substitute? The other fittings are standard pin-lock, and the kegs are too fresh to dispose of, even if they are old...

Thanks

Bob Stovall

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Date: Thu, 22 Jul 93 17:58:50 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Beer Hunter NOT on Discovery Ch.

Salutations!

I was curious about Jackson's series Beerhunter, so I called my cable company and asked for the Discovery Channel's phone number and was given: 1-301-986-0444 x5298, this was to put me in touch with the people who would tell me when this delightfully sounding show would next appear on this channel. I was asked by a recorded voice to leave a message and my phone number and was told I was to be called back. I was. The next day I found on my machine a message from the Discovery Channel saying, "The Beerhunter will not be running anytime in the future on The Discovery Channel."

They did not give any justification for this decision. I was, however, given the name and number of the distributor, "Channel 4 TV" of London. This number is 011-44-71-631-4444. They will reportedly sell the video.

All in all, I was disapointed.

Gene in Duluth

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Date: Thu, 22 Jul 93 18:21 CDT  
From: fjdobner@ihlpb.att.com  
Subject: Portland HBD Get Together

I have been exchanging e-mail with Jeff Frane w.r.t a get together in Portland. Unfortunately this e-mail will probably be discovered after the conference by those attending. In any case, we are suggesting to meet at the Elephant & Castle (439 SW 2nd) which is about 9 blocks (short ones I understand) from the hotel. Good beers on tap and draught and inexpensive food is to be found. Darts.

The word will undoubtedly get around while there but in any case.....  
See you there.

Frank Dobner

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Date: Thu, 22 Jul 93 19:21:26 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Sherlock's Home

Salutations!

In response to Mike's Thursday inquiry about the cause of the Ale's stellar taste at Sherlock's Home I have nothing to say. I can say, however, that I've heard it said Michael Jackson has said the cask conditioned ales there are the closest thing to his 'domestic' ales he's found in the U.S.

This is what was said just the other week when I toured the Summit Brewery in St. Paul.

'Nuff Said,  
Gene in Duluth (We're getting a Mirco!)

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Date: Thu, 22 Jul 93 12:09:33 EDT  
From: rook@bbt.com (Tony Rook)  
Subject: Boston area brewpubs

I will be in Boston at the end of August and was  
wanting some recommendations for some good brewpubs.

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Date: Fri, 23 Jul 93 7:55:57 CDT  
From: raudins@galt.b17d.ingr.com (Glenn Raudins)  
Subject: BrewTeck CL-26 British Draft Ale

What brewery is the origin of BrewTek's CL-26 British Draft Ale?  
Maribeth, please let us know if the origin is known.

Having just got the Brewer's Resource catalog, I'd say that they have a  
good selection in the yeast culturing department. Including the  
ability  
to by pre-poured slants and petri dishes for your own culturing.  
[Standard disclaimers apply.]

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Fri, 23 Jul 93 8:54:37 EDT  
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>  
Subject: **Alternate source of sugar & flavors**

Has anyone ever thought of using a jelly or preserve to flavor a batch? Just wondering how it worked, I don't recall seeing any posts mentioning it. Might be worth a try.

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Date: Fri, 23 Jul 93 9:29:51 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Hot liquor tanks

I am in the continual process of improving my brewery and I have a question for the digest:

Has anyone converted a hot water heater into a hot liquor tank? I have two options: 220V electric with 2 elements or a gas fired unit. I was considering the gas fired unit, and thinking of running it on propane but my question is how do I defeat/replace the thermostat so that I can "dial up" 180F water? Can electric units handle this, or is the time to reheat too great to be practical? I was thinking that Grainger might have a thermostat replacement, anyone know?

Good brewing,  
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: Fri, 23 Jul 93 06:39:47 PDT

From: Your recipe is so tasty 23-Jul-1993 0938 -0400 <ferguson@zendia.enet.dec.com>

**Subject: Transporting Homebrew in cornelius kegs**

I've been asked to supply homebrew for a party in Salem MA in August. I have a keg (cornelius) of wheat brew in my basement aging that is going to be the one to bring. I have to transport this from littleton MA to Salem, about 45 miles or so. I want to do this the day of the party. Can the keg/brew handle this? What kind of settling time, if any, is needed? I plan to have the beer pre-chilled, that is, i'll take it from my fridge and bring it to the party (1 hr drive)... Should I drop the pressure inside the keg to nearly zero? Increase it to 30???

pointer, hints, appreciated.

JC  
Digital  
Littleton MA 01460  
ferguson@zendia.enet.dec.com

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Date: Fri, 23 Jul 93 08:54 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Crushoff in Portland

There have been rumors that a certain grainmill producer plans on conducting a mill evaluation of sorts in Portland. My first reaction was to grab a new

MALTMILL and head for Portland to defend the fort. This was based on information he is promulgating that portrays the MM as no better than the

Corona. Turns out, all his hype is based on unscientific tests that seem to

prove nothing. As it is unlikely that the proper equipment will be available

in Portland, I decided it was not worth the expense and hassle just to prove

what most of us already know.

To avoid the feeling of fiddling while Rome is burning, I dropped some samples of milled product off at Siebel Institute for an unbiased evaluation

of the grist of the MALTMILL and the other mill.

The results confirmed what George Fix reported a year ago and experience on

over a thousand units has demonstrated. The adjustable MM provides a grist

that is comparable to a multistage commercial mill. The fixed MM provides a

very satisfactory grist but is a bit coarser and somewhat grain dependant.

The other mill, when properly adjusted provides a sieve analysis similar to a

fixed MM on paper but visual analysis shows more husk damage.

Unfortunately,

the sieve analysis can not tell the difference between small husk particles

and similar sized malt particles that pass through a sieve. It was designed

to test roller mills and not grinders or hybrids such as the other mill.

For those going to Portland, there will be a MM on display in the TKO Software booth and Tom Nelson will have flyers and data sheets to hand out.

Feel free to fondle it. I am confident you will conclude that there is far

more than the nuances of grist variation involved in selecting a grain mill.

js

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Date: Fri, 23 Jul 93 17:30:32 BST  
From: Conn Copas <C.V.Copas@lut.ac.uk>  
Subject: Re : syphoning through hops

I employ Kinney's tip on using pot scrubbers to prevent hops clogging the syphon, but my system is more a mesh-bag-in-a-pot-scrubber than a pot-scrubber-in-a-bag. Reason? It makes sense to apply a series of progressively finer filters in order to prevent the mesh from clogging too quickly.

- - -

Conn V Copas  
Loughborough University of Technologytel : +44 (0)509 222689  
Computer-Human Interaction Research Centrefax : +44 (0)509 610815  
Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut  
G Britain (Internet):C.V.Copas@lut.ac.uk

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Date: Fri, 23 Jul 1993 09:55:37 -0600 (CST)  
From: John Mare <cjohnm@ccit.arizona.edu>  
Subject: RE: Priming, sugar vs. malt extract vs. gyle

Rich asks for comments about the virtues of corn sugar, dry malt extract and gyle as priming agents. When I first started brewing I used corn sugar which worked OK, but then having decided to brew "all malt" only I switched to gyle which was also good, but less convenient to use. I now use only dried malt extract for priming. For English or Scottish style ales I use 1.25 cups light dry extract dissolved in 2 pints water, boiled for 10 minutes, cooled, & poured into my sanitized "bottling bin" (a plastic fermentor with spigot). I then siphon the beer from my glass carboy (which allows good mixing without much oxygenation), allow it to stand for about 15 minutes while arranging bottles, and then bottle. For American style ales, California Common beer, or lagers I use 1.33 cups of malt extract which results in slightly higher carbonation. No more gushers as I had with corn sugar. John of John's Alehouse.

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Date: Fri, 23 Jul 1993 13:17:06 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: Sierra Nevada

My girlfriend is moving to Chico California where Sierra Nevada is located. I'm trying to decide if I should go with her, stay in PA, or go somewhere else.

I have a liberal arts degree from an American University in the top twenty, and I've been homebrewing like crazy for two years.

How likely is it that I could knock on their front door and get a job - any job - with SN?

Any Clues?

Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Fri, 23 Jul 93 11:06:23 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: CO2, Old book, Portland

Several posts have appeared recently about filling CO2 cylinders:

To the poster that got it filled at the bar, yes you got ripped off. Go to a welding supply, fire ext. supply or look in the YP under Carbon Dioxide. It does pay to shop around as prices vary.

When I bought my second CO2 tank, I asked if it was possible to fill an empty tank from a full one. Technically, it will work, but it was explained to me as being very dangerous! This was because the tank being filled will heat up and explode if it is done too fast and without the proper equipment. In fact, most of the welding gas suppliers in my area don't actually fill tanks anymore, but exchange them. The filling is done in a central facility. Bottom line: Don't mess with it. It can be fatal to you and your neighbors!

On another topic, I was at the UC Davis library's "brewing room" recently and I came across a very old book by E. R. Southby called "Practical Brewing". It had a lot of interesting information on hops and hopping rates (the only stuff I copied, naturally) but the book had no date on it. The library's computer (actually the Melvyl system) also had no date for the book or the author. The book was published in England, I would guess around 1890, but I like to know for sure. Does anybody have any clues? Southby had died a few years previous to this edition (the third). If anyone has any info on Southby or the book, I would appreciate it. There were many other old books there and I copied the hops data out of three. I'll summarize and post soon. You'll find it very interesting.

Related to my trip to Davis, I also got some better info on the "hop storage curve". There were two good articles and as soon as I've had a chance to digest them, I'll post an update to my storage post.

Lastly, I'll be in Portland for the Oregon Brewer's Festival (but not the AHA event) at the Hopunion booth if anyone wants to drop by and chat or say howdy. How many of us will be there on the weekend? Should we do a pub crawl on Friday night maybe?

Mark

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Date: Fri, 23 Jul 93 14:33 CDT

From: korz@iepubj.att.com

Subject: Hermaphrodite hops/Alcohol as sterilant/Gone to Portland

Joel writes:

>I have discovered that one of the Centennials has a few male flowers  
>on it. Is this common? If so, how do commercial growers prevent  
>pollenation?

Are you sure they are not just immature cones? I made this mistake  
last year. I thought the "spiked cones" were males... they weren't.

\*\*\*\*\*

Tom writes:

>Roger Deschner writes about using  
>cheap vodka for sterilizing, a great  
>advantage being that its food-grade,  
>and alcohol is a beer-component  
>anyway.

>

>I use the same spray-bottle approach,  
>but instead of vodka (60 - 80 proof),  
>I use Everclear(tm) which is like 98  
>proof grain alcohol, made for spiking

According to the latest Brewing Techniques, the contact time for  
alcohol sanitation is 30 minutes.

\*\*\*\*\*

Inevitably, when I don't post to the HBD for a week, I get a flurry of  
private emails that either:

1. ask if I'm boycotting the HBD for some reason, or
2. all the people who disagreed with me in the last month  
send me appologies.

Don't, don't, don't panic... I'm just off to the National Conference.  
Hope to see some of you there!

Al.

-----



Date: Fri, 23 Jul 93 13:58:22 PDT  
From: bill@oilsystems.com (Bill Vaughan)  
Subject: Blowoff, Iodophor, Sterilizing bottles

Here are a few data points to add to the debates:

Blowoff -- fortuitously, my last batch of "plain jane" got split into its carboys unevenly. Consequently, one blew off and one didn't. Of course, the best test would have been if I had kegged both carboys or bottled both, but in fact I kegged the one that did blow off and bottled the other. Anyhow, at kegging/bottling time, I could definitely taste the difference between the with-blowoff and without-blowoff carboys. The without-blowoff carboy had a tad more bitterness and was slightly "harsher."

I have never done this kind of direct comparison before and frankly did not expect to taste any difference at all. Surprise. The only problem is that I just bought 2 more acid carboys (7-gal) and I can't ever fill them enough to get a blowoff. Maybe I shall use water carboys for my delicately-flavored brews and acid carboys for the chewy dark ales. I dunno.

Iodophor -- I have been using iodophor (BTF, I think) to sterilize my kegs. I use the recommended amount for the recommended time and air-dry. Then I give the keg the sniff test. If I smell ANY iodine, I rinse the keg with boiling water. So far I have ALWAYS smelled iodine. I am not about to buy another bottle of iodophor. To me, the slightest iodine flavor would spoil the batch and I hate to throw out 5 gal. I suspect that boiling water alone may work -- or else I shall go back to weak clorox followed by boiling water rinse. Let's face it -- kegs aren't that expensive. If I get pinholes in the s/s after, say, 5 years, the keg has cost me maybe 5 bucks a year. (Of course, if it's only ONE year, I'd feel different.)

Sterilizing bottles -- I have always sterilized my bottles in the dishwasher. I clean the bottles thoroughly with TSP, in the sink, scrub them and rinse them carefully. Then they go in the dishwasher for a full wash cycle with NO detergent, and a HEAT DRY (not air dry) cycle. Naturally I prepare the dishwasher first by cleaning all the guck out of it and running it once while empty. Bottom line -- Mary and I have never had a bad batch that could be attributed to unsterile bottles. (I.e. either the whole batch was uniformly bad or uniformly good. We did have an episode where our yeast starters got infected once.)

I have mild asthma and Mary has it bad. We have to be careful about sulfites. All you homebrewers, please remember that Campden tablets and bisulfite sterilants can make your homebrew toxic to those with respiratory problems.

BTW, whenever I have a chance I sterilize with boiling water in lieu of chlorine. This only works for small stuff like airlocks but is quite effective and there is no danger of chlorophenol or iodine contamination. I think it is just common sense to eschew toxic substances wherever possible.

- --Bill

-----

Date: 23 Jul 1993 14:55:19 U  
From: "Rad Equipment" <rad\_equipment@rad-mac1.ucsf.edu>  
Subject: On to Portland!

Subject: On to Portland! Time:2:43 PMDate:7/23/93  
Well the stickers are made and I'm heading north on Saturday to collect  
some  
beer and find Portland. Come and find me at the conference and I'll  
present you  
with your computer brewer id!

RW...

Russ Wigglesworth (INTERNET: Rad\_Equipment@radmac1.ucsf.edu - CI\$: 72300,  
61)  
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / Home (707)  
769-0425

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Date: Fri, 23 Jul 93 14:58:42 PDT  
From: Don\_Doyle@Novell.COM (Don Doyle)  
Subject: Helpful Brewers

I wanted to extend thanks to the brewers that have replied to questions I have submitted and encourage other brewers to use HBD to also do so. It will invite new thoughts or re-thinking of those brewers who want to stay sharp.

Again thanks,

Don Doyle

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Date: Fri, 23 Jul 1993 09:17:43 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Old Hops

> From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
> Subject: hops: Arizona/hermaphrodite/antique  
>  
> Antique Hops:  
>  
> A portion of my parent's farm in Oregon was once used for raising hops.  
> Apparently this was a fairly large scale operation, since there was a  
> rather large outbuilding dedicated to hop drying (oast?). The previous  
> owners probably quit hop farming in the thirties or forties, but some  
> hop plants have persisted in the wild.  
>  
> Could anyone hazard a guess as to the variety of these hops? I suspect  
> that they are not considered a desirable type any longer, but I would  
> like to brew a batch with them, for sentimental reasons, and I would  
like  
> to get as much information as possible beforehand.  
>

American hops were not highly thought of in brewing circles until quite recently, and for good reason. I would be willing to bet that the stuff growing on your parents' farm are Clusters in some form or other. It's amazing to me that some people are still brewing with these hops, which used to be considered high alpha -- they have no other redeeming quality as far as I can tell. The British referred to American hops as being "catty", which meant nothing to me until I smelled some Clusters: they smelled just like a catbox.

I have some terrific old photographs, courtesy of the Oregon Historical Society, of old hop farming, some dating back to the turn of the century, and some from the period in which your old hop farmer quit. During the 20s-40s (judging from the clothing), at least some of the Oregon hop growers were training their hops along low-lying strings,

- --Jeff

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Date: Sat, 24 Jul 1993 03:12:27 -0400 (EDT)

From: waltman@BIX.com

Subject: What is a microbrewery?

Maybe we should come up with terminology describing individual beers by the size of the batch. (My understanding that the legal definitions of microbreweries [for tax purposes] are based on the aggregate annual production of the entire brewery.) I think this would help differentiate those beers that are brewed in megabrewery size batches a few times a year as opposed to those that are brewed more often in smaller batches. This is not to imply that smaller is better, but I think it could make for more rational comparisons. Just my \$.02 worth.

Fred Waltman  
Marina del Rey, CA  
waltman@bix.com

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Date: Sat, 24 Jul 1993 08:42:45 -0400 (EDT)  
From: Kieran O'Connor <koconnor@mailbox.syr.edu>  
Subject: Brewing Techniques Info

Hi--a fair number of you sent me mail regarding Brewing Techniques.  
here's  
the info:

Brewing Techniques  
PO BOX 3222  
Eugene, Oregon 97403

(503) 687-8534.

They take credit cards for orders--so it looks like you could just call.  
Its 24\$/yr for six issues.

You should be able to find it in your local supplier--and the one around  
here discounted the first issue since the second issue is now out.

The first issue had 42 pages of text--a fair amount of which was  
articles:

- 1) Factors Affecting Hop Quality, ...and Brewers Preference.
- 2) Belgian Malts--some practical observations
- 3) Reinheitsgebot and the fifth ingredient
- 4) The Troubleshooter--an advice column--w/o the Hbd
- 5) Brewing in styles--a changing discussion on styles and how to brew them
- 6) Thinking about recipe formulation
- 7) Spreadsheet recipe design
- 8) And a bunch of assorted smaller depts--a book review, and a few others.

Overall I think the first effort was quite good. In fact a few of the  
articles mentioned above were written by HBD'ers with extensive  
knowledge.

BT looks quite promising and I think I got more info from this one issue  
than I got from that other thing in a year.

Kieran O'Connor

E-Mail Address: koconnor@lor.syr.edu  
Syracuse, N.Y. USA

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Date: Sat, 24 Jul 93 10:07:18 EDT  
From: ab126@freenet.carleton.ca (Jay Cadieux)  
Subject: Calories and beer

Does anyone know a formula to calculate the amount of calories in beer,  
based on original gravity, terminal gravity, etc.?

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Jay A. Cadieux (ab126@freenet.carleton.ca, 1:163/277.1@fidonet.org).  
"Be the master of your shadow, not the shadow of your master" - Nietzsche

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Date: Sat, 24 Jul 1993 17:31:15 -0400 (EDT)  
From: Kieran O'Connor <koconnor@mailbox.syr.edu>  
Subject: **Brewing Techniques Update**

Sorry Folks--BT has a new phone number:  
(503) 687-2993.  
Fax (503) 687-8534.

Disregard the number in my first post.

And here's another rant about that national organization. Did you know (I did not) that you have to be an AHA member to be a certified beer judge? Sort of like a bribe--no?

Kieran O'Connor

E-Mail Address: koconnor@lor.syr.edu  
Syracuse, N.Y. USA

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Date: Sat, 24 Jul 1993 19:15:39 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: northwestern is briess

curious report on friday of someone making good beer with northwestern  
extract but having trouble with briess since they are exactly the same.  
northwestern gets briess in drums and pails just like the one the  
individual purchased and repackages it in plastic bags in a box.

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Date: Sun, 25 Jul 93 02:37 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Crazy Train Update

Crazy Train Update: Minot, North Dakota

- Breweries past and noted: Sprecher, Miller.
- Honker's Ale quarter barrel was sucked dry by midnite.
- North Dakota is \*really\* flat, just in case you're wondering.
- Saw a Prairie Dog at the geographic center of North America.
- Kathy Ireland is a real party animal.
- Miller Clear was delivered at midnight by a Minneapolis beer geek.
- Someone was quoted as saying: "Oh that skull has hurt me", followed by an hour of psychotic moaning.
- Currently listening to Crazy Train tape #5 on player #2.
- Picked up a cabin boy, who was well paid in beer.
- Frank "The Pharaoh" Boone makes a jolly breakfast beer.
- Most of the Belgian beer disappeared in a midnight frenzy.
- Ed Bronson failed in his efforts to convert a luggage compartment to a sleeper, twice.
- The upper Mississippi is really flooded so downstream beware.
- John Isenhour, who was the 1st and 2nd to pass-out was the 1st to wake up and start drinking again.

<more to come>

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Date: Sun, 25 Jul 1993 12:30:12 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Mashing Specialty Malts, Calculating PPMs

I'm an extract brewer moving to all-grain. Which specialty malts must be mashed, e.g., crystal, black, chocolate, cara-pils.

A question for the chemists out there, when calculating water treatment, how does one calculate quantities of salts to hit target PPMs? I always assumed that PPM is based on numbers of ATOMS, but when I do the arithmetic using molecular weights and avogadro's number I do not get the same results as Papazian in TNCJHB and Miller in TCHHB. Tried both hydrated and anhydrous gypsum.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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End of HOMEBREW Digest #1189, 07/26/93  
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Date: Sun, 25 Jul 1993 16:27:47 -0400 (EDT)  
From: SMUCKER@UTKVX.UTCC.UTK.EDU  
Subject: RIP OFF

Hyrum Laney

>Questions: What is the proper way to fill a CO2 tank? Did the  
>bar's method work? Is the gas from a fire company safe to  
>consume?

Well it sure sounds to be like you got ripped off! What you most likely got was your tank filled with 800 psi CO2. There are two types of large tanks (50 pound tanks typical) those which bars and welders would normally use where they want gas and those with a liquid tube than runs to the bottom like our kegs so that liquid is forced out. The latter type is used mostly for high pressure fire protection systems. In industry these are often called high pressure CARDOX tanks. You could easily fill a smaller cylinder from these liquid tube type cylinders. It is possible to fill small cylinders from a normal gas type cylinder but you have to turn them up side down. Not an easy thing to do safely with a cylinder that weights in at about 160 pounds.

There is another type of CO2 storage tank and that is the low pressure CARDOX tank. These very large systems use a insulated tank with a refrigeration system which allows the CO2 to be stored as a liquid under lower pressure. These tanks typical run between 10,000 and 30,000 pounds of storage. (That would handle a lot of homebrew.) These large systems are used for major fire control systems on things like rolling mills used to roll all of the aluminum for beer cans. Also tank trucks which transport large amounts of CO2 use this low pressure refrigeration systems.

Back to Hyrum Laney questions the fill you got from the Fire company may very well have come from on of these low pressure, refrigerated storage systems. This would required a pump to fill your tank, or to fill fire extinguers.

Safety of the gas? Well, within reason I consider industrial CO2 gas from a welding supply company or the Fire company safe. (The fire company most likely got their supply from one of the large industrial gas supply companies.) Purity levels of industrial gases are very high and I have only had a problem once and that was argon which had some cotamination of H2O (water), that came from the cylinder, remaining from a hydrostatic test. Screw up the TIG welding very badly, doesn't take much H2O to do that. Bottom line of all this I have my 50 pound cylinder filled at my welding gas supplier--- 50 pounds lasts more that a year, costs \$ 19.00 to fill, but the 160 pounds filled cylinder will not fit in the refrigerator.

Dave Smucker, Brewing beer --- not making jelly!

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Date: Sun, 25 Jul 1993 18:27:02 -0400 (EDT)  
From: SMUCKER@UTKVX.UTCC.UTK.EDU  
Subject: Zymurgy Hate Mail

Kieran O'Connor" is worried about getting hate mail because he is critical of Zymurgy. Hate Mail" ? well I guess I hate Zymurgy too. Zymurgy could be so much more than it is. I think the real question is that as homebrewing has been growing up into a wider appeal hobby, "has Zymurgy been growing up too?" I don't think so and that why this forum and new magazines like Brewing Tech. have so much appeal.

It is time for the staff of Zymurgy to listen to some constructive criticizing and to start making some improvements. After all for many in this forum who are members of AHA, Zymurgy as the publication of a non profit organization is our magazine.

Homebrewing has become, some will say always was, a serious hobby. While I enjoy jokes about the hobby and brewing in general the Zymurgy "Don't worry" kick gets real old, real fast. Most of us want good beer and we do care about what we invest a lot of time and spend hard earned cash on. The "don't worry" it may not taste like what you want but it will be drinkable just doesn't match up with the serious brewer today. My recommendation --- drop it.

I think the ads are useful but once a year would be enough for all of the AHA ad pages. Same goes for the filler page listings. Not ever club, ever donor needs to be listed each issue. Put those pages in articles about brewing. While on the subject of articles, include more information and more data, and above all tell readers where one can get follow up information. A full page wasted on someone falling into a pile of hops rather than more information on dry hopping is just that, a wasted page.

And last, but not least, the Zymurgy staff should, if they haven't all ready done so, go out and look at the magazines of some other hobbies. They will find that the publications try to include as much information and help as possible in the pages they print, not just print the same filler again issue after issue. By the way, why isn't Zymurgy a monthly magazine? From the amount being published in this forum it would not seem that it is a lack of authors or information. Is the Zymurgy staff too busy living off a non profit organization?

By the way if you disagree send the hate mail to Kieran O'Connor. I intend to stay a member of AHA but would like to see Zymurgy improve in the '90ies.

Dave Smucker, Brewing beer,-- not making jelly!

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Date: Sun, 25 Jul 1993 23:11:59 -0400 (EDT)  
From: Wayde Nie <u9106857@mcmail.cis.mcmaster.ca>  
Subject: Beer? Just push a button...

I came across this article while collecting the old newspapers from around the house for recycling. I thought you all might be interested.

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Reprinted without permission (Sorry :- ) from The Toronto Star, Monday, July 12, 1993. Page C1 (Business Today)

Beer? Just push a button

By Greg Joyce  
THE CANADIAN PRESS

VANCOUVER - It's a drinker's dream - a machine that turns water into beer at the push of a button. Canadians will soon be able to have beer on tap at home, thanks to the FH2000 Beer Machine - a device about the size of a coffee maker, says Tim Crosby, president of Vancouver-based marketing company Fountain House Holdings Corp.

Crosby says the cost of a pint from the machine will be about \$1.50.

The Beer Machine was introduced last month at a news conference in England, drawing rave reviews in several British newspapers.

Operating instructions are simple, Crosby said Friday.

Perhaps too simple for the ale aficionado.

The machine is attached to the home's water supply - most likely near the kitchen sink or wet bar.

On one side of the machine is attached the beer syrup. On the other side is a refillable carbon dioxide cylinder.

The lager lover simply pushes a button and waits a few seconds. The carbonated water fills a mixing chamber at the top of the machine along with a shot of syrup.

The mixing process takes about 10 seconds and the golden nectar flows into the waiting glass.

The alcohol content is now 3.5 per cent but Crosby said that could be increased later to the more standard 5 per cent.

After the machine's debut in England, the London-based Star newspaper headlined the story "Tip-Tap Tipple" and quoted citizens as approving of the beer's taste.

Another newspaper quoted British trade leaders as saying the machine posed a threat to an already struggling pub industry.

Crosby said his company planned to try to make the machine available to Canadian consumers by January. It was demonstrated for a reporter at the company's downtown office on Friday.

"The cost in Canada (for the machine) will be between \$150 to \$175 (plus taxes)," said Crosby. He said the Beer Machine retails for about \$200 in Britain.

Consumers must also buy the carbon dioxide cylinder and the syrup, which is currently made at a brewery in

Britain and sells there for about \$12 a can, said Crosby.  
In Canada, the syrup will be subject to liquor  
taxes.  
Fountain House is listed on the Vancouver Stock Exchange.

\*\*\*\*\*

I don't think that I'll be givin' up my homebrew for it... (Neat  
idea though :-)

Draw your own conclusions... Standard Disclaimers apply... etc...

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(o o)

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Wayde Nie, u9106857@McMail.CIS.McMaster.CA

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Draw your own conclusions... Standard Disclaimers apply... etc...

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Wayde Nie, u9106857@McMail.CIS.McMaster.CA

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Date: Mon, 26 Jul 93 09:17:46 -0400  
From: blossomf@ttown.apci.com (Karl F. Bloss)  
Subject: Zima Clear Malt Liquor

Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
writes:

[...]

I hear it tastes like Fresca, and it really is H2O clear. Has anyone else seen this, or is it just being dumped in the pittsburgh area?

[...]

It's out here in eastern PA also; I suspect much of the East Coast has seen it. Fresca? Hmm, I thought it was more like spiked flat Crystal Pepsi. Yech! Hey, maybe that's the recipe! ;-)

-Karl  
(blosskf@ttown.apci.com)

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Date: Mon, 26 Jul 93 09:21:48 EDT

From: tmr@fjtdl.att.com

Subject: Re: Sterilizing bottles

In the HOMEBREW Digest #1189 of 7/26/93, Bill Vaughan tells us how he sterilizes his bottles in a dishwasher. It sounds like a good method, but he is only sanitizing them, not sterilizing them. I use the dishwasher myself to clean empty bottles of homebrew. When they drip dry, I store them away. Before I bottle though, I soak them in a bleach solution, rinse them and let them drain. This, I believe, will kill all the bugs rather than a good washing will.

Tom Romalewski

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Date: Mon, 26 Jul 93 09:40:16 EDT

From: gorman@aol.com

**Subject: Filling CO2 Tanks**

Probably the most convenient places to get CO2 tanks filled are fire extinguisher sales/service companies. They're all over the place, look in the yellow pages.

Bill Gorman

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Date: Sun, 25 Jul 93 20:05:27 CDT  
From: kulick@ebs330.eb.uah.edu (jeff kulick)  
Subject: co2 gas vs. liquid

CO2 at room temperature vaporizes at about 45 atmospheres, or about 800 psi. So, a 20 lb tank of co2 gas (which i guess is about 1 cu ft.) has about 45 cu ft of gas. However, it is rated at about 800 cu ft. capacity, so the liquid form is much denser.

If you pump just a little co2 liquid into the tank, it vaporizes, and may get 46 or 47 cu ft. You must pump the liquid into the tank, which you can't do from another co2 tank at room temperature.

So, if you filled it at bar, you didn't get very much.

I've been getting co2 at a welding supply, and they say they supply the pop companies so I guess their co2 is ok.

,

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Date: Mon, 26 Jul 1993 09:04:43 +22306512 (CDT)  
From: dhholscl@rs6000.cmp.ilstu.edu (David Holsclaw)  
Subject: RE: Zima

Group,

Don't go out of your way to try the Zima!!

A friend of mine was given a can of this stuff, so we decided to be open minded and give it a try. BIG MISTAKE! It was like drinking unflavored gelatine. My wife, of course, thought it was great. :( Do you think that is grounds for divorce? :)

Even if it is free, it is not worth the time and effort to try this cr\*p. One other thing, I thought this was a Coors product? The can said Zima Brewing Company? Is this a Coors subsidiary or am I just confused (not unusual).

Cheers to everyone else NOT in Portland. :)

\*\*\*\*\*  
\*\*\*\*  
David H. Holsclaw Just Say No...  
dhholscl@rs6000.cmp.ilstu.eduto Sam Adams Beer!  
\*\*\*\*\*  
\*\*\*\*

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Date: Mon, 26 Jul 93 10:09:28 CDT  
From: hinz@memphis.med.ge.com (David Hinz)  
Subject: CO2 filling, big stainless

Mark at Hoptech<tm> wrote:

- ----

When I bought my second CO2 tank, I asked if it was possible to fill an empty tank from a full one. Technically, it will work, but it was explained to me as being very dangerous! This was because the tank being filled will heat up and explode if it is done too fast and without the proper equipment. In fact, most of the welding gas suppliers in my area don't actually fill tanks anymore, but exchange them. The filling is done in a central facility. Bottom line: Don't mess with it. It can be fatal to you and your neighbors!

- ----

I'd like to add an emphatic second to that. I've done quite a bit of high-pressure work, and I've seen some pretty impressive failures (shown as visual aids on "why you shouldn't do it this way").

When we fill air tanks for our fire department (to about 3000 PSI), we use what's called a "cascade" system - we have four large tanks, at about 750psi, 1500psi, 2250psi, and 3000psi. We slowly open the first valve, bring the tank to 750, close the first valve. Open the second slowly, etc. etc. Once the top one gets down to about 2300, we rotate the tanks, and get the lowest one filled up to 3000. Do not try this at home - this is pretty expensive equipment, and we had a professional (certified) fitter do all of the plumbing for it. Only about 3 of us on the department are trained to use the cascade system.

- -----

I wrote a few days back about my 200 gallon milk chiller - I'm still looking for good ideas of what to do with the silly thing. What do y'all think about using it as a big lagering vessel?

Silly idea time here (best way to get lots of responses, like the paper-shredder grain mill),

CAN I FILL IT WITH WATER AND LAGER MY BOTTLES (of beer) UNDER WATER?

The reason I ask this is like this: At night & on weekends, my electricity costs 1/6th of the daytime rate. If I had this thing full of 200 gallons of water (minus the volume of beer), it would have lots and lots of thermal mass,

and I could probably get by with not running the compressor when power is expensive. The tank can chill 200 gallons of milk from cow temperature (presumably around 37C, 98.6F) to 35F degrees (nice temp, eh?) in less than an HOUR, so obviously this is a powerful chiller, and will suck lots of current when running.

Tanks,  
Dave Hinz

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Date: Mon, 26 Jul 93 11:18:01 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: in defense of sugar & iodophor

In the last digest:

From: John Mare <cjohnm@ccit.arizona.edu>  
Subject: RE: Priming, sugar vs. malt extract vs. gyle

<snip  
<No more gushers as I had with corn sugar.

I wont argue the issue of sugar vs wort vs krausen vs DME other to say dont blame the sugar on your gushers. Proper carbonation is obtainable using any of the listed alternatives. Pick what suits your environment and ease of use. When I am brewing tons of beer and have krausen available, it is great to use. Usually, 1/2 of each batch I make is primed with corn sugar due to ease of use. It works fine.

From: Mark Garetz <mgaretz@hoptech.com>  
Subject: CO2, Old book, Portland

<When I bought my second CO2 tank, I asked if it was possible to <fill an empty tank from a full one. Technically, it will work, <but it was explained to me as being very dangerous!

Hummm, this is news to me. I had my local CO2 shop put together a F-F CO2 coupling and hose for \$15. I hook one end to a 20Lb tank, the other to a small 2-5 Lb and fill it up. I guess I dont open the valve all the way at once, but I have found a freezing/chilling effect as opposed to a heat build up. It only will fill 1/4 or so depending on how full the 20Lb is, but It doesnt seem that dangerous. The whole process takes about 20 seconds to "fill".

From: bill@oilsystems.com (Bill Vaughan)  
Subject: Blowoff, Iodophor, Sterilizing bottles

<Blowoff -- fortuitously, my last batch of "plain jane" got split into its carboys unevenly.

The real test between this constant blowoff no blowoff debate is what is the change if you skim the trub/yeast from the top of the nonblowoff fermenter??

This is how we traditional top fermenting ale brewers do it and it works great. The point is removal of the trub/hop/yeast junk prior to falling back in.

<The only problem is that I just bought 2 more acid carboys and I can't ever fill them enough to get a blowoff.

Pitch more healthy cultured yeast and they will blow.

<Iodophor ...So far I have ALWAYS smelled iodine. I am not about to buy another bottle of iodophor.

Fine, dont use it for dumb reasons. My experience over the last year of only using Iodophor (Diversy)\_ at 12.5 ppm (1 Oz into 10 gal) is it is the best, easiest to use non corrosive cleaner on the market. Fill the keg, add 1/2 oz let stand 15 minutes, empty and lately I rinse once. Sometimes hot water, sometimes cold. Like Al noted, my water is clean enough for rinsing kegs without infection. Using this method, I have dispensed over 15 batches without any iodine troubles. I think you may be getting overworked on the smell thing, or are using too strong a solution.

<If I get pinholes in the s/s after, say, 5 years, the keg has cost me maybe 5 bucks a year

It will be interesting to see just how much a keg costs in 5 years.

<From: ab126@freenet.carleton.ca (Jay Cadieux)  
Subject: Calories and beer

<Does anyone know a formula to calculate the amount of calories in beer, <based on original gravity, terminal gravity, etc.?

Check the archives, George Fix posted this about a year ago, excellent stuff, but I dont want to feel guilty by actually calculating that my beer is 400 calories a pint.....it is interesting to see the difference between the amount of calories from alcohol vs from sugars/dextrins.

Portland....been there, done that, whats next?? Waaaaaaaaaaaaa,  
I miss Bridgeport Blue Heron Cask Ale.....One of the top 5 cask ales in the US.

Good brewing,  
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: Mon, 26 Jul 93 10:45:24 CDT  
From: pyeatt@Texaco.COM (Larry D. Pyeatt)  
Subject: OOPS!

I Wrote:

> Date: Wed, 21 Jul 93 08:21:49 CDT  
> From: pyeatt@Texaco.COM (Larry D. Pyeatt)  
>  
> Subject: Degrees of Extract  
> Don Doyle writes:  
>> As a real example, I brewed 11gals with 26.5 lbs of grains and got  
>> a 1.065. What extraction am I getting and is it good?  
  
> Well, plugging the numbers into the equation,  
>  $DE = 1.065 * 11 / 26.5 = .44$   
> or 44 degrees of extract. From this, I would guess that you  
> added some malt syrup or adjunct.

This is wrong. It should have been:  
 $DE = 65 * 11 / 26.5 = 26.98$   
or 27 degrees. Not bad, but you could probably get a little better.  
most people I talk to are happy to get around 25 degrees.

I use a Recirculating Infusion Mash system, which helps boost my  
extraction. Also, the way the grains are crushed can make a big  
difference.

Larry D. Pyeatt This article does not reflect the views  
( pronounced "Johnson" ) of my employer or of myself. Any simi-  
Internet : pyeatt@texaco.com larity to the views of anyone, real or  
Voice : (713) 975-4056 fictional, is purely coincidental.

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Date: Mon, 26 Jul 93 12:02:29 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Briess, Northwestern

Thanks to all of those individuals who let me know that kBriess and Norhtwestern malt extracts are one and the same, the only difference being the packaging. Now I have a real problem on my hands, namely figuring out what the Hell is going on with my brew!!!

A few questions to those who know (or think they do):

- 1) Can malt extract go bad upon prolonged storage? How can you tell if it is bad? Will molds, or other beasties grow in undiluted malt extract, or will the osmotic pressure prevent this, much like with honey?
- 2) If malt extract is able to support unwanted life, will any byproducts of these vermin survive a 60-90 min boil or will they be evaporated away?
- 3) If Briess and Northwestern are one and the same, how is it that both my brewmate and I have both noticed significant differences in brews which used equal amounts of either, when all else has been held constant?

An unrelated question:

I am hoping to receive my M.S. in organic chemistry later this year and would like to pursue a career in brewing. Of what value to me would it be to pursue another degree in fermentation science? What is the best way to get a job at a "small" brewery? (Not necessarily micro, but not a at AB/Coors/Miller?) I've tried the classifieds, but rarely see anything listed under BREWING, BEER, or FERMENTATIONS. Anyone in the business who could offer advice (or a job), private e-mail would be very appreciated.

Sincerely,  
Anthony Johnston  
anthony@chemsun.chem.umn.edu

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Date: Mon, 26 Jul 1993 13:21:17 -0400  
From: patterso@mason1.gmu.edu (F. G. Patterson Jr.)  
Subject: Aging "bad batches"

> From: jim@n5ial.mythical.com (Jim Graham)  
>  
> .... As for the bad batches, I'm basically taking the advice someone  
> here gave me---keep 'em around until I need the bottles. Every so  
> often, I put one in the 'fridge and see if it tastes ok. I've yet to  
> find one that did ....

My experience is just the opposite. Every time I've put a batch aside to give it a chance to age, the problems have disappeared. I have had bad initial experiences with using whole grains. The results were just awful for months. But somewhere in the time frame of 6 to 9 months later, the beer improved and is now VERY good.

-----



Date: Mon, 26 Jul 93 10:26:18 PDT  
From: Victor Stevko (Human Genome Center, LBL) <stevko@genome.lbl.gov>  
Subject: calculating ppms

PPM stands for parts per million, figured (usually) by weights. It has nothing to do with molecular weights at all. So, one PPM of sodium atoms indicates one gram of sodium atoms per megagram, or 1000kg, of water.

Where chemistry enters is that these salts are ionic solids - they dissociate into component ions when dissolved in water. So, salt (NaCl) becomes Na<sup>+</sup> and Cl<sup>-</sup> ions. You should get the PPM of the components by figuring the percentage weight of each component, and multiplying by the appropriate factor. If I add 100 grams of salt to my 1000kg of water, the sodium will be  $23/58 * 100g$ , or about 40g, and the Cl<sup>-</sup> will be about 60g, from the proportion of their atomic masses. So, my tank of water will be 40 ppm in Na<sup>+</sup> and 60 ppm in Cl<sup>-</sup> ions, when I've dissolved & stirred, since

I started with perfect water.

Does this help any? I haven't looked at the charts in the books.

---Victor

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Date: Mon, 26 Jul 93 10:59:31 PDT  
From: Robert Pulliam <Robert\_Pulliam@aja.rand.org>  
Subject: Various questions

First of all, I would like to thank the many people who responded to my request for plans to build a counterflow chiller (Thanks.)

Secondly, a few questions:

1. For a 30 foot chiller, what might I expect the temperature of the exiting water to be. Must I use a hot water rated hose?
2. When calculating my extraction efficiency, do I use the gravity of the wort fresh from the tun or after the boil?
3. Is there an advantage to using a thick mash compared to using an extremely thin one that would give me say 7-8 gallons on first runnings without having to add additional sparge water?

and finally

4. I seem to recall a thread somewhere that discussed having to bring up the temperature of cold fermented beers near the end of the fermentation cycle to help remove something or other. Is this a figment of my imagination or something I need to be doing?

Robert J. Pulliam |+|all thoughts, statements, and opinions, |+|  
Los Angeles, CA. |+|demented or not, should be my own; and |+|  
pulliam@monty.rand.org |+|I'm certainly not associated . . . . . |+|

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Date: Mon, 26 Jul 93 15:22:38 EDT  
From: lyons%adc3@swlvx2.msdl.ray.com  
Subject: Geary's Pale Ale

I recently sampled Geary's Pale Ale. I was very impressed by the flavor profile. Does anyone on the net have an idea of which yeast is used or which would most closely match it?

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Date: Mon, 26 Jul 93 16:42:19 EDT  
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>  
Subject: Re: Mark Garetz query about old book, HBD1189

The following information was located in the National Union Catalog.

Southby, E. R.

A systematic handbook of practical brewing: including a full description of the buildings, plant, materials and processes required for brewing all descriptions of beer, both from malt alone and from mixtures of malt with all descriptions of unmalted grain...  
By E.R. Southby... 2d ed. London, E.R. Southby, 1885.  
(7), viii, 391 p. 23cm.

The catalog copy of this work was provided by the University of Chicago and I could find no listing of a first editon.

Southby was also the author of an earlier work (1877) entitled:  
Brewing; practically and scientifically considered.  
London, Printed by Unwin Brothers, 1877.  
150 p.

Hope this helps.

\*\*\*\*\*  
roy strohl lstrohl@s850.mwc.edu

proudly drinking one homebrew at a time  
\*\*\*\*\*

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Date: Mon, 26 Jul 1993 18:54:10 -0400 (EDT)  
From: VLACICH\_@bentley.edu  
Subject: cancel subscription

I would like to cancel my subscription.  
thank you,  
jason

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Date: Mon, 26 Jul 1993 18:11:13 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: Digital vs. lexical yeast

Is there some reason why most people on the HBD refer to the Wyeast yeasts by number rather than by name? Like for instance, are the same numbered yeasts sold by different names in different parts of the continent? Or do the numbers refer to some universal system of identifying strains of yeast? Or do people just like the scientific ring to using a number rather than a name? If each number has a unique name and the name is the same wherever Wyeast is sold, then why not use the names? I for one find it much easier to remember the names, and when I go to the brewing store I don't ask for a pouch of "good ol' number 1038" (or whatever), I ask for "London Ale" or "Bohemian Lager" yeast. I suppose I could tape an old package up on the wall by my computer for quick reference, but this seems a little awkward, and people are liable to think I'm even more obsessed with brewing than they already do.

Maybe people could at least include the name along with the number for those of us whose brains haven't entirely melded with our silicon yet.

- - - - -  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Mon, 26 Jul 93 20:23 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Crushoff in Portland

>From: Jim Busch <busch@daacdev1.stx.com>  
>Subject: Hot liquor tanks

>Has anyone converted a hot water heater into a hot liquor tank? I have two options: 220V electric with 2 elements or a gas fired unit.

One problem with a closed water heater you may want to think about is the fact that chlorine and other volatiles in the water have nowhere to go. In an open vessel they evaporate continually.

>From: Conn Copas <C.V.Copas@lut.ac.uk>  
>Subject: Re : syphoning through hops

>I employ Kinney's tip on using pot scrubbers to prevent hops clogging the syphon, but my system is more a mesh-bag-in-a-pot-scrubber than a pot-scrubber-in-a-bag. Reason? It makes sense to apply a series of progressively finer filters in order to prevent the mesh from clogging too quickly.

All of this, of course, is unnecessary with an easymasher installed in the mash tun/boiler. However, in my one experience dryhopping in a carboy I solved the problem of siphoning by simply sliding the em strainer tube over the end of the siphon and being the same diameter, it fit like a glove and worked like a champ.

For those not wanting or needing the em, you can still solve the siphon problem with a tube made of screen slid over the end of the siphon with the end pinched. You can slide it up or down to expose as much screen as you wish and when you get near the bottom you just push the tube down so only a 14 inch or so is exposed.

Just roll a 2 X 6 inch piece of screen over 3/8" diameter rod and pinch and bend the las half inch to seal it off. Slip this over the end of siphon tube. BTW, if you put this on the end of piece of coppur tubing and bend it so that the screen lies flat on the bottom and the other end rises over the edge of the pot, you have a portable easymasher.

js

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Date: Mon, 26 Jul 93 21:35:01 -0700  
From: jgibbens@polyslo.csc.calpoly.edu (Jonathan Gibbens)  
Subject: Intro & a question

Howdy fellow brewers,  
My name is Jon Gibbens and I've been brewing for about 7 months now. I've been reading the HBD for about 2 years now and figured it was time to "show my face."  
Anyway, all my recipes so far have been your standard Papazian-influenced dry extract recipes with a little of my own creative flair thrown in for good measure. I just got done brewing my 14th batch, a raspberry porter a la "Goat Scrotum Ale" with 9 lbs of raspberries added for good measure.

My question is: This last batch was my first batch to go in a plastic fermenter, all my previous ones have been in glass. How do you sufficiently aerate your wort before it goes into the fermenter? In glass it's easy..just cap the carboy and start shakin' like mad, turn it this way and that, upside down, you know the whole story. I was thinking that maybe the next time I do this, I'll FIRST put it in a glass fermenter and shake it up, then pour it out into the plastic fermenter and THEN pitch my yeast.

Now for an obligatory recipe: Being unable to find a recipe anywhere for a weizenbock, I made up my own. I'm not sure about the "authenticness", but who cares?

Wacky Weizenbock

6 lbs Brewmaster Dried Wheat Extract  
3 lbs Brewmaster Dried Amber Malt Extract  
1/2 lb chocolate malt  
2 oz Hallertauer fresh hops (boiling - 1 hour)  
1/2 oz Hallertauer fresh hops (flavor - last 20 minutes)  
1/2 oz Hallertauer fresh hops (aroma - last 2 minutes)  
Wyeast Liquid Wheat Beer Yeast

Prepare according to the standard Papazian method for extract beers.  
Starting gravity: 1.61 Starting Potential alcohol: 9%  
Ending gravity: 1.16 Ending Potential alcohol: 2%  
Primary and Secondary fermentation took 1 month. I believe that the high alcohol content (7%) pickled the yeast and stopped fermentation in it's tracks. Bottled with 1 1/4 cup DME.

It turned out really good! Fruity and dark with a very noticeable alcohol smell.

Anyway, keep on brewin'  
Jon Gibbens

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End of HOMEBREW Digest #1190, 07/27/93  
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Date: Tue, 27 Jul 93 8:37:56 EDT  
From: gkushmer@Jade.Tufts.EDU  
Subject: Re: Geary's

Hi.

In response to lyons%adc and Geary's Pale Ale:

David Geary brews with a proprietary yeast. He doesn't like to say much about it, although he does have a tendency to explode at you if he finds out you've used it. ;-)

Cheers,

- --gk

Greg Kushmerek "They [Australians] don't spell 'beer'  
Sr. Researcher/Development with four X's out of ignorance. . .And  
Tufts University light beer is a creation of the Prince  
Medford, MA of Darkness."  
gkushmer@jade.tufts.edu -Morse, Thames Valley C.I.D.-

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Date: Tue, 27 Jul 93 06:13:27 PDT  
From: 27-Jul-1993 0908 -0400 <ferguson@zendia.enet.dec.com>  
Subject: BT mag / Foxx Equip CC orders

re: Brewing Techniques

I too have received and started reading BT #2. The editor pledged to keep advertising always less than 50% of the mag's content. Apparently, a few people wrote in letters complaining about the size of the mag., but, when added up, it compares favorably to others.

Hey, if you think Zymurgy is bad with advertising, go check out one of the Woman's magazines, like Glamour or something. They are 95% advertising!  
!

re: Foxx Equip and CC orders

Al is correct, they do accept CC orders...

BUT...

You must send them a letter, beforehand, authorizing them to use your CC when you place orders. In other words, you can't call today and have something shipping to you immediately! You need to send in the authorization letter first. This is the policy as of yesterday when I placed an order for some keg parts.

JC FERGUSON    ferguson@zendia.enet.dec.com

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Date: Tue, 27 Jul 93 9:26:39 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: misc

In the last digest:

<From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Briess, Northwestern

<questions about extract & a brewing career, snip

First, if you are serious about being a pro brewer, you should really switch to all grain brewing ASAP. Its not that much harder or expensive and you will start to learn what its like to do the real thing.

Secondly, we need more brewers with backgrounds in Chemistry. This is not enough by itself, but you can augment this knowledge by inrolling in Seibels short course in brewing technology or whatever they call it. It is a 12 week course in Chicago. Before or after this, work in a brewery doing anything to gain knowledge/experience.

<From: Robert Pulliam <Robert\_Pulliam@aja.rand.org>  
Subject: Various questions

<1. For a 30 foot chiller, what might I expect the temperature of the exiting water to be. Must I use a hot water rated hose?

Close to water temp.

<2. When calculating my extraction efficiency, do I use the gravity of the wort fresh from the tun or after the boil?

after.

<3. Is there an advantage to using a thick mash compared to using an extremely thin one that would give me say 7-8 gallons on first runnings without having to add additional sparge water?

Thin is Ok up to about 2 litres/lb of grain.

<4. I seem to recall a thread somewhere that discussed having to bring up the temperature of cold fermented beers near the end of the fermentation cycle to help remove something or other. Is this a figment of my imagination or something I need to be doing?

Its called a diacetyl rest. It reduces (guess what??) diacetyl. To be an authentic continental lager, ferment at 48-51F for 1 week, drop temp 2F per day until it is 42F. Rest here 2-4 days (diacetyl rest), then drop 2F per day until you hit 31F. Hold 4-8 weeks depending on style. Either lager in kegs, and bung to create natural CO2, or krausen with fresh krausen (fermenting yeast & wort, at 7-15% of volume). Those who "bring up" the temp are preaching the American fast lager approach. This is where ferments are done quite warm (up to 60F) and lots of diacetyl is produced that requires reduction by the yeast. It has been demonstrated that bringing the temp up to 68-70F for 2 days or so will reduce the diacetyl to "normal" levels. Taste tests of experienced panels have shown a preference for the traditional techniques.

<From: lyons%adc3@swlvx2.msd.ray.com

Subject: Geary's Pale Ale

Classic Peter Austin brewhaus, Ringwood ale yeast, available from some yeast culture companies. A notorious Diacetyl producer. Torrified wheat is used.

<From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Crushoff in Portland

<One problem with a closed water heater you may want to think about is the fact that chlorine and other volatiles in the water have nowhere to go. In an open vessel they evaporate continually.

Excellent point. I was going to feed it from my whole house carbon filter that also happens to feed my water line into my kettle. Chlorine and most solids will never make it into the tank.

Good brewing,  
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: Tue, 27 Jul 1993 10:40:19 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Hot water tanks

> >Has anyone converted a hot water heater into a hot liquor tank? I  
> have two options: 220V electric with 2 elements or a gas fired unit.  
>  
> One problem with a closed water heater you may want to think about is  
the  
> fact that chlorine and other volatiles in the water have nowhere to go.  
In  
> an open vessel they evaporate continually.

You can use a hot water heater, but not connected as a household water  
heater. Connect the water input line as usual, but leave the top outlet  
open, perhaps with a wide clear open tube connected to the top outlet.  
Your actual outlet will be the drain spigot on the bottom of the heater.  
Open an inlet valve to fill the heater, but shut off the supply when the  
tank is almost full (a clear tube connected to the top outlet will tell  
you  
your tank is full, then you can drain a little). You may then heat your  
water, and volatiles will escape through the top opening. This will  
work  
best if there is some headspace at the top of the tank. If you want to  
get  
REALLY fancy, have a split connection at the top outlet tube, one end  
going  
to a stopcock and one end going to a vessel containing a toilet tank  
float  
valve. That way you can shut off the stopcock, turn on the water input,  
and the float valve will stop the inflow of water when the tank is just  
over full.

Disclaimer: I have not done this. Although I may someday...

ed

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |  
| "I'm not racist, but..." |

+-----+

Diversity in all things. Especially beer.

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Date: Tue, 27 Jul 93 10:32:28 EDT  
From: gorman@aol.com  
Subject: Dry-hopping in Cornelius Kegs

Just tried the dry-hopping technique described in the recent Zymurgy.

Whole hops (used Hallertau in a weizen) in a mesh bag placed into a Cornelius Keg at keggung time. I weighted the bag down with a handful of marbles. I boiled the bag and marbles (w/o hops) to attempt sanitization.

This produced the most pronounced hop bouquet I've yet experienced from an ounce of hops. I haven't noticed any off flavors introduced by the bag in the keg.

Makes sense, the aroma doesn't have anywhere else to go.

N.B. An ounce of whole hops requires more marbles than you might think to get it to sink. Try a big handful.

Enjoy,

Bill Gorman

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Date: 27 Jul 93 10:07:24 CST  
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>  
Subject: More AHA/Zymurgy bashing

To add to Kieran O'Connor and Dave Smucker's dismay about the AHA and Zymurgy, I recall that the latest price hike from the AHA (from \$25 to \$29, I think) was because Zymurgy was costing so much to print. So everyone in the AHA was called upon to pay for the wasted pages full of AHA ads and other self-serving crap, because, evidently, it wasn't paying for itself.

Does anyone know if The New Brewer is of the same "quality" as Zymurgy? It's published by the Institute for Brewing Studies (all in the same office as the AHA, and others) and is billed as a "must-have" for anyone interested in or working in the micro/brewpub field.

I'm looking forward to my Brewing Techniques subscription. Sounds like quality work.

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: 27 Jul 93 10:25:47 CST  
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>  
Subject: Zima Brewing Co.

David Holsclaw writes:

>Even if it is free, it is not worth the time and effort to  
>try this cr\*p. One other thing, I thought this was a Coors  
>product? The can said Zima Brewing Company? Is this a Coors  
>subsidiary or am I just confused (not unusual).

I don't think that there is a separate company called Zima Brewing Co. The "subsidiary" approach is Coor's way of separating itself from the Zima product, just in case it sucks (from what I understand, it does). If Zima does not sell, then the company will die a quiet death at the hands of lawyers and the Coor's name will remain clean.

One thought: maybe we have been too harsh on Zima because we have been judging it against our standard criteria for beer. I don't think that Zima claims to be beer, but a malt beverage maybe (?), and it's probably labeled "malt liquor" because of the goofy alcohol laws we have in this country. So maybe Zima isn't bad for the \*style\* (whatever the hell that may be...), just like Bud is an excellent example of the American Standard Lager.

Not!

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: 27 Jul 93 10:42:18 CST  
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>  
Subject: Lager under water

Dave Hinz asks about lagering beer bottles under water in his 200 gal milk cooler. Technically, it sounds like a great idea. The bottles are sealed and there's no way to contaminate the beer.

However, I've noticed one thing about my bottle caps: I always boil a couple extra when bottling and then out the unused ones back in the bag afterwards. I have noticed that if I don't dry them really well, they get rust spots. (This may just be the caps I bought this time....)

The caps are made of regular steel or maybe tin, but not stainless or aluminum, and are coated with some sort of anodizing (I guess from the color inside only.) I know they aren't SS or Al because the magnet in my capper holds onto them.

In the process of capping, the cup that seats the cap may scrape off enough of the coating to expose the underlying metal. While this rust would only be on the outside, it would make you think twice about drinking the contents. I suggest capping a couple bottles of water and testing it out first.

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: Tue, 27 Jul 93 10:56:09 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: calories

Someone wanted a formula. This was posted some time ago.  
bb

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.  
.

I know that there have already been answers to this question, including disclaimers by George Fix and a nice linearized version with analysis by Robert Bradley, but I thought someone might like to see yet another version of the formulas. These are the same formulas that George Fix gave, except that they have been converted to FG and OG (using the Plato to SG (divide by four) conversion that is not exact according to George). This is probably what Robert did, before he linearized them. Anyway, here they are:

Note that OG and FG are used in the full form (e.g. 1.045). C stands for the calorie content per 12 ozs., and the [alc] and [ext] subscripts signify the fractions from alcohol and extract respectively.

Other definitions:

A = alcohol content of finished beer in % by weight.  
RE = real extract of finished beer in degrees Plato.  
OG = original gravity of the beer.  
FG = final gravity of finished beer.

76.8 (OG - FG)

A = -----  
(1.775 - OG)

RE = 250 (0.1808 OG + 0.8192 FG - 1)

(OG - FG)  
C\_[alc] = 1881.22 FG -----  
(1.775 - OG)

C\_[ext] = 3550 FG (0.1808 OG + 0.8192 FG - 1.0004)

C = C\_[alc] + C\_[ext]

[ 0.53 (OG - FG) ]  
C = 3550 FG [ ----- + (0.1808 OG + 0.8192 FG - 1.0004) ]  
[ 1.775 - OG ]

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Date: Tue, 27 Jul 93 10:14:36 MDT  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Re: Various questions, White House beer

> 1. For a 30 foot chiller, what might I expect the temperature of the  
> exiting water to be. Must I use a hot water rated hose?

Well, the closer the exiting water is to 100C, the more efficiency you're getting. I've never measured the temp of the water coming out of my 40-foot counterflow chiller, but I can empirically say that it's \*hot\*. Hot enough to scald. The plain old garden hose used in my chiller seems just fine, though, after 20 or so batches.

> 2. When calculating my extraction efficiency, do I use the gravity of  
> the wort fresh from the tun or after the boil?

Assuming you add no water during the boil, both measurements should give you pretty much the same thing. The amount of water evaporating will be proportional to the increase in gravity.

I usually measure both: right after sparging, so I can make any needed adjustments, and after the boil to make sure of my original gravity. I calculate total points of extract right after the sparge using:

$$v * p = T$$

where v is volume, p (points) = (gravity-1)\*1000, and T is total points for the batch (e.g. collected 6 gallons @ 1.055 = 6\*55 = 330 points). You can then solve v\*p=T for either v or p, depending on what you're shooting for (e.g. if I had wanted a beer at 1.060, I would need to boil down to 5.5 gals; if I boiled down to 5 gals of beer, my original gravity would be 1.066. On the other hand, if I wanted a lighter 1.045 beer, I'd need to add water so I ended up with 7.33 gallons \*after\* the boil was completed).

> 4. I seem to recall a thread somewhere that discussed having to bring  
> up the temperature of cold fermented beers near the end of the  
> fermentation cycle to help remove something or other.

I believe this is called the diacetyl rest. Although diacetyl, which produces a buttery or butterscotch aroma, is desirable in some styles of ales, it is usually not wanted in lagers. Yeast produce diacetyl, but will re-consume it later in their life cycle if allowed to do so. This raising of the lager temp is supposed to "reactivate" the yeast to some extent to encourage them to consume the diacetyl. If you're brewing ales, this step isn't necessary.

> >Ginger Beer

>

> >Put into a kettle two ounces of powdered ginger root (or more if it  
> not

> >very strong), half an ounce of cream of tartar, two large lemons, cut  
> >into slices, two pounds of broken loaf sugar and two gallons of soft  
> >boiling water. Simmer them over a slow fire for half an hour. When  
> the

> >liquor is nearly cold, stir into it a large tablespoon of the best  
> >yeast. After it has fermented, which will be in about twenty-four  
> >hours, bottle for use.

>

> >And again, only 24 hours [of fermentation]?

Yup, or maybe 48. I don't know about the hop beer recipe, but I make my ginger ale using an almost identical recipe. You want a "soft" drink like this to have much less alcohol and more carbonation than beer; you achieve this by bottling 24-48 hours after pitching yeast. Why no exploding bottles? I believe the theory is that there is very little yeast nutrient in the recipe, so in spite of all the sugar the yeast poop out pretty quickly.

You can also avoid trouble by using strong bottles (champagne bottles work well, as do 2l plastic soda pop bottles) and refrigerating the bottles after only a couple of days of conditioning. I've never had a ginger bomb yet.

- - -

Jeff Benjamin [benji@hpfcla.fc.hp.com](mailto:benji@hpfcla.fc.hp.com)

Hewlett Packard Co. Fort Collins, Colorado

"Midnight shakes the memory as a madman shakes a dead geranium."

- T.S. Eliot

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Date: Tue, 27 Jul 93 12:18:56 CDT  
From: atzeiner@iastate.edu  
Subject: inoculating a starter from a petri dish

I just started culturing yeast and have two ale yeast cultures in petri dishes. Out of curiosity, I used my inoculating loop to scrape up a glob of yeast and put it into a starter bottle(~1/2 full 12 oz. beer bottle). I didnt really see much sign of fermentation, but after about 3 or 4 hours I looked at it and it seemed to have yeast sediment in it. I was wondering if it was possible that there was enough yeasties in the glob that I picked up to make a decent starter in only a few hours. How much yeast should you pick up to inoculate a 6 or 7 oz starter??

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Date: Tue, 27 Jul 1993 14:37:08 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: a beer poem

one night at a bar my drinkin' buddies and I wrote a poem about beer  
by passing the pen 'n pad. Here's what we came up with (slightly  
edited) enjoy. WARNING! STRONG LANGUAGE AT THE END. NOT FOR THE  
SQUEAMISH!

BEER!  
by Steve, Jami, Andy, & Christine

Canto I

Beer, beer, beautiful beer  
the more you drink,  
the more you peer(s)  
will admire your debonaire teeth  
as they glint in the glare of  
of the glass of so many bottles  
lost in your sea of despair  
don't forget to tip your waitress  
and kiss her hair

Canto II

Drink a porter, drink a stout,  
drink a pilsner, dance and shout  
Chapstick, my flavored amigo,  
perchance a sepulchre?  
Don't take to long, OK? I gotta use it too.  
Barley juice?  
Dionisus fuck you!  
after all, does not wine  
suck donkey dongs?  
yes, I do believe this is true.

Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Tue, 27 Jul 93 16:11:50 EDT  
From: lyons%adc2@swlvx2.msdl.ray.com  
Subject: Diacetyl reduction

Robert Pullian writes in #1190:

> 4. I seem to recall a thread somewhere that discussed having to bring  
> up the temperature of cold fermented beers near the end of the  
> fermentation cycle to help remove something or other. Is this a  
> figment of my imagination or something I need to be doing?

There was some noise on this some time back. From what I recall Miller advocates raising the primary fermentation temperature of lagers after active fermentation has subsided, but before racking to the secondary. The belief is that in the absence of oxygen the yeast will be better able to reduce the diacetyl levels. I've found that this advice works great. What I do is wait until the diacetyl odor is substantially reduced before racking to the secondary. Typically two to three days after after fermentation has ceased. Look at Miller's book for a more indepth explanation.

-----

Date: 27 Jul 93 13:47:00 -0700  
From: KRUSE\_NEIL@Tandem.COM  
Subject: HOW TO KEG?

Hello,

A friend and I have got a hold of a soda keg and we're supposed to get some of the other stuff, like the C02 canister and a cold plate...

Now here is my question. How do we "keg"? We've been making extract beers for quite some time, where we add the corn sugar to the wort just before we bottle. Now that were gunna try the keg setup do we add the corn sugar to the wort, let it ferment out completely, then rack to the keg? And then since the beer at that point is "flat" how much C02 and when do you add it? What keeps the trub out of the keg? I think you get where I am coming from. What I need are pointers on how to keg from a beginers perspective.

Thanks, KRUSE\_NEIL@tandem.com

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Date: Tue, 27 Jul 93 19:33 PDT  
From: lfk@zip.veritas.com  
Subject: RE: Degrees of extract

In HBD1189 pyeatt@Texaco.COM (Larry D. Pyeatt) writes:

>Don Doyle writes:

>> As a real example, I brewed 11gals with 26.5 lbs of grains and got  
>> a 1.065. What extraction am I getting and is it good?

>

>Well, plugging the numbers into the equation,

>DE = 1.065 \* 11 / 26.5 = .44

>or 44 degrees of extract. From this, I would guess that you

>added some malt syrup or adjunct.

>

BZZZT! The number calculated above is meaningless. You need to subtract out the SG of the water before doing multiplication. Don has already seen my input on this in private email, but when I saw the above information I felt that a posting was necessary. The equation should be:

$$DE = (OG - 1.0) * \text{<gallons of extract>} / \text{<pounds of grain>}$$

Plugging Don's numbers in gives us:

$$DE = .065 * 11 / 26.5 = .02698 \text{ (or approx 27 degrees of extract per pound of grain)}$$

While this isn't great extraction, it may not be all that bad. It could be that Don used several pounds of malt adjuncts that provide fewer extract points. When I do these calculations on my own brews I usually subtract a value based on the expected yeild of malt adjuncts from the numerator and the amount of said adjuncts from the denominator in the above equation. This kind of calculation breaks down when a significant portion of the extract is from multiple malt sources such as a 40% wheat mash. For those types of mashes I treat the wheat malt as base malt also. For example; purely hypothetical but probably not uncommon :-)

Brew length(BL): 5G

OG = 1043

Grain bill: 6.5# 2-Row, 1# 40L (AWght)

Approximate extract for 1# 40L = 20 (AExt below)

$$DEbase = (((OG - 1.0) * BL) - AExt) / (GrainTotal - AWght)$$
$$DEbase = (((1.043 - 1.0) * 5) - 20) / (7.5 - 1)$$
$$DEbase = (215 - 20) / 6.5 = 195 / 6.5 = .030$$

Let's not forget that the density of water does not increase with volume (at least not for our purposes).

- - -

Lynn Kerby - [apple,amdahl]!veritas!lfk or lfk@veritas.com

Disclaimer: Any and all opinions expressed herein are my own and do not necessarily represent the views of anyone, especially my employer.

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Date: Tue, 27 Jul 93 22:25 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: CO2

>From: Jim Busch <busch@daacdev1.stx.com>

>Hummm, this is news to me. I had my local CO2 shop put together a F-F  
CO2  
coupling and hose for \$15. I hook one end to a 20Lb tank, the other to  
a small 2-5 Lb and fill it up. I guess I dont open the valve all the  
way  
at once, but I have found a freezing/chilling effect as opposed to a  
heat  
build up. It only will fill 1/4 or so depending on how full the 20Lb  
is,  
but It doesnt seem that dangerous. The whole process takes about 20  
seconds

First of all, this will only work if we assume that the source tank was  
a  
siphon type, i.e., dispenses liquid CO2 and not the type one could use  
for  
beer dispensing. If you use a top venting tank, all you get is gas and  
will  
only get the 800 psi that is in the source tank. This might be enough  
to  
dispense a bunch of beer but nowhere near what you would get if filled  
with  
liquid CO2. It's like filling a tire from a compressor that is shut  
off.  
When the tire pressure equals the tank pressure, that's all you get.

Secondly, if you fill with liquid CO2, the head pressure in the  
receiving  
tank must be vented while filling or you can't fill it at all. If  
frosty gas  
was not hissing out while you were filling it, you were not filling it.

As I mentioned before, the best way to know what is going on is to weigh  
the  
tank. If it does not weight 2.5 lbs more after filling than before, it  
aint  
full.

js

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End of HOMEBREW Digest #1191, 07/28/93  
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Date: Sun, 25 Jul 93 17:39:00 BST  
From: r.wize@genie.geis.com  
Subject: HBD Subscription

I would like to receive the HBD.  
My address is r.wize@genie.geis.com

Thx alot,

Rick Wize

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Date: 28 Jul 93 07:54:00 EST  
From: "BRIAN OWENS" <8160OWENS@indy.navy.mil>  
Subject: homebrew supply shop ??

Hi All, Long time listener, first time caller.

My question goes to the Brew shop owners (and anyone else interested). Do you have any data that would tell what size population would support a homebrew supply shop? Has a market survey ever been conducted to determine this type of information? What size is the city you live in, and how many homebrew shops are in the area? Thanks for any info you can share.

Brian

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Date: Wed, 28 Jul 93 09:37:36 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 28-Jul-1993 0932  
<macneal@pate.enet.dec.com>

**Subject: Aeration**

If you are doing a partial boil and dumping the hot wort into cold water you probably don't have to worry too much about aeration (unless you've preboiled your cold water). Pouring the hot wort through a sanitized strainer will also aerate it (as well as help remove hops and break material). I used this method for a full boil after cooling with a wort chiller and it seemed to work OK.

If you don't like the strainer idea and want to siphon, you can simply put the lid on without an airlock and shake well. Other folks have used an aquarium pump and aeration stone.

Someone the other day suggested that washing bottles in a dishwasher would merely sanitize and not sterilize. He was right, but sanitizing is all that is really necessary and is all bleach/iodine/whatever solutions will do anyway.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Wed, 28 Jul 93 08:48:24 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Extract efficiency / Diacetyl Rest

Re: Extract efficiency - I was under the impression that measuring the pre and post boil extract efficiency would result in unequal values. That the post boil value would be lower due to the precipitation of break materials. Has any one measured this? Do they differ? By how much?

Re: Diacetyl rests - I too use the method described in Noonanan's book on lagers. I do a primary at 45F, diacetyl rest for 3 days at 48F then rack to 2ndary and "Hunter lager" at 40F I then chill to near 32F for the last week before kegging to precipitate out yeast and haze.

Re: Brewing Techniques  
I too agree it is a fine magazine and that the 40 or so pages is a lot of material. I am not an AHA member, but doesn't the \$29 sent to the AHA cover annual dues and the subscription to Zymurgy? I too agree that the "don't worry" philosophy gets old fast.

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Date: Wed, 28 Jul 93 9:14:36 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: jever thanks/low head retention/spiced beers

Hey everyone - first I want to thank everyone for the responses to my question about Jever...I believe I received something like 15 or 18 responses (please forgive my not responding to each individually). I now own a copy of Michael Jackson's Pocket Guide where the virtues of Jever are detailed - and yes, Fresia is in the northernmost regions of Germany (including the Fresian Is.).

Here's my questions:

I seem to be having trouble with head retention in all of my beers including store bought Sierra Nevada Summerfest et al. I believe cause may be residue in my glassware. However, I wash the glasses in the dishwasher with Cascade detergent - I use energy saver settings for the dry cycle. Let me clarify problems - there is sufficient carbonation in everything - the bubbles form about a 1/2-1" head on pouring but quickly subside to no more than 1/16" head to none at all. Any ideas....is this paranoia?

Secondly - I am considering brewing a spiced ale for Christmas this year (its early but a few good months in the bottle and it takes me a while to get going anyway). I have done thread searches on back issues of the HBD and have looked in the Cat's Meow and have yet to see a clear agreement among brewers/recipes (\*is such a thing possible\*) as to the best way to add the flavoring: dry to the boil, dry hop, spice \*tea\*, or gloegg. Opinions (open the flood gates...)? Note: I am an extract brewer and am looking for o.g.s from 1040-1060.

One last thing - I was watching STNG last night and it occurred to me to wonder just how the stardates are calculated...any answers?

Sorry for the longwindedness ... thanks in advance  
good luck and good beer  
Chris

=====  
|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
=====

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Date: 27 Jul 1993 16:05:13 U  
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>  
Subject: My First Batch

Hello Bruce (and all you other Bruces; "Crack Two")

I made my first batch of Homebrew a month ago, and it is yucky. It was a kit beer from our local brew shop, Fun Fermentations in Orange Ca, and was supposed to be an American Lite beer. The batch seemed to have a cidery smell and taste the day I bolttled, (took me forever to get the @#&\$#! siphon to work) and after a month of aging, it doesn't taste any better. The beer has great color, a nice head, but the flavor is reminiscent of swamp water cider vinegar. Does anyone have a clue? Had a similar batch? I am wondering if my fermentation temperature was too high, it was often in the upper 70's in the house, probably 78. Yes, it was an ale yeast. BTW, I had a bottle of Paulener Salvator the other day, and it had some of the same flavor tones as my beer. Was that bottle of Salvator too long on the shelf at the store ie. light damaged? Is that why it tasted like mine, or is mine actually good? (nah) And another thing, Has anyone ever noticed the laxative qualities of homebrew in general or is this another symptom of my first batch?  
John Palmer  
PS. I am really bummed that the Beer Hunter won't be on the Discovery Channel again, I only have a couple episodes taped, and have been waiting to get the others.

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Date: Wed, 28 Jul 93 9:28:07 MDT  
From: Rick Myers <rcm@col.hp.com>  
Subject: Re: American Standard Lager

> One thought: maybe we have been too harsh on Zima because we have  
> been judging it against our standard criteria for beer. I don't think  
> that Zima claims to be beer, but a malt beverage maybe (?), and it's  
> probably labeled "malt liquor" because of the goofy alcohol laws we  
> have in this country. So maybe Zima isn't bad for the \*style\*  
> (whatever the hell that may be...), just like Bud is an excellent  
> example of the American Standard Lager.  
>  
> Not!

I definitely agree with the "Not!" part. Bud is NOT an example  
of the "American Standard Lager", it is "American PREMIUM  
Lager" (yeah, right). Examples of "standard" lagers are Schlitz,  
Pabst, etc.

Rick "Will NOT drink Bud for food" Myers

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Date: Wed, 28 Jul 1993 09:14:19 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Hot Water Heaters

Jack Schmidling responded to Jim Busch:

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>  
> >From: Jim Busch <busch@daacdev1.stx.com>  
> >Subject: Hot liquor tanks  
>  
> >Has anyone converted a hot water heater into a hot liquor tank? I  
> have two options: 220V electric with 2 elements or a gas fired unit.  
>  
> One problem with a closed water heater you may want to think about is  
the  
> fact that chlorine and other volatiles in the water have nowhere to  
go. In  
> an open vessel they evaporate continually.  
>  
>
```

It beats me why this should be a problem. Jim is simply suggesting using a hot water heater to provide very hot water for mashing, sparging, etc. Why should this be a chlorine problem?

In answer to Jim's question, at least one of the McMenamain brewpubs in Oregon uses exactly this system -- lots of pipes running out of that water heater that aren't standard!

Jack, every hot liquor (water) system I've seen in a brewery is closed.

- --Jeff

PS. I made it to one day of the AHA conference, attending the Board of Advisors meeting and judging in the 2nd round of the competition. All of you stay-at-homes will be glad to know that the weather yesterday was gorgeous (in the 80s), the programs were interesting, the beer was excellent, and Portland is better than wherever you are. Today, of course (I'm back at work), it's cloudy, it'll probably rain, and all the beer has spoiled.

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Date: Wed, 28 Jul 93 11:14 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: FUN

Aint if fun seeing an article the morning after you submit it. Knew something good had to come from the AHA conference. Got all those loudmouths away from their keyboards. :) < for the benefit of the humor impaired.

re: Brewing Techniques

>I too have received and started reading BT #2. The editor pledged to keep advertising always less than 50% of the mag's content. Apparently, a few people wrote in letters complaining about the size of the mag., but, when added up, it compares favorably to others.

It will be interesting to see how long BT keeps that pledge. Money and sometimes survival have a strange way of making people forget their pledges.

If a non-profit group like AHA has degenerated to 90% ads, what do you expect from a for-profit company like BT? At the moment, BT can survive on fewer ads because they don't pay contributors for articles. And remember, it is always easy to get fresh new articles for a new publication but down the road, they will have all the usual problems of getting stale.

BT is a breath of fresh air but only subscribers and a much higher subscription rate can keep it pure if combined with a rigid policy of ad restriction. However, ad sales people just do not say NO to one more ad.

>From: Ed Hitchcock <ECH@ac.dal.ca>  
>Subject: Hot water tanks

>You can use a hot water heater, but not connected as a household water heater. Connect the water input line as usual, but leave the top outlet open, perhaps with a wideclear open tube connected to the top outlet.

Sounds like you have re-invented the EASYSPARGER. Not sure why one would want to heat a large amount of water and just let it sit or have to keep it hot till needed. The ES allows a continuous flow of hot water at any desired temp, evaporates the chlorine, takes up only about .5 cuft of space and needs to contain only one gallon of water.

>In HBD #1190 Jonathan Gibbens asks:

> How do you sufficiently aerate your wort before it goes into the fermenter? In glass it's easy . . .

The simplest method is to fill a one gallon jug and shake this a bit and then just plug it into the fermenter. With two jugs, you can be filling one while glugging the other.

The only problem is that this works so well, you will have to beat down the foam to get all your wort in and you must, of course, use sanitized jugs.

I did this for years with great success but now I have a pump and a narrow nozzle at the end of the hose which provides aeration as it squirts into the fermenter.

>From: atzeiner@iastate.edu  
>Subject: inoculating a starter from a petri dish

>I just started culturing yeast and have two ale yeast cultures in petri dishes..... I was wondering if it was possible that there was enough yeasties in the glob that I picked up to make a decent starter in only a few hours.

How much yeast should you pick up to inoculate a 6 or 7 oz starter??

You can, theroretically, inoculate a whole batch with a single cell but this and your approach are not recommended for a very good reason.

One cell of culture yeast would be competing with many cells of uninvited stuff, even in a sanitary environment, and would probably lose the race to get established. The larger the amount of culture and the smaller the batch size, the better the prospects of winning.

I would not start more than 50 ml or so with a loop-full of culture. When this is fermenting, you can start 200 ml and to do it right, start 500 ml with this. I would never attempt to start a batch with less than 500 ml of working wort.

You would be much better off to transfer the petri culture to slants and use these to start your starter. I cover the slant with wort and use this as a one time, pure culture starter.

The petri stage can be eliminated entirely if you are confident of the quality of the original slant culture. Just transfer a single inoculation to a half dozen slant tubes and use these to start others. You don't have to go back to the original unless you screw up or something changes.

js

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Date: Wed, 28 Jul 93 10:26:52 MDT  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Correction, Bud bashing

Whoops, I just noticed an error in my previous post that might be confusing.

> > 2. When calculating my extraction efficiency, do I use the gravity of  
> >the wort fresh from the tun or after the boil?  
>  
> Assuming you add no water during the boil, both measurements should give  
> you pretty much the same thing. The amount of water evaporating will be  
> proportional to the increase in gravity.

The above statement is not correct. The gravity before the boil is usually quite different from the gravity after the boil. After all, one of the purposes of the boil is to increase the gravity.

What I meant was that the total number of points stays constant. Using the  $v \cdot p = T$  formula, if T is constant, then v and p are inversely proportional. So obviously if v goes down, p (gravity) goes up.

> So maybe Zima isn't bad for the \*style\*  
> (whatever the hell that may be...), just like Bud is an excellent  
> example of the American Standard Lager.  
>  
> Not!

We hear a lot of "Bud bashing" in this forum. Having drunk my share of Bud, Miller, Old Style, Red White & Blue, Huber, etc., I'll step out on a limb and defend the megabreweries (he says, as he dons his asbestos undies).

Most serious beer people pooh-pooh the "American Standard Lager", but that style certainly fills a niche. The term "lawnmower" beer is not inappropriate, as a Budweiser is exactly what I feel like drinking after mowing the lawn on a hot day. Why not just drink water, some would say. To my palate, the slight bitterness of American swill is more refreshing.

I would also challenge many skeptical homebrewers to brew a lager as light and clean as a Bud. Ingredients are quite different from your average homebrew (uncured malt, adjuncts, etc.), you need techniques to minimize wort darkening and esters, and sanitation is paramount, as the slightest off flavor or aroma will be noticeable.

In fact, early in my homebrewing career I tried to brew a Bud clone, and didn't even manage to come close. Becoming a homebrewer actually increased my appreciation of what the big boys do.

- - -

Jeff "still use Milwaukee's Best mostly for cooking" Benjamin  
benji@hpfccla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Wed, 28 Jul 93 11:48:25 CDT  
From: pmiller@mmm.com (Philip . Miller)  
Subject: New Brewer

Dennis asks:

>Does anyone know if The New Brewer is of the same "quality" as  
>Zymurgy? It's published by the Institute for Brewing Studies (all in  
>the same office as the AHA, and others) and is billed as a "must-have"  
>for anyone interested in or working in the micro/brewpub field.

My wife bought me a subscription to NB last year as a present. While the magazine still has a fair amount of advertising (but it's INTERESTING advertising because it's for bottling lines and 2 bbl systems rather than cans of syrup), the content is better than the average Zymurgy article in my opinion.

Typically there will be an interviews or articles written by microbrewers about some facet of running a brewery. A couple of issues ago, a brewer talked about cobbling together a bottling line and the difficulties therein. This issue, there was a very interesting article about a pair of brewpub owners philosophy of running their business. (Basically, they said to concentrate on the food and atmosphere because just having good beer won't pay the bills.) There are also opening and closing notices of breweries across the country as well as a page or two describing events of general interest to the brewing community (such as pending legislation.)

If I were a microbrewer or a brewpub owner, I think I'd find the \$55 subscription fee worth my while but NB falls somewhat short of a "must-have".

Since much of the information in NB doesn't pertain to me, I'll probably let the subscription lapse....

Phil Miller  
pmiller@mmm.com

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Date: Wed, 28 Jul 1993 13:11:01 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: Re: innoculating a starter from a petri dish

atzeiner@iastate.edu (Tue, 27 Jul 93 12:18:56 CDT) writes:

>I just started culturing yeast and have two ale yeast cultures in petri  
>dishes. Out of curiosity, I used my innoculating loop to scrape up a  
>glob of  
>yeast and put it into a starter bottle(~1/2 full 12 oz. beer bottle). I  
didnt  
>really see much sign of fermentation, but after about 3 or 4 hours I  
looked at  
>it and it seemed to have yeast sediment in it. I was wondering if it  
was  
>possible that there was enough yeasties in the glob that I picked up to  
make a  
>decent starter in only a few hours. How much yeast should you pick up  
to  
>innoculate a 6 or 7 oz starter??  
>

That must have been some glob! Generally, a good starting volume when  
picking colonies (globs) from agar is probably no more than 2-4  
milliliters of media (wort) - remember, less is more. You will see yeast  
sediment in your container (usually a small one, e.g. test tube) and  
bubbles trapped at the surface by the next day. At this point the volume  
can be increased 10-20 fold and then doubled each day thereafter, until  
you  
reach your pitching volume (1-2 liters).

Why start with such a small volume and work your way up? Well, when  
culturing unicellular organisms such as yeast, bacteria, or animal cells, a  
minimum cell density is often required in order to promote and maintain  
vigorous growth. The stimulation of growth and metabolism requires the  
presence of factors that are secreted into the media (in this case  
secreted  
by the yeast into the wort). A low cell density probably means a low  
level  
of growth factors. Thus, you may experience either no growth or an  
incredible lag time, when innoculating large volumes.

The schedule that I have suggested for increasing your culture volume  
requires nearly a week. Some planning ahead is required. You could  
start  
a culture anytime, work it up to a liter, allow the yeast to grow to  
saturation, and then stick the culture into the refridgerator for a week  
or  
two, until you are ready to pitch. Such a scheme would supply you with  
an  
excellent pitching culture, allowing your fermentation to get underway  
quite rapidly. Certainly, 1-2 liters seem like quite a lot, but those  
40-ml Wyeast pouches are quite a little, though many people do get by  
with  
that amount.

When picking from a plate, I would suggest that you pick more than one  
colony. Each colony originates from a single cell. Many commercial  
yeast  
cultures contain more than one strain of yeast (e.g. Whitbread). The  
fewer

the colonies picked the better the chance that you have eliminated a strain from your culture (you know what that means). Pick from a region where many colonies have grown together. Scrape your loop along the entire region and inoculate your culture.

Hope this proves useful.

Todd M. Gierman  
Department of Microbiology  
Duke University Medical Center

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Date: Wed, 28 Jul 93 11:15:22 MDT

From: npyle@n33.stortek.com

Subject: I'm back/Brewing careers/Chiller h2o/Mash thickness/Zima

Well, I return after a few weeks off to change jobs. In the meantime, I've brewed a wonderful American Pale Ale called Pyle Style Pale Ale. It is all-grain, using Mt. Hood and Cascade hops. If there is interest, I'd be glad to post the recipe.

Jim Busch said in the last digest:

><questions about extract & a brewing career, snip

>

>First, if you are serious about being a pro brewer, you should really >switch to all grain brewing ASAP. Its not that much harder or expensive >and you will start to learn what its like to do the real thing.

>

>Secondly, we need more brewers with backgrounds in Chemistry. This is >not enough by itself, but you can augment this knowledge by inrolling in >Seibels short course in brewing technology or whatever they call it. It >is a 12 week course in Chicago. Before or after this, work in a brewery >doing anything to gain knowledge/experience.

I agree completely. If you are serious about it, get serious about it.

You

won't impress any brewmeisters with a background in extract brewing. I

have

heard of some brewpubs that extract brew but I can't imagine how they make a

profit; also, there are very few of them. That said, read on:

I went to a Brewer's Dinner at the Walnut Brewery in Boulder last month and ate,

drank, and talked with the Brewmaster, Head Brewer, and Assistant Brewer.

It

was a wonderful evening, with awesome food and a brewery tour to boot!

The

Brewmaster, Mark Youngquist, is a young professionally trained brewer who really knows his stuff. He was very impressive, although he basically works in

a management/advisory role now. He sets up new breweries (ala the Rock Bottom

Brewery in downtown Denver; also a new one is opening in Minnesota, I think),

fixes up old ones (Boulder Brewing Company, now Rockies Brewing), and

solves

problems. The Head Brewer is an ex-kitchen guy, who knows food at least as well

as he knows beer. He, with the Assistant Brewer, brews all of the beer sold

at the brewpub. I think they brew twice a week, which are 12 hour days to do

two batches. The rest of the time is maintenance, stocking, cleaning, etc. etc.

The Assistant Brewer was off to Minnesota (I think) to become the Head Brewer at

the new Rock Bottom and a new assistant brewer was introduced. This guy had no,



absolutely no, brewing experience. I was more than a little surprised. I guess the lesson learned is: anyone can get a job in a brewery if you are willing to do a lot of hard work for, I guess, very little pay. If you stick with it, you can learn a lot and go places.

Jim also comments on Robert Pulliams questions:

><From: Robert Pulliam <Robert\_Pulliam@aja.rand.org>  
>Subject: Various questions

>

><1. For a 30 foot chiller, what might I expect the temperature of the  
> exiting water to be. Must I use a hot water rated hose?

>

>Close to water temp.

I don't think this clears it up. The exiting water will start out being very close to boiling with an immersion chiller. This is because you place the immersion chiller in the pot while the boil is still active (to sanitize the chiller). The temperature will quickly drop several 10's of degrees for the first few minutes and eventually approach the temperature of the tap water. counterflow chiller will be a bit different, I think, since the exit water is only in contact with the hottest wort for the last few seconds. This one will probably cause the exit water to start out something less than boiling and remain near this temperature until all of the hot wort is siphoned.

><2. When calculating my extraction efficiency, do I use the gravity of  
> the wort fresh from the tun or after the boil?

>

>after.

It doesn't matter (now watch me contradict myself!). In theory, if you use the before-boil gravity, use the before-boil volume. If you use the after-boil gravity, use the after-boil volume. The number should be the same. The real question is whether to include losses such as liquid trapped in the kettle hops, or break material left behind in the boiler. Since everyone is most concerned with the efficiency of the mash/lautering process, I propose that the before-boil numbers be used to ignore the later losses. An overall efficiency could be calculated which would indicate where your losses are occurring, but I suggest this is only important to commercial operations. And remember: In practice, the difference between theory and practice is greater than it is in theory.

><3. Is there an advantage to using a thick mash compared to using an  
> extremely thin one that would give me say 7-8 gallons on first

> runnings without having to add additional sparge water?  
>  
>Thin is Ok up to about 2 litres/lb of grain.

This is the short answer. I've read about this a bit and, from memory (this is probably a bad idea), I recall that thick mashes favor one enzyme, while thin mashes favor the other (good, I didn't try to name which was which!).

In practice, if you have a mash tun without a heat source (or even if you do!) you can have both. Start out with a thick mash (maybe 1qt/lb). When the temperature drops below your desired range, add hot water to bring it up to temp, which of course thins the mash. You can do this several times. At the end, you can add lots of hot sparge water to bring the temp up to mashout range. Then, you can drain the entire contents of the tun without adding sparge water. This method, and variations on it work for me, a professed lazy brewer, but my efficiency is only around 23-26 points per pound of grain. This of course doesn't bother me in the least since I have more time to play with kids and wife while brewing.

About Zima: you guys are all up in arms about nothing. It is not beer, they don't sell it as beer. They sell it as a new alcoholic beverage. It tastes sweet, with some citrus overtones. It does not taste like beer, not even like Coors Light. It is selling like crazy, too. Don't worry about it; it keeps the barley farmers in business, which is good.

Glad to be back. Hope you all are glad to have me, or at least aren't unsubscribing at too fast a rate!

Cheers,  
Norm

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Date: Wed, 28 Jul 1993 13:20:20 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: St Louis Pubs/Bars

Hi everyone

I have plans to be in St. Louis in a couple of weeks. I have plans to drink beer while I'm there, and it won't be Bud. If there are any brewpubs or bars that I should look up, please e-mail me at

storey@fender.msfc.nasa.gov

Boy! This is a great service. Not too many forums in which you can ask it's members which bars to hit!

thanks  
scott

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Date: Wed, 28 Jul 93 11:31:15 PDT  
From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)  
Subject: large SS brew put available

This weekend at a flea market I found a very large stainless steel brew pot. It is about 28 inches diameter and 20 inches deep. It has two handles and a faucet in the side about 1/2 inch from the bottom. It is used and rather dinged up, but usable. The guy who is selling it said he used it to cook large batches of soup. "You can put the whole pig in !" he exclaimed. He was asking \$40 for it. If you live in the San Jose, CA, USA area and are interested I can get his phone # to you. You would have to see it in person to be sure it is what you want. I doubt he would be willing to ship it.

(Is there a way to limit broadcast of a message like this to only homebrewers in a specific geographic area ?)

Bart

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Date: Wed, 28 Jul 93 14:43:52 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: misc

I wasn't too clear on a few points made yesterday. Here's an attempt to clarify things:

RE: counterflow chilling, the exit temp of the chiller water can be quite hot. I have 12 feet of prechiller that exits over 100F, then feeds 50 feet of main line chilling. This water wasn't measured but is still warm. The great part of this thing is it doubles as a wort pipeline between my brewery in my backyard and my cellar.

<From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: CO2

First of all, this will only work if we assume that the source tank was a siphon type, i.e., dispenses liquid CO2 and not the type one could use for beer dispensing. If you use a top venting tank, all you get is gas and will only get the 800 psi that is in the source tank. This might be enough to dispense a bunch of beer but nowhere near what you would get if filled with liquid CO2. It's like filling a tire from a compressor that is shut off. When the tire pressure equals the tank pressure, that's all you get.

I should of prefaced my comments with: I use four CO2 tanks in my brewery. 3 are 20# tanks used for carbonating and dispensing. The fourth is a small tank that I use for traveling (I hate to lug a tank as big as a 5 gal keg). I can get enough gas into a small tank from a 20# to dispense several 5 gal kegs so this is a convenient way to put gas into a travel tank. It is certainly impossible to "fill the small" tank from the big one.

<Just tried the dry-hopping technique described in the recent Zymurgy.

Whole hops (used Hallertau in a weizen)

A nit here since I am a weizen nitter: If you dry hopped it, it isn't a weizen!  
It may be an excellent American wheat ale though.

Good brewing,  
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: Wed, 28 Jul 1993 13:13:26 -0800  
From: "John C. Post" <jpost@llnl.gov>  
Subject: Wort Chiller Efficiency

Jeff Benjamin sez...

> 1. For a 30 foot chiller, what might I expect the temperature of the  
> exiting water to be. Must I use a hot water rated hose?

> Well, the closer the exiting water is to 100C, the more efficiency  
you're  
> getting. I've never measured the temp of the water coming out of my  
> 40-foot counterflow chiller, but I can empirically say that it's \*hot\*.

I don't agree, at least about the hot exit water indicating efficiency.  
What is important is the total energy transfer, which happens  
much more efficiently with a greater delta T between the cooling water  
and  
the hot wort. Chillers are by definition more efficient at the first  
contact  
point than the last. A high flow rate of cooling water with a minimum  
delta T OF THE COOLING WATER between outlet and inlet can be more  
efficient  
than a lower flow rate and higher delta T, since the efficiency along  
the  
length of the chiller is more constant and representative to the initial  
efficiency.

I could be wrong, but this always worked out on the ranch....

john post  
jpost@llnl.gov

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Date: Wed, 28 Jul 1993 13:22:29 PDT  
From: Mark\_Davis.osbu\_south@xerox.com  
Subject: Re: Lager under water

(The caps are made of regular steel or maybe tin, but not stainless or aluminum, and are coated with some sort of anodizing (I guess from the color inside only.) I know they aren't SS or Al because the magnet in my capper holds onto them.

In the process of capping, the cup that seats the cap may scrape off enough of the coating to expose the underlying metal. While this rust would only be on the outside, it would make you think twice about drinking the contents. I suggest capping a couple bottles of water and testing it out first.)

I had the same problem except I had rust on the bottle caps of the brew that had been aged for an extended time, so someone suggested putting petroleum jelly on the caps to keep them from rusting. I have tried this and it works. All you need to do is take an old rag and put some petroleum jelly on it then rub a little on each cap after the bottling is finished, it's easy if you have the bottles in a case container.

Mark Davis <Mark\_Davis.osbu\_south@Xerox.com>

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Date: Wed, 28 Jul 1993 15:25:00 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzter)  
Subject: Dallas beer info - Thanks!

Thank you, Craig, Keith and Jay!!

The info I received was right on the nose, and I'm quite sure I couldn't have found these places without your help.

To the net: the folks above responded with pointers to my query 'where to drink in Dallas'. The info I got was, there aren't any brewpubs yet (just recently legalized) but there are some pubs worth going to.

Number one for any Dallas visitors:

The Gingerman  
2718 Boll St.  
Dallas TX  
(214) 754-8771

Right behind Hard Rock Cafe off McKinney Ave. 50+ beers on tap, and a lot more than that bottled.

Number two: Head to the West End. Plenty of bars, pubs, lots of outdoor nightlife, at least in July. :) Live bands playing free outdoors, at lam on

Sundays and Mondays (the two nights I was there)??? Is this normal? Wow. There's a brewery there, whose products I didn't get a chance to sample, but they're available at the Outback Pub, an Aussie/English/yuppie style pub.

I received recomendations for Flip's restaurant and the London Tavern, which I also unfortunatly didn't have time to see.

I sampled 3 Texas brews:

Shiner bock, which is not bad but not impressive. An American bock, basically, but you justhave to have it if you're down there. :)

Celis White, the finest American brewed (as opposed to American style) wheat beer I've had. It rivals it's Bavarian ancestors, and is unlike the American wheats made by e.g., Widmer.

Celis Grand Cru, an interesting attempt at a Belgian style. It's too light in color and body to be a true Grand Cru, but they really have the flavor down. How do they do this? Anyone know? It tastes like a true lambic. I'd love to get a bit of that into the raspberry ale I just made. A must try!

Thanks again to the folks that responded to my query. Made life so easy to zip around a town I've never been too, but knew exactly where to go in. :  
)  
) :)

Michael

---

Michael Fetzterpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM



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Date: Wed, 28 Jul 1993 15:42:23 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzter)  
Subject: Dallas beer info - Thanks!

Thank you, Craig, Keith and Jay!!

The info I received was right on the nose, and I'm quite sure I couldn't have found these places without your help.

To the net: the folks above responded with pointers to my query 'where to drink in Dallas'. The info I got was, there aren't any brewpubs yet (just recently legalized) but there are some pubs worth going to.

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Thanks again to the folks that responded to my query. Made life so easy to zip around a town I've never been too, but knew exactly where to go in. :  
)  
) :)

Michael

---

Michael Fetzterpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

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Date: Wed, 28 Jul 93 18:13:10 EDT  
From: roberts735@aol.com  
Subject: Brussels Trip

A close friend, and business associate is going to Brussels for a week,  
and  
asks what beers to bring back for me? If you could select three or four,  
what would they be?

Thanks  
Bob  
RobertS735@aol.com

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End of HOMEBREW Digest #1192, 07/29/93  
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Date: Thu, 29 Jul 93 2:36:41 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: Contacting Michael Jackson

Do you know how to contact Michael Jackson?  
Inquiries to Simon & Schuster have been unfruitful.

- - -

Chuck Cox <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: 29 Jul 93 03:44:36 EST  
From: "Anderso\_A" <Anderso\_A@hq.navsea.navy.mil>  
Subject: HSA and Celis

The following attachments were included with this message:

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TYPE: FILE  
NAME: 1192

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Keith writes,

>Subject: Aeration  
>If you are doing a partial boil and dumping the hot wort into cold  
>water you probably don't have to worry too much about aeration  
>(unless you've preboiled your cold water). Pouring the hot wort  
>through a sanitized strainer will also aerate it (as well as help  
>remove hops and break material). I used this method for a full  
>boil after cooling with a wort chiller and it seemed to work OK.

What you will have to worry about is not whether enough  
aeration takes place, but if the correct aeration occurs. It  
sounds to me like you would be introducing Hot Side Aeration (HSA).  
George Fix had a good article about this in the 1992 Fall Zymurgy  
issue. Basically, cool the wort to under 86 F (30 C) (Fix's  
number) before introducing aeration. Otherwise, you can seriously  
harm the stability of the beer. This happened to me on some of my  
very first batches. I was extract brewing and pouring relatively  
hot wort through a strainer into a carboy with cold water. The  
beer tasted good, but after about 3 to 4 months it really started  
to deteriorate.

-----  
Michael writes,

>I sampled 3 Texas brews:

>Celis White, the finest American brewed (as opposed to American  
>style) wheat beer I've had. It rivals it's Bavarian ancestors, and  
>is unlike the American wheats made by e.g., Widmer.

Celis White is a Belgian Wit (White) beer in style, not a  
German wheat beer. The yeast makes a big difference.

>Celis Grand Cru, an interesting attempt at a Belgian style. It's  
>too light in color and body to be a true Grand Cru, but they  
>really have the flavor down. How do they do this? Anyone know? It  
>tastes like a true lambic.

I think it is a very good Grand Cru. I've never felt that  
Belgian beers have rigid style parameters (as compared with German  
Beers). I believe the Celis fits into the rather broad Grand Cru  
guidelines. As for tasting like a "true lambic", I can only say  
"What?!!!???"

Andy A  
-----





Date: Thu, 29 Jul 93 09:07:38 EDT  
From: lyons%adc3@swlvx2.msd.ray.com  
Subject: No head?

Chip Pencis writes in HBD #1192

> I seem to be having trouble with head retention in all of my beers  
> including store bought Sierra Nevada Summerfest et al. I believe  
> cause may be residue in my glassware. However, I wash the glasses  
> in the dishwasher with Cascade detergent - I use energy saver  
settings  
> for the dry cycle. Let me clarify problems - there is sufficient  
> carbonation in everything - the bubbles form about a 1/2-1" head on  
> pouring but quickly subside to no more than 1/16" head to none at  
all.  
> Any ideas....is this paranoia?

Make sure you are not using a rinse agent (like "Jet Dry") in your  
dishwasher. Rinse agents will leave a transparent film on glasses  
which can destroy the head.

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Date: Thu, 29 Jul 93 10:15:16 EDT  
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>  
Subject: culturing Belgian yeast

Howdy all,

You regulars may remember my post awhile back asking for hints on what beers my girlfriend should bring me back from her trip to Belgium. Well she's back and I have (had) in my possession:

St. Bernardus Abt 12  
Chimay Blue  
Hoegaarden White and Verboten Vrucht  
Duvel (red label)  
Orval  
Rodenbach  
Gordons Highlander Scotch Ale  
Mort Subite Frambois

The question I'd like to pose, is does anyone know if the yeast in the Hoegaarden samples and the Abt 12 is fit to culture and brew with? I know that the Chimay is good stuff, and I already learned (from a recent posting) that the Duvel yeast is not. Ditto for Orval. The others were pasteurized and filtered. TIA

BTW, just as a comment, the Gordons Highlander Scotch Ale was absolutely fantastic. Surely the finest example of the style I have ever tasted. Rich, sweet, malty and oh so strong. Why in the h\*ll is this stuff sold only in Belgium? I'd consider all sorts of unspeakable acts to get my hands on a case of it.

Oh well, any advice is appreciated. Hopefully I'll be attempting my own Belgian styles soon.

Mark Fryling  
Dept. of Chemistry  
The Ohio State University  
<mfryling@magnus.acs.ohio-state.edu>

"Theres no sadder sight than a young pessimist, except an old optimist"  
M. Twain

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Date: Thu, 29 Jul 93 09:15:15 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: DON'T - Pour hot wort thru a strainer

DON'T POUR HOT WORT THRU A STRAINER TO AIRATE YOUR WORT. This can produce unwanted flavors and darkening. Hot wort should be treated gently. It should be cooled before introducing air. See George Fixes article on Hot Side Airation.

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Date: Thu, 29 Jul 93 10:51:24 -0400  
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)  
Subject: Sparge water aeration and pH

As I'm just getting into the all-grain world, and I've got a few questions.

I'm well aware of the perils of hot-side aeration. My question concerns the aeration of and oxygen content of sparge water. One common technique in professional breweries to sprinkle the sparge water from a rotating arm (similar to the Phil Sparger). I would think that this would do I good job of aerating the water. The solubility of oxygen in water at 170 F is about half that at room temperature, so a significant amount can dissolve into the sprinkling sparge water. Doesn't this result in hot-side aeration of the wort in the lauter tun? Even without sprinkling, the water will still have significant dissolved oxygen at 170 F unless first brought near boiling and cooled.

My other question is about pH measurments of the mash and sparge water. How important is it to cool the samples before taking this measurement? I've been using a hand-held pH probe (which is supposed to be temperature compensated), which I just stick into the mash. Am I getting a correct measurement without cooling a sample of the mash?

Thanks

Steve Zabarnick

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Date: Thu, 29 Jul 93 10:11:24 EDT  
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)  
Subject: re efficiency calculations

> From: Jim Busch <busch@daacdev1.stx.com>  
> <From: Robert Pulliam <Robert\_Pulliam@aja.rand.org>  
> <2. When calculating my extraction efficiency, do I use the gravity of  
> the wort fresh from the tun or after the boil?  
>  
> after.

It doesn't matter when you try to calculate the efficiency; all you have to do is measure gravity and volume /at the same time/. Consider, for example, a wort that is 7 gallons at 1.050 when you quit sparging, and 5 gallons and 1.070 when you stop boiling; regardless of the number of pounds of grain you used, the efficiencies calculated from these two sets of #'s will be the same.

It may be easier to measure gravity after you've boiled and cooled the wort; I've never seen a table correcting for temperature above ~100F, so you'd probably have to cool the runoff before measuring. (I'm not even sure such a table would be correct for all plausible concentrations of wort; the effect of temperature on the density of pure water is very well mapped but I couldn't swear this would be valid for water/sugar solutions at more extreme temperatures.)

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Date: Thu, 29 Jul 93 08:51:49 PST  
From: "Gail E. ARMORER" <GEARMORE@uci.edu>  
Subject: Newsletter

Please take my name and address off the newsletter  
mailing list as I will no longer be available to  
receive it. I have enjoyed it greatly!!!! Thanks.  
Gail Armorer  
GEARMORE@UCI.EDU

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Date: Thu, 29 Jul 93 10:05:24 MDT  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Re: Dallas beer/Cellis

> I sampled 3 Texas brews:  
> ...  
> Celis White, the finest American brewed (as opposed to American style)  
> wheat beer I've had. It rivals it's Bavarian ancestors, and is unlike  
the  
> American wheats made by e.g., Widmer.

An interesting comparison, seeing as how Belgian Wit (White) beer is not related to Bavarian Weizen as far as I know, except for the fact that they both use wheat.

Belgian Wit traditionally uses 30-40% unmalted wheat and is spiced with Curacao oranges and corriander. Bavarian Weizen uses 60-70% malted wheat, and no spices, but gets its characteristic "spiciness" (often reminiscent of cloves) from esters produced by special strains of yeast. By comparison, an "American Wheat" beer typically has 40-50% wheat malt as its only distinguishing feature from an American pale ale.

> Celis Grand Cru, an interesting attempt at a Belgian style. It's too light  
> in color and body to be a true Grand Cru, but they really have the flavor  
> down. How do they do this? Anyone know? It tastes like a true lambic.

Ahem... the Grand Cru is good as well, but I don't think it bears much relationship to a true lambic. I vaguely remember hearing someone say that Pierre Celis does add some sort of souring bug (a *Pediococcus*, perhaps?) to both the White and the Grand Cru, but one bug does not a lambic make.

Which leads me to my last topic...

> A close friend, and business associate is going to Brussels for a week, and  
> asks what beers to bring back for me? If you could select three or four,  
> what would they be?

A very tough call. If you like the sour stuff, I recommend either the Cantillon or Boon lambics. My favorite trappist-style beers are Rochefort dubbel and Westmalle trippel. Try a bottle of Kwak Pauvel(sp?) for an example of a good Belgian ale that defines its own category.

If only you could bring back a pitcher of young lambic from Becasse!

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Thu, 29 Jul 93 12:12:53 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Hot liquor tanks & slants

In the last digest:

<From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Hot Water Heaters

<It beats me why this should be a problem. Jim is simply suggesting  
<using a hot water heater to provide very hot water for mashing,  
<sparging, etc. Why should this be a chlorine problem?

<In answer to Jim's question, at least one of the McMenamin brewpubs in  
<Oregon uses exactly this system -- lots of pipes running out of that  
<water heater that aren't standard!

<Jack, every hot liquor (water) system I've seen in a brewery is closed.

I agree in principal that chlorine is a nonissue. A lot of big breweries  
dont do anything to remove chlorine (big = 25 BBl in this sense). The  
argument is that the chlorine is driven off in the kettle anyway. The  
only relevent issue to me is solids/heavy metals etc. I like to remove  
this "junk" prior to mashing. I can see a issue with build up of salts  
in a hot water tank, but at one brew every 3 weeks or so I am not  
concerned.

The hot liquor tanks I am familiar with have a vent tube that overflows  
when the tan k is full. As the water heats this drives some water out  
of the tube and the brewer shuts off the inlet valve feeding the tank.  
My only decision here is the rebound time for a tank to reheat to 180F.  
For this reason, I think I am going to put in a propane fired tank with a  
high temp thermostat.

JS writes:

what do you expect

from a for-profit company like BT? At the moment, BT can survive on  
fewer

Is it true that BT is for profit?? I wonder how "profitable" this kind  
of  
thing is. I bet its like brewing, a lot of sweat equity in every issue/  
batch.

<sounds like you have re-invented the EASYSPARGER.

I dont know if a on demand hot water heater would be capable of providing  
26 gallons of 180F water in a 30 minute time frame. This is my  
requirement.

In Namur, Belgium , I witnessed such a beast. It fed a SS tank that had  
another direct fired burner to boost/maintain the temp. The brewer would  
"ladel" the water over the grains and use a bit spoon/paddle to stir the  
lauter.

JS:

<snip on general useful points of culturing, sounds like the instruction  
manuel  
from the Yeast Culture Kit Co.....

<You would be much better off to transfer the petri culture to slants and use these to start your starter. I cover the slant with wort and use this as a one time, pure culture starter.

This is not what's referred to as a "slant". The first sentence is correct. The second sentence is a technique of preparing a starter. Covering the slant is not a good idea in my opinion. You cover a small sample of yeast with wort, the slant is where the yeast is maintained and cultured from. The difference is a slant has agar with yeast growing on it. A starter has no agar.

Good brewing,  
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: 29 Jul 1993 11:23:15 -0600 (CST)  
From: RBSWEENEY@msuvx2.memst.edu  
Subject: wort aeration

Many people have mentioned the use of an airstone connected to an aquarium pump for wort aeration and this is the system I have been using for my last 5 batches with great results. I have seen vigorous fermentations started in less than 3 hours after running the pump continuously for an hour after racking into the primary and pitching. One way my little system from the way most of these setups have been described (for example Dave Miller's book Brewing the World's Great Beers) is that I don't use any type of air filter on the hose between the airstone and pump. I do sanitize everything but the pump using a Iodophor solution and have not had any infection problems.

I did not include an air filter for two reasons: cost and the fact that all the other aeration methods I am familiar with don't go to trouble of air filtering so why should I? I'm not worried, but I was wondering if anyone else uses a similar system, and if so, why they chose to include or not to include air filtration. Email comments would be appreciated and interesting results can be forwarded to the digest.

Thanks in advance,

Bob Sweeney  
Department of Management Information Systems  
Memphis State University

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Date: Thu, 29 Jul 93 12:45:04 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: diacetyl rest, head retention

Hi All,

In HBD#1191, Jim Busch writes:

>Its called a diacetyl rest. It reduces (guess what??) diacetyl. To be  
>an authentic contential lager, ferment at 48-51F for 1 week, drop temp  
    ^^^^  
>2F per day until it is 42F. Rest here 2-4 days (diacetyl rest)

>Those who  
>"bring up" the temp are preeching the American fast lager approach. This  
>is where ferments are done quite warm (up to 60F)

I'm a little confused here. I don't ferment lagers warm, 48F-50F, and I've always used the Noonan method of raising the temperature for the diacetyl rest (~55F for 2 days), with good results. Can you clarify this point, Jim?

\*\*\*\*\*

In HBD#1192, Keith A. MacNeal writes:

>If you are doing a partial boil and dumping the hot wort into cold water  
>you probably don't have to worry too much about aeration

If you are doing a partial boil and dumping the hot wort into cold water you have to worry very much about oxidation. Splashing \*hot\* wort around causes oxidation reactions, which both darken the wort and produce off flavors in the finished beer. \*Chill\* the wort below 80F first before aeration. In the absence of high temperature, the oxygen remains in it's free form, and can be utilized by the yeast during it's reproductive stage.

From reading this forum and r.c.b, it's clear that this distinction between oxidation and aeration is confusing to a lot of brewers. I'm aware that this practice of adding hot wort to cold water is recommended in a certain popular book on homebrewing. IMHO, this is just one of several pieces of horrible advice contained in said book, and why I recommend to beginners that they get the "other" book written by the less relaxed, more worried guy.

>Pouring the hot wort through a sanitized strainer  
>will also aerate it (as well as help remove hops and break material).

I used this method routinely when I did partial boils, pouring my 2 gallons of \*chilled\* wort through a sanitized strainer. As Keith mentions, it is an effective way to aerate the wort, and does filter hops and trub well.

\*\*\*\*\*

Also in HBD#1192, Lee Menegoni writes:

>Re: Extract efficiency - I was under the impression that measuring the  
pre and  
>post boil extract efficiency would result in unequal values. That the  
post  
>boil value would be lower due to the precipitation of break materials.  
>Has any one measured this? Do they differ? By how much?

I compute extract efficiency after the sparge, and take an OG reading  
after the boil, and I have found that the post boil number is always  
slightly lower, adjusting for volume of course. My brewpot has  
graduation  
marks on the inside in one gallon increments, which allows me to  
"eyeball"  
the finished volume within a quart or so. It's \*possible\* that what I  
have  
observed is nothing more than measurement error, since one quart as a  
percentage of five gallons is larger than the observed difference in  
gravity  
readings. However, if that were so, I would have had cases where the  
second reading was higher than the first, but that has never happened.  
Intuitively, I believe the post boil value is lower due to the  
precipitation  
of break materials. The hydrometer, after all, simply measures SG - I  
don't  
think it can distinguish between sugars and soluble proteins. Comments?  
All that said, the differences I have measured are sufficiently small  
that  
they can be ignored, with respect to getting an OG that's within range  
for  
the style.

\*\*\*\*\*

Chris Pencis writes about head retention:

>I seem to be having trouble with head retention in all of my beers  
>I wash the glasses  
>in the dishwasher with Cascade detergent

I wash my beer glasses in the dishwasher with Cascade as well. Many  
commercial dishwashing soaps have something in them that prevents  
spotting, but which leave a film. I suspect that is your trouble. I  
keep  
a bucket of BBrite under the kitchen sink, rinse the glasses in that,  
then  
rinse well with warm water. The glasses feel different after this, and  
I get good head retention with my beers.

Cheers,  
Jim

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Date: Thu, 29 Jul 93 12:56:41 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: [fwd: DIXIE CUP 1993 Announcement (long)]

ANNOUNCING  
THE 10th ANNUAL  
DIXIE CUP  
HOMEBREW COMPETITION

Yes, folks, it's that time of year again.  
And if you didn't notice, the Houston Foam Rangers  
are trying to get off their backsides and actually  
get this thing organized early this year!

The 1993 Dixie Cup will be held October 15 and 16  
at the Houston Holiday Inn West.

The official Dixie Cup Entry stuff can be requested  
from the folks at DeFalco's Home Wine and Beer Supplies  
5611 Morningside, Houston, TX 77098 (713) 532-8154.  
The contents of the official stuff takes precedence  
over anything in this post (in case I goof).

ELIGIBILITY

Anyone can enter, the competition is open to all non-commercial,  
home-produced beers. Beers produced on the premises of a  
commercial brewery are not eligible. You may enter as often as  
you wish, but only two entries per category/subcategory per  
person please.

ENTRY REQUIREMENTS

Each entry shall consist of 3 bottles, preferable 11-12 oz.  
All labels must be removed, but caps don't have to be blacked  
out. An entry label must be attached to each bottle of the  
entry, with all information required on the form filled in.  
(Actually, all we need is you name, a telephone no., full snail  
mail address, category abbreviation, club affiliation, and  
any special ingredients or deviant style info, so you could  
type this up yourself and forgo the "official" form)  
PLEASE USE RUBBER BANDS TO ATTACH THE FORM TO THE BOTTLE.  
A complete recipe form should accompany each entry. (We want to  
print the recipes later in the newsletter, if you win. You  
can always give it to us after you get a ribbon).

ENTRY DEADLINE/FEEES

Entries, paperwork and cash moola must be in the hands of the  
staid employees of DeFalco's Home Whine & Beer Supplies no  
later than 4PM, SATURDAY, 9 OCTOBER. The Fee is \$6.00 before  
1 October, \$7.00 after. A \$1.00 discount is given to club  
members. (Start your own club?) DeFlaco's address is  
5611 Morningside, Houston, TX 77005. Phone: (713) 523-8154  
FAX: (713) 523-5284.  
NO ENTRIES WILL BE ACCEPTED AFTER 9 OCTOBER!

PACKING/SHIPPING

It is suggested that each bottle be wrapped in bubble pack or  
newspaper. Place one entry (3 bottles) in a small box and  
fill with paper or other packing mat'l. Line a bigger box  
with a

plastic bag and put all smaller boxes in it. Pack the smaller boxes into the big box with paper or packing mat'l. Tie the bag, and seal the box securely. Label the box FRAGILE and THIS END UP appropriately. We suggest that you ship via UPS, if they ask tell them it's bottles, but they're well packed. Try labelling the box KITCHEN SUPPLIES.

WE SUGGEST THAT YOU SEND YOUR ENTRIES ASAP, BEERS THAT ARRIVE EARLIER SEEM TO DO BETTER IN COMPETITION.

#### JUDGING

Judging will take place in three open sessions 15 & 16 October. The first round will be Friday night, the second round and best of show judging will be Saturday afternoon.

WE NEED JUDGES! We expect approx. 650 entries, and need help getting the work done. The competition is AHA/HWBTA recognized, and we'll get you as many BJCP points as is humanly possible for this gig (1 for judging, etc.).

#### AWARDS

THE DIXIE CUP TROPHY is awarded to the club that garners the most points on the following basis: 1st in category - 3 pts. 2nd in cat. - 2 pts., 3rd in cat. - 1 pt.

CLUB QUALITY AWARDS are given to the clubs with the top five scores (I've never understood how this works) in the preliminary round. The awards are sponsored by

Crosby and Baker, and consist of gift certificates redeemable at any homebrew shop that does business with Crosby&Baker.

1st place \$50, 2nd place \$35, 3rd place \$15.

#### INDIVIDUAL AWARDS

1st place - A magnificent stein and a swell ribbon

2nd place - A nifty ribbon

3rd place - A nice ribbon

#### BEST OF SHOW

Best Beer overall - Super Deluxe Pedestal for your stein

Best All Grain - Deluxe Stein

Best Extract - Deluxe Stein

Best Mead - Deluxe Stein

MIKE TEMPLETON AWARD given in memory of one of the original Foam Rangers, the is awarded to the individual who collects the most points using the same scale as the Gulf Coast Homebrewer of the Year.

GULF COAST HOMEBREWER OF THE YEAR is awarded to the brewer who accumulates the most points in the Dallas/Fort Worth Bluebonnet Brew-off, the New Orleans Crescent City Challenge, the Orlando Sunshine Challenge, and the Dixie Cup. Points are awarded as follows: 3 pts. for 1st place in a category, 2 pts. for a 2nd place, and 1 pt. for a 3rd place. The Dixie Cup is the last competition of the series, and the winner will be announced at the Dixie Cup.

CATEGORIES (abbreviations for labels given in parens)

#### I. LAGERS

##### LIGHT/PALE LAGERS

1. American Light (AL)

Continental Lights

2a. Pilsner (CLP)

2b. Munich Helles (CLM)

2c. Dortmund Export (CLD)

#### AMBER LAGERS

3. Oktoberfest/Marzen/Vienna (OV)

4. Steam Beer (SM)

DARK LAGERS

- 5. Continental Dark (CD)
- SPECIAL STYLE LAGERS
- 6a. Traditional Dark Bock (BKD)
- 6b. Light Helles Bock (BKL)
- 7. Strong Lagers (SL)

II. ALES

LIGHT&AMBER ALES

- 8a. Alt Beers (GAA)
- 8b. Kolsch Beers (GAK)
- 9. Light Ale (LA)
- 10a. Classic Pale Ale (CPA)
- 10b. India Pale Ale (IPA)
- 10c. American Pale Ale (APA)

DARK ALES

- 11. Brown Ales and Milds (BAM)
- 12. California/Texas Brown Ales (CTB)
- 13a. Traditional Porter(POT)
- 13b. East Coast Porter(POE)
- 14. Sweet Stout (SS)
- 15. Dry Stout (DS)

OTHER ALES

- 16a. Old Ales (SAO)
- 16b. Barley Wines (SAB)
- 16c. Imperial Stouts (SAI)
- 16d. Trappist Ales (SAT)
- 16e. Strong Scotch Ales (SAS)
- 17a. Light German Wheat Beers (WLG)
- 17b. Light American Wheat (WLA)
- 17c. Amber and Dark Wheat Beers (WBD)

III. UNUSUAL BEER STYLES

- 18. Novelty Beers
- 19. Fruit Beers
- 20. Specialty Beers

IV. MEAD

Meads will be judged as Traditional or Flavored

- 21. Still Meads (MST)
- 22. Sparkling Meads (MSP) note -this was left off the mail-out thing!

Descriptions of the beer styles can be found in the official stuff.

Please enter early and often!

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    / / / / / / / / Happy! Happy! /
  /_ |0| |0|_ / / Joy! Joy! /
 | | ( ) | | | /
 // _ // _ // _ /
 (- / | |
 | Real | | / Sean Lamb (slamb@milp.jsc.nasa.gov)
 / Beer // _ / Loral Space Info Systems
 / _ // Houston, Texas, USofA, Earth, Sol
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 ( _ ( _ )

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Date: Thu, 29 Jul 1993 14:08:35 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: dishwasher detergent

Chris Pencis asks:

>Here's my questions:

> I seem to be having trouble with head retention in all of my beers  
> including store bought Sierra Nevada Summerfest et al. I believe  
> cause may be residue in my glassware. However, I wash the glasses  
> in the dishwasher with Cascade detergent - I use energy saver  
settings  
> for the dry cycle. Let me clarify problems - there is sufficient  
> carbonation in everything - the bubbles form about a 1/2-1" head on  
> pouring but quickly subside to no more than 1/16" head to none at  
all.  
> Any ideas....is this paranoia?

Many dishwasher detergents have "sheeting action" or some such, which is designed to reduce the drip spots on your glassware. This stuff is indeed a surfactant which will kill your head retention. I find in many cases I can smell the stuff on the glasses, and they have a really squeaky-clean feel which gives me the heeby-jeebies. I suggest you either hand wash your beer glasses or get a detergent (or soap) that does not have a surfactant. You may have to wipe a few drip spots off your glasses, but your beer is worth it.

---

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |  
| "I'm not racist, but..." |

+-----+  
Diversity in all things. Especially beer.

-----

Date: Thu, 29 Jul 93 12:12 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: 6 Row Barley Malt

Someone recently posted some comments about megas using adjuncts to cover up the foul taste of 6 row barley malt. I presumed this was a joke until I looked over the grain bill of my last two batches which have a very peculiar taste. Turns out, about 1/3 of the base malt in these batches was 6 row.

Not accepting anecdotal evidence as proof, I set up a set of experiments to find the source of the off taste. Just so happens that I also doughed in both batches the night before mashing so I had two possible causes to deal with. I set up the following experiments with my 500 ml pilot brewery:

#1 100 gr Belgian Munich, doughed in at 10PM. Mashed in the morning, sparged to 700 ml and boiled 60 min with .5 gr Chinook hops to 500 ml. Pitched with PU yeast after cooling to room temp and moved to fridge at 40F after 12 hours.

#2 Same as #1 except that mashing immediately followed doughin.

#3 Same as #1 except used 6 row malt from Minn Malting.

#4 Same as #2 except used 6 row malt from Minn Malting.

Results:

#3 and #4 had the off-taste I noted in the full batches using 6 row malt and #1 and #2 were clean. The samples were tasted every 24 hours for five days and nothing changed other than a reduction in sweetness. The off-taste remained in the 6 row beers.

Not sure how to describe the off-taste but it is quite strong though not necessarily unpleasant in the full batches but quite overpowering in the samples which were all 6 row malt. I would incline to call it sort of a rancid taste.

The good news is that the overnight doughin on the Belgian Munich samples had a very positive effect on the beer. It had far more malty flavor and seemed richer and fuller in body. Doughin the night before fits my lifestyle and I am now confident that the only affect is to improve the beer so I will make it SOP for all future batches.

The effect on the 6 row samples was to just increase the level of the off taste and it even seemed to produce a rather foul odor.

I suppose it is possible that I got a bad batch of malt but I really doubt it as I have had extensive experience with Minn Malting and the malt tastes fine on "chew-in".

>From: gummitch@techbook.com (Jeff Frane)  
>Subject: Re: Hot Water Heaters

>Jack, every hot liquor (water) system I've seen in a brewery is closed. Perhaps it is something they should look into.

>It beats me why this should be a problem. Jim is simply suggesting using a hot water heater to provide very hot water for mashing, sparging, etc. Why should this be a chlorine problem?

Could, not should.

>In answer to Jim's question, at least one of the McMenamin brewpubs in Oregon uses exactly this system -- lots of pipes running out of that water heater that aren't standard!

My guess is that those non-standard pipes are part of the solution.

I simply pointed out that, without venting, the water coming out will contain exactly the same volatiles as the water going in. So if removing chlorine is necessary to the process, than some other means is necessary if the tank is not vented.

I did not mean to imply that a hot water tank could/should not be used. Just a data point for those contemplating same.

>From: Jeff Benjamin <benji@hpfcbg.fc.hp.com>  
>Subject: Bud bashing

>I would also challenge many skeptical homebrewers to brew a lager as light and clean as a Bud. Ingredients are quite different from your average homebrew (uncured malt, adjuncts, etc.), you need techniques to minimize wort darkening and esters, and sanitation is paramount, as the slightest off flavor or aroma will be noticeable.

It is not difficult at all to make lite colored beer if you dilute it with enough water. The most important adjunct to maintain "Bud quality" is corn syrup. This exotic ingredient produces as much alcohol as needed to compensate for water dilution at the end and contributes no color. Virtually every characteristic and lack thereof in Bud can be explained by this simple expedient.

js

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Date: Thursday, 29 July 93 13:30:41 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: stuff

Howdy,

The following four issues were brought up in HBD 1192.

Chris Pencis is worried about his glassware. Soap & detergent are no-no's for beer glassware, unless you can rinse it off very well with very hot water. I can tell a difference between my glasses at home that have been washed out with soap & water & those that have been washed with hot water. Also, chilling the glasses supposedly prevents a nice head, but I haven't been able to tell too much of a difference. If you are particularly worried about cleanliness, a quick dunk in chlorine water should take care of any little bugs.

Also, Chris is wondering when to put the spices in his Christmas ale. I made one last year, & I boiled my spices (fresh ginger root, grated orange zest, dried nutmeg, & a cinnamon stick) in a nylon bag with the extract. I was very happy with it.

John Palmer brings up the issue of homebrew as a laxative. While I personally have not had that problem, I have talked to people who tried other people's homebrews & complained that it gave them the runs. It's almost always folks who have never had homebrew before, I've noticed. Maybe it's an overdose of vitamin B12, but I haven't the slightest.

Michael Fetzter gives a review of Celis Grand Cru. Celis Grand Cru IS a true Belgian beer, brewed right here in America. Pieter Celis brewed beer originally in Belgium, including the very same beer that he now calls Grand Cru (it was Hoegaarden Grand Cru in Europe). I think you may be noticing a difference because it's good, fresh beer & not something that went across on ocean on a boat, sat in a warehouse in New York, sat in another warehouse in your hometown, then sat on a shelf for two months because people were afraid to try it. (Whew.) By the way, it is brewed with Curacao orange peels & a "secret" ingredient, & has a alcohol content of ~7%, all which give it the interesting flavor you probably noticed.

Happy brewing,

Alan, Austin

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Date: Thu, 29 Jul 93 18:32:00 +0000  
From: ron\_hall%80@hp6400.desk.hp.com  
Subject: Cheap Kegs?

I have been searching for a cheap source of Cornelius kegs. I noticed in the classified ads of the Celebrator, Brewing Techniques, and maybe Zymurgy an ad for used pin lock kegs for \$17 + shipping and used ball fitting kegs for \$22 + shipping from The Beverage Co., Anderson, CA. Has anyone ordered or seen any of these? Are they really beat up? Have they been leak checked? The price seems too good to be true.

Please reply off-line unless it seems of general interest.  
Thanks in advance.

Ron Hall, Corvallis, Oregon  
ron\_hall@hp6400.desk.hp.com

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Date: Thu, 29 Jul 93 15:32:09 -0400  
From: polstra!larryba@uunet.UU.NET  
Subject: Re: inoculating a starter from a petri dish

In HBD# 1191, "atzeiner" writes:

>I just started culturing yeast and have two ale yeast cultures in petri  
>dishes. Out of curiosity, I used my innoculating loop to scrape up a  
>glob of  
>yeast and put it into a starter bottle(~1/2 full 12 oz. beer bottle). I  
didnt  
>really see much sign of fermentation, but after about 3 or 4 hours I  
looked at  
>it and it seemed to have yeast sediment in it. I was wondering if it  
was  
>possible that there was enough yeasties in the glob that I picked up to  
make a  
>decent starter in only a few hours. How much yeast should you pick up  
to  
>inoculate a 6 or 7 oz starter??  
>

Depending upon the size of the glob it is entirely reasonable that you  
see  
sediment pretty quickly. At room temp yeast doubles roughly every three  
hours. I would guess that your 6oz of wort will start fermenting pretty  
strongly after about three days.

Usually I start with around 30ml of wort and put my glob o yeast  
(from the slant, but occasionally from a plate) in it three days before  
brewing. Within 8 hours the wort is turbid and some sediment is showing.  
Usually between 24-48 hours the 20ml is actively bubbling and I can raise  
a head by swirling. Then I pitch into 150ml and twelve hours later I  
pitch into my main starter, 500ml. I try to time the final pitch the  
evening  
before brewing. If things are going too fast I just let the 180ml (150 +  
30)  
sit and ferment out. Usually once the 30 ml is going it only takes 12  
hours  
(at room temp) to get the next size going.

Another important point to remember is to aerate your growth medium a  
lot.  
This is important for yeast growth. I do this by pouring the media +  
yeast  
back and fourth between two sterile ball jars (I bake at 350 for a half  
hour  
to sterilize - cover with aluminum foil).

Oh, on last tidbit: I use reclaimed wort from my hot break/hops and  
dilute  
with water to roughly 1.020-25 before canning in ball jars (process for  
20-30 minutes in boiling water). Although the experts claimn that boil  
process for 20 minutes doesn't sterilize the media I have never \*ever\*  
had any hopped wort go bad, even stuff stored for over a year at room  
temp.

- --  
Larry Barello uunet!polstra!larryba

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Date: Thu, 29 Jul 93 14:11:19 MDT  
From: npyle@n33.stortek.com  
Subject: Pale Ale Recipe

There was sufficient reponse to post the recipe so here 'tis:

PYLE STYLE PALE ALE  
(an American Pale Ale ala Sierra Nevada Pale Ale)

Brewed 7/10/93  
Recipe for 5 US gallons (after losses)

5.00 lb American pale malt from Briess  
4.00 lb English pale malt from Hugh Baird  
0.75 lb Belgian crystal malt from ???

1.00 oz Mt. Hood pellets (a=3.9)  
2.00 oz Cascade pellets (a=5.1)  
0.60 oz Cascade leaf hops (a=5.6)\*  
\*from Mark Nightingale's garden 1992 crop

1056 Wyeast American Ale yeast dated 6/23/93\*  
\*made a one quart starter 24 hours in advance

1.00 tsp Irish moss (added in last 10 minutes of boil)  
0.75 c corn sugar for bottling

Mash water was 9 qts of 168F water poured into a room temperature 48 qt rectangular cooler mash/lauter tun. Doughed in pale malts only. Mash-in temperature was 150F after stabilizing. Mashed at 145-155 (added 1 qt of 180F water when temp dropped to 145F). Conversion complete in one hour. Crystal was added at mash-out. Dumped 20 qts of 180F water into tun and stirred (mashout and batch sparge in one step). Sparge was very slow, nearly stuck twice, so I back flushed the copper manifold to loosen it up (need to adjust my grainmill!). Start of boil, the volume was around 32 qts. Boiled down to 22 qts. at 1.045.  
Points of extract = (45pts. \* 5.5 gal.) / 9.75 lbs. = 25 pts/lb/gal.

Hopping schedule:

60 min: 0.50 oz MH IBU = 8.3  
30 0.50 MH 4.5  
0.50 Cp 5.8  
10 0.50 Cp 2.5  
dry 0.50 Cl 1.0 (leave on for 10 days)

-----  
Approximate Total IBU = 22.1 (Balanced beer at 1.045 = 20 IBU)

A note about hopping: I was attempting to get most of my IBUs later in the boil to reduce some back of the tongue bitterness. I wanted this to be a hop flavored beer, rather than just have bitterness to balance the malt. On most beers I try for 50-60% of the bitterness at the 60 minute addition, but as you can see, I did not do that here. I achieved my goal I think (see tasting notes).

Full fermentation in 12 hours, high krauesen in 36 hours. Dry hops were just thrown on top of beer in secondary.

7/14/93 Racked to secondary and added dry hops, SG = 1.010 (after 4 days)  
7/24/93 Bottled FG = 1.008 (after 14 days)  
7/27/93 Tasting notes (I like my beer fresh!)  
- About 50% carbonated



- Hops! Cascades are all over the place, mostly aroma. This is not a bitter beer, but is loaded with aroma. I expect some of this to fade with time, bringing out the malt. At this point, the hops dominate, which I expected.

- Very clean tasting, very little esters
- Still a bit cloudy (need more patience)
- Color is pale, about like a Sierra Nevada (the lightest colored brew I've ever brewed)

- This is a keeper. It is rare for me to brew a recipe more than once, but this one will happen again. This is only the second in 16 batches that I vow to repeat. Enter it in a contest? Hah! I wouldn't waste 3 bottles of this on Michael Jackson...

Enjoy!

- - -

Norm Pyle, Staff Engineer  
npyle@n33.stortek.com  
Storage Technology Corporation  
2270 South 88th Street  
Louisville, CO 80028-0211  
(303) 673-8884

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Date: Thu, 29 Jul 1993 16:45:39 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: Brewery Addresses.

Does anyone know of a publication I could look up that would list mailing addresses for breweries in CA, OR, & WA?

I'm sad to report that Zima seems to be selling well in Pgh. Several people I know think it's the greatest thing ever. After all, lots of people don't like the taste of (commercial) beer, and Zima doesn't taste like beer. It tastes like a bad mixed drink. I expect they will do well for a while, then probably people will get bored with it's zippy image and it will dissapear.

Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Thu, 29 Jul 93 14:36:37 PDT  
From: tpm@wdl.loral.com (Tim P McNerney)  
Subject: Re: inoculating a starter from a petri dish

My biggest problem with inoculating a starter from a petri dish is that I don't want to go through 5 different sized, sanitized starters to build up enough yeast. I tried inoculating a few ml of wort in a 1 liter flask, but did not see the activity I was used to with 10 ml testtubes. I got the testtubes with presterilized wort from the Yeast Kit Culture Company (along with 50 ml testtubes) and these worked great. So my questions are:

1. Did the fact the the wort in the flask was so shallow cause problems with yeast growth or just with the visible effects?
2. Since I only tried this once, did I just mess up this one inoculation?
3. How do other people build up a healthy sized started with spending half their life preparing storage vessels?

---

- --Tim McNerney  
- --Loral Western Development Labs  
- --(408) 473-4748  
- --tpm@wdl1.wdl.loral.com

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Date: Thu, 29 Jul 1993 16:02:37 -0800

From: ulrich@sfu.ca

**Subject: Frisia**

The last week or two there has been much discussion of Frisia (under a variety of correct and incorrect spellings), so I checked it out.

Friesland

is a province of the Netherlands. Ostfriesland (East F.) and Nordfriesland

(North F.) are in Germany. The Frisian Islands are divided among the Netherlands, Germany, and Denmark. The Frisian language (or Friesisch, as they call it) is more closely related to English than either is to Dutch or

German. It is largely being replaced by Dutch (in the Netherlands) and German (in Germany).

Charles Ulrich (linguist by trade, brewer by nature)

And now back to beer...

-----

Date: Thu, 29 Jul 1993 19:30:35 EDT  
From: davanb%URSLIB.BITNET@PUCC.PRINCETON.EDU  
Subject: ZIMA

Going against the advice of one wiser than me who suggested avoiding ZIMA even if free, I gave it a shot simply to be fair. Unfortunately for me, my order was followed by a curious, "Have you tried this yet? I can't stand it." from the waiter. Indeed, it stinks. It tastes exactly like alka-seltzer with a squirt of lime. I should have known better: Coors=Crap; therefore ZIMA=the bastard son of Crap. Why ask why? --- Drink real beer!

Dave, a Khyber Passenger in Philly

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End of HOMEBREW Digest #1193, 07/30/93

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Date: Fri, 30 Jul 1993 13:25:34 +0930  
From: Murray Robinson <robinm@mr.dsto.gov.au>  
Subject: Possible solution to commercial posts ?

After reading the discussions about whether or not commercial posts should be allowed on the Homebrew Digest I checked up on an automatic mailer package that may hold one solution to the problem.

Mail-Net (automatic mailing list handling software) allows users to subscribe to different "channels" of the same news group. For example, the HBD could have a "commercial" and "non-commercial" channel. When users subscribe to the newsgroup they would specify which channel they wish to receive and when posting articles they would specify which channel the article should go to. Non-commercial submissions would appear on both channels of the HBD whereas commercial submissions would only appear on the commercial channel of the HBD.

eg If I wanted to receive both commercial and non commercial postings of the HBD I would subscribe to the HBD with the following keyword in either the header or first line of the message: "X-Mn-Key: commercial"

Then if I wanted to post a non commercial submission I would specify the subject in the header as usual and put the keyword "X-Mn-Key: non-commercial" in the first line of my message. Similarly if I wanted to post what would be deemed to be a commercial submission I would specify "X-Mn-Key: commercial" in the first line of the message.

This approach obviously doesn't solve the fundamental differences of opinion about the content of the HBD but it does offer some freedom from commercial posts if that is what you want. Ofcourse the whole system falls down if the keyword "X-Mn-Key: commercial" is not put on the first line of commercial posts.

Food for thought anyway.

Cheers,  
Murray.

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Date: Fri, 30 Jul 93 02:22:59 CDT  
From: Sean C. Lamb 335-6669 Loral <slamb@milp.jsc.nasa.gov>  
Subject: Dixie Cup 1993 (long)

ANNOUNCING  
THE 10th ANNUAL  
DIXIE CUP  
HOMEBREW COMPETITION

Yes, folks, it's that time of year again.  
And if you didn't notice, the Houston Foam Rangers  
are trying to get off their backsides and actually  
get this thing organized early this year!

The 1993 Dixie Cup will be held October 15 and 16  
at the Houston Holiday Inn West.

The official Dixie Cup Entry stuff can be requested  
from the folks at  
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5611 Morningside, Houston, TX 77098 (713) 532-8154.  
The contents of the official stuff takes precedence  
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category/subcategory per person please.

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11-12 oz. All labels must be removed,  
but caps don't have to be blacked out.  
An entry label must be attached to each bottle  
of the entry, with all information  
required on the form filled in.  
(Actually, all we need is your name, a telephone no.,  
full snail mail address, category abbreviation,  
club affiliation, and any special ingredients or  
deviant style info, so you could type this up  
yourself and forgo the "official" form)  
PLEASE USE RUBBER BANDS TO  
ATTACH THE FORM TO THE BOTTLE.  
A complete recipe form should accompany each entry.  
(We want to print the recipes later in the  
newsletter, if you win. You can always give  
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5611 Morningside, Houston, TX 77005.  
Phone: (713) 523-8154  
FAX: (713) 523-5284.  
NO ENTRIES WILL BE ACCEPTED AFTER 9 OCTOBER!

#### PACKING/SHIPPING

It is suggested that each bottle be wrapped in bubble pack or newspaper. Place one entry (3 bottles) in a small box and fill with paper or other packing mat'l. Line a bigger box with a plastic bag and put all smaller boxes in it. Pack the smaller boxes into the big box with paper or packing mat'l. Tie the bag, and seal the box securely. Label the box FRAGILE and THIS END UP appropriately. We suggest that you ship via UPS, if they ask tell them it's bottles, but they're well packed. Try labelling the box KITCHEN SUPPLIES.

WE SUGGEST THAT YOU SEND YOUR ENTRIES ASAP, BEERS THAT ARRIVE EARLIER SEEM TO DO BETTER IN COMPETITION.

#### JUDGING

Judging will take place in three open sessions 15 & 16 October. The first round will be Friday night, the second round and best of show judging will be Saturday afternoon.

WE NEED JUDGES! We expect approx. 650 entries, and need help getting the work done. The competition is AHA/HWBTA recognized, and we'll get you as many BJCP points as is humanly possible for this gig (1 for judging, etc.).

#### AWARDS

THE DIXIE CUP TROPHY is awarded to the club that garners the most points on the following basis:

1st in category - 3 pts.  
2nd in cat. - 2 pts.,  
3rd in cat. - 1 pt.

CLUB QUALITY AWARDS are given to the clubs with the top five scores

(I've never understood how this works) in the preliminary round. The awards are sponsored by Crosby and Baker, and consist of gift certificates redeemable at any homebrew shop that does business with Crosby&Baker. 1st place \$50, 2nd place \$35, 3rd place \$15.

INDIVIDUAL AWARDS for each category

1st place - A magnificent stein  
and a swell ribbon

2nd place - A nifty ribbon

3rd place - A nice ribbon

#### BEST OF SHOW

Best Beer overall - Super Deluxe Pedestal  
for your stein

Best All Grain - Deluxe Stein

Best Extract - Deluxe Stein

Best Mead - Deluxe Stein

MIKE TEMPLETON AWARD given in memory of  
one of the original Foam Rangers, it is

awarded to the individual who collects the most points at the Dixie Cup using the same rules as the Gulf Coast Homebrewer of the Year.

GULF COAST HOMEBREWER OF THE YEAR is awarded to the brewer who accumulates the most points in the Dallas/Fort Worth Bluebonnet Brew-off, the New Orleans Crescent City Challenge, the Orlando Sunshine Challenge, and the Dixie Cup.

Points are awarded as follows:

3 pt.s for 1st place in a category,  
2 pts. for a 2nd place,  
and 1 pt. for a 3rd place.

The Dixie Cup is the last competition of the series, and the winner will be announced at the Dixie Cup.

#### CATEGORIES

(abbreviations for labels given in parens)

##### I. LAGERS

###### LIGHT/PALE LAGERS

1. American Light (AL)

Continental Lights

2a. Pilsner (CLP)

2b. Munich Helles (CLM)

2c. Dortmund Export (CLD)

###### AMBER LAGERS

3. Oktoberfest/Marzen/Vienna (OV)

4. Steam Beer (SM)

###### DARK LAGERS

5. Continental Dark (CD)

###### SPECIAL STYLE LAGERS

6a. Traditional Dark Bock (BKD)

6b. Light Helles Bock (BKL)

7. Strong Lagers (SL)

##### II. ALES

###### LIGHT&AMBER ALES

8a. Alt Beers (GAA)

8b. Kolsch Beers (GAK)

9. Light Ale (LA)

10a. Classic Pale Ale (CPA)

10b. India Pale Ale (IPA)

10c. American Pale Ale (APA)

###### DARK ALES

11. Brown Ales and Milds (BAM)

12. California/Texas Brown Ales (CTB)

13a. Traditional Porter(POT)

13b. East Coast Porter(POE)

14. Sweet Stout (SS)

15. Dry Stout (DS)

###### OTHER ALES

16a. Old Ales (SAO)

16b. Barley Wines (SAB)

16c. Imperial Stouts (SAI)

16d. Trappist Ales (SAT)

16e. Strong Scotch Ales (SAS)

17a. Light German Wheat Beers (WLG)

17b. Light American Wheat (WLA)

17c. Amber and Dark Wheat Beers (WBD)

##### III. UNUSUAL BEER STYLES

18. Novelty Beers



Date: Fri, 30 Jul 93 02:23:38 CDT  
From: Sean C. Lamb 335-6669 Loral <slamb@milp.jsc.nasa.gov>  
Subject: Dixie Cup 1993 Events

ANNOUNCING  
THE 10th ANNUAL  
DIXIE CUP  
HOMEBREW COMPETITION

Yes, folks, it's that time of year again.  
And if you didn't notice, the Houston Foam  
Rangers are trying to get off their backsides  
and actually get this thing organized  
early this year!

The 1993 Dixie Cup will be held  
October 15 and 16 at the  
Holiday Inn Houston West.

The official Dixie Cup Entry stuff can  
be requested from the folks at  
DeFalco's Home Wine and Beer Supplies  
5611 Morningside, Houston, TX 77098  
(713) 532-8154.  
The contents of the official stuff  
takes precedence over anything in this  
post (in case I goof).

ATTENDING THE DIXIE CUP

HOTEL RESERVATIONS can be had by calling the  
Holiday Inn 800 number (don't have it with me)  
or by calling the Holiday Inn Houston West  
directly at (713) 558-5580. The rate is \$52  
per room per night, and don't forget  
to ask for the Dixie Cup rate, and mention  
the quoted rate. The address of the hotel  
is 14703 Park Row, it is on the north side  
of Interstate 10 at the junction of Highway 6  
on the far west side of Houston.

SCHEDULE OF EVENTS

Friday, 15 October  
1200-1700 Set-up, call DeFalco's to help  
1745 sharp Assembly of first round judges  
1800-1830 Judge and Steward orientation  
1830-2230 1st round judging  
2230-2315 Potluck dinner  
2315-2400 Fred Eckhardt Epicurean  
Extravaganza

Saturday, 16 October  
0830-1130 Milli-Conference and Breakfast  
(\$12) or BJCP EXAM (\$40)  
1130-1200 Lunch (Free for judges/stewards  
otherwise \$5)  
1200-1400 2nd round judging  
1400-2000 Pub Crawl/Microbrew Tasting/  
Jambalaya Feast  
2200-2400 Awards Ceremony

Sunday, 17 October  
1200 - ? World's Fastest Hombrewer  
Competition

FRED ECKHARDT EPICUREAN EXTRAVAGANZA  
THIS year we return to the original sin:  
Beer and Chocolate!

MILLI-CONFERENCE

Presentations by George Fix,  
Paul Farnsworth and  
Pierre Celis

\$12, including breakfast buffet

PUB CRAWL/MICRO TASTING/JAMBALAYA FEAST

The Pub Crawl will wend its way to the  
Orange Show, where the Micro Tasting  
will be held. The Crescent City  
Homebrewers are supplying loads of the  
most excellent jambalya, and we'll have  
as many Micro/Craft brewed beers as we  
can scrounge. The pub crawl is \$14,  
including the micro tasting.  
The micro tasting and food is \$3 if  
you don't crawl.

We are looking for beer for the micro  
tasting, so if you're coming and feel up  
to it, bring a couple of sixes of your  
favorite local brew. Also, if you know  
a brewer personally, have them contact  
us if they feel like getting their  
product "exposed" to the Houston Market.

WORLD'S FASTEST HOMBREWER

Come to Malibu Grand Prix and try to  
wrest the title from Chuck Cox!

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/ / / / / / / Happy! Happy! /  
/\_|O|O|\_ / / Joy! Joy! /  
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/ / / / / / / / / /  
( / | |  
| Real | | / Sean Lamb (slamb@milp.jsc.nasa.gov)  
/ Beer / / /  
/ / / / / Houston, Texas, USofA, Earth, Sol  
- | | - | |  
 ( ) ( )  
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Date: Fri, 30 Jul 1993 7:30:56 -0400 (EDT)  
From: P\_LABRIE@UNHH.UNH.EDU (Paul LaBrie)  
Subject: re: clean glasses and head retention

RE: Chris' question (and subsequent replies) about head retention, dish-washing detergents, etc., an old trick to make a "beer clean glass" (i.e. to cut through an existing "film") was to wet the glass then rub good old fashioned table salt around the inside of the glass. Typically you can only reach the upper 1/3 of the glass with your fingers but this seems to do the trick. When you've finished with this "salt scrub", be sure to give the glass a THOROUGH rinsing with plenty of water before pouring your beer.

I worked for several years for a beer distributor who was a zealot about presenting his product in a "beer clean glass". As I recall, he used to give out free bags of trisodium phosphate to his draft customers so that they might better clean their glassware. "If the bubbles stick to the side, the glass ain't clean."

- paul -

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Date: 30 Jul 93 08:24:11 EDT  
From: Robin Garr <76702.764@CompuServe.COM>  
Subject: bos93.txt

These are the top prizes awarded at Thursday night's banquet at the American Homebrewers Association convention.

First, second and third prizes in all homebrewing categories follow as a separate post.

The information in these messages is unofficial, reported during live coverage of the events on the CompuServe Beer Forum by Sysop Robin Garr.

HOME BREW CLUB HIGH-POINT AWARD  
Sonoma Beerocrats, Santa Rosa, Sonoma County, Calif.

SAKEMAKER OF THE YEAR  
Jim Long, Sacramento, Calif.

CIDERMAKER OF THE YEAR  
Gabriel Ostriker, Somerville, Mass.

MEADMAKER OF THE YEAR  
Walter Dobrowney, Saskatoon, Sask.

THE NINKASI AWARD  
Walter Dobrowney, Saskatoon, Sask.

HOME BREWER OF THE YEAR  
Paddy Giffin, Cotati, Calif.

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Date: 30 Jul 93 08:24:29 EDT  
From: Robin Garr <76702.764@CompuServe.COM>  
Subject: aha93.txt

These are the winners of the 1993 annual American Homebrewers Association competition, announced Thursday, July 29, 1993, at the final banquet of the AHA convention in Portland, Oregon.

BARLEY WINE (Sponsor, EDME Ltd.):

Third: Bill Clawson, Diamond Springs, Calif., Gold Country Brewers Assn.  
Second: Chuck Boyce, Cincinnati, Bloatarian Brewing League.  
First: Ray Call, Stockton, Calif., Sonoma Beerocrats.

BELGIUM-STYLE SPECIALTY (Sponsor, Manneken-Brussel Imports):

Third: Phil Markowski, Norwalk, Conn., Underground Brewers of Connecticut.  
Second: Tony Babinec, Flossmoor, Ill., Chicago Beer Society.  
First: Brian Bliss, Dallas, North Texas Homebrewers Assn.

BROWN ALES (Sponsor, Premier Malt Products):

Third: John M. Roberts, Jamaica Plain, Mass., American Brown.  
Second: Jim Dilldine, Craig, Colo., American Brown.  
First: Douglas Brown, Redondo Beach, Calif., Maltose Falcons Homebrewing Society, English Mild.

ENGLISH STYLE PALE ALE (Sponsor, Wynkoop Brewing Co.):

Third: Matt Hussey and Casey Lott, Portland, Ore., India Pale Ale.  
Second: Russell Levitt, Bloomington, Ind., Classic English Pale Ale.  
First: Kelly Dunham, Pacifica, Calif., The Brewbirds of Hoppiness, India Pale Ale.

AMERICAN STYLE ALE (Sponsor, Northwestern Extract):

Third: Daniel R. Bell, Grass Valley, Calif., Foothill Fermenters, American Pale Ale.  
Second: Mike and Dina Kraft, Austin, Texas, Zymurgic Enthusiasts of Austin, American Pale Ale.  
First: Jack H. Denny, Lenexa, Kan., Kansas City Beer Meisters, American Wheat.

ENGLISH BITTER (Sponsor, The Brewery):

Third: Steve Klover, Thornton, Colo., Hop Barley & The Alers, English Special.  
Second: Byron Burch, Santa Rosa, Calif., Sonoma Beerocrats, English Extra Special.  
First: Donna Lynn and Brian F. Johnson, Palo Alto, Calif., San Andreas Malts, English Special.

SCOTTISH ALE (Sponsor, Something's Brewing):

Third: Jay Ankeney, Manhattan Beach, Calif., Maltose Falcons Homebrewing Society, Scottish Light.  
Second: Ted Andersen, Petaluma, Calif., Sonoma Beerocrats, Scottish Heavy.  
First: James E. Edgins, Highlands Ranch, Colo., Hop Barley & The Alers, Scottish Heavy.

PORTER (Sponsor, The Cellar):

Third: Joel Rosen and Nancy Simon, Hermosa Beach, Calif., The Strand Brewers Club, Robust Porter.

Second: Scott Keohane, Carlisle, Mass., The Boston Wort Processors, Robust Porter.

First: Marvin Crippen, Seattle, Robust Porter.

ENGLISH AND SCOTTISH STRONG ALE (Sponsor, Wine and Hop Shop):

Third: Rick Garvin, Arlington, Va., Brewers United for Real Potables (BURP),

English Old Ale/Strong Ale.

Second: Mike Schaefer, Wauwatosa, Wis., Brewtown Brewmasters, English Old Ale/Strong Ale.

First: Ray Call, Stockton, Calif., Sonoma Beerocrats, Strong "Scotch" Ale.

STOUT (Sponsor, Alternative Garden Supply):

Third: Mike Rego, Amherst, N.H., Brew Free or Die Club, Foreign Style.

Second: Chris Stamp, Rock Stream, N.Y., Ithaca Brewers Union, Sweet Stout.

First: David and Melinda Brockington, Seattle, Foreign Style.

BOCK (Sponsor, Yakima Valley Hop Growers):

Third: Alan Barnes, Nashville, Tenn, Mashville Brews, Helles (Light) Bock.

Second: Bob Tullmann, Pine Mountain, Calif., Doppelbock.

First: Ron Kribbs and Rick Skillman, Naples, Fla., Eisbock.

BAVARIAN DARK (Sponsor, Crosby and Baker):

Third: Dennis Kinvig, Toronto, Ont., Canadian Association for Better Ale and Lager (CABAL), Munich Dunkel.

Second: Tom Altenbach, Tracy, Calif., Draught Board Home Brew Club, Schwarzbier.

First: Jay Hersh, Medford, Mass., The Boston Wort Processors, Munich Dunkel.

DORTMUND/EXPORT (Sponsor, Briess Malting Co.)

Third: Thomas J. O'Connor III, Rockport, Me., Maine Ale & Lager Tasters (MALT).

Second: Rob Brunner, Windsor, Colo., Mash Tongues.

First: Robert Henke, Whitefish Bay, Wis.

MUNICH HELLES (Sponsor, L.D. Carlson Co. [Formally Wines Inc.]):

Third: Richard Kowalski, Wantagh, N.Y., Paumanok United Brewers (PUB).

Second: Keith Weerts, Windsor, Calif., Sonoma Beerocrats.

First: Donald J. Weaver, New Freedom, Pa., Libation Association.

CLASSIC PILSNER (Sponsor, California Concentrates):

Third: Chris Moes, Woodside, Calif., German.

Second: Ron Page, Middletown, Conn., The Boston Wort Processors, German.

First: Steve and Tina Daniel, League City, Texas, Bay Area Mashers (BAM)

,  
German.

AMERICAN LAGER (Sponsor, Coors Brewing Co.):

Third: Charles P. Hessom, Redwood Valley, Calif., Sonoma Beerocrats, American

Standard.

Second: Steve & Tina Daniel, League City, Texas, Bay Area Mashers (BAM), American Dark.

First: Gene Muller, Westmont, N.J., HOPS, Cream Ale/Lager.

VIENNA OKTOBERFEST/MARZEN (Sponsor, F.H. Steinbart Co.)  
Third: Ron Page, Middletown, Conn., The Boston Wort Processors, Marzen/  
Oktoberfest.  
Second: John M. Roberts, Jamaica Plain, Mass., Marzen/Oktoberfest.  
First: John E. Janowiak, Adelphi, Md., Marzen/Oktoberfest.

GERMAN-STYLE ALE (Sponsor, The Beverage People):  
Third: Keith Weerts, Windsor, Calif., Sonoma Beerocrats, Dusseldorf-  
style  
Altbier.  
Second: Bruce Cornell, Baton Rouge, La., Redstick Brewmasters, Kolsch.  
First: Bill Yearous, Galt, Calif., Brew Angels, Dusseldorf-style Altbier.

FRUIT BEER (Sponsor, The Purple Foot):  
Third: Kelly Mower and Brent Stromness, Salt Lake City, Zion Zymurgists  
Hops  
(ZZ HOPS) Club.  
Second: Vern Wolff, Esparto, Calif., Gold Country Brewers Assn.  
First: Gene Muller, Westmont, N.J., HOPS Club.

HERB BEER (Sponsor, Marin Brewing Co.):  
Third: Michael Millerick, Fairfield, Conn.  
Second: Mike Schaefer, Wauwatosa, Wis., Brewtown Brewmasters Club.  
First: Richard Mansfield and Mike Smith, San Jose, Calif., Washoe Zephyr  
Zymurgists Club.

SPECIALTY BEER (Sponsor, Beer and Wine Hobby):  
Third: Ronald B. Moucka, Fort Collins, Colo., Mash Tongues Club.  
Second: Frank F. Miller, Libertyville, Ill.  
First: Ron Page, Middletown, Conn., The Boston Wort Processors.

SMOKED (Sponsor, Jim's Homebrew Supply):  
Third: George Mika, Warrenton, Va., Brewers United for Real Potables  
(BURP).  
Second: Mike Fertsch and David Koresh (!?), Woburn, Mass., The Boston  
Wort  
Processors, Bamberg-style Rauchbier.  
First: Paddy Giffen, Cotati, Calif., Sonoma Beerocrats.

CALIFORNIA COMMON BEER (Sponsor: Anchor Brewing Co.)  
Third: Strom C. Thacker, Gainesville, Ga.  
Second: Robbie Enrico, Greensburg, Pa., Three Rivers Alliance of Serious  
Homebrewers (TRASH).  
First: Michael Dennis Bell, Pleasant Hill, Calif.

WHEAT BEER - ALE (Sponsor: American Homebrewers Association):  
Third: Bruce A. Brandt, Casnovia, Mich., Prime Time Brewers, Berliner  
Weisse.  
Second: Steve Dempsey, Fort Collins, Colo., Hop Barley & The Alers Club,  
German-style.  
First: Walter Dobrowney, Saskatoon, Sask.

TRADITIONAL MEAD (Sponsor, Havill's Mazer Mead Co.):  
Third: Paddy Giffen, Cotati, Calif., Sonoma Beerocrats, Still Mead.  
Second: Byron Burch, Santa Rosa, Calif., Sonoma Beerocrats, Sparkling  
Mead.  
First: Walter Dobrowney, Saskatoon, Sask., Still Mead.

MELOMEL, CYSER, PYMENT (Sponsor, National Honey Board):  
Third: Peter Knight, St. Helena, Calif., Sonoma Beerocrats, Still.  
Second: Bob Gorman, Waltham, Mass., The Boston Wort Processors.  
First: Gordon Olson, Los Alamos, N.M., Los Alamos Hill Hoppers.

CIDER (Sponsor, Lyon's Brewery of Dublin):

Third: Gabriel Ostriker, Somerville, Mass., Still.  
Second: Gabriel Ostriker, Somerville, Mass.. Sparkling.  
First: Gabriel Ostriker, Somerville, Mass., Specialty Cider.

SAKE (Sponsor, Hakusan Sake):

Third: Fred Eckhardt, Portland, Ore., Oregon Brew Crew.  
Second: Jim Long, Sacramento, Calif., Gold Country Brewers Assn.,  
Sparkling.  
First: Jim Long, Sacramento, Calif., Gold Country Brewers Assn.

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Date: Fri, 30 Jul 1993 11:11:08 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: hot water / starting starters

>I dont know if a on demand hot water heater would be capable of providing  
>26 gallons of 180F water in a 30 minute time frame. This is my  
>requirement.

Perhaps what you need is a flow-through water heater. That way it heats the water to the desired temp as it passes through the pipe, no worrying (not that homebrewers worry) about the time to heat up 40 gallons of water.

\*\*\*\*\*

Recently I made some starters the quick and dirty way, since I realized Friday morning I hadn't started the yeast for Saturday's brewing session. I scrapped the slant into a 640 mL Beck's bottle, added 500 mL sterile wort, capped it, SHOOK VIGOROUSLY for 5 minutes, removed the cap and put on an airlock.

The satrter was cloudy with yeast by Saturday Night pitching time, and the kraeusen was crawling out the airlock (oops!) Sunday morning. Of course, this was a fairly fresh slant. One of my older slants took two days to get to that point.

---

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----+  
| Never trust a statement that begins: |  
| "I'm not racist, but..." |  
+-----+  
Diversity in all things. Especially beer.

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Date: Fri, 30 Jul 93 09:16:01 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: Overnight mashing

In HBD #1193 Jack Schmidling mentions doing the mash-in the night before the rest of the mash. According to Jack, the overnight mash-in "had far more malty flavor and seemed richer and fuller in body" than the same recipe using a normal mash-in.

Very interesting experience! I could certainly go for mashing-in the night before. Have others tried this? With what success? Jack, what temperature do you mash in at and how does it change overnight?

Sante' WAK

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Date: Fri, 30 Jul 93 8:34:43 MDT  
From: npyle@n33.stortek.com  
Subject: My pale ale recipe

I have to report errors in the pale ale recipe I posted yesterday, if anyone is paying attention. The ingredient list showed 2 oz of Cascade pellets; only 1 oz was used. Also, the hopping schedule showed 0.5 oz of dry hops (Cascade leaf hops) and it should have shown 0.6 oz. Sorry for the errata but, hey, I'm an amateur!

Cheers,  
norm

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Date: Fri, 30 Jul 1993 11:02:46 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: yeast culture miscellany

I posted some ideas for yeast culturing in HBD #1192. For some of the questions pertaining to yeast culture in #1193, I refer you to those notes.

I'll add a few more comments here. But, first the disclaimer. I am not a yeast expert; outside of homebrewing I do not work with yeast. However, I do a fair amount of culturing of E. coli and animal cells, I have a reasonable level of knowledge concerning the biochemistry and molecular biology of yeasts, and I have access to a number of technical writings concerning yeast physiology and growth. The methods that I have described are idealized. I realize that they are not always suitable to the setup of most homebrewers. I urge anyone reading them to take them as guidelines that can be adapted to one's own system - deviation is the accepted norm.

>From: tpm@wdl.loral.com (Tim P McNerney)  
>Subject: Re: inoculating a starter from a petri dish  
>  
>My biggest problem with inoculating a starter from a petri dish is that  
>I don't want to go through 5 different sized, sanitized starters to  
build  
>up enough yeast. I tried inoculating a few ml of wort in a 1 liter  
flask,  
>but did not see the activity I was used to with 10 ml testtubes. I got  
>the testtubes with presterilized wort from the Yeast Kit Culture Company  
>(along with 50 ml testtubes) and these worked great. So my questions  
are:  
>  
>1. Did the fact the the wort in the flask was so shallow cause problems  
with  
>yeast growth or just with the visible effects?

Probably not, to the first part. Who knows for sure, to the second.

>2. Since I only tried this once, did I just mess up this one  
inoculation?

Possibly. Allow your flamed loop to cool before picking (stab it into a clear area of the agar - it should sizzle). A hot loop may kill your colony on the spot. For a few mls in a liter, you're talking a long time before you will even begin to see activity (see my previous posting). Presumably, you successfully picked a colony, as evidenced by the activity seen in the "few ml" starter starter.

>3. How do other people build up a healthy sized started with spending  
half  
>their life preparing storage vessels?

Again, my previous posting explains how I do it under ideal conditions. It really isn't a matter of five sterile containers, more like two or three. Here's a suggestion: start with 2 ml in your sterile tube, add 8 ml the



next day to make 10 ml (assuming your tube holds 12-15 ml), the next day, add 50-100 ml to a thoroughly sanitized, if not sterile, mason jar or juice jar (glass) (avoid detergents), pitch the 10 ml into the 50-100, bring your starter up to volume with successive additions over the next two days. At each stage you really want to see vigorous growth before increasing the volume. A healthy, actively growing culture is the best way to minimize bacterial growth. If you add a little bit of yeast to a large volume, you run the risk of pitching a highly contaminated culture. Some bacterial growth (acetobacter for one) may actually inhibit the growth of yeast.

FYI: During exponential (or log phase) growth, yeast double every 90 minutes @ 30 degree C with vigorous and constant aeration in specialized media - this does not make for good beer, however. Log phase can be divided into three stages based on the rate of cell division (or the proportion of budded cells within a culture): early log phase (cell-density <  $1 \times 10^7$  cells/ml), mid-log phase ( $1-5 \times 10^7$  cells/ml), and late-log phase ( $5 \times 10^7$ - $2 \times 10^8$  cells/ml). At  $2 \times 10^8$  yeast cultures are considered saturated and the cell enter stationary phase. So you can see, if you dilute your culture well below  $1 \times 10^7$  cells/ml, you may lose your log phase growth. Thus, even a ten-fold dilution may be detrimental to your growth rate. Pitching 500 ml of starter into 18.9 liters (5 gallons) constitutes a 38-fold dilution. A saturated culture @ 500 ml may get you to early-log phase. BTW, bacteria may have a doubling time 1/3 that of yeast.

>From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>  
>Subject: culturing Belgian yeast

>The question I'd like to pose, is does anyone know if the yeast in the  
>Hoegaarden samples and the Abt 12 is fit to culture and brew with? I  
know  
>that  
>the Chimay is good stuff, and I already learned (from a recent posting)  
that  
>the Duvel yeast is not. Ditto for Orval. The others were pasteurized and  
>filtered. TIA

I have similar questions myself. I can tell you that I have a wit going using a Hoegaarden culture. It has been fermenting quite vigorously for 4 days now. The fermentation is actually giving off some very pleasant odors. I've seen recipes that have used Hoegaarden yeast, so I assume that it is okay. I know nothing of Abt 12. Chimay may be good, but I know of one person who had a complete failure with it, and his skills are quite esteemed in our local HB club. Although the Duvel may be a conditioning yeast it may not be complete junk. Watch out for bacteria that may be lurking in the bottle dregs. I have tried culturing the Duvel yeast. I have succeeded in only culturing the bugs instead, which may be lactobacillus. I know that the live yeast was present, but the bugs seem to have overgrown the culture. Orval is not necessarily junk either. Michael Jackson writes that Orval does two fermentations with single-cell cultures and conditions with a 5-strain culture. I don't know, but what do you think the chances are that the yeast in the single cell culture is present among the 5 strains during conditioning? I'd guess it is there. You could probably isolate it, but is it worth the trouble? Probably not.

However, it would be interesting to use the 5-strain culture to condition that trappist ale that you might attempt someday. One thing to remember is that many of the Belgian ales require a variety of yeast strains to yield the final product. If you plate them out, be sure to pick many colonies for your stock culture.

Todd M. Gierman  
Department of Microbiology  
Duke University Medical Center

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Date: 30 Jul 1993 22:50:21 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: Extract Efficiency & Duvel Yeast

My personal preference is to measure the extract efficiency at the start of the boil. It is, as someone said, the efficiency of the mashing and lautering processes that are of the most interest. At this point, the character of the wort is set, and you have recovered all of the sugars you are going to get.

A point which no one has brought up is that if you are using any kettle adjuncts (honey, sugars, etc.), you definitely want to do the calculation before you add them.

To get a good number, you must be very careful in the measurements taken, and adjust the measured volume as well as the SG to your reference temperature. I am amazed at the number of people who fail to include this correction. At 100 C, it will swing the apparent extract yield by 4%. To measure the (hot) volume in my half-barrel kettle, I use a stainless ruler to get the distance from the edge of the 12-in hole in the top to the surface of the liquid - to the nearest mm. I made a calibration curve which I then refer to get the volume, which should be within 0.12 liter or so.

It goes without saying that an accurate hydrometer is needed as well. I prefer the type with an integral thermometer and correction read-out. As far as the correction for temperature goes, the best strategy is to cool the sample to the reference temperature, or as close as is possible. The correction is indeed dependent upon the wort gravity as well as its temperature, but the closer you are to the reference, the smaller the error in ignoring it.

\*\*\*\*\*

Moortgat's Duvel is fermented with two strains of yeast, in separate unequal volumes. One of these two strains is used for the bottle conditioning, after the yeast from the primary is filtered out. These details are from Jackson, "The Great Beers of Belgium". I have a Duvel culture which was obtained from a bottle a couple of years ago, shortly after it appeared in the local market. Interestingly, the bottles out there now seem to be DOA, as several recent attempts have yielded nothing. A fresh one from Belgium could be a different

story. The culture I have makes wonderful beer, though. It has a distinctive Duvel flavor profile, and seems to build a livelier head than most others in my experience. Two or three times a year, when I regenerate my collection of twenty or so yeasts in 6-ml tubes of pale, un-hopped wort, I always observe these same characteristics.

Martin Manning

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Date: Fri, 30 Jul 93 11:40:15 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Diacetyl rests

In the last digest:

<Mark Fryling  
<BTW, just as a comment, the Gordons Highlander Scotch Ale was absolutely  
<fantastic.

This has been my experience too. While I have yet to actually visit  
Scotland,  
I have drunk scottish ales and the ones in Belgium are always a joy. I  
believe the special Belgium color malts make all of the difference.

<From: dipalma@banshee.sw.stratus.com (James Dipalma)

<>an authentic contential lager, ferment at 48-51F for 1 week, drop temp  
^^^^  
>2F per day until it is 42F. Rest here 2-4 days (diacetyl rest)

<I'm a little confused here. I don't ferment lagers warm, 48F-50F, and  
I've  
always used the Noonan method of raising the temperature for the diacetyl  
rest (~55F for 2 days), with good results. Can you clarify this point,  
Jim?

I have received a bit of mail on this topic so it seems I have hit a  
nerve  
on lagering. The final test is in the finished product, and whether any  
detectable amounts of diacetyl survive. The most important factor on  
this  
is yeast strain selection. G. Fix in the latest issue of Brewing  
Techniques  
lists two tables relating the correlation between production and  
reduction  
of diacetyl levels and yeast strains over time. Two of the strains,  
including  
the ever popular weihenstephan 34/70 produce much lower levels of  
diacetyl  
than a third strain. In all of the cases, each yeast is able to reduce  
the  
level of diacetyl but the one that produced a lot initially was not able  
to  
reduce the levels very low. If one is using a strain that is a big  
diacetyl  
producer, then it would seem that a higher temp diacetyl rest is in order  
to  
accelerate the yeasts ability to metabolize and break down the diacetyl  
into  
the two less bothersome constituents, see Fix's article. It is my  
opinion  
that if a strain does not produce much diacetyl, like 34/70, and primary  
fermentation is carried out at 48F, then there is no need to raise the  
temp to further reduce the levels. Raising the temp to 55F is not that  
radical. Raising it higher is done for rapid fermentation & lagering ala  
Dr. Narziss. This is a natural and easy technique where at the end of  
primary at 48F, the attemperater is turned off, allowing the temp to  
slowly  
rise into the upper 50s. After the rest, the lager period is reduced to  
2-

3 weeks time. If I remember the Fix article, not much reduction of diacetyl occurs under 40F, so it would seem that this is a lower limit.

I suggest leaving out the 55 stage on a batch using 34/70 and substitute the brief rest at 42-44F for 2-3 days, and see if anything changes. Whatever is easier for you and works is what counts.

Jim Busch  
DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

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Date: Fri, 30 Jul 93 12:21:06 -0400  
From: parsons1@husc.harvard.edu  
Subject: Supply Stores in Berkeley/Oakland CA Area

Greetings, all,

Next week I will be moving from Cambridge (and the wonderful "Modern Brewer" supply store) to Berkeley CA. Does anyone know of any good stores in the area with a decent selection of grains and fresh hops?

Things in San Francisco and Palo Alto (home of Pete's Wicked) would be accessible to, so far as anything in CA is accessible from anywhere else.

Thanks in advance,

Jed parsons1@husc8.harvard.edu

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Date: Fri, 30 Jul 93 10:10:31 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: please cancel my subscription

please cancel my subscription

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Date: Fri, 30 Jul 93 09:57:08 -0400  
From: Philip J Difalco <sxupjd@anubis.fnma.COM>  
Subject: **Barreling Beer**

Could those of you who have barreled their beer, in wooden casks,  
please e-mail me (or publish) your advice/experiences.  
Thanks.

- - - -

email: sxupjd@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior SomethingOrOther, Advanced Technology  
FannieMae, 3900 Wisconsin Ave NW, Washington, DC 22016(202)752-2812

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Date: Fri, 30 Jul 1993 10:51:42 -0700  
From: paul@rational.com (Paul Jasper)  
Subject: Sour Beer (was Re: Dallas beer/Cellis)

On 29 Jul, 10:05, Jeff Benjamin wrote:

> Subject: Re: Dallas beer/Cellis

>

> > Celis Grand Cru, an interesting attempt at a Belgian style. It's too light

> > in color and body to be a true Grand Cru, but they really have the flavor

> > down. How do they do this? Anyone know? It tastes like a true lambic.

>

> Ahem... the Grand Cru is good as well, but I don't think it bears much > relationship to a true lambic.

Well, yes...

> I vaguely remember hearing someone say

> that Pierre Celis does add some sort of souring bug (a *Pediococcus*,

> perhaps?) to both the White and the Grand Cru, but one bug does not a

> lambic make.

Hmmm, really? I've yet to try the Grand Cru - I've been happy enough with the White, now I've found a regular supply :^). I'll have to pick some

up this weekend when I re-stock.

> Which leads me to my last topic...

> > A close friend, and business associate is going to Brussels for a week, and

> > asks what beers to bring back for me? If you could select three or four,

> > what would they be?

>

> A very tough call. If you like the sour stuff, I recommend either the > Cantillon or Boon lambics.

If you *\*really\** like sour beer, get him to bring back some Rodenbach. The regular Rodenbach is delicious, with a powerful fruity sourness. They also have a Grand Cru if you can stand it...

I found some Rodenbach at Liquor Barn in San Francisco about 2 years ago, but haven't seen it anywhere since. Anyone ever tried to make it? The sourness comes from aging in oak, and young and old agings are blended. The

Grand Cru is just the "old" beer that has been aged for up to two years!

>-- End of excerpt from Jeff Benjamin

- --

- -- Paul Jasper

- -- RATIONAL

- -- Object-Oriented Products

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Date: 30 Jul 93 12:54 CST  
From: Wolfe@act-12-po.act.org  
Subject: Chili VS Jalapeno

I am ready to harvest a few quarts of chilis and jalapenos from my garden. I've seen a few recipes for jalapeno or serrano peppers in beer, but haven't seen any for chilis. I prefer the taste of chilis (to jalapenos) in my cooking. My question is: How do jalapenos and chilis compare for flavor and burn in beers? Is there any noticeable difference between them when they've been roasted and tossed into the secondary? Also, can chilis be safely substituted for Jalapenos in a recipe without fear of burning the lips off of one's face?

Ed Wolfe  
WOLFE@ACT-12-PO.ACT.ORG  
Iowa City, Iowa

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Date: Fri, 30 Jul 93 13:58:47 EDT  
From: lyons%adc3@swlvx2.msd.ray.com  
Subject: Traditional Porter vs East Coast Porter?

In HBD #1193 Jim provides us with information on the 10th Annual Dixie Cup Homebrew Competition. Thanks Jim, but could you please describe the differences between a Traditional Porter and an East Coast Porter. If you could name some commercial examples I could experiment with my taste buds.

Thanks!

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Date: Fri, 30 Jul 93 16:18:14 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: Efficiency question

James DiPalma mentions that his efficiency seems higher pre boil than postboil. I am not going to deny the possibility that precipitated break material could account for the difference, but is it also possible that the temperature of the wort might be a factor in the volume estimation? If you eyeball the volume of warm post sparge preboil wort it is going to higher than at postchill temperature by quite a bit. The sg at 80C is .971, at 90 .965, and at 100 .958. At 20 C it is 998. (figures actually kg/m3/1000). I usually measure both - but the initial sg is to see how much to boil off, I I don't have volumes calibrated well anyway.

Also, why is everyone so concerned about Zima? It isn't beer and doesn't pretend to be. It is aimed at the wine cooler-prepackaged mixed drink crowd. A frined brought me back a Canadian drink called Durango that was a fruit flavored malt beverage a few years ago, so Zima isn't the first. It has a similar relationship to beer as a single malt Scotch - an alcoholic drink made of malt, and noone complains about Scotch. Give it a break! If you have to complain about Coor's use a better reason - like Union relationships, Environmental damage, false advertising claims, or the fascist belief of the founder. Zima is surely one of their venial sins, and it isn't as bad as Miller Clear, whcih does pretend to be a beer.

---

'Heineken!?! ... F#\$\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@darwin.cc.nd.edu

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Date: Fri, 30 Jul 93 18:16:18 EDT  
From: dschultz@aol.com  
Subject: West Coast Brewery addresses

Stephen Brent Peters asked in HBD 1193 about a publication with mailing addresses for West Coast Breweries. I have a book titled "Good Beer Guide/Breweries and Pubs of the Pacific Northwest" written by Vince Cottone and published by Homestead Book Co. of Seattle that fits the bill. My copy is (unfortunately) dated 1986, and I don't know if there is an updated edition available. Email me if interested.

Dale Schultz

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End of HOMEBREW Digest #1194, 08/02/93

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Date: Fri, 30 Jul 1993 16:57:54 -0700  
From: reeves@lanl.gov (Geoff Reeves)  
Subject: pts-gal/lb NOT pts/lb/gal

It occurs to me that a lot of the confusion over extraction rate, or yeild  
may be due to the fact the people keep referring to pts/lb/gal (points  
per pound per gallon). These are not the correct units and that may be why  
some people are confused. The formula used is

$$(\text{OSG\_beer} - \text{SG\_water}) * \text{Volume\_of\_Beer} / \text{Pounds\_of\_Grain}$$

Specific gravity is dimensionless but is referred to by "points" in  
brewing so the dimensions are gallons/pound or point-gallons/pound (pts-gal/lb  
for the abbreviation inclined).

I know it doesn't sound right but it is. What you are really trying to  
find out is how much total disolved sugars did you get out of your total  
grain bill. 30 gallons of 1.056 beer has more dissolved sugars than 5 gal  
of 1.056 beer so if you have the same extraction rate you need 6 times as  
much grain.

I hope this clears up some confusion for someone besides me.  
Geoff

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+-----+
--+
|   A brewery is like a toothbrush. Everyone should have their own.   |
+-----+
--+
| Geoff Reeves:  Space Science Division, Los Alamos National Laboratory  |
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax   (505) 665-4414 |
+-----+
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Date: Sat, 31 Jul 93 00:06:01 GMT

From: uucp@attmail.com

Subject: pts-gal/lb NOT pts/lb/gal

>From uucp Fri Jul 30 17:00 1993

>From uucp Fri Jul 30 17:00 1993 remote from ch2m1

>From uucp Fri Jul 30 17:00 1993 remote from CH2MHILL

>From MGreenwald Fri Jul 30 17:00 1993 remote from SFO

From: CH2MHILL!SFO!MGreenwald@ch2m1.attmail.com

Date: 30 Jul 93 20:59:00 GMT  
To: Homebrew@hpfcmi.fc.hp.com  
Subject: pts-gal/lb NOT pts/lb/gal  
Message-Protocol: EMAIL  
Received: from ch2m1 by attmail; Sat Jul 31 00:05 GMT 1993  
Transport-Options:  
Subject: Celis in the SF area?  
Content-Type: Text

I have had several pints of Celis White at our Oakland pub, Pacific Coast Brewery, and have fallen in love. Do any of you SF area HBD'ers know of a local source for this wonderful stuff in bottles?.

Private email to CH2MHILL!SFO!MGreenwald@CH2M1.Attmail.com if you'd rather not waste bandwidth on a regional answer, or post.

TIA,

Mike

P.S. I know the address is huge and screwy, but our gateway router mangles my reply address.

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Date: Sat, 31 Jul 93 07:21 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Sparging, Slants

>From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)  
>Subject: Sparge water aeration and pH

>My question concerns the aeration of and oxygen content of sparge water. One common technique in professional breweries to sprinkle the sparge water from a rotating arm (similar to the Phil Sparger). I would think that this would do I good job of aerating the water.

I doubt that it would do a "good" job and suspect it is pretty much in the noise. More importantly, sprinkling the sparge water is totally unnecessary if the level is kept above the grain an inch or so. There simply is nothing to be gained by spreading it around. Someone put a shower head in a mash tun and they have been used and misused ever since. A homebrew equipment manufacturer fell into the same trap and confused the hell out of beginners with his rotating gizzmo.

>My other question is about pH measurments of the mash and sparge water. How important is it to cool the samples before taking this measurement? I've been using a hand-held pH probe (which is supposed to be temperature compensated), which I just stick into the mash. Am I getting a correct measurement without cooling a sample of the mash?

I have never been able to tell from the instructions or in use whether the temp compensation means the instrument will function in a wide range of environmental temps or if it will measure liquids at a wide range of temps. As a result of my confusion, I cool all samples to room temp before measuring.

>From: Jim Busch <busch@daacdev1.stx.com>  
>Subject: Hot liquor tanks & slants

>I agree in principal that chlorine is a nonissue. A lot of big breweries dont do anything to remove chlorine (big = 25 BBl in this sense). The argument is that the chlorine is driven off in the kettle anyway.

That is a tough point to argue. However, it is not the chlorine that is the problem in the first place but the byproducts of combining chlorine with organics in the water. There's lots of this stuff in the water by the time it gets to your house and the grist supplies a monumental source of organics for the chlorine to act upon. It has also been pointed out that the

by-products are also volatile and boil off but lots of things are said and I have not seen that documented to my satisfaction yet.

> Is it true that BT is for profit??

Probably not but certainly not by choice.

> I wonder how "profitable" this kind of thing is. I bet its like brewing, a lot of sweat equity in every issue/batch.

That is not the point. The less profitable it is, the more ads they are going to need to survive.

>I dont know if a on demand hot water heater would be capable of providing 26 gallons of 180F water in a 30 minute time frame.

Anything is possible, it just depends on how much heat you have available. I have found that my stove top will produce about 10 gallons per hour at 180F.

This is the rate that I sparge at and it just marginal for ten gallon batches. If you need more water faster, you just need more heat.

Just as an aside, in Africa, every place I went had gas fired demand water heater in hotel and lodge bathrooms. These hung on the wall near the sink/shower and provided continuous very hot water.

In Costa Rica, they use and electric shower head (scary huh?) that heats water as one showers. There's lots of stuff out there and it just seems like there has to be a better way than holding large amounts of hot water.

JS:

<You would be much better off to transfer the petri culture to slants and use these to start your starter. I cover the slant with wort and use this as a one time, pure culture starter.

>This is not what's referred to as a "slant". The first sentence is correct.

The second sentence is a technique of preparing a starter. Covering the slant is not a good idea in my opinion. You cover a small sample of yeast with wort, the slant is where the yeast is maintained and cultured from. The difference is a slant has agar with yeast growing on it. A starter has no agar.

I am using the terms correctly. It is the fact that I use slants in an un-traditional manner that may be confusing.

I make one-shot agar slants from petri cultures and from other slants but I use them as one time starters like most people use Wyeast packs.

Covering the slant with wort is an ideal way of starting the yeast as long as it is not used again. There is vastly more yeast on the agar than in a typical liquid pack and a much stronger culture is introduced into the

starter flask.

>From: tpm@wdl.loral.com (Tim P McNerney)

>Subject: Re: innoculating a starter from a petri dish

>My biggest problem with innocualting a starter from a petri dish is that

I don't want to go through 5 different sized, sanitized starters to build up enough yeast.

>3. How do other people build up a healthy sized started with spending half their life preparing storage vessels?

The hard way. What you perceive as a problem is just a necessary evil. However, if you sterilize a pint of wort, you can add this in increments to the flask and only sterilize the flask once and the wort once. Still, there seems something very unprofessional about starting 50 ml in a 1000 ml flask but no real reason not to.

js

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Date: Sat, 31 Jul 93 20:25:00 BST  
From: r.wize@genie.geis.com  
Subject: Agar availability?

I recently have become an all grain brewer and am now using the Brewers Resource Culture kit. My question is does anyone know of a recipe or a source for just Agar? Most of the catalogs I have seen sell Agar slants but at a price of about .80 to \$1.00 each (then adding shipping it hardly seems worth it) I'm sure I could get my hands on some test tubes, it is the Agar which mystifies me.

Also I noticed alot of discussion about MaltMills in some older HBD's. I have just purchased a MaltMill and did my first brew this weekend (previously I was using a Corona). My yield increased by about 40%. It really has made what was a difficult chore (the corona) into something which takes about 1/2 the time and has definitely improved my efficiency. I'm not sure of the relative merits of the Philmill but definitely sign me up as a satisfied customer of the MAltMill!!!!

Rick Wize  
Syracuse, NY

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Date: Fri, 30 Jul 93 22:14 PDT  
From: lfk@veritas.com (Lynn Kerby)  
Subject: Hopping techniques (was Pale Ale Recipe)

In HBD1193 Norm Pyle writes:

Lots of recipe specifics trimmed above and below; I want to focus on this:

> A note about hopping: I was attempting to get most of my IBUs later in  
> the boil to reduce some back of the tongue bitterness. I wanted this  
to  
> be a hop flavored beer, rather than just have bitterness to balance the  
> malt. On most beers I try for 50-60% of the bitterness at the 60  
minute  
> addition, but as you can see, I did not do that here. I achieved my  
goal  
> I think (see tasting notes).

I too have been thinking about trying something like this for quite a while. I have been shooting for 60-70% of my IBUs with an initial addition of hops to the kettle and pick up the rest with 45-20 minute boil additions (the hops are in for 45 to 20 minutes) depending on the style I am trying to brew.

I have found that the beers are different when hopped this way. The differences that I have noticed are: 1) young beer isn't as harsh for more bitter styles, 2) more hop flavor comes through in the finished beer (as would be expected). I suppose that the technique has the desired effect of producing a beer with a more well-rounded bitterness at the expense of some additional hops used in the brew.

Are there other brewers out there that are doing something similar with their hopping techniques? I would be interested in hearing about experiences with beers that get a significant percentage of their IBUs in later stages of the boil.

- -  
Lynn Kerby - [apple,amdahl]!veritas!lfk or lfk@veritas.com

Disclaimer: Any and all opinions expressed herein are my own and do not necessarily represent the views of anyone, especially my employer.

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Date: Sun, 1 Aug 93 13:56:01 CDT  
From: Sean C. Lamb 335-6669 Loral <slamb@milp.jsc.nasa.gov>  
Subject: All About Beer Magazine

Chuck's post asking about a contact for Mr. Jackson has roused me from my summer lethargy enough to type up a short review of the latest issue of All About Beer magazine. (I suggested to Chuck that he try this mag because Jackson writes a column and does a taste-testing panel for them). I've been a sbuscriber to AAB for the last couple of years, mostly to get Jackson's and Fred Eckhardt's columns. Often there has been info that is of value, but many articles were just press-release puffery. I've read rumors that the cover of the mag was for sale to an advertiser.

Mr. Daniel Bradford, late of the AHA marketing Dept. and the GABF, has taken over publishing the mag. Knowing what we do about these endeavors, this may or may not speak well for the future of the mag, but I'm willing to give people a break now and then (Bob knows I need 'em).

To the point, the latest issue looks stupendous, had a decent article by James Robertson (can you say beer nerd?) on brew in New Zealand, an hilarious article by a C. S. Porter on being out and about with Alan Eames at the Beer Camp in Cincinatti/Ft. Mitchell, a great profile of Carol Stoudt and her brewery in Pennsylvania, and the return of a beer industry column written by Mr. Frank McNeirney, who is identified as the retired director of communciations and industry affairs for the the Nat'l Beer Wholsalers Assoc. All in all a keeper. The info on brewpubs and good pubs new and old is good and getting better (I wouldn't have know about the Old Peculier pub in NYC if I hadn't seen it in AAB. Came in handy when I was there a couple of years ago.) They've even toned down the length and look of the industry news section. I hope that they can sustain the effort.

Anyone else read this thing and have any thoughts, opinions or rants?

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  //____//_ / // _ /
  (_ / | |
  | Real | | / Sean Lamb (slamb@milp.jsc.nasa.gov)
 / Beer // _ /
 / _____ // Houston, Texas, USofA, Earth, Sol
- | | _ | |
  (____(____)
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Date: Mon, 2 Aug 93 01:31:15 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: beer runs

John Palmer writes:

>another thing, Has anyone ever noticed the laxative qualities of  
homebrew in  
>general or is this another symptom of my first batch?

Letting the fermentation finish and the yeast settle out usually solves  
that problem (wait another 2 months at cool temps). Most new brewers  
can't  
wait that long. Darker Malts (i.e. roasted barley in stouts) also can  
cause  
a dramatic increase in the amount of toilet paper used. Severely  
oxidized  
beer also upsets me, and the beginner's "strain the hot wort into the  
cold  
water" method cerainly adds to that.

bb

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Date: Mon, 2 Aug 93 08:20:16 EST  
From: "Thomas Kavanagh, Curator" <TKAVANAG@ucs.indiana.edu>  
Subject: Wild Hops

As a recent mover to Indiana, I dutifully re-established my brewery, planted new hop vines--cascade and nugget--both of which are doing fine, thank you, and I should harvest in a few weeks. While exploring my new digs, I discovered what appeared to be wild hops behind the flower beds. Always interested in wild things--except wild yeasts-- I trained them up and over a trellis. They are now flourishing and are quite long and busy. But, in contrast to my less than year old cascade, they do not appear to be flowering at all. What do I have here? Are they really hops? The vines are called wild cucumbers in these parts, but have all the markings of hops--fuzzy vines, etc. I tried matching the leaves with the examples in the Hops special issue of Zymurgy, but no match. Could this be the basic first year syndrome, and it mightnot be until next year that they bear fruit? If they do bear fruit in the future, is there any way to test for AA content without devoting an entire 5 gallon batch to them?  
TIA.  
tk

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Date: Mon, 2 Aug 93 10:04:09 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: Wyeast question

(actaully two questions)

My wife purchased some Wyeast liquid yeast for the next coupla batches of brew. I had read about possible infection of the nutrient packs here, so I figured I play it safe and re-hydrate (what do you call it since it's already liquid?) it myself. The date on the 'bag' said July 1993 - is that the 'manufacture' date, or the 'use-by' date?

I added the 'bag' of yeast to about a cup of slightly dilluted and still warm (~80 degrees) wort while the rest was boiling. I've used this method inthe past with dry yeast and by the time the wort cools, the yeast has a head that's bulging out of the 2 cup container it's in. This time, the yeast wasn't doing \*anything\*, just had a sediment on the bottom of the cup. I pitched in into the cooled wort anyway, not having much choice. This morning (brewed last nite about 9, pitched about 11 PM), theres still no head on the fermenter.

Should I wait till this evening and if there's still no head re-hydrate and pitch some other yeast?

jim

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Date: Mon, 2 Aug 93 10:30 EDT  
From: Gerald\_Wirtz@vos.stratus.com  
Subject: Brew Pubs in East Detroit.

Anyone know of any Brew Pubs in the East Detroit area?

Thanks - e-mail replys appreciated

Gerald\_Wirtz

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Date: Mon, 2 Aug 93 07:54:40 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: The Advertising Channel

"Date: Fri, 30 Jul 1993 13:25:34 +0930  
From: Murray Robinson <robinm@mrd.dsto.gov.au>  
Subject: Possible solution to commercial posts ?

"After reading the discussions about whether or not commercial posts should be allowed on the Homebrew Digest I checked up on an automatic mailer package that may hold one solution to the problem."

Look, folks. Let's go through this again.

Home Brew Digest. Note the word 'home'. This is not a channel for free advertising or would-be get-rich-quick schemes for capitalists lacking the capital to pay for their advertising, or trying to capitalize on a free alternative to shelling out their own bucks.

To attempt to distort it into something it is not is to create trouble. I, personally, will not accept advertising on the Home Brew Digest - ever.

If you want to start a Commercial Brew Digest, go ahead. But keep your !@#\$ing commercials off of my screen. The Internet is based on the model of a commonwealth, not on the model of a bunch of cheap-o parasites who can't pay for their own advertising and have to piggyback on freebies.

The same goes for long and windy lists of who won what where at some contest over a thousand miles from where I am ... or postings eliciting entries. Use yer brainz. Post that entries are open and invite people to mail you for the entry form, instead of posting the entry form to the entire goddamned planet. If you're too lazy to do this, then move over and get someone else to do it. Simple etiquette, nothing complex, just good manners.

No, that wasn't a flame. Just the facts, ladies and gentlemen.

- -- richard

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| | "A cloak is no longer a cloak if it does not keep one warm." |
| | richard childers pascal@netcom.com |
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Date: Mon, 2 Aug 1993 08:41:58 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: The FaceMail Project

I'm just back from Portland. It was a real mind-bender to meet people from th digest face-to-face. I was constantly reevaluating my mental images of peoples personalities. I'll have more to say about the conference later, but first.....

THE FACEMAIL PROJECT

At my booth I set up an S-VHS camera and passed the word that I would be videotaping any electronic brewer. I asked people to hold to 3-5 seconds of time, just enough to say their name and mug for the camera a little. I will be editing the tape into short clips and converting them into motion-video files, QuickTime for Mac tribesmen and standalone DOS files for the "rest of us". The DOS files will probably be converted first.

I will then upload these files (they'll be pretty big) to the archive at sierra.stanford.edu. Then you'll be able to download the file and actually see (and on some systems hear) what various elctronic brewers look like.

This is an experiment, so we'll see how it goes. It was remarkably difficult to pass the word at the conference, so I'll apologize right now for missing anybody. If this works out, next year can be better organized...

Paul.

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Date: Mon, 2 Aug 93 12:08:04 EDT  
From: mberger@wellfleet.com (Michael Berger)  
Subject: Where to drink in...

I've been noticing many requests for information on where to drink in...

It may be time to put together a list of good drinking spots in the USA with comments/reviews from HBD readers. With all the new brewpubs and extended selection bars popping up, it can be difficult to discern good ones from bad ones, hence the inclusion of comments.

As a beer-loving frequent traveller, I'd find such a list helpful. Any volunteers?

Cheers, mab

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Date: Mon, 2 Aug 93 09:41:50 PDT  
From: Don\_Doyle@Novell.COM (Don Doyle)  
Subject: Decoction mashing

I was wondering if many people use decoction mashing and what the pro's/con's to it are. I have Noonan's book and he swears by decoction for lager's however can one do an ale this way. I have a little voice in my head saying "No" because you will impart unwanted flavors i.e. astringency into the beer, but want feedback on this mashing procedure.

Thanks in advance,

Don Doyle  
dond@novell.com

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Date: Mon, 2 Aug 93 12:56:55 EDT  
From: Jim Grady <grady@hpangrt.an.hp.com>  
Subject: Counterflow Questions

I am thinking about turning my immersion chiller into a counterflow chiller and have a couple of operational questions:

1. Some have mentioned that they sanitize their counterflow chillers by running boiling water through them. How do you get the boiling water in the chiller without scalding yourself?

For those who use chemical means, I generally use bleach to sanitize. What do you use on a counterflow chiller and how long to you let it soak or do you just run the solution through? What concentration do you use? (I apologize if this sounds like a re-opening of the recent sanitation thread.)

2. Similar to the above, How do you get it started? I am assuming that I will need to siphon the hot wort through the chiller to the primary fermenter.

Thanks in advance.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."  
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

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Date: Mon, 2 Aug 93 13:10:07 EDT  
From: Jim Grady <grady@hpangrt.an.hp.com>  
Subject: KiWheat recipe

I recently made a KiWheat beer (Kiwifruit Wheat beer) and I thought I would share the recipe:

KiWheat Ale  
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6# William's Weizenmalt Extract (60% wheat, 40% barley)  
1.5 oz Hallertauer hops (2.9% alpha acid) - 60 min  
1 oz Hallertauer hops - 5 min  
0.5 tsp Irish Moss

Wyeast Belgian Ale yeast

O.G. 1.041

Fermented at ~70°F.

After 5 days, I peeled and diced about 7# of kiwifruit, added 2 campden tablets, and put them in the freezer overnight to help breakdown the cell walls.

The next day, racked to secondary and added the kiwifruit (brought up to room temperature).

After 1 week, when the secondary fermentation was complete, I bottled;  
F.G. 1.009

Results:

I had intended to add more hops but miscalculated (and I didn't even have a homebrew while I was making it!). It is a rather light beer with a slight kiwi nose. As you drink it, it has a tartness that helps take the place of added hop bitterness. It does not hold a head worth beans.

If I make this again, I think I will add a few more hops and leave it on the kiwis MUCH longer. I think that after I bottled I saw on the digest that krieks are left on the cherries for 2-4 months. I guess I was a little too hasty to have my summer brew before the summer was over!

- - -  
Jim Grady | "Root beer burps don't have to be said 'Excuse me'."  
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75  
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Date: Mon, 2 Aug 93 12:22 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Dough-in

>rom: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
>Subject: Overnight mashing

>In HBD #1193 Jack Schmidling mentions doing the mash-in the night before the rest of the mash. According to Jack, the overnight mash-in "had far more malty flavor and seemed richer and fuller in body" than the same recipe using a normal mash-in.

>Very interesting experience! I could certainly go for mashing-in the night before. Have others tried this? With what success? Jack, what temperature do you mash in at and how does it change overnight?

I boil my mash water and either chill it or let it cool naturally, depending on the time but in either case it is near room temp or cooler when I dough-in and IS room temp by morning.

There is no doubt a multicultural flora ready to do a number on the mash but if it is kept cool and kept to a reasonable length of time, it will cause no grief. Mashing and boiling will destroy its viability. If allowed to get established however, it could impart an off flavor even if the organisms that started it are long gone.

It has been my experience that the aroma in the morning is clean and pleasant and not significantly different from the night before.

For what it is worth, however, in the experiments cited in the original article, the mashes made with 6-row developed a putrid aroma by morning and the controls using Belgian Munich did not.

This could also be a clue that the six-row malt I have is rancid or mouldy and the whole experiment is for naught.

I would appreciate hearing from anyone else with comments on six row malt and in particular, whoever it was that made the comments about the flavor of this type of malt.

js

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Date: 2 Aug 1993 14:29 EDT  
From: dab@cc.bellcore.com (dave ballard)  
Subject: nj brewpubs finally legal

hey now- i would appreciate if you non-jersyites would stand up and offer a small round of applause- on thursday, 7/29 (i think, it may have been friday) gov. jimbo slapped his autograph on the paper that legalized brewpubs in new jersey.

i can see it now- in about five years people will be sitting at bars all over saying, "hey, didn't there used to be brewpubs in california and colorado? nahhhh. must be my imagination. gimme another piscataway pilsner..."

; -)  
dab

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Date: Mon, 2 Aug 1993 12:05:25 -0700  
From: khenneus@trumpet.calpoly.edu  
Subject: Cider Recipes

Hello to all of you out in brew land,  
I've been interested in brewing for about six monthes now  
and have made a few batches with one of my friends.

With the excellent apple growing weather we have had in  
California I've been looking into doing a batch of Cider from the  
apples I have in a small orchard and this great old cider press  
that my grandfather had. What I would like to get hold of is any  
good cider recipes out there. Spiced or unspiced.  
Sorry this is not a true brewing question but I figured this  
would be the best source for info. Cook books don't always have  
things that taste good.

Thanks For Your Time,

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Kent Henneuse  
Cal Poly, San Luis Obispo, CA  
khenneus@trumpet.calpoly.edu  
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Date: Mon, 2 Aug 93 12:07:53 MST  
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
Subject: spigot in stainless kettle

I am toying with the idea of buying a large stainless kettle for brewing purposes, and I would like to know what the consensus is on the easiest way to put a spigot in it. What I would like is a 1/2 inch ball valve or equivalent. The kettle will probably be a 10 gallon Vollrath.

I know that a lot of you out there use a converted keg and weld a fitting in the side. Will this be a problem with the Vollrath kettle, i.e. are the walls thick enough?

I would like to try something like my EASYMASHER (tm), but larger. However, when I tell the guys at the plumbing store what I want to do, they really don't know anything about it. I would hate to buy a straight pipe tap and die just to make one fitting.

I have seen bulkhead compression fittings advertised, but I can't find a retail source. A friend gave me a SWAGELOK (tm) bulkhead fitting, but it is way too small (1/8 inch Cu tube).

I would prefer not to go the route of the modified keg, because I don't want to buy a outdoor gas burner and boil outdoors in the Phoenix heat. Can putting a spigot in a stainless pot really be that difficult? Surely someone has done this before.

TIA,

- - - -  
Joel Birkeland  
Motorola SPS  
birkelan@adtaz.sps.mot.com

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Date: Mon, 2 Aug 93 12:40:20 PDT  
From: djb@suned1.Nswses.Navy.Mil (Dan J Barnard)  
Subject: Going Blind

Dear Fellow Homebrewers,

I have an unusual request. Recently my girlfriend went to child mediation with her ex because he wants full physical custody of their two children (7 and 9). He claimed to the mediator that we let his children drink home-brew (of course this is absolutely untrue) and that drinking homemade beer can make you go BLIND! (Her lawyer said `isn't that true about mastrubation too?`) Anyways, the mediator wanted to know if that was true or not. I remember a few months back we had some posts on this issue and that the going blind part was due to something else. Anyhow, if someone knows the real information about this issue, or where I can get the real article that talked about this, or if you have any of these old posts, could you please email them to me so I can get them to the mediator.

Thanks,  
Dan

By the way this guy is such a dork that to get the kids he tried the excuse that our house was so dirty that his wife wouldn't even use the bathroom and that we even ran out of bathroom tissue once - for shame.

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Date: Mon, 02 Aug 93 14:59:00 PDT  
From: "Raudins, Glenn D" <gdraudin@hsv10.pcmail.ingr.com>  
Subject: Bay Area/Los Gatos

I am moving from the Alabama Beer Wasteland to the Bay Area/Los Gatos,  
suggestions for brewing stores/groups would be appreciated.

Glenn Raudins  
raudins@galt.b17d.ingr.com

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Date: Mon, 2 Aug 93 07:40:26 CDT  
From: nfarrell@ppco.com (Norman Farrell)  
Subject: Toronto Star Article

Re: Wayde Nie's submission of July 12,1993 article from Toronto Star article on "beer machine". In the 1970s (I believe), Phillips Petroleum did some work with Coors on dehydrating beer. The idea was to reduce shipping costs with a minimal impact on the product. Talking to some of those involved, what I can reconstruct is this:

Fractional crystallization was used to remove water and create a "syrup". Many panel evaluations were done and the consensus was that the re-hydrated product was virtually as good as new. There was a snag however.

Consumer surveys showed that even though people found no problems with the beer, they would have turned their noses up at the label. The product would have to have been labeled "reconstituted beer". I did not get to taste any of the product myself.

I believe that Phillips and Coors still hold patents in this area. I wonder how the syrup for the Beer Machine is produced and how it is labeled.

What goes around comes back to haunt you.

Regards.  
Norman Farrell(nfarrell@ppco.com)

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Date: Mon, 2 Aug 93 14:37:56 PDT  
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)  
Subject: honey basil ale: the sequel

I guess summer is the time for sequels, so I made another version of the honey basil ale that I posted last year (and is in the Cat's Meow I believe). The last try (my fourth or fifth batch as a homebrewer) was too bitter and overpowering as far as the basil.

Since then I have learned about IBUs and how to calculate them, my beers have become much more balanced and the bitterness more consistent. I learned what maltiness tastes like!

anyway, here's this years recipe:

#### Honey-Basil Ale II

3 lbs 2-row barley  
2 lbs Munich malt  
3 lbs honey (I used raw, wild mesquite honey from Trader Joe's)  
1/2 lb 10L crystal malt  
1/2 oz basil (fresh leaf basil from grocery store or farmer's market)

20 IBU Willamette hops  
Wyeast American Ale yeast

Standard mash and boil. I added the basil and 3/4 oz hops at the end of the boil and turned off the heat. Cooled with immersion chiller after 5 or 10 minutes.

OG: 82 I added 2.5 qts of water to bring it up to 5 gallons  
with a gravity of 1.062  
FG: 8 !!

The final gravity was lower than I had thought, even with the honey. Actually, the OG was higher than I had thought also.

#### Comments:

The beer is great, not as thin as I feared, and complex. There is an alcohol note in the taste, as you might have guessed. The beer is smooth. The bitterness is very slight, the maltiness is good and the basil is subtle. There is a slight basil nose. It is very drinkable, which means all the alcohol will sneak up behind you and knock you over the head. I was very happy with this version.

So for others who want to use herbs: I think 1/2 oz of basil in 5 gallons is fine. A little more wouldn't be bad, but 1 ounce is definately too much. I used rosemary once, and it is a stronger herb, so go lighter. I would like to hear your experience with vanilla beans: I'm thinking of putting one in the fermenter with a porter. Is one enough?

- Bryan

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Date: Mon, 2 Aug 93 17:34 CDT

From: korz@iepubj.att.com

Subject: Back from Portland/Bud-quality[sic]/Dishwasher glassware

Hey! Back from Portland to the flat land of limited varieties of good beer on tap (Chicagoland). First of all, I'd like to commend the Pacific Northwesterners for having the good taste to support so many fine breweries.

My favorite two beers however are of very limited supply:

1. a 135IBU IPA brewed by Thom Thomlinson (which will, by the way, soon be available commercially, albeit only in Thom's area -- CO, I believe), and
2. the conference beer, a Nut Brown Ale, made with Hazelnut extract (YUM!).

Other memorable beers were:

hand-pumped Bridgeport Blue Heron Pale Ale,  
hand-pumped Pike Place Pale Ale,  
hand-pumped Hale's Moss Bay Extra,  
Red Hook Summer Rye,  
Red Hook Blackhook Porter,  
a blueberry ale (if someone knows who the brewery is -- please email),  
Vermont Pub & Brewery (Greg Noonan's) Wee Heavy,  
Steelhead IPA,  
F. Boon Faro, Gueuze and Kriek (at the Belgian tasting -- thanks Mike!),  
Cantillon Gueuze (also at the tasting),  
Rogue Maier Bock,  
Rogue Rogue'n'Berry  
Pyramid Pale Ale,  
Deshutttes Koelsch,  
Squatter's Rocky Mountain Wheat,  
Eugene City Brewing Red Tape Ale, and  
Schmaltz Alt.

Okay, so not all are Pacific NW brews, but remember, there were beers brought to the conference from all over the world, not to mention all the beers at the Oregon Brewer's Festival.

A final point on the Pacific Northwest brews: they were not as hoppy as I had expected. This stems from comments by Pacific Northwesterners after the Milwaukee Conference, that the Midwestern beers are all underhopped.

Well, maybe I agree that the Midwestern beers ARE underhopped, but then, we should also agree that many PNW beers are underhopped too.

Before a flame war erupts, indeed, the PNW brews are, in general hopper than most MW beers, but from what I read here a year ago, I expected them to be twice as hoppy. On having a large variety of good beers, the PNW has the MW beat by a mile. I just hope it doesn't take 20 years for us to catch up!

\*\*\*\*\*  
Jack writes:

It is not difficult at all to make lite colored beer if you dilute it with enough water. The most important adjunct to maintain "Bud quality" is corn syrup. This exotic ingredient produces as much alcohol as needed to compensate for water dilution at the end and contributes no color.

To make Coors or Old Style or Henry's (yes, there are crap beers in the PNW too) or Miller, you are correct -- they use corn as an adjunct. Budweiser is made with rice as an adjunct and I don't think it's that hard to duplicate. Brew up a 1044 beer using 2# of rice syrup in place of some of the lager malt. Hop it to about 14 IBU using Tettnangers (not that hop variety really makes that much difference at such low rates) and ferment it at 50F using Wyeast Pilsen yeast (why it's called Pilsen yeast, I don't know -- it's from St. Louis). I tasted a beer made using these guidelines about two years ago -- it was made from Alexander's Extract, I believe, and was a dead ringer (in flavor) for Bud. Filtering would make it even more authentic as it would lower the body and head retention to be more in line with Bud.

\*\*\*\*\*

I've had luck with getting beer-clean glassware directly from the dishwasher by using a detergent that did not have a sheeting agent and making sure that there was none of that liquid sheeting agent in the little reservoir that's in the dishwasher.

Al.

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Date: Mon, 02 Aug 1993 19:23:05 -0400 (EDT)  
From: SMUCKER@UTKVX.UTCC.UTK.EDU  
Subject: ULTRA LONG MASHES

Like "William A Kitch" in HBD 1194 I am interested in the potential, problems and effects of a mash that extends beyond the conventional 2 hour time frame.

I am aware that some homebrewers have in fact done this by what they have called an oven mash. The way I understand this is that they bring their mash up to the desired temperature and then place the mash pot in the oven with the oven temperature at 140 to 150 F and leave until the next morning.

I am interested in the effects of doing this but in my case with a 15.5 gallon keg for a mash pot I don't have an oven big enough for it to go into.

I insulate my keg after bring it to mash temperature and typically get about 1 degree C or 1.8 degree F temperature drop per hour. My mash would for example drop from 152 F to about 138 F in 8 hours.

What would be the expected effects of a 6 to 8 hour mash vs. the typical 2 hours? At what temperature do you have the potential for a sour mash effect/problem? -- Something I don't want for most of my beer. Do you leach tannins at a low level at mash temperature such that the 8 hours mash will have the potential for astringency? -- It is well accepted that you leach tannins above 168 degrees F.

Thanks in advance for your answers.

Dave Smucker, Brewing beer -- not making jelly!

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Date: Mon, 2 Aug 93 17:17:20 PDT  
From: rcristad@weber.ucsd.edu (Riccardo Cristadoro)  
Subject: Re: please cancel my subscription

please cancel my subscription

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Date: Mon, 2 Aug 1993 20:47:08 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzter)  
Subject: Celis

Ok ok... I'm getting a lot of mail from friendly folks pointing out my mistakes with Celis beers.

First, let me state I'm quite aware of what wit is supposed to be/taste like. Unfortunately, when I tasted Celis white, I tasted a Bavarian. Having no idea that Celis is a Belgian, I found nothing wrong with that. Honest. It tasted more 'weizen' to me than 'wit.' Until I get to try another I'll have to stick with that. No sourness, orange, or coriander came to mind!

As for Grand Cru, I guess I mistakenly assumed Grand Cru is a style, which it's not. I compared it to the only other Grand Cru I know, Rodenbach, and the two are clearly not similar. There is a lambic-ish sourness, and I assumed all Grand Cru's are 'zuur' beers, which sometimes have lambics mixed in as far as I know. Someone has suggested that Celis' GC is actually a Trippel. I don't really know enough about these styles to say, but I guess I proved what happens when you ass-u-me once again. :)

Thanks to all the folks sending me corrections and/or info. I'd love to learn more about these styles, so keep it coming.

One thing I will not back off on: Celis' beers are damned good, no matter what they're supposed to emulate, or be called.

Mike

--  
Michael Fetzterpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

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End of HOMEBREW Digest #1195, 08/03/93

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Date: Mon, 2 Aug 93 9:40:11 MDT  
From: npyle@n33.stortek.com  
Subject: Overnight mashing / Extract efficiency

William Kitch responds to Jack's post about starting the brew session the night before:

>In HBD #1193 Jack Schmidling mentions doing the mash-in the night  
>before the rest of the mash. According to Jack, the overnight mash-in  
>"had far more malty flavor and seemed richer and fuller in body" than  
>the same recipe using a normal mash-in.  
>  
>Very interesting experience! I could certainly go for mashing-in the  
>night before. Have others tried this? With what success? Jack, what  
>temperature do you mash in at and how does it change overnight?

Actually Jack didn't say he did mash-in the night before, he said he did "dough-in" the night before. I suspect he did dough-in at room temperature in order to dissolve the starch well. I seem to recall a thread about this months ago. I have done overnight mashes myself, ala Dave Line. It works, I have had no undesirable effects from this, although it seems ripe for having a sour mash type of event. A side note: Dave Line is (was) one of the more "relaxed" homebrewing authors around; draw your own conclusions.

Martin Manning writes:

>My personal preference is to measure the extract efficiency at the start  
>of the  
>boil. It is, as someone said, the efficiency of the mashing and  
>lautering  
>processes that are of the most interest. At this point, the character of  
>the  
>wort is set, and you have recovered all of the sugars you are going to  
>get.  
>  
>A point which no one has brought up is that if you are using any kettle  
>adjuncts (honey, sugars, etc.), you definitely want to do the  
>calculation  
>before you add them.

This is a point worth mentioning. If you are brewing a certain style and really want to nail that OG, measuring before the boil is a must. At that point, you can do several things: boil more/less to adjust the OG, add DME to adjust the OG, etc. If you don't care as much about the perfect OG, change the hopping schedule to balance the beer for more/less malt (this is what I typically do). After the boil, you have no such options, you are just measuring the efficiency of your process.

Cheers,  
norm

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Date: Tue, 3 Aug 93 07:37:08 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Re: Decoction mashing

Don\_Doyle@Novell.COM (Don Doyle) wrote:

> I was wondering if many people use decoction mashing and what the  
> pro's/con's to it are. I have Noonan's book and he swears by decoction  
> for lager's however can one do an ale this way. I have a little voice  
> in my head saying "No" because you will impart unwanted flavors i.e.  
> astringency into the beer, but want feedback on this mashing procedure.

Decoction mashing is used for more than just lagers. Eric Warner details  
the use of decoction mashing to produce Bavarian Weissbier in  
\_German Wheat Beer\_. With a large fraction of wheat (> 50%) as part of  
the grain bill, decoction mashing makes lautering easier by breaking  
down more of the high molecular weight proteins which removes the  
'gumminess' typically associated with high percentage malted wheat  
mashes.

Decoction mashing also tends to increase extract yield.

I've used decoction mashing to make two weissbiers with good success  
(using double decoction mashes) and most recently, a triple  
decoction to make an Oktoberfest which yielded 32.4 pts-gal/lb (to follow  
Geoff's revised unit scheme).

Boiling the grains does not cause a problem with tannin extraction  
as long as the pH of the decoction being boiled is correct i.e., acidic,  
around 5.5.

Tim

- ----

Timothy J. Dalton tjdalton@mit.edu  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab  
\*\*\*\*\* Searchlight Casting for Faults in the Clouds of Delusion \*\*\*\*\*

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Date: Tue, 3 Aug 93 07:16:25 -0500  
From: zentner@ecn.purdue.edu (Mike Zentner)  
Subject: Re: Counterflow Questions

>From: Jim Grady <grady@hpangrt.an.hp.com>  
>Subject: Counterflow Questions  
>

>I am thinking about turning my immersion chiller into a counterflow  
>chiller and have a couple of operational questions:

> 1. Some have mentioned that they sanitize their counterflow chillers  
>by running boiling water through them. How do you get the boiling

Use something like a bottling bucket (bucket with a spigot, thought I  
never use one of these things for bottling), connect the spigot to the  
inlet of your chiller, and let gravity do the work.

> 2. Similar to the above, How do you get it started? I am assuming  
Same thing.

One other note, for those who haven't been around for about a year.  
Now you will be running wort through the inside of your chiller. Make  
sure there are no nasties on the inside of your tubing, eg, oils from  
machining, mold from letting water sit in it, etc. To check for oils  
take some kind of solvent (rubbing alcohol, paint thinner, etc) and  
put some on the end of a Qtip. Swab around the inside of your tube.  
If there's gunk on it or some dark discoloration, you should think  
about cleaning it.

As in the past, I have my designs on line and will mail them to anyone  
who wants them for free.

Mike Zentner

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Date: Tue, 3 Aug 93 09:05:10 EDT  
From: mcharry@cw.com (McHarry)  
Subject: Overnight mashing

I have been mashing overnight in my oven for quite some time now. I dough in at room temperature and shove the kettle (my EasyMasher) in the oven set on warm. It is a bit too warm at the lowest setting, but that seems not to be a problem. The temperature rises overnight to about 160 F. This seems to produce a nice, highly fermentable wort with a good extraction rate. I have mashed all sorts of stuff this way, including batches with unmalted wheat flour in them. No problems. I just get up in the morning and put the sparge water on with the coffee.

One other note, I have been draining the lauter tun about half way through the sparge, refilling with sparge water, and stirring well. This seems to prevent any sugars from hiding in gobs of goo, which can be a problem with some adjuncts. It seems to raise the yield a bit.

John McHarry

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Date: Tue, 3 Aug 93 09:22:44 EDT  
From: lyons%adc2@swlvx2.msdl.ray.com  
Subject: Gelatin question

I have had excellent results obtaining clear beers when using gelatin during the last three days of secondary fermentation. However, I have been wondering just what the gelatin does to the beer. Is there any consensus on how gelatin affects the quality of beer (i.e. body, head retention)?

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Date: Tue, 3 Aug 93 9:42:05 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: decoction/hopping/misc

<From: lfk@veritas.com (Lynn Kerby)  
Subject: Hopping techniques (was Pale Ale Recipe)

<Are there other brewers out there that are doing something similar with their hopping techniques?

Sure. All my pale ales /ipas are multihopped. I usually go for centennial and cascade at 60 minutes boil to the end, about 60% of the total hop quantity. then at 30 minutes a additional 10% or so goes in, and then tons of cascade from 12 minutes until the end of boil.

<From: Don\_Doyle@Novell.COM (Don Doyle)  
Subject: Decoction mashing

<I was wondering if many people use decoction mashing and what the pro's/con's to it are. I have Noonan's book and he swears by decoction for lager's however can one do an ale this way. I have a little voice in my head saying "No" because you will impart unwanted flavors i.e. astringency into the beer, but want feedback on this mashing procedure.

Decoction is a must for all grain weizens, and is very beneficial for many styles of lagers, pils and bocks in particular. It is not worth the extra effort for ales, esp if you are using domestic 2 row pale or any ale malt (M&F, Belgium...;). Its just not worth the effort. If you are looking for more body and chewyness, boost your dextrin pool by using lots of caramel malts. I love the CaraVienna and CaraMunich, as well as english caramel malts. Additional munich malts will also result in more malt/and body. I even gave up the protein rest on my pale ales, opting for a infusion at 160, resulting in rests of 152-154 for 60 min, then mash off at 170 and lauter. I really love making these "easy" beers.

Best,  
Jim Busch

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Date: Tue, 03 Aug 93 10:14:06 -0400  
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>  
Subject: misc

>From HOMEBREW Digest #1195, 08/03/93  
> From: reeves@lanl.gov (Geoff Reeves)  
> It occurs to me that a lot of the confusion over extraction rate, or  
yeild  
> may be due to the fact the people keep referring to pts/lb/gal (points  
per  
> pound per gallon). These are not the correct units and that may be why  
some  
> people are confused. The formula used is  
>  
>  $(OSG\_beer - SG\_water) * Volume\_of\_Beer / Pounds\_of\_Grain$   
>  
> Specific gravity is dimensionless but is referred to by "points" in  
brewing  
> so the dimensions are gallons/pound or point-gallons/pound (pts-gal/  
lb for  
> the abbreviation inclined).

Pts/lb/gal and pts-gal/lb are EXACTLY the same thing. Think about it.

> From: r.wize@genie.geis.com  
> Subject: Agar availability?  
>  
> I recently have become an all grain brewer and am now using the  
Brewers  
> Resource Culture kit. My question is does anyone know of a recipe or  
a  
> source for just Agar? Most of the catalogs I have seen sell Agar  
slants but  
> at a price of about .80 to \$1.00 each (then adding shipping it hardly  
seems  
> worth it) I'm sure I could get my hands on some test tubes, it is the  
Agar  
> which mystifies me.

Rick, I find it is much cheaper to buy food grade agar than the stuff  
sold as culture media. You can find it in oriental or natural food  
stores.  
Sometimes the oriental stuff comes in sticks (white or red) which is a  
less  
convenient form. The best stuff to find is in a flaked form. Make sure  
you use TWICE the recommended amount of agar for a given volume of wort.  
I find that if I make it up as recommended the agar throws off a lot of  
water that interferes with my using it as a culturing surface (of course  
the directions assume that you are going to eat the stuff). Since you're  
from Syracuse I can recommend Discount Natural Foods in DeWitt as a  
source.  
Feel free to contact me if you have any procedural questions. I've been  
culturing yeast for some time.

> From: Don\_Doyle@Novell.COM (Don Doyle)  
> Subject: Decoction mashing  
>  
>  
> I was wondering if many people use decoction mashing and what the  
> pro's/con's to it are. I have Noonan's book and he swears by decoction  
> for lager's however can one do an ale this way. I have a little voice

> in my head saying "No" because you will impart unwanted flavors i.e.  
> astringency into the beer, but want feedback on this mashing  
procedure.

The pros include better extraction, less trub, more complete degradation  
of proteins to soluble components, more well developed malt flavor in the  
finished beer. The cons include more hassle and more time. I do not  
brew  
any classic lager styles, but always use decoction for wheat beer and  
occasionally use it when I want a richer maltiness. Give yourself about  
twice the amount of time you normally need to do a mash.

- Bob Santore, Syracuse University
- rsantore@mailbox.syr.edu

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Date: Tue, 3 Aug 1993 10:19:04 -0400 (EDT)  
From: dcm2@bofur.unh.edu (ed fromohio)  
Subject: \*EXTRA\* EARWAX KILLS BEER FOAM

I was with my friend ethan last night, enjoying some homebrew. well, he poured some into his glass with a marvelous head (maybe even too much head say about 4", and yes, he poured it correctly, of course, it was an old mayonaise jar, but that's beside the point). he then swirled his finger in his ear and said, "watch this." whilest swirling yonder finger in the beer foam, he said, "earwax kills beer foam," and it did, quite remarkably too...

amazing.. now, it might have been mentioned on this forum before but I can't remember... anyway, if there are any follow ups to this article, please also Cc: them to me, dcm2@kepler.unh.edu... thanks, as I unsubscribed a day ago, due to my going on vacation for a while...

-chris

P.S. dumb joke of the day:

A guy walks into a bar... ouch!

- --

- -- Chris Mackensen (dcm2@kepler.unh.edu or cygnus@unh.edu)

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Date: Tue, 03 Aug 1993 11:37:25 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Re: pts-gal/lb NOT pts/lb/gal

Geoff Reeves Writes:

>It occurs to me that a lot of the confusion over extraction rate, or  
>yeild  
>may be due to the fact the people keep referring to pts/lb/gal (points  
>per  
>pound per gallon). These are not the correct units and that may be why  
>some  
>people are confused. The formula used is  
>  
> (OSG\_beer - SG\_water) \* Volume\_of\_Beer / Pounds\_of\_Grain  
>  
>Specific gravity is dimensionless but is referred to by "points" in  
>brewing  
>so the dimensions are gallons/pound or point-gallons/pound (pts-gal/lb  
>for  
>the abbreviation inclined).

I hate to nitpick, but the formula pts\*gal/lbs is the same as the  
formula pts/(lbs/gal). I know it's mathematical smoke and mirrors, but  
just thought I'd point it out. Of course, we could also write pts\*gal\*  
lbs^-1  
(that's pounds to the minus one). Or, for that matter, gal/(lbs/pts),  
or...

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Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |  
| "I'm not racist, but..." |

+-----+  
Diversity in all things. Especially beer.

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Date: Tue, 3 Aug 1993 07:39:48 PDT  
From: wegeng.XKeys@xerox.com  
Subject: Yet Another Grain Mill

One of my goals for the Portland Conference was to determine which grain mill I should buy to replace the Corona that I've been borrowing. At the risk of starting yet-another flame war, I thought I'd mention that there was a mill on display at the conference that I don't remember seeing discussed here before.

This new mill is from Glatt Machining (address: 820 Stanley Drive, College Place, WA 99324, no phone number given). This is an adjustable two roller mill, with a 2.5 pound hopper capacity. Adjustments are made by loosening one of two screws (one for coarse adjustments, the other for fine adjustments) and then moving a scaled plate. It appeared to be very easy to repeat the settings on this mill. The rollers had large grooves cut along their lengths, quite different than the rollers on the PhilMill (I haven't seen the rollers on the Malt Mill). The handle was very easy to turn while crushing. The crush coming from this mill looked very good to my eye. The entire mill is made of heavy gage metal, with a powder coat finish. Guarantee is 90 days (defects and materials). Cost is \$80 plus \$5 shipping.

Comparing Glatt Mill to the Phil Mill, I liked the fact that the Glatt Mill has two rollers, is easy to adjust, and has an integrated hopper. I didn't get a good opportunity to compare it with the Malt Mill, except to note that it is much less expensive than an adjustable Malt Mill. Finally, the people from Glatt seemed very honest about their product. At one point a friend and I took some grain crushed on a Phil Mill to the Glatt booth, to compare the two crushes. The Glatt Mill appeared to give better crush (eyeball determination), but then the Glatt representative pointed out that it wasn't a fair comparison (even though his mill seemed to win) because we didn't run the same type of grain through both mills. He didn't have to point this out.

I'm probably going to order a Glatt Malt Mill in a couple days.

/Don  
wegeng.xkeys@xerox.com

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Date: Tue, 3 Aug 93 09:08:03 -0600  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Wyeast question

There is no need to hydrate the liquid yeast (it is already hydrated).  
The  
problem you are experiencing is that the number of yeast cells in a  
liquid  
packet is far less than that of dry yeast. It will take more time for  
the yeast from the liquid (when pitched directly from the bag) to "get up  
to  
speed."

The best method for liquid yeast to to make a starter thus allowing your  
yeast more time to grow before pitching into the fermenter.

To make a yeast starter:

obtain a 1/2 or 1 gallon juice jug (or any similarly size glass  
container).  
obtain an appropriate sized rubber stopper and fermentation lock.  
santitize your starter, fermentation lock, and liquid yeast packet.

boil 1 pint water with 2/3 cup light dry extract for 5 mintutes.  
add 1 point cold water to your starter jug.  
add your "mini wort" to your starter.

The additional pint of cold water helps to bring the mixture's temp.  
down to 80-90degress. I usually fill my sink with more cold water and  
sit the starter jug in the water until the temp. drops to ~70.

figerously shake the starter to help oxygenate the "mini wort."  
carefully open the liquid packet and add the contents to the starter  
jug.  
cap with the fermentation lock and wait.

The starter should be ready in about 2 days, I usually prepare my  
starters  
3-4 days prior to brewing. Remember the liquid yeast in the packet  
usually  
take 1 day to "puff up" so plan for 1 day for the packet + 2 days in the  
starter before brewing.

You want the starter to beactively growing before you add it to your  
fermenter. If the yeast activity drops before you are ready to brew then  
make  
another 1/2 batch (1 pint & 1/3 cup extract) to the starter to keep the  
yeast  
growing and active.

Starter's have two maoin advantages:

1) You lower the risk of contamination in your main fermenter by  
giving your  
yeast the advantage.

2) If your yeast gets contaminated then you only lose your starter and  
NOT  
your 5 gallon (or more) batch of beer.

John Adams

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Date: Tue, 3 Aug 1993 11:30:19 -0400 (EDT)

From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)

**Subject: confused hops**

A warning to those of you growing your own hops: check for male parts. If you find any, cut them off before the plant self-pollinates. I just found some male reproductive parts on my flowering Cascade. I'm not happy about it. My question is, will this plant always be a hermaphrodite, or does it change yearly?

The nice thing about being a hermaphrodite is, if someone tells you to "go \*\*\*\* yourself", you can.

Russ Gelinias  
esp/opal  
unh

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Date: 3 Aug 1993 08:34:01 U  
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>  
Subject: Homebrew blindness

Dan,  
I read your post to the Digest, the answer is no. There are two (main) types of alcohol: Ethanol and Methanol. Hmmm maybe thats spelled ethenol and methenol... Anyway, Methanol is the one that causes blindness and death. It is also called wood alcohol, de-natured alcohol, rubbing alcohol. It is made by the fermentation and distillation of cellulose ie wood. Grain alcohol is made by the distillation of sugars. The only way to get serious methanol contamination of your beer is to not strain the grain husks out of your wort (at all) in all-grain brewing when its put into the fermenter. The beer would be very nasty tasting to say the least.  
JP, Metallurgist.  
Space Station Materials and Processes

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Date: 3 Aug 93 11:29 CST  
From: Wolfe@act-12-po.act.org  
Subject: Chilis are Jalapenos

With respect to my last posting on peppers in beer, a number of people pointed out that "chili" refers to a genus of plants under which there are many species of peppers including jalapenos. (Hey, I'm only a statistician.) The "chili" peppers I grew are actually called "Super Chili Pepper, F1 Hybrid." The peppers are about 2.5" long and are cone-shaped (similar to a miniature Hungarian Wax pepper, but they turn a bright red with age). They are still green but are already as hot as (and better tasting than) my jalapenos.

The folks that responded to my first posting said that I could probably substitute these peppers for jalapenos in any recipe, noting that I need to be careful of the variability of heat of different chili species. I'm planning on using a standard amber ale recipe, lightly hopped. Which brings me to my next question. I've heard of three ways to introduce peppers into the brew: 1) boil them with the wort, 2) add roasted peppers to the secondary, or 3) add slices of roasted peppers to the bottles. I'm thinking about using method #2 (from Charlie P's book).

Has anyone used this method successfully? Does anyone have any suggestions for "special ingredients" to sprinkle over the peppers as they roast (like garlic)? Also, How many peppers should I start out with? Should I put the peppers in a steeping bag so I don't get seeds and stray pieces of pepper in the bottles?

Thanks,

Ed Wolfe  
WOLFE@ACT-12-PO.ACT.ORG  
Iowa City, IA

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Date: Tue, 03 Aug 93 09:47:57 PDT

From: davidr@ursula.ee.pdx.edu

Subject: To those who attended the conference in Portland...

I'm not a beer-expert... in fact, I'm lucky if I have more than 2 beers a month. However, I do enjoy a nice brew every once in awhile. So... my question is this.

To those who visited our little city to attend the conference:

What did you think of Widmer Bock? I recently tried this, and thought it was fantastic... but since I'm used to drinking Henry Weinhard, or (ACK!) Miller Genuine Draft, I don't have much to compare to. I'd like to get the opinion of some of those who are "in the know" of what a fine beer should taste like.

Thanks,  
David Robinson  
davidr@ee.pdx.edu

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Date: Tue, 03 Aug 93 10:29:16 -0700

From: tims@ssl.Berkeley.EDU

Subject: when to harvest hops?

I have two hop plants, (out of three planted last March), and I am wondering when to collect the flowers. There are already some nice big flowers on the Perle, and lots of tiny flowers on the Chinook. should I take each flower off as it reaches maturity (define that, please), or wait and harvest the whole mess at one time?

The Perle flowers look to my mind just like what hops should look like, while the much smaller Chinook flower seems smaller than I was expecting. As one would expect, I haven't seen all that many flowers this first year, perhaps 2-4 oz total.

Thanks,

Tim Sasseen

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Date: Tue, 3 Aug 93 13:44:52 EDT  
From: casey@bbt.com (Kevin Casey)  
Subject: Ammonia in water supply

I have been brewing for about a year and always boil only about 2 gallons of the water I use for each batch. The remaining 3 gallons are simply unfiltered City water. In about 2 weeks they are going to begin putting Ammonia into our drinking water (CARY, NC). Will this be bad news for homebrewing? All comments would be appreciated as I would hate to waste time brewing a bad beer.  
TIA

Kevin Casey  
casey@bbt.com

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Date: Tue, 3 Aug 93 12:49 CDT  
From: korz@iepubj.att.com  
Subject: pts/lb/gal /sprinkling spargers/AllAboutBeer/WyeastQuestions

Geoff writes:

>It occurs to me that a lot of the confusion over extraction rate, or  
>yeild  
>may be due to the fact the people keep referring to pts/lb/gal (points  
>per  
>pound per gallon). These are not the correct units and that may be why  
>some  
>people are confused. The formula used is  
>  
> (OSG\_beer - SG\_water) \* Volume\_of\_Beer / Pounds\_of\_Grain  
>  
>Specific gravity is dimensionless but is referred to by "points" in  
>brewing  
>so the dimensions are gallons/pound or point-gallons/pound (pts-gal/lb  
>for  
>the abbreviation inclined).

I feel that it is still correct to say points-per-pound-per-gal if you remember what it means. Note that in addition to determining the average contribution to your OG from y pounds of grain in z gallons of wort, a more important use of these numbers is to predict an OG when you are formulating a recipe. What you want to know is "how many POINTS you will get if you were to use a POUND of this particular grain to make a GALLON of wort?" This can be also read as "POINTS gotten from grain x at a particular ratio of POUNDS PER GALLON" or finally, "POINTS gained PER POUND PER GALLON." Maybe parentheses would help:

points/(pound/gallon)

\*\*\*\*\*

Jack writes quoting Steve:

> >My question concerns the aeration of and oxygen content of sparge  
> water. One  
> >common technique in professional breweries to sprinkle the sparge  
> water from  
> >a rotating arm (similar to the Phil Sparger). I would think that this  
> would  
> >do I good job of aerating the water.  
>  
> I doubt that it would do a "good" job and suspect it is pretty much in  
> the  
> noise. More importantly, sprinkling the sparge water is totally  
> unnecessary  
> if the level is kept above the grain an inch or so. There simply is  
> nothing  
> to be gained by spreading it around. Someone put a shower head in a  
> mash tun  
> and they have been used and misused ever since. A homebrew equipment  
> manufacturer fell into the same trap and confused the hell out of  
> beginners  
> with his rotating gizzmo.

I've been thinking about this for a while, but not too intensely, since I make sure to keep the level of the sparge water about 1/2" above the level of the grain bed. I feel that all the spray-attachments for sparging

are a waste of money. There is another reason for keeping the sparge water level above that of the grain bed: if the level drops below the top of the grain bed, the grain bed begins to compact. If you insist on sparging with a spray head, then you must shell out a few more bucks as well as add some elbow grease and add a raking mechanism to your grain bed. I have an experiment in mind that will take some of the mystery out of this topic, but I have to find the time to do it!

\*\*\*\*\*

Sean writes:

>lethargy enough to type up a short review of  
>the latest issue of \_All About Beer\_ magazine.  
>(I suggested to Chuck that he try this mag  
>because Jackson writes a column and does  
>a taste-testing panel for them).  
>I've been a suscriber to AAB for the  
>last couple of years, mostly to get Jackson's  
>and Fred Eckhardt's columns. Often  
>there has been info that is of value,  
>but many articles were just  
>press-release puffery. I've read rumors  
>that the cover of the mag was for sale  
>to an advertiser.

It used to be, and maybe still is -- this would be indicated by the covers that keep repeating periodically -- the one that comes to mind is the one with the bottle of Harp on the cover over the background of some cliffs.

>Mr. Daniel Bradford, late of the AHA  
>marketing Dept. and the GABF, has  
>taken over publishing the mag. Knowing  
>what we do about these endeavors, this  
>may or may not speak well for the future  
>of the mag, but I'm willing to give people  
>a break now and then (Bob knows I  
>need 'em).

Hopefully, he has enlisted the services of some knowledgable technical editors. I've read a few past issues and have found numerous errors, for example "...the two Trappist Ales most available in the US are Chimay and Duvel..."

>To the point, the latest issue looks  
>stupendous, had a decent article by...

<praise deleted>

>Anyone else read this thing and  
>have any thoughts, opinions or  
>rants?

If I can find a copy, I'll give it another chance.

\*\*\*\*\*

Jim writes:

> My wife purchased some Wyeast liquid yeast for the next coupla  
> batches of brew. I had read about possible infection of the nutrient  
> packs here, so I figured I play it safe and re-hydrate (what do you  
> call it since it's already liquid?) it myself. The date on the 'bag'



> said July 1993 - it that the 'manufacture' date, or the 'use-by'  
> date?

It's the date the yeast was packaged, having been grown up during the prior week.

> I added the 'bag' of yeast to about a cup of slightly dilluted and  
> still warm (~80 degrees) wort while the rest was boiling. I've used  
> this method inthe past with dry yeast and by the time the wort cools,  
> the yeast has a head that's bulging out of the 2 cup container it's  
> in. This time, the yeast wasn't doing \*anything\*, just had a sediment  
> on the bottom of the cup. I pitched in into the cooled wort anyway,  
> not having much choice. This morning (brewed last nite about 9,  
> pitched about 11 PM), theres still no head on the fermenter.

>  
> Should I wait till this evening and if there's still no head  
> re-hydrate and pitch some other yeast?

You probably won't see much activity for about three or four days. If your sanitation techniques are impeccable (very difficult to accomplish in the summer) you stand a chance that it will turn out alright. If you suspect your sanitation at all, I suggest you get some clean dry yeast, rehydrate that and pitch it. A four day lag time in the summer means your odds of infection are VERY high.

Al.

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Date: Tue, 3 Aug 93 11:49:26 MDT  
From: npyle@n33.stortek.com  
Subject: Japanese Homebrew?

Some friends of mine (Japanese) are having a baby in November and I'd like to brew a Japanese style homebrew to mark the occasion. This is a bit of a stretch because I refuse to brew a beer that is too light and tasteless, like the typical Japanese lager. I may brew a dark lager, which is not common but is available in Japan. I plan to use some rice, but not too much. How many SG points can I expect to get from a pound of rice? Will a 2-row pale malt have the enzymes to convert the rice? Any suggestions for hops, or for that matter a yeast choice? This could be a real challenge....

Cheers,  
Norm

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Date: Tue, 3 Aug 93 11:09:59 PDT

From: ghultin@sfu.ca

Subject: overnight mashes

The question was asked about experiences with long mash times:

I have done two overnight mashes, and although I have only just tasted the results from one batch, found no problems.

I mash in a plastic tub swathed in a garbage bag and a sleeping bag. When I put the lid on the pail, the temp is 154, in the morning when I take the lid off, the temp has fallen to 142-146.

I don't know how to tell-other than by taste-if there is any contamination of this wort, but having tasted the beer last night, I think it is just fine.

The book Old English Beers and How to Make Them (or something like that) has recipes calling for 4 hour mashes. This is for undermodified grain, granted. But 4 hours, 8 hours, as far as I can tell, no problem.

geoff.

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Date: Tue, 3 Aug 1993 11:14:04 -0800  
From: pohl@unixg.ubc.ca (Derrick Pohl)  
Subject: "Washing" yeast

A while back (HBD #1181) Jami Chism posted the following method for washing and storing yeast from the slurry:

>I have been re-using yeast slurry for several years. My method is to  
>add a cup or so of cool water to the slurry after I've racked off of it  
>and swirl it around, mixing the slurry really good with the water, then  
>pouring it into a sterilized glass quart jar. I let this sit at room  
>temp for several hours until there is noticable seperation, then pour  
>the top liquid layer off. I again add about a cup of cool water to the  
>yeast, mix it up good, cover and let sit at room temp for several hours.  
>Pour off top layer, pour the resulting yeast cake into a sterile canning  
>jar, cap and store in the refridgerator until you're ready to brew  
again.  
>This is better know as washing yeast and the method can be used with  
>either dry or liquid yeasts. I have been usually re-use a package of  
>yeast anywhere from 7 to 10 brewing sessions before it starts to appear  
>suspicious.

This is great, but knowing that there are always several ways to do anything in the realm of brewing, I am interested in other people's methods and observations on this topic, especially on the matter of storing the yeast for future use. The typical situation I have in mind is storing yeast from the slurry for a few weeks, until one has time to brew again. Also, is the primary or the secondary better for this?

- -----  
Derrick Pohl (pohl@unixg.ubc.ca)  
UBC Faculty of Graduate Studies, Vancouver, B.C.

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Date: Tue, 3 Aug 93 12:54 CDT  
From: korz@iepubj.att.com  
Subject: Decoction mashing/Overnight mashing

Don writes:

>I was wondering if many people use decoction mashing and what the  
>pro's/con's to it are. I have Noonan's book and he swears by decoction  
>for lager's however can one do an ale this way. I have a little voice  
>in my head saying "No" because you will impart unwanted flavors i.e.  
>astringency into the beer, but want feedback on this mashing procedure.

Not many, probably due to the increased work, the increased time and the availability of well-modified lager malts. When using undermodified malts, like those used by Pilsenski Prazdroj (sp?), the brewery that makes Pilsner Urquell, the decoction mashing method is the only way to get a good extraction efficiency. The flavor is also a bit different than with controlled temperature mashing or infusion mashing, or so I've read (having not done a side-by-side comparison using the same ingredients).

Darryl Richman has hypothesized that: a reason that the decoctions do not extract copious amounts of astringent tannins from the grain is due to the pH of the mash. As yet, there has not been a confirmation of this theory, but there has been very little argument with it in the HBD. I don't see why you could not use it for an ale -- I've tasted a PU-clone made by Jack, imitating Pilsenski Prazdroj, which did not have noticeable astringency. The bottom line is, you could do it, but the reasons would be mostly academic.

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Jack writes (quoting WAK):

> >Very interesting experience! I could certainly go for mashing-in the  
> night before. Have others tried this? With what success? Jack, what  
> temperature do you mash in at and how does it change overnight?

>

> I boil my mash water and either chill it or let it cool naturally,  
depending

> on the time but in either case it is near room temp or cooler when I  
dough-in

> and IS room temp by morning.

>

> There is no doubt a multicultural flora ready to do a number on the  
mash but

> if it is kept cool and kept to a reasonable length of time, it will  
cause no

> grief. Mashing and boiling will destroy its viability. If allowed to  
get

> established however, it could impart an off flavor even if the  
organisms

> that started it are long gone.

Very true. Others in this same issue of HBD suggested overnight saccharification, which in the microbiologically active air of the summertime, I feel, will almost guarantee a sour mash. Indeed, keeping the mash cool overnight is key to making non-sour mash beer using this technique.

Al.

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Date: Tue, 3 Aug 1993 11:43:44 PDT  
From: John\_D.\_Sullivan.wbst311@xerox.com  
Subject: Wyeast Suppliers

Hi all,

I'm in search of a good mail order source for Wyeast Liq. yeast as the two local distributors refuse to carry it. Thanks alot,  
John

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Date: Tue, 3 Aug 93 13:37 CDT

From: korz@iepubj.att.com

**Subject: Flora & Fauna**

Jack writes:

>There is no doubt a multicultural flora ready to do a number on the mash  
but

I've read that yeast are technically a "slime mold" and that they are animals, which would make them fauna rather than flora. I would then assume that non-slime molds would then also be fauna. However, what are bacteria, flora or fauna? My guess would be, again, fauna. I have seen "microflora" and I think I've used the word myself, but I'm playing with this topic just for fun anyway (so don't take it too seriously).  
Al.

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Date: Tue, 3 Aug 93 16:49:41 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: The FaceMail Project

Oh! This is too radical! Actually seeing (and hearing) fellow  
HBDers!?! Where's the mystery, the romance? Reduced to a handful of  
bits, we'll be ... :-)

(Not me, I wasn't there).

=S

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Date: Tue, 3 Aug 1993 16:31:05 -0700  
From: reeves@lanl.gov (Geoff Reeves)  
Subject: Algebra and extraction rate

I got quite a bit of mail regarding my assertion that extraction should properly be expressed as pt-gal/lb. Basically most people said that I had forgotten my algebra and that  $\text{pt-gal/lb} == \text{pt/lb/gal}$ . Their argument depends on where you mentally draw the parentheses.  $\text{pt-gal/lb} = \text{pt}/(\text{lb/gal})$ . However this is not the common way of expressing things. Think of gravity.  $g = 32$  feet per second per second.  $32 \text{ ft/s/s}$  is not the same as  $32 \text{ ft}$  similarly energy flux is expressed as particles/second/steradian/keV or similar units. Dimensional analysis assumes that  $a/b/c = a/(b*c)$ . Similarly computer codes that evaluate  $a/b/c$  will evaluate  $a/b$  and then divide by  $c$ .

Now this may seem nit-picky but it pisses me off when people tell me that I don't know algebra. I didn't get one of those mail-order physics PhDs.

Finally to pick one more nit, some people said that SG was not dimensionless but has units of kg/liter. Nope. Specific gravity is density of liquid divided by the density of pure water at 4 degrees Centigrade. Since the density of water is 1 kg/liter the magnitude doesn't change going from density to SG but the UNITS do.

Cheers  
Geoff

```
+-----+
--+
|   Give me three more units up here nurse. |
+-----+
--+
| Geoff Reeves:  Space Science Division, Los Alamos National Laboratory |
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax   (505) 665-4414 |
+-----+
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Date: Tue, 03 Aug 93 18:47:12 EDT

From: roberts735@aol.com

**Subject: Yeast Trick**

Is it possible to culture yeast from the last inch or so of a bottle of Sierra Nevada Pale Ale by pouring it into the starter I am making for a batch? I am re-hydrating from dry yeast, and adding the beery slurry from the

SNPA. It was the cleanest ale I have made yet, very good. Do you suppose I picked up some viable yeasties?

Bob Stovall

Robert S735@aol.com

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Date: Tue, 03 Aug 1993 20:03:35 -0400 (EDT)

From: SMUCKER@UTKVX.UTCC.UTK.EDU

Subject: Wyeast 1007, (German)

I brewed up a batch of German Dusseldorf style Alt over the weekend with about 20 % German wheat malt and Wyeast 1007, (German) and got the strongest fermentation I have ever seen. This is in a 15.5 gallon batch and by strongest I mean the speed and amount of blow off that was generated. I had between 1.5 and 1.75 gallons of blow off and after it settled I had a least 3/4 of a pint of yeast. (Of course the batch is still going strong.) Am wondering if this is the effect of the 1007 yeast, the wheat malt or both. The fermentation temperature was normal for me in summer at 68 degrees F. (Self heating took the temperature to 71 even with my water cooled keg as a fermenter set up.) Just a data point, we will see how this beer is in a few weeks/months.

Dave Smucker,      Brewing beer -- not making jelly!

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Date: Tue, 3 Aug 93 21:59:09 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: boiling hops longer / blindness / overnight mashes

lfk@veritas.com (Lynn Kerby) writes about boiling all hops << 1 hour:  
>Are there other brewers out there that are doing something similar  
>with their hopping techniques? I would be interested in hearing about  
>experiences with beers that get a significant percentage of their IBUs  
>in later stages of the boil.

Perhaps It's my water (soft, though certainly not softened),  
or the pH, or maybe something else, but I never seems to get  
as much bitterness out of my hop additions as would seem to  
be correct from HBU/IBU/boil time charts. For instance, a recent  
barleywine with 9.5 oz of fresh goldings/fuggles/N Brewer plugs,  
the longest of which was boiled for over an hour (should have had  
150+ IBU) was criticized as being way too sweet in a contest.

To compensate, I have taken to longer hop boils. So far, I have not  
had any problem with off-tastes in young beers (even barleywines).  
Note also that I use a blowoff, which loses some hop bitterness,  
and that I do not use high-alpha american hops.

Many (Most?) breweries (PU and Traquair I know for sure)  
boil the bittering hops 4+ hours. As long as you have an handle  
(from experience) on how much hop bitterness to expect, I see no  
reason to boiling the bittering hops for an extended period of time.

Yes, longer boils diminish hop flavor, but that's what the flavoring  
hops are for.

- -----  
djb@suned1.Nswses.Navy.Mil (Dan J Barnard) writes:

Dear Fellow Homebrewers,

>I have an unusual request. Recently my girlfriend went to child  
mediation  
>with her ex because he wants full physical custody of their two children  
>(7 and 9). He claimed to the mediator that we let his children drink  
home-  
>brew (of course this is absolutely untrue) and that drinking homemade  
beer  
>can make you go BLIND! (Her lawyer said `isn't that true about  
mastrubation  
>too?`) Anyways, the mediator wanted to know if that was true or not.

Yes It can...

but no more so that any other beer. When you're on your 20th pint  
of the night... At least the effect isn't permanent :-)

High temperature fermentation can produce higher amounts of  
methyl and fusel alcohols. When they are concentrated by distilling  
at the improper temperature (question: too high or too low?),  
the resultant liquor has been known to cause blindness.

- -----  
From: SMUCKER@UTKVX.UTCC.UTK.EDU writes:

>Like "William A Kitch" in HBD 1194 I am interested in the  
>potential, problems and effects of a mash that extends  
>beyond the conventional 2 hour time frame.

...  
>What would be the expected effects of a 6 to 8 hour mash vs.  
>the typical 2 hours? At what temperature do you have the  
>potential for a sour mash effect/problem? -- Something I  
>don't want for most of my beer. Do you leach tannins at a low  
>level at mash temperature such that the 8 hours mash will  
>have the potential for astringency? -- It is well accepted  
>that you leach tannins above 168 degrees F.

I have had no problems with an overnight mash, but don't stretch  
it past, say, 12 hours. As long as the temp stays >> 120-130,  
everything keeps fine, but it doesn't take the mash more than a  
few hours to sour, once it drops back into the 80-100F range.

I have NOT tried mashing in overnight and leaving the beer  
in this range for an extended period of time BEFORE mashing.  
With such such a practice, the majority of the malt sugars have  
not formed yet and souring may be less of a problem.

bb

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End of HOMEBREW Digest #1196, 08/04/93  
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Date: Tue, 3 Aug 1993 21:34:47 -0700 (PDT)  
From: Paul dArmond <paulf@henson.cc.wvu.edu>  
Subject: more on FaceMail...

I've had a request via private e-mail to be more forthcoming about the facemail project, so here goes...

There are several software packages available that produce low-quality, motion images on your, well maybe not your, but many computer screens. They go by a number of names, of which Quick Time and Video for Windows are the most advertised. As usual with multimedia, the advertising is overblown and deceptive.... (I will skip my usual rant on the damage done by advertising hype in my field)

None of these packages do video. What happens is that the incoming video stream is sampled and converted into a bitmap for every so many frames. Very few of the systems offer 30 frame per second (video speed) display rates. Those that offer sound with the video interleave digitized audio with the picture bitmaps at substantial reductions in frame rate.

The net result is much more like the cartoon flip books than true motion video. Some systems use special hardware to get the frame rate up, but this is an expensive compromise.

Most of the animated images occupy only a small portion of the screen, a postage stamp....

So don't get your hopes up too much...

The good news: I should be able to prepare complete runtime packages for DOS, this will require a 33Mhz 386DX with a standard vanilla VGA for acceptable performance. These systems should be widely available. I will also produce a Quick Time version for the user-interface impaired, uh I mean the rest of them, uh, you know, the fruit machine people.... Quicktime viewers are reasonably available among the Mac tribes. The Quick Time version will be later in arriving, since I have to steal machine time at another site to convert the video. Any Quick Time users out there (Spigot owners?) who want to volunteer to speed up this process will be very welcome.

So, I should be able to get stand alone programs for DOS and Mac owners should be able to lay hands on the appropriate drivers.

These motion video (sic) files are pretty big, even when heavily compressed. Expect to spend a while downloading them. Don't even consider sending them UUencoded....

As I slowly work my way into this project, I'll be posting progress reports. The next step will be to do a rough edit on the videotape. At that time I'll report how things are looking and approximate runtimes. With any luck, this will be a Xmas present. While I was in Portland, I had a huge backlog of high-priority stuff pile up on me....

patience,

Paul.

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Date: Wed, 4 Aug 93 08:06:05 EDT  
From: sims@pdesdsl.scra.org (Jim Sims)  
Subject: re: yeast questions

Thanks for the all the yeast question replies. I had a coupla other folks reply directly via email yesterday, so now i've got another question:

Is the yeast in the Wyeast packet in the inner (break to open) pouch, or the outer pouch. I got one reply saying it was in the inner packet, other replies seem to indicate otherwise.

btw, the beer was gurgling away when I got home yesterday and both batches have a healthy amount of krausen started. I re-hydrated and pitched a packet of EDME dried yeast into one of em just in case, and to see if I could taste the difference in the final beers (assuming they both survive).

thanks,  
jim

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Date: 04 Aug 93 07:12:24 EDT

From: CHUCKM@PBN73.CV.COM

**Subject: AHA results**

It seems that Steve and Tina Daniel always take a good share of the AHA brewing awards. Too bad they are not plugged into this digest so that we may pick their brains. Does anyone out there know these two..they are obviously doing something very right. AND has anyone sampled any of their brews?

Prost  
chuckm@pbn73.cv.com

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Date: Wed, 4 Aug 1993 08:41:55 -0400 (EDT)  
From: Kieran O'Connor <koconnor@mailbox.syr.edu>  
Subject: Ice Beer--now there's a concept!

NY Times, Page D3, August 3, 1993:  
"Our northern neighbor is putting ice in our beer."

Banking on strong performance of a new product called "ice beer" in Canada, Molson Breweries plans to introduce Molson Ice next week on a trial basis in Atlanta and Michigan.

Basically they go on to say that they almost freeze the beer--and then remove the ice crystals. It supposedly leads to a smoother and (this is true) more alcoholic brew. However, "It is being marketed for its smoothness and distinctive, full flavored taste. The fact it has higher alcohol is a fact not a market element" (yeah right!)

Anyway, an interesting "New Brew From Molson," too bad the Germans already invented it.

Kieran O'Connor

E-Mail Address: koconnor@lor.syr.edu  
Syracuse, N.Y. USA

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Date: Wed, 4 Aug 93 8:45:30 EDT  
From: klm@mscg.com (Kevin L. McBride)  
Subject: Re: \*EXTRA\* EARWAX KILLS BEER FOAM

"Chris" writes some nonsense:

> I was with my friend ethan last night, enjoying some homebrew. well,  
> he poured some into his glass with a marvelous head (maybe even too  
> much head say about 4", and yes, he poured it correctly, of course, it  
> was an old mayonaise jar, but that's beside the point). he then  
> swirled his finger in his ear and said, "watch this." whilest  
> swirling yonder finger in the beer foam, he said, "earwax kills beer  
> foam," and it did, quite remarkably too...

and then asks us to reply to an account at UNH that is not owned by  
someone named "Chris" (I fingered the account 'cause I had this gut  
feeling that something just wasn't right.)

Can you say FORGERY boys and girls? I thought you could.

Should you reply to this utter tripe, thus filling the innocent  
victim's mailbox? NO.

Just a friendly reminder, folks, that there are some people out here  
in net.land who won't think twice about USING you to play their  
practical jokes or fight their petty flame wars. If it looks like a  
joke, it probably is. Don't waste your time.

- --  
Kevin

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Date: Wed, 4 Aug 93 14:11 BST  
From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>  
Subject: Recipe for Dunkelweizen needed

I'd like to have a go a making a dunkelweizen soon. I have a few questions about recipe formulation:

1. What grain should I use, and how much, to get the colour right? I can get hold of chocolate, black patent and crystal malt, and roast barley. I could probably roast my own malt to give an amber malt. I can't buy Cara or (mainland) European speciality grains. My best guess is crystal plus some chocolate.
2. Hops? Hallertauer?
3. Yeast? I know of no source of liquid cultures of wheat beer yeasts in the UK. I can buy several HefeWeizens, which of these do you think would make the best starter: Thurn und Taxis HefeWeizen or Roggen, or Erdinger DunkelWeizen? The last of these seems to throw a good sediment, so this is my first choice. Are all HefeWeizens bottle conditioned, or are some pasteurized?
4. Temperature? Unfortunately, I have no control over this, so I may have to wait for autumn before I start. The temperature in Bristol today is a sizzling 67F.

Thanks for any help,  
Andy Phillips

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Date: Wed, 4 Aug 93 08:51:13 CDT  
From: tomt@nano.sps.mot.com (Tom Tomazin)  
Subject: Home Brewery Info

Hello.

I am very interested in building a complete home brewery that would make ~10 gallon batches. I've seen the some adds for complete set-ups for \$800.00 and up. I'm sure I can do it myself for a lot less. Since I know someone out there has built one themselves, I'm hoping that someone can share advice, cost approximations, or even schematics (in any form, I have access to all platforms).

Any help at all would be greatly appreciated.

Thanks in advance,  
Tom  
tomt@nano.sps.mot.com

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Date: Wed, 4 Aug 93 9:05:17 CDT  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: repeat question: Spice Additions

Hey folks -

Last week I posted a question regarding the pros and cons of different methods of spice addition to a spiced ale (in boil, in fermenter, as a tea, alcohol derivatives etc) - note: I have investigated the Cat's Meow and back HBD issues (back to 950) and have found no real good "do this...dont do that" kind of information. I have also received several requests for a repost/forwarding of this information. So (since maybe a good deal of the readership was in Portland), can anyone still answer this question? TIA

In addition I am looking for extract spiced ale recipes w/ o.g.s at 1040-1060. I have received one so far that looks promising....thanks again good luck and good beer

Chris

ps. thanks for all the responses to my clean glass question last week.

=====  
|Chris Pencis|chips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
=====

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Date: 04 Aug 1993 08:59:08 GMT  
From: "Tom Stolfi" <WAUTS@cwemail.ceco.com>  
**Subject: Minneapolis Brewpubs**

From: Tom StolfiWAUTS - CWE1IIN  
To: Open-Addressing Application for Internet Acc INLINE - CWEMAIL  
Subject: Minneapolis Brewpubs

I will be stopping overnight in Minneapolis on my way to Canada for a well deserved vacation :-). Could someone recommend a clean cheap place to stay and give me the lowdown on the Brewpubs in the area. Thanks.

Tom Stolfi  
wauts@cwemail.ceco.com

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Date: Wed, 4 Aug 1993 10:15:42 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: hops,1007,overnight mash

FYI, male hops flowers are easily distinguished from the female cones we all know and love. Whereas mature female flowers are, well, cones, like pine-cones, male flowers are quite different. The male flowers will consist of a number of short stalks, maybe 6 or so, about 1/2" to 1" long, with a ball (hopefully) at the end of each, which contains the pollen. I say hopefully a ball, because if it's not a ball, it's an small open flower, and the pollen has been (is being) released.

Wyeast 1007 (German ale) has produced a very vigorous fermentation every time I have used it. Probably a good yeast to use in the summer. Surprisingly, it can make a very fine Porter.

Never mashed overnight, but I have mashed and sparged, and then boiled the next day. I know it sounds dangerous, but I've seen no indication of souring. My mash/sparge technique is such that exposure of the wort to spoiling organisms is minimized, but then again, I may have just been lucky. It is a very convenient way to brew. I don't think I'd recommend it during the summer though, or in a less than squeaky clean environment.

Russ Gelinias  
esp/opal  
unh

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Date: Wed, 4 Aug 93 08:33:14 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Multiple Styles from single mash/boil

I have just recently begun doing 10gal batches, and am looking for ways to get two separate styles from a single mash/boil. For example, my last batch was a 50% wheat mash. After boiling and cooling, I separated the wort into two 5gal fermenters. Into one, I pitched Wyeast 3056 (a Weizen strain). Into the other, I pitched Wyeast 1007, with which I have had good luck making wheat beers. In a few days, I will add some fresh fruit to this batch (perhaps blackberries or peaches), thus I will end up with two separate batches from a single mash/boil.

Does anyone have suggestions for other mixed-batch recipes, from a single mash/sparge/boil?  
For example, I had considered making both a Helle- and Dunkel-Weizen by doing a separate, very small steep of some chocolate malt, boiling the resulting liquor, and adding this to one of the fermenters. Would this have worked out? Any other suggestions?

E-mail is fine; I'll post any interesting suggestions.

Kelly <k-jones@ee.utah.edu>

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Date: Wed, 4 Aug 93 08:31:32 MDT  
From: "Garth Hidson (471-7875)" <GARTH%NAITVM.NAIT.AB.CA@VM.UCS.  
UALBERTA.CA>  
Subject: signoff

signoff

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Date: Wed, 4 Aug 93 10:35:58 EDT  
From: chiz@atmel.com (Robert Chizmadia)  
Subject: rebottling

Hi,

As a favor for my upcoming wedding, I decided to brew a batch, print up a label and give it out. My usual container for bottling is a two liter glass container ( carry-out from my local brew pub ). My problem is I only bottled 55 12-oz'ers for the wedding, put the rest in 2-liters ( hey, I like to drink my beer ), and last night my fiancée informed me that I would need 60 bottles because she miscounted. The beer is an ESB from extract, OG of 1.054 and FG of 1.012, using a Munton and Fison dry yeast. It was bottled 3 days ago.

My question is is it possible to rebottle from the 2-liters to the 12-oz bottles? I assuming I will need to re-prime the smaller bottles, and that enough yeast will still be present to carbonate the beer. But what effect will the dissolved CO2 have ? should I allow the beer to go flat first?

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Date: Wed, 4 Aug 93 09:54 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Critters

>From: korz@iepubj.att.com  
<Subject: Flora & Fauna

>I've read that yeast are technically a "slime mold" and that they are animals, which would make them fauna rather than flora. I would then assume that non-slime molds would then also be fauna. However, what are bacteria, flora or fauna? My guess would be, again, fauna. I have seen "microflora" and I think I've used the word myself, but I'm playing with this topic just for fun anyway (so don't take it too seriously).

And I am responding because I am bored and can't find anything else in this issue to argue with.

Many modern taxonomists prefer to create an entirely new kingdom for all fungi and hence they are neither flora nor fauna.

The general concesus however, is to place fungi in the Plant Kingdom and they therefore become flora. Although some slime mold plasmodium do migrate impresively over a substrate, this does not change their taxonomic position as flora nor are they any more closly related to yeast than a mushroom.

Yeasts are somewhat unique in that they are single celled organisms with little or no propensity to form colonies. This is also true of most bacteria but they are miles away from each other taxonomically. Yeast is as evolutionarily removed from bacteria as far as humans are from yeast. The fundamental difference between bacteria and all the rest of us is that they lack a nucleus and all the genetic implications involved it that.

Bacteria are exceedingly primitive plants in current thinking although some would again put them in a kingdom of their own.

My reference to fauna invading the mash was in terms of flies or other animal types that could get it if not covered or small enough to get in under the cover.

js

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Date: Wed, 4 Aug 93 11:45:17 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: 1007 Wyeast

I too had a very vigorous fermentation when I used this yeast. It was my 3rd or 4th batch and I thought I did something wrong since the fermentation  
spewed out of the top of the airlock. The beer came out fine.

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Date: Wed, 04 Aug 1993 12:00:43 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject: Alcohols

Hi all,  
IHTNPB (I Hate To Nit Pick But):  
Methanol=wood alcohol=denatured alcohol, but NOT rubbing alcohol.  
Rubbing alcohol is isopropanol(or 2-propanol).

Another thing,  
Korz writes us saying:  
>Jack writes:  
>>There is no doubt a multicultural flora ready to do a number on the  
mash  
but

>I've read that yeast are technically a "slime mold" and that they are  
>animals, which would make them fauna rather than flora. I would then  
>assume that non-slime molds would then also be fauna. However, what  
>are bacteria, flora or fauna? My guess would be, again, fauna. I have  
>seen "microflora" and I think I've used the word myself, but I'm playing  
>with this topic just for fun anyway (so don't take it too seriously).  
>Al.

To which I say (not that I am taking this seriously), IHTNPB, yeast?,  
slime  
molds? I think not. Yeast are unicellular fungi, and although some yeast  
can grow into multinucleate organisms complete with psuedohyphae and  
other  
technical words, they cannot move, aggregate, grow a stalk, or do any of  
the  
other nifty things that slime molds can do. Slime molds, however, make  
bad  
beer, so I would call it even. Also, to relegate fungi to the animal  
(fauna) kingdom or to the plant (flora) kingdom seems to me to be  
unnecessarily restrictive. I believe that the correct scientific term  
for  
anything that is smaller than a mouse and that does not nurse its young  
is the  
word "bug" (from the greek, I believe).

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      @@@@
      (o  o)
      |-----oo0---( )---Ooo-----|
      |
      | Patrick Weix      weix@swmed.edu      |
      | UT Southwestern Medical Center tel: (214) 648-5050      |
      | 5323 Harry Hines Blvd fax: (214) 648-5453      |
      | Dallas, TX 75235      |
      |-----|
      ||      ||
      | ( )      ( )
Have fun y'all!
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Date: Wed, 4 Aug 93 14:07:42 EDT  
From: lyons%adc2@swlvx2.msdl.ray.com  
Subject: Basic algebra

>Date: Tue, 3 Aug 1993 16:31:05 -0700  
>From: reeves@lanl.gov (Geoff Reeves)  
>Subject: Algebra and extraction rate  
>

>I got quite a bit of mail regarding my assertion that extraction should  
>properly be expressed as pt-gal/lb. Basically most people said that I  
had  
>forgotten my algebra and that pt-gal/lb == pt/lb/gal. Their argument  
>depends on where you mentally draw the parentheses. pt-gal/lb =  
>pt/(lb/gal). However this is not the common way of expressing things.  
Think  
>of gravity.  $g = 32$  feet per second per second.  $32 \text{ ft/s/s}$  is not the  
same

Do you mean the acceleration of gravity ...  $32 \text{ ft}/(\text{sec}^2)$  ???

>as  $32 \text{ ft}$  similarly energy flux is expressed as  
>particles/second/steradian/keV or similar units. Dimensional analysis  
>assumes that  $a/b/c = a/(b*c)$ . Similarly computer codes that evaluate  $a/$   
 $b/c$   
>will evaluate  $a/b$  and then divide by  $c$ .

Is this a joke? I can't stop laughing! Actually we shouldn't be  
laughing  
about the mathematically ignorant. In case that this is not a joke,  
please  
review your concepts of dimensional analysis or seek help.

>Now this may seem nit-picky but it pisses me off when people tell me  
that I  
>don't know algebra. I didn't get one of those mail-order physics PhDs.

Did you get a high school diploma?

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Date: Wed, 4 Aug 93 12:32 CDT  
From: korz@iepubj.att.com  
Subject: Decoction a must?/Mashing techniques

Jim (as well as one other poster) writes:  
>Decoction is a must for all grain weizens, and is very beneficial for  
>many styles of lagers, pils and bocks in particular. It is not worth  
>the extra effort for ales, esp if you are using domestic 2 row pale or

Well, despite the fact that I haven't done an all-grain Weizen, I would like to propose that perhaps it's a good protein rest that is essential for a brew with a large percentage of wheat and not necessarily a decoction mash that's essential. Indeed, the decoctions will help convert the starches in wheat, especially raw wheat, but I've tasted quite a few very good weizens made with temperature-controlled (step) mashes.

On a semi-related topic: mashing technique nomenclature. There's a lot of conflicting information in the books and magazines regarding the following point. The point is that:

"step-infusion mashes == temperature-controlled mashes."

What I mean here by temperature-controlled, is stovetop mashing, where the burners are used to raise the mash from protein rest to saccharification rest to mashout. \*I believe\* that step-infusion mashing is NOT the same, rather it is a method whereby hot water is \*infused\* into the mash to raise its temperature. Do I have this nomenclature right? I've read conflicting views on this.

This would imply that there are basically four methods of mashing (the last having multiple variations):

1. single-infusion -- add a measured amount of water at a calculated temperature to bring a measured amount of grain to saccharification temperature. Mashout is often not done and the hot sparge water is what effectively ends the conversion.
2. step-infusion -- add a measured amount of water at a calculated temp to bring a measured amount of grain to protein rest temperature. Add another infusion of hot water to bring the mash to saccharification temp. Finally, add boiling water to get the mash to mashout temp.
3. temperature-controlled -- dough-in (cool water) or mash-in (protein rest temperature) with the full mash volume of water. Add direct heat to raise the temperature to other rests.
4. decoction -- dough-in or mash-in with the full mash volume and then remove parts of the mash to a kettle in which this "mash fraction," which is called a decoction, is heated to boiling and then returned to the rest of the mash to raise it's temperature. There are several variations to this (double (two decoctions), triple (three decoctions), etc.) in which some of the decoctions are replaced by infusions or the entire mash is moved to a kettle and then direct heat is used in place of one or more decoctions. It is interesting to mention that decoction mashing can be done WITHOUT A THERMOMETER, given enough experience, which I've read is the reason that it was invented (they did not HAVE thermometers at the

time).

Al.

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Date: Wed, 4 Aug 93 15:54:55 -0400  
From: <geotex@engin.umich.edu>  
Subject: Substitutions and Bulk Malt Extract

Question #1)

I am planning to make a porter whost recipe calls for 5# of dark malt extract.

I have 3.3# of dark and 1.7# of light. I have heard that their is a way I can use the light in place of dark if I add roasted barley, black patent, or chocolate malt. Is this wise? Which should I use if it is? How much? On that note, is there any rule o' thumb for substitutions like this?

Question #2)

I was at the local health food store (People's Food Coop, Ann Arbor) yesterday and I noticed that they had bulk "barley malt" they sold by the pound. Is this type of stuff ever suitable for brewing? Anyone ever try? It is about \$1.50/lb so it seems it would be a cheap experiment to brew something with it? Any suggestions?

respond by email if possible  
Alex  
geotex@engin.umich.edu

-----

Date: Wed, 4 Aug 93 13:49 CDT  
From: korz@iepubj.att.com  
Subject: starters/Widmer/HopPicking/Flora&Fauna/SNPAYeast/Wyeast1007/  
HopUtiliz

John writes:

>To make a yeast starter:  
> obtain a 1/2 or 1 gallon juice jug (or any similarly size glass  
container).  
> obtain an appropriate sized rubber stopper and fermentation lock.  
> sanitize your starter, fermentation lock, and liquid yeast packet.  
>  
> boil 1 pint water with 2/3 cup light dry extract for 5 minutes.  
> add 1 point cold water to your starter jug.

^^^^  
This had better be boiled and cooled water -- \*everything\* must be  
sanitized  
(sterilized would be even better -- I use a pressure cooker).

> add your "mini wort" to your starter.  
> The additional pint of cold water helps to bring the mixture's temp.  
> down to 80-90degrees. I usually fill my sink with more cold water and  
> sit the starter jug in the water until the temp. drops to ~70.  
>  
> vigorously shake the starter to help oxygenate the "mini wort."  
> carefully open the liquid packet and add the contents to the starter  
jug.  
> cap with the fermentation lock and wait.

Good description... I just wanted to highlight the sanitized-cold-water  
point.

\*\*\*\*\*

David writes:

>What did you think of Widmer Bock? I recently tried this, and  
>thought it was fantastic... but since I'm used to drinking Henry  
>Weinhard, or (ACK!) Miller Genuine Draft, I don't have much to  
>compare to. I'd like to get the opinion of some of those who are  
>"in the know" of what a fine beer should taste like.

Yes... I did, at that place with three names (something Bakery,  
something Restaurant and Widmer Brewery (although it is technically  
next door)). I don't have my tasting notes here, but I remember it  
was very good. I recall it had an OG of 1066 and did have a noticeable  
alcoholic component to the flavor. It was really the first American-  
made Bock I've tasted which I feel deserved to be called a Bock.  
Most I've had don't have that alcoholic component. If you like  
Widmer Bock, you might as well take any remaining Henry's and MDG  
out of your fridge and store it warm for rinsing kegs... you'll need  
the room for some of the great bottled beers in the PNW!

\*\*\*\*\*

Tim writes:

>I have two hop plants, (out of three planted last March),  
>and I am wondering when to collect the flowers. There

Ideally, and if you have the patience, harvest each cone  
as it becomes ripe. Ripe cones are noticeably lighter, drier  
and "fluffier" than un-ripe. If it begins to turn yellow  
at the tips, then it's over-ripe. Note that you will still

have to dry them before storing them away. I don't have my notes here, but last year, I believe my hops lost 90% of their weight during drying -- I used a food dessicator, but I think it was too hot (too rough on them).

\*\*\*\*\*

I wrote that yeast are animals. Apparently, two or three additional kingdoms have been created in addition to plants and animals. Yeast appear now to be neither plants nor animals.

\*\*\*\*\*

Bob writes:

>Is it possible to culture yeast from the last inch or so of a bottle of  
>Sierra Nevada Pale Ale by pouring it into the starter I am making for a  
>batch? I am re-hydrating from dry yeast, and adding the beery slurry  
from the  
>SNPA. It was the cleanest ale I have made yet, very good. Do you suppose  
I  
>picked up some viable yeasties?

Yes it's possible, but you need to give it a day or two to start. You may have picked up some viable yeasties, but dry yeast is quite a bit faster starting than the small amount of SNPA yeast (which by the way bears a striking resemblance to Wyeast #1056), so the SNPA yeast contribution was probably imperceptable.

\*\*\*\*\*

Dave writes:

>I brewed up a batch of German Dusseldorf style Alt over the  
>weekend with about 20 % German wheat malt and Wyeast 1007,  
>(German) and got the strongest fermentation I have ever seen. This  
>is in a 15.5 gallon batch and by strongest I mean the speed and  
>amount of blow off that was generated. I had between 1.5 and 1.75  
>gallons of blow off and after it settled I had a least 3/4 of a pint of  
>yeast. (Of course the batch is still going strong.) Am wondering if  
>this is the effect of the 1007 yeast, the wheat malt or both. The

Both. The 1007 is notorious for a BIG kraeusen and the wheat malt will add some head-retaining small proteins.

\*\*\*\*\*

Brian writes:

>lflk@veritas.com (Lynn Kerby) writes about boiling all hops << 1 hour:  
>>Are there other brewers out there that are doing something similar  
>>with their hopping techniques? I would be interested in hearing about  
>>experiences with beers that get a significant percentage of their IBUs  
>>in later stages of the boil.

>

>Perhaps It's my water (soft, though certainly not softened),  
>or the pH, or maybe something else, but I never seems to get  
>as much bitterness out of my hop additions as would seem to  
>be correct from HBU/IBU/boil time charts. For instance, a recent  
>barleywine with 9.5 oz of fresh goldings/fuggles/N Brewer plugs,  
>the longest of which was boiled for over an hour (should have had  
>150+ IBU) was criticized as being way too sweet in a contest.

>

>To compensate, I have taken to longer hop boils. So far, I have not  
>had any problem with off-tastes in young beers (even barleywines).  
>Note also that I use a blowoff, which loses some hop bitterness,  
>and that I do not use high-alpha american hops.

First off, I virtually always use some flavor hops in the last 15 minutes of the boil, often 20 to 40% of the IBUs in the last 15 minutes.

Secondly, I use Jackie Rager's formulas, but add 10% since I use a hop boiling bag and another 10% if I use whole hops in stead of pellets. I have not had my beers tested for actual IBUs, but my taste buds seem to confirm that my numbers are right. My boil hops are usually in for 60 to 90 minutes.

>Many (Most?) breweries (PU and Traquiar I know for sure)  
>boil the bittering hops 4+ hours. As long as you have an handle  
>(from expreience) on how much hop bitterness to expect, I see no  
>reason to boil the bittering hops for an extended period of time.

I'm quite certain that most breweries don't boil that long, let alone boil their hops that long. I've read that the maximum utilization one can expect from hops is 30% of the alpha acids and according to various hop utilization tables I've seen, anything more than 60 minutes does not increase hop utilization significantly.

Al.

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Date: Wed, 04 Aug 1993 14:09:01 -0600 (CST)

From: John Mare <cjohnm@ccit.arizona.edu>

Subject: RE: Ethan's Earwax

Ed Fromohio raises a serious problem confronting brewer's and especially tipplers, namely how to keep earwax out of beer. When I started brewing and

imbibing I too struggled with this problem, but I have it licked! Common earmuffs (any colour works) do a wonderful job if donned prior to coming in

contact with beer. Since these are hard to come by in Arizona I have resorted to wearing a swimmer's rubber cap, works wonders! Hope this helps

Ethan.

John from John's Alehouse.

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Date: Wed, 4 Aug 93 10:42:36 PDT  
From: hartman@varian.CSB.Varian.COM (John Hartman)  
Subject: Re: Counterflow Questions

In HBD #1195 Jim Grady <grady@hpangrt.an.hp.com> asks:

> 1. Some have mentioned that they sanitize their counterflow chillers by running boiling water through them. How do you get the boiling water in the chiller without scalding yourself?

I'd like to point out a technique I've been using with my counterflow chiller for about the last 8 batches. It improves sanitation while reducing the work involved.

I must say first of all that one needs a hot water pump. About 5 minutes before the end of the boil I setup the counterflow chiller: To do this I place a pick up tube in the boiler and attach its output to the input of my hot water pump. The output of the hot water pump is then attached to the input of my counterflow chiller. It's important (for priming purposes) to have the pump upstream of the counterflow. Otherwise there's too much dead-volume and priming becomes a nightmare. Leaving the counter-flowing water turned off (sic) I start the system from the output-side of the chiller. Once started I direct the output back into the boiler. Within 15 seconds this tepid wort reaches a temperature of 180F, since it's not being chilled. I leave the system pumping this way for 5-10 min. During this interval the entire chiller is sanitized. Any pathogens originally in the chiller are quickly killed either in place or as they are carried to the boiling vat.

At this point I turn the burner off and the counter-flowing water on. Within a minute the effluent drops to pitching temp and I then direct it to the waiting fermentor. The nice thing is the system only needs to be plumbed once--for both sanitizing and chilling. This saves a lot of time and minimizes the hassle of sanitizing the chiller.

Comments?  
John  
Oakland, CA

hartman@varian.varian.com

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Date: Wed, 4 Aug 93 21:44:22 PDT  
From: LIFE'S TOO SHORT TO DRINK CHEAP BEER <UNDERWOOD@INTEL7.intel.com>  
Subject: Hot yeast

Hey all,

First..I made my first all grain a month ago. I'm pleased with the results...no it wasn't harder but it took a while longer to clean up. Anyway, the plunge has been took. Now. I saved the leftover yeast slurry in a (hopefully) clean sanitized Mason Jar. It went into my beer fridge and nicely settled out into several layers of color. Well my electric bill decided the beer fridge had to be shut off. Now a month later, I have this mason jar in a hot fridge in a hot garage (New Mexico is HOT in July) full of hoy yeast. Are they still good? The top has bowed up quite a bit. Should I throw it away and buy more or if I can use it....what now?

Thanks in advance

Cu

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Date: Wed, 4 Aug 93 15:34:01 -0700  
From: jimmy@netcom.com (Jimmy Patrick)  
Subject: Beer (the magazine)

I saw the recent article about All About Beer by (sorry, I forgot.)  
I just received the premiere issue of a magazine called "Beer the  
magazine

" It is put out by Bill Owens, founder of Buffalo Bill's in Hayward and  
publisher of American Brewer magazine. The book is about beer, not  
specifi-  
cally brewing. But, it may be of interest to some of you. I talked to  
Bill  
about 8 months ago and he mentioned a Wine Spectator (ie tabloid, high-  
gloss)  
format. The magazine looks way better than I could have imagined.

Some articles:

Hot&Wet - Chili Beer

Wheat Beers - Feature article & reviews

Beerspective - A column by (you guessed it) M. Jackson

Interview with Alan Eames (the Beer King)

Easy Homebrew - Easy Steps to Better brew

etc. etc.

The magazine is fat and contains many articles. It might be worth  
a look but again, it is aimed for consumers. I have no financial interest  
in the magazine but I thought you all might be interested. E-mail me  
for more info.

Jimmy

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Date: Wed, 04 Aug 1993 15:38:45 -0600 (CST)  
From: John Mare <cjohnm@ccit.arizona.edu>  
Subject: RE: Yeast = animals?

The perception that bacteria are "plants", and protozoa are "animals" is an old one, no longer held to be useful or valid. While no single biological classification is accepted by all, a currently popular one is the so-called "Five Kingdom System". The imbibers of beer are in the "Animalia", the hops and barley are in the "Plantae", the yeasts are in the "Fungi", the unwanted (but sometimes necessary) bacteria are in the "Monera", and the protozoa (often in the water until boiled) are in the family "Protista". Another name for the "Monera" is "Prokaryotae", the kingdom in which the bacteria reside. All monerans are unicellular, and have no no organized nucleus, in contrast to the multicellular members of the "Plantae". As you can see there is little sense in persisting with the idea that bacteria are plants!

The term "microflora" has been and still is widely used to describe populations of bacteria, but this usage too is falling away, to be replaced by the more neutral "microbiota". I hope this helps!

John's Alehouse John

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Date: Wed, 4 Aug 1993 21:59:00 EST  
From: "/R=GTC/R=A1/U=BRANNAGJB/O=College Marketing/TN=250-8384/FFN=Gretchen Brannaman/"@mr.gvltec.edu  
Subject: Mead

I'm chomping at the bit to get started with my first attempt at a sparkling mead, but I'm reading about all the micro-nasties in the hot summer air waiting to destroy my efforts. Since it takes yeast longer to get going in mead (thus giving opportunities for intruders) should I wait until Fall to begin? I'd hate to wait nearly a year for my mead to ferment only to crack one open and find that some other critter got to it before my yeast-of-choice got there! I'll wait if you all think I'd have better luck. My sanitation must be OK because I havent had any bad batches of beer. But I REALLY want this mead to be wonderful. Please reply to brannagjb@yogi.gvltec.edu or publish it if folks are interested. Thanks Gretchen

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Date: Wed, 4 Aug 1993 21:11:13 -0600 (MDT)  
From: thomas ciccateri <tciccate@carina.unm.edu>  
Subject: Chiles

For informative reviews of various varieties of Chile Peppers and their contributions of flavor and heat to food and beer, check out Chile Pepper Magazine. Contact: Out West Publishing, Box 4278, Albuquerque, NM 87196, (505)889-3745.

Can anyone report the collective review of the grind-off between the Maltmill and the PhilMill which occurred at the AHA Conference Jamboree last Tuesday night ? Has anyone analyzed the grind from the Glatt Malt Mill, specifically, do the deep grooves in the rollers tear the husks apart too greatly ?

For those lucky enough to have some of the Chile Extract given away by The Beverage People during the conference, could you please post the results of its use.

Regarding yeast starters beginning with a petri dish. At the Yeast Culturing class given by Siebel at the conference last Saturday, they tell commercial brewers to increase volume by no more than 5 times per step so that the yeast would get accustomed to eating various sugars as they'll be found in the wort. They did concede that homebrewers with low volumes of well-aerated wort could get by with step increases greater x 5. I go from 5 ml to 50 to 500 then finally to 1500. Diacytl or excessive unfermentables don't seem to be a problem. They also recommended starter gravities around 1048 unless the target beer is high gravity.

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End of HOMEBREW Digest #1197, 08/05/93

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Date: Thu, 5 Aug 93 07:01:36 -0600  
From: staib@oodis01.hill.af.mil (Major Donald L. Staib;545TG/SEF;)  
Subject: Help No Hops

I've been brewing hopped extract kits for years. Under the encouragement of HBD and Prodigy BB, I started using un-hopped kits, and DME to make great all-malt brews (for an extract brewer). The problem is, in my haste I left out the hops from my latest brew, I added Irish Moss to the boil and forgot the hops (thought it seemed too easy). I'm now two days into the primary and guess I'm destined to dry-hop the entire 5 gal batch.

I used two cans of M&F light to make up 5 gal. I have never dry-hopped before. I have 2 ozs. each of Cascade and Chinook. Can anyone suggest the procedure and amount for me? Oh, pellet hops is the type I have.

Enjoy reading all the great information here on the Digest. Thanks for any and all techniques to remedy this oversight.

The Braumeister in Layton, Utah! \*  
// \*  
[@@] \*  
+--[ ]-+  
\_[]\_

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Date: Thu, 5 Aug 93 08:44:07 CDT  
From: nfarrell@ppco.com (Norman Farrell)  
Subject: Help No Hops  
Subject: Homebrew Digest #1196 (August 04, 1993)

Item #1 Another opinion on ALL\_ABOUT\_BEER:  
I recently picked up a couple of issues of ALL\_ABOUT\_BEER recently and found the magazine a worthwhile read for a variety of reasons. It is not however (in my opinion) going to replace the other beer and brewing publications I read.

Micheal Jackson's article are always a great read. When NEW\_BREWER (otherwise a good mag) did an article on "women in the brewery" and it was about what wimpy/pale/fruity beers you should make for ladies, ALL\_ABOUT BEER was doing a series (not just one article) on women in the brewing industry from distributors/ importers to owner/operator/brewers. Kudos to ALL\_ABOUT\_BEER. Shame on you NEW\_BREWER.

Item #2 Wyeast 1007, (German)  
>Dave Smucker, Brewing beer -- not making jelly!

>I brewed up a batch of German Dusseldorf style Alt over the >weekend with about 20 % German wheat malt and Wyeast 1007, >(German) and got the strongest fermentation I have ever seen.

This is the usual experince I (and other club members, Just Brew It.) have had with this strain. If you pitch it at the rate you should, it will crawl out of the fermenter at the slightest provocation. We should have such problems with all the yeast we use. The warmer temps you mention will only agravate the "problem??".

Item #3 HBD #1197. Subject: Steve and Tina Daniels  
chuckm@pbn73.cv.com asks about Steve and Tina.  
I have met the Daniels Duo. Several times: Foam Rangers meetings, AHA stuff, contests. They are great people and talented brewers. They also do a mean job remodeling houses (all in their spare time..... HA). In Foam Rangers circles, Steve is known as "Negative Man" due a now legendary episode where he dumped a whole batch of wort (and started over) just because he forgot to rest the mash at 120 deg F. Hard to argue with their track record in contests.

My impression of their contest strategy is that they have adjusted recipes to directly respond to judges commnts and thus systematically hone their beers to "perfection". At least until the beers are very good indeed. Please look at LAST YEAR's zymurgy listing the AHA national winners and their recipes. I believe you will find 3 Steve and Tina recipes. Look at them carefully. They are in 3 different categories (of course). To the casual inspection, at least 2 of them appear virtually identical and the 3rd one very similar. What does this tell you??

- A.) The same beer can win in more than one category at the national level.
- B.) Some style descriptions are not very useful in helping

judges distinguish among similar styles.

C.) The most important parts of the brewing process are not captured in a recipe.

D.) Some brewers don't want to give away all their secrets or don't worry if published recipes allow you to duplicate a beer.

I don't honestly know the answer. It may be none of the above. Looking at these recipes as a brewer of 15 years, I don't see how they can be too helpful to novice brewers who want to follow in the footsteps of true winners like Steve and Tina.

Item #4 Temperature control

I will soon be fermenting in a modified refrigerator due to relocating in the Houston area and I am wondering about fermentation temperature control. Has anyone tried immersing the thermostat sensor in the fermenting liquid. I would assume that you would want to put the sensor in a narrow tube with a closed bottom to prevent direct contact with the liquid but to still get a good temperature reading. I would also assume that the tube would be glass, stainless steel or plastic that could be adequately sanitized. Any ideas, drawbacks?? Is this already standard practice and I am reinventing the wheel?

Beer is food.

Norman Farrell(nfarrell@ppco.com)

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Date: Thu, 5 Aug 93 09:55:15 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 05-Aug-1993 0953  
<macneal@pate.enet.dec.com>  
**Subject: Recipe Postings**

A recent posting pointed out a problem (to me anyway) with the Cat's Meow.  
It's not really a problem with the Cat's Meow, rather with those who post recipes. Someone posted a recipe awhile back which made it into the Cat's Meow. Later, the poster comes back to HBD and admits it wasn't that good a beer.

Why post untried recipes? It's not fair to other brewers to have to flush 5 gallons of beer representing \$20-40 worth of ingredients down the drain when they repeat your mistakes.

Recipe postings are great and so is the idea behind the Cat's Meow, but please, wait until you've tasted the beer and can comment on it at the very least. Even posting a recipe and saying it was underhopped or too malty, or whatever is better than saying, I haven't tried this yet especially when you have to come back a few months later and say it was a complete flop.

Keith MacNeal  
Digital Equipement Corp.  
Hudson, MA

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Date: Wed, 4 Aug 93 21:47:49 EDT  
From: rgarvin@btg.com (Rick Garvin(761-6630))  
Subject: Old Ale

Well, I finally got a ribbon at the AHA Nationals. It was nice being there and it was a bit of a surprise. Of the three beers that I entered (Old Ale, Barley Wine, and Imperial Stout) the Old Ale was the least good. The recipe, which follows, was high on the IBU side. This was meant to be a strong Pale Ale.

You say "Wow! Are the only beers you brew strongly alcoholic? Do you have a need for lots of VERY strong beer?" Actually, I do not feel that anything but strong beers can be done justice with the format that AHA uses for their national. The time between bottling date and Best of Show judging is at least 4 months! Most beer styles have passed their peaks by then.

My experience judging American Pale Ales enforces my opinion. All of these beers lacked fresh hop aroma. Many had cooked vegetable aromas and flavors. None was superb. The American Wheat that was awarded First Place was the only beer without faults. In the second round I expect beers to compete on superlatives, not who has the least faults. I believe that all of the problem that we tasted were age related. The good beers in this style that we had in the Washington, DC regional "The Spirit of Free Beer" had the fresh beer character that is the trademark of this style.

Maybe the lesson here is enter the regionals with the American Pale Ales. This style needs the faster turn around. Not to mention cheaper entry fees and better prizes.

My congratulations to Thom Tomlison for a well run second round and BOS.

And now, for some beer:

- -----

Garvin's Old Ale  
#159  
Rick Garvin  
Arlington, Virginia  
all-grain recipe

Recipe for 7 gallons:

14 pounds British Pale Ale malt  
1 pound 40 Lovibond Crystal malt

4 ounces Mt. Hood hop pellets, 3.7% AA. Boil 70 minutes.  
1 ounce Mt Hood hop pellets, 3.7% AA. Boil 10 minutes.  
1 ounce BC Goldings hop pellets, 5.0% AA. End of boil.

1 tablespoon Irish Moss for last 15 minutes.

16 ounces thick slurry Sierra Nevada strain yeast (Old Dominion Ale)  
3/4 cup corn sugar to prime.

Original specific gravity: 1064

Terminal specific gravity: 1014  
Brewing date: 4/19/93  
Primary fermentation: 1 week, 65 degrees  
Secondary fermentation and lagering: 1 week, 65 degrees  
Bottling date: 5/3/93

Brewer's specifics:

Single temperature infusion mash:

Dough in malt with 1.33 qts/lb water (5 gallons) water at 165F for a  
sacharification rest 154F-152F for 60 minutes. Sparge to collect 9  
gallons.

Boil sweet wort for 30 minutes before adding hops. Chill and pitch.

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Thursday, 5 August 93 09:05:26 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: chili beer

Howdy, y'all!

I see that discussion is beginning of the use of chili peppers in beer again, & by coincidence, I tried my own Serrano beer last night. I was brewing a batch of Czech(oslovakian) Pilsner back in June, when the last discussion of chilis was going on. I decided to try it out, but I only wanted a few bottles. To do this, I tried the Ed's Cave Creek Chili Beer method, which is adding a serrano to the bottled product. I had had Ed's before, & found it overwhelmingly spicy. According to one HBD'er, whose name befalls me, Ed's maxed out in spiciness after 60 days. I'm sure that what I had was at least that old, so I figured that if I drank it early enough, it would be pleasant enough. That was very true! I bottled it 17 days ago, and the beer was spicy, but nowhere near overwhelming. The beer flavor was not obliterated by the pepper, but the two were well balanced. A successful experiment.

Some technical notes: I had originally intended to use jalapenos, but discovered that they were, for the most part, too fat to fit into the bottle. Serranos are much thinner. According to the Scoville method of measuring spiciness in chilis, serranos are hotter than jalapenos, but not much, so I figured they were the way to go. They were more expensive, but it came out to 3.5 cents a pepper, so it wasn't like I was going to go broke. I reviewed suggestions posted in the HBD about how to make sure the chilis were clean enough to introduce into the beer. Since I didn't like any of them, I decided to just wash them off in good old hot water. I dropped one in each bottle, poured the primed beer over it, & capped it off as normal. I noticed that the bottle I had last night did not gush, as chili beers often do, plus it didn't have any tastes that one might associate with bacterial infection; therefore, I would assume that the serranos were clean enough at bottling time. Something to think about.

I also used some chipotles (smoked jalapenos) in a couple of bottles instead of serranos. I intend to try one this weekend. I'll have a review early next week.

Since chili peppers are, technically, fruit, I was wondering if this method would work for other fruits. Has anyone out there bottled fruit with their

beer instead of adding it at an earlier stage? I'd like to know. I want  
to  
make a mango beer & a prickly pear beer, but don't want lots of it.

Happy brewing,

Alan, Austin

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Date: Thu, 5 Aug 1993 09:16:46 -0500  
From: Todd Enders - WD0BCI <enders@plains.NoDak.edu>  
Subject: Starter OGs

thomas ciccateri <tciccate@carina.unm.edu> writes:

> [...] At the Yeast Culturing class given by Siebel at the conference  
>last Saturday...  
<snip>  
>They also recommended starter gravities around 1048 unless the target  
>beer is high gravity.  
>  
Hmmm... Every starter I ever did was in the 1.045 - 1.050 range. It  
just didn't seem quite logical to make a starter at 1.020 and pitch the  
yeast grown therein into a 1.045+ wort. I would think it would be better  
to subject a small number of cells to the initial osmotic stress of  
adapting  
to a given wort than a much larger number of cells to a smaller osmotic  
shock. One might suspect that stressing a large number of cells might  
lead  
to some off-flavour components. On the face of it, it would appear that  
the people at Siebel concur. What sort of starter gravity do they  
recommend  
for a high gravity beer?

Todd

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=====
=====
Todd Enders - WD0BCI   ARPA: enders@plains.nodak.edu
Computer Center   UUCP: ...!uunet!plains!enders
Minot State University   or: ...!hplabs!hp-bsd!plains!enders
Minot, ND  58701 Bitnet: enders@plains
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Date:Thu, 5 Aug 93 10:15:08 EDT  
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>  
Subject: Botched Batch....

I messed up. I started a batch (had a good boil going, added my malt extract, bittering hops after ten minutes) and then realized that my flight outta town was not at 1pm, but 11:10 am, and that I hadn't packed or dropped my son off at my mother-in-laws yet and it was 9:15 with an hour drive to the airport. So....I turned off the heat, removed the pot and covered it and put it in the basement. My question is "what is the best course of action now?" Do I start it up with another boil (it was on the stove for only 20 minutes) or do I just add the next bunch of hops (ie. dry hop) and the yeast and hope for the best??? I realize this post/experience makes me sound kind of stupid, but, I can deal with that, some answers/suggestions would be appreciated.

One more thing, I did this tuesday the 3rd, and today's the 5th and I'm back.

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Date: Thu, 05 Aug 1993 10:21:22 -0400 (EDT)  
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov  
Subject: dark grain, All About Beer

Geotex@engin.umich.edu writes:

>I am planning to make a porter whose recipe calls for 5# of dark malt extract. I have 3.3 # of dark and 1.7# of light.....I have heard that I can use light in place of dark...?

I always buy light malt extract when I make an extract beer because you can always darken it but its difficult to lighten when you start with only dark or amber extract. For a porter I would recommend using black patent or chocolate malt (possibly about a 1/4lb or the former and 1/2 to 1lb of the latter, depending on your preference. IMHO, I would not use much roast since that is more characteristic of stouts. Again, you could crush or not crush the grain depending on your preference for color and steep it in water up to about 180 F. Sparge this with hot water and add it to your wort.

BTW, in reference to "All About Beer", it is now produced in Durham, NC the former beer capital of the Research Triangle !! The magazine appears to be quite well done, both colorful and interesting, though not for the technically oriented. There is even an article on introducing people to homebrewing.

A section called Beer Talk has 5 noted experts and one quest expert rate 5 different beers. The experts include Fred Eckhardt, the ubiquitous Michael Jackson, Charlie Papazian, James Robertson and George Saxon. But the quest expert really showed herself to be a beer connoisseur. Not only does she have an uncanny ability to detect subtle flavors and aromas in beer, she makes great Indian Food. She happens to be my wife (;^)!!

All disclaimers apply.

Andy Kligerman

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Date: Thu, 5 Aug 1993 10:46:14 -0500  
From: amilbank@mercury.bih.harvard.edu (Aaron Milbank)  
**Subject: Recipe Aid Request**

I'm interested in brewing an all-grain pale ale that resembles Sierra Nevada's Pale Ale. Any suggestions pertaining to choice of grain, yeast, hops, hops schedule etc.?  
Thanks.

Aaron  
amilbank@bih.harvard.edu

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Date: Thu, 5 Aug 1993 07:53:28 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Cheap 5 gal Carboys in Seattle

In the cheap carboys column,

Olshen's Bottle Supply, Inc.  
923 S Bayview  
Seattle, WA 98134  
(206) 622-4143

Brand new, 5 gal glass carboys (they call them "bottles") for \$10.67  
plus \$0.87 tax for a total of \$11.54.

I don't know if they ship. They are just off Airport Way S, barely  
north of S. Lander under the freeway.

I have no stake, financial, emotional, or otherwise in this enterprise.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Thu, 5 Aug 93 10:42:34 -0400  
From: Philip J Difalco <sxupjd@anubis.fnma.COM>  
Subject: **Barreling Beer**

Previously, I asked for Brewers' experiences concerning "barreling" beer in wooden casks. With that, I received no responses. Maybe I need to be more specific with my barreling concerns.

I have a 5 gallon wooden barrel (together with spigot) capable of holding fluids. I plan to use my carboy as a primary fermenter (for a nutbrown ale).

When its time to transfer to bottles - I instead want to transfer to the wooden barrel. After the beer has conditioned in the barrel for about a month, I'm going to slam the spigot into the barrel and drink (along with 5 gallons worth of friends).

My concern is - Will a standard-fluid-capable-wooden-barrel be able to withstand the pressures that the beer will produce (during the conditioning process) over this period of a month?

Thanks in advance.

- - - -

email: sxupjd@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior SomethingOrOther, Advanced Technology  
FannieMae, 3900 Wisconsin Ave NW, Washington, DC 22016(202)752-2812

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Date: Thu, 5 Aug 93 11:08:20 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: dunkleweizen & dual brews

IN the last digest:

<From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>  
<Subject: Recipe for Dunkelweizen needed

<

1. What grain should I use, and how much, to get the colour right? I can get hold of chocolate, black patent and crystal malt, and roast barley. I could probably roast my own malt to give an amber malt. I can't buy Cara or (mainland) European speciality grains. My best guess is crystal plus some chocolate.

60 - 70% wheat malt, pils for the balance except use lots of Caramel/crystal and a small amount of chocolate. Stay away for Black at all costs. You might try the Hugh Baird Caramel malts, I believe you can get them in 40, 60 and 80 lovi.

<2. Hops? Hallertauer?

excellent choice, keep IBUs below 18.

<3. Yeast?

Mailorder a culture of Weihenstephan #68 (apparently this is the real number not 66??). Several yeast suppliers have this including the Yeast lab folks, the Yeast Culture Kit folks and apparently the newest Wyeast weizen. Most bottled versions are useless to culture from.

Weizens

that "throw a good sediment" are usually krausened with lager yeast.

<4. Temperature? 67F.

Good.

\*\*\*\*\*`

<From: tomt@nano.sps.mot.com (Tom Tomazin)  
Subject: Home Brewery Info

10 gallons....Get two SS 1/2BBl kegs and modify them with adding a spigot.

Lots of designs to pick, cooler, kegs, false bottoms....

\*\*\*\*\*

<From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Multiple Styles from single mash/boil

Does anyone have suggestions for other mixed-batch recipes, from a single mash/sparge/boil?

Sure, how about a barley wine and a small beer from the second runnings. Or, brew a 1.060 batch, hop it highly, split into two fermenters, dilute one down to 1.040 and call it a bitter, ferment the other and call it an IPA.

\*\*\*\*\*

<From: chiz@atmel.com (Robert Chizmadia)  
Subject: rebottling

2 litres into 12 oz.... Sounds like a lot of work and potential for really flat and/or oxidized beer. If you must do this, fill a keg with CO2, pour the beer into the keg, close and purge the keg with more CO2, shake and purge the escaping CO2 until flat (or close). Grow healthy krausen beer (10% of volume to be added into), mix krausen beer at high krausen and bottle. The secondary fermentation from the krausen beer \*may\* be able to absorb enough O2 to prevent oxidation. Allow 10 days to condition prior to dispense.

Good brewing,  
Jim Busch

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Date: Thu, 5 Aug 93 11:08:44 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: decoction/weizens/mash techniques

<From: korz@iepubj.att.com  
Subject: Decoction a must?/Mashing techniques

<Jim (as well as one other poster) writes:  
>Decoction is a must for all grain weizens, and is very beneficial for  
>many styles of lagers, pils and bocks in particular. It is not worth  
>the extra effort for ales, esp if you are using domestic 2 row pale or

<Well, despite the fact that I haven't done an all-grain Weizen, I would  
<like to propose that perhaps it's a good protein rest that is essential  
<for a brew with a large percentage of wheat and not necessarily a  
<decoction mash that's essential. Indeed, the decoctions will help  
<convert the starches in wheat, especially raw wheat, but I've tasted  
<quite a few very good weizens made with temperature-controlled (step)  
<mashes

If one is using a upward step mash program (the politically correct term)  
,  
you can produce a good wiezen with a wheat content up to 50%. Depending  
on your lauter tun, I would never ever recommend going above this level  
of wheat without a decoction. this is especially true when using  
domestic  
wheat malt with protein levels around 15! A good protein rest is  
essential  
in both decoction and step mashing. Now an authentic Bavarian weien must  
be of at least 51% wheat malt, and this includes dilution by krausen beer  
if you choose this carbonation method. So if you are adding 10% helles  
krausen beer you must account for the dilution effects of the percentage  
of wheat in your beer. I brew weizens of 65-70% wheat malt and a  
decoction  
is really important. remember the taller your lauter tun, the more grain  
compaction that can occur resulting in more time consuming lauters. I  
use a  
tun that is twice as wide as the depth of grain bed.

Al continues:

<1. single-infusion -- add a measured amount of water at a calculated  
temperature to bring a measured amount of grain to saccharification  
temperature. Mashout is often not done and the hot sparge water is what  
effectively ends the conversion.

Correct. The dominant technique in many american ale houses that do not  
employ a fired mash tun (kinda the english methods)

2. step-infusion -- add a measured amount of water at a calculated temp  
to bring a measured amount of grain to protein rest temperature. Add  
another infusion of hot water to bring the mash to saccharification temp.  
Finally, add boiling water to get the mash to mashout temp.

Correct. A typical technique in homebrewing and in breweries that do not  
have a fired mash tun but want more control over the saacharafication  
temps. Requires proper mineral balance to maintain proper pH. Usually  
not an issue due to the "buffering" effects of the malt. A little gypsum  
will suffice.

3. temperature-controlled -- dough-in (cool water) or mash-in (protein  
rest temperature) with the full mash volume of water. Add direct heat to

raise the temperature to other rests.

Correct. "Upward step mash program". My preferred technique with regular ales.

4. decoction -- dough-in or mash-in with the full mash volume and then remove parts of the mash to a kettle in which this "mash fraction," which is called a decoction, is heated to boiling and then returned to the rest of the mash to raise it's temperature. There are several variations to this (double (two decoctions), triple (three decoctions), etc.) in which some of the decoctions are replaced by infusions or the entire mash is moved to a kettle and then direct heat is used in place of one or more decoctions. It is interesting to mention that decoction mashing can be done WITHOUT A THERMOMETER, given enough experience, which I've read is the reason that it was invented (they did not HAVE thermometers at the time).

Almost correct. The "mash fraction" that is boiled is also raised to a saacharafication rest temp, usually 147-158 or both, and after conversion, is then denatured through boiling. This rest is often ommitted by home brewers and may result in lost efficiency. Note that in a weizen decoction program, the main mash sits at protein rest temps for over an hour while the mash fraction is raised, held, then boiled.

Al continues:

<Yes... I did, at that place with three names (something Bakery, something Restaurant and Widmer Brewery (although it is technically next door)). I don't have my tasting notes here, but I remember it was very good. I recall it had an OG of 1066 and did have a noticable alcoholic component to the flavor. It was really the first American-made Bock I've tasted which I feel deserved to be called a Bock.

NOT! It is an ALE!!! All of Widmers products are made with the same Alt bier yeast. None is a lager, one of my major beefs with the incredibly successful Widmer brewery. Even that "HefeWeizen" is the same alt yeast, super thick and cloudy, echhh. BTW, there are some really good bocks (lagers) made by: Gordon Biersch, Sudwerks, Baltimore Brewing, Old Dominion brewing and Stoudts to name a few.

Good brewing,  
Jim Busch

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Date: Thu, 5 Aug 93 11:09:12 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Brewing Techniques, errors

In re: Brewing Techniques issue 2:

Anyone else catch the mistakes in this issue? Dave Miller claims that hefeweizens are made with *S. Delbrukii*, NOT! It is *S. Cerveasae*, see Eric Warners book, *Brewing Wheat Beers*. Also, the styles column claimed that Reinheitsgebot brewers cannot add minerals to the brew. NOT! They cant add non natural occuring things in water like acids. Since calcium is in the water, they can and many do add gypsum to the mash and/or kettle.  $CaCl_2$  is also OK. Raw acid is not, hence the use of Lacto to drop pH.

I also think Dave Miller is really really anal on cleaning his wort chiller. Hot boiling water, with hot caustics and a rinse with hot water works. The important point was cleaning with caustics to remove the grim, then sanitizing with iodophor or boiling water. I know of very few breweries that go to the extreme of an acid rinse between caustic and sanitation. Nothing wrong, just really excessive.

Jim

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Date: Thu, 5 Aug 1993 08:16:24 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Earwax contributor revisited

In the 05 Aug HBD Kevin McBride accuses the EARWAX contribution as a sham and FORGERY based upon a finger.

I did a "telnet kepler.unh.edu 25" to make a direct connect with sendmail on that machine. A "VRFY dcm2" (verify) command then identifies David C. Mackensen as the owner. A similar test of cygnus@unh.edu yields dcm2@kepler.unh.edu. (bofur.unh.edu refused the telnet connection). So as far as I can tell DCM owns the accounts listed in the original post. However, I agree with Kevin that the whole structure of the post is suspicious (sic?). Vacation indeed.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Thu, 5 Aug 1993 08:24:04 PDT  
From: wegeng.XKeys@xerox.com  
Subject: More on the Glatt Malt Mill

Patrick Sobalvarro called Glatt Machining, and learned some more information about their mill. With his permission I'm forwarding this information to the HBD. Based on this information I mailed them a check this morning.

/Don

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Originally-From: pgs@ai.mit.edu (Patrick Sobalvarro)

The number [at Glatt Machining] is indeed (509) 529-2084.

I talked to the guy who designed the mill, and he sounded very conscientious. Here are some of the things he told me:

The reason it's easy to turn the handle is that the drive is geared so you have some mechanical advantage (neither of the two other inexpensive mills available are geared).

The rollers are 4 inches long, steel, and grooved lengthwise.

It takes about ten minutes to grind 10 pounds of malt, in his experience, if the mill is not motorized. They designed it with the idea of motorizing it easily, and connecting a drill to it is supposed to be pretty straightforward.

Both ends of one roller are adjustable, on what sounded like a sort of eccentric cam with set-screws. There is an engraved plate with a scale on it so you can repeat your adjustment.

The bearings are injection-molded Delrin (a hard plastic designed for use in bearings).

The construction is metal, the hopper is big, and there are two mounting holes for attaching the mill to a table.

The current cost is \$80 + \$5 shipping, when it's sold directly.

They can ship COD, or wait for your check or money order.

I'm sending him a check tonight.

-P.

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Date: Thu, 5 Aug 1993 11:10:45 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: weizen pointers

I've brewed a few weizens on and off. I also read Eric Warner's excellent "German Wheat Beers" and recommend it highly. These points have been made in hbd at various times, but again:

- Warner argues for a grain bill of 70:30 wheat malt to barley malt. That ratio is important to producing the desired beer.

- Warner argues for using a decoction mash. In addition to the usual reasons for doing a decoction, it appears that the decoction mash helps release into the wort flavor precursors for the desired weizen flavor. One could do an infusion mash, but I don't think the desired weizen character would result to the same degree.

- You need the right yeast. One doesn't need *S. delbrückii*, just an ale yeast with the right flavoring properties. It appears that Martin Schiller and Paul Farnsworth are both sources of a good weizen yeast, and that wyeast is test-marketing a new yeast.

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Date: Thu, 5 Aug 93 12:51:19 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: Steve Daniel

CHUCKM@PBN73.CV.COM sez...

>

> It seems that Steve and Tina Daniel always take a good share of the AHA  
> brewing awards. Too bad they are not plugged into this digest so that  
> we may pick their brains. Does anyone out there know these two..they  
> are obviously doing something very right.  
> AND has anyone sampled any of their brews?

>

Steve is an excellent brewer from League City, Texas. He is also a good friend, and we are in the process of establishing a UUCP link to synchro. I expect Steve will be participating in the HBD soon. Currently he does read the HBD, but can't send messages to the list. Yes, I have had lots of his beer, it is excellent.

- --

Chuck Cox <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: Thu, 5 Aug 93 13:03:06 EDT  
From: lyons%adc2@swlvx2.msdl.ray.com  
Subject: algebra

My apologies for the algebra remark. I know better understand  
the confusion. Despite that, my remarks were out of line.

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Date: 5 Aug 1993 11:32:27 U  
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>  
Subject: Hops Schedule Equations

Today's homebrewer likes to dabble with different styles of beer, and to try duplicating prize winning recipes. A hops schedule is usually included as a part of these recipes as is the Wort Gravity and Final Gravity of the brew. There are occasions where this information is not included or where a homebrewer may not have a good feel for what the final brew would taste like. The International Bitterness Unit (IBU) is a better way to define the Hop character of a beer. The IBU take into account the wort gravity and the amount of time each hop addition is boiled. This allows the homebrewer to develop a hop flavor profile in the beer and plan for different hops to make up the overall character of the beer.

Several months ago, I wrote an Excel Spreadsheet based on Jackie Rager's work in Zymurgy, that allowed me to get a better idea of what a certain recipe's hop additions meant to the final level of bitterness in the finished beer. As a starting homebrewer, I had little idea of what XX IBUs/HBUs meant to what I perceived as taste. By sampling various beers from around the world, and pulling the bitterness data from Micheal Jackson's, \*Pocket Guide to Beer\*, I was able to determine what I liked in terms of hop level. Next, the question was, "If I want to make (someone's) recipe, how bitter will that be?" By using Rager's equations, I could determine the IBUs and get a better idea of how I might what to tinker with it.

Much the same idea was presented in a recent issue of \*Brewing Techniques\*; but some of the equations seemed different. So, I called Karl King in Milwaukee to ask him about that. He's a nice guy, and had done his homework. We had both discovered the several mathematical errors in Jackie's article and had the same questions about Wort Gravity adjustments. Rager had stated in Zymurgy that if the Wort OG is less than 1.05 then the Gravity adjustment is Zero. This returns a Gravity of 1.00 to the IBU equation. Karl King had determined that it should be (1 point whatever), the OG; and I agreed. In addition, the Hop Utilization data presented by Rager was added to by King, and he used two linear regressions to describe that data in his article in Brewing Techniques. Karl got the additional utilization data points from the public library archives in Milwaukee, which seems like a good source, when you think about it.

So, below I am listing the equations first presented by Rager, and later revised by Karl King and myself. I was originally going to UUencode my Excel Spreadsheet, but when decoded, it produced an unreadable (corrupted) GIF, so forget that.

**\*The International Bitterness Unit\***

The IBU is based upon utilization of the hop oils, specifically the Alpha Acids. The alpha acids are released into the wort during the boil and also into the beer during Dry Hopping. Unfortunately, the diffusion rate is e.

utilization rate, data is not available for Dry Hopping, so any contributions

to the total IBUs, however small, from Dry Hopping will not be discussed here.

The equations expressed below take into account the change in Utilization rate

with time, and make use of the influence of wort gravity to that rate.

**NOTE:**

The 7462 constant is for US units; for grams and liters, use a constant of 1000.

An IBU can be expressed by the equation:

$$IBU = Wt * \%util * \%alpha * 7462 / Vol\ ttl / GA$$

where Wt is the amount of Hops in ounces, Percents are decimals, Volume is the total recipe volume, and GA is the Adjusted Gravity.

**\*The Adjusted Gravity\***

The OG needs to be adjusted if it is greater than or equal to 1.05. Rager gives the example that if the OG for a 5 gallon recipe is 1.048, but he's only

boiling 2.5 gallons then his apparent gravity is 1.096, or twice the OG. (That's twice the .048 part) Therefore, the 1.05 condition needs to be met for

partial boils. This is done with the following equations. (VT is total vol,

VB is Boil vol, GB is Boil Gravity)

$GB = ((VT/VB) * (OG - 1)) + 1$  ie. multiplying the degrees of extract by the volume ratio.

Then, if GB is greater than 1.05,  $GA = 1 + (5 * (GB - 1.05))$

Otherwise,  $GA = GB$ .

**\*The Utilization Rate\* (from Karl King)**

If the boiling time is less than 23 minutes, then  $\%U = (0.64 * time) - 2.62$

Otherwise,  $\%U = (0.4 * time) + 3$

**\*Doing it Backwards\***

What if you say to yourself, I would like most of the hop character from Northern Brewer, Some from Fuggles, and some from Saaz? Well the IBU equation

can be worked backwards for the amount of Hops that need to be boiled for a given time.

$Wt = (\% \text{ of total character}) * (\text{Target total IBUs}) * VT / \%U / \% \text{ alpha} / 7462$

Where the % of the total hop IBUs is expressed as a percent. Ex. 60% of  
50  
IBUs total from Northern Brewer would be  $0.6 * 50 * VT$  etc. The time  
boiled is  
expressed as the percent utilization from the equations above.  
I hope this will be useful to all of you as well as correct the mistakes  
in  
Zymurgy.

John Palmer  
Space Station M&P  
Huntington Beach CA

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Date: 5 Aug 1993 11:37:32 U  
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>  
Subject: Secondary Fermentation Questions

I have several novice-type questions about Secondary Fermentation.  
Background: All-malt unhopped extract brewing, adding hop pellets,  
bottled  
H2O.

1. Is racking to a secondary fermenter only/mostly used for Ale yeasts,  
Lager Yeasts, or both (ie. yeast is not the criteria)? When (and other  
adverbs) do I need to rack and secondary ferment?

2. According to Dave Miller, he racks when the bubbles slow down to 1/  
30  
seconds (I think). What span of time has passed (typically) 3 days, a  
week?

3. Okay, approx 3 days - a week has passed in the primary fermenter  
(white  
bucket) and I am racking to a glass carboy (6 gal). At this time I would  
be  
adding my dry Hops. Do I need a Blow-Off Tube? Do I need the Brew-Cap?

4. After secondary ferm'g of 2 weeks, I will rack to my bottling pail and  
prime. Is oxygen damage my main concern, or is lambic still a problem?

JP  
Space Station M&P

PS. Thanks for all the responses about alcohol types.  
Knowledge is good.  
Time flies like an Arrow, Fruit flies like a banana. -Groucho  
If it doesn't have an acronym, it's not important. -JP

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Date: Thu, 05 Aug 1993 13:44:11 -0500 (cdt)  
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>  
Subject: Wyeast 1007

There's been a lot of interest in Wyeast 1007 the last couple of issues. This is one I haven't used myself, yet. I know it's the "Alt" yeast, and Russ Gelinas says it makes a nice Porter. Russ, or anyone else out there,  
I'd be interested in more discussion and/or recipes which are a nice match  
for this yeast.

TIA,  
Jonathan Knight  
Grinnell, Iowa

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Date: Thu, 05 Aug 1993 13:56:46 -0500 (cdt)  
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>  
Subject: hop boiling times

I would compare the effects of differently timed hop additions to the use of herbs and spices in certain dishes. For example, I discovered a while ago that reserving a large portion of the chile powder/cumin/etc. until the end of cooking a pot of chili, the presence of these spices was dramatically enhanced. The dish is not really "hotter," although people will tell you it is; it is really the aromatic presence of the spices which can be overwhelming.

Similarly, if you've ever used wine as an ingredient in spaghetti sauce, you know that if added at the beginning of the simmer, there will be a certain something in the end product, but the winey-ness will not be obvious. On the other hand, if you add it towards the end, the wine will be more detectable as wine. Or if you make a quick-cooking (20 min or so) tomato sauce for pasta with wine in it, the presence of the wine will be more pronounced than if simmered in a sauce for a few hours. Or, if you wanted a pronounced basil note in a sauce, the way to get it would be to add the basil toward the end of the simmer.

When making beer, I have found that some of my more pleasing efforts have had the benefit of mutiple hoppings, for example, 60, 30, 15, 0. I'm not into calculating IBU's (yet?), I'm just "cooking" when I make beer - but I'd say the principle is the same: hops are to malt, etc., what herbs are to "main ingredients" in cooking (meat, legumes, whatever).

Jonathan Knight  
Grinnell, Iowa

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Date: Thu, 5 Aug 93 16:11:21 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: Re: sanitizing counterflow chiller

hartman@varian.CSB.Varian.COM (John Hartman) writes:

>I must say first of all that one needs a hot water pump. About 5  
minutes  
>before the end of the boil I setup the counterflow chiller: To do this I  
place  
>a pick up tube in the boiler and attach its output to the input of my  
hot water  
>pump. The output of the hot water pump is then attached to the input of  
my  
>counterflow chiller.

Depending upon what type of pump it is, it could easily be oxidizing your  
wort.

bb

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Date: Thu, 05 Aug 93 17:18:08 EDT

From: goldwyn@aol.com

Subject: Personal message

I am the president of the Beverage Testing Institute Inc., an independant product testing service serving the beverage industry since 1981. I am also host of America Online's Wine & Dine Online, which is also the home of a lively homebrewers section. Shawn Ludford is on BTI's staff, he is a brewer, and he is working with the brewing section. He has just subscribed to HBD.

For several months I have been a subscriber to HBD.

Within a month we expect AOL to give us the ability to easily upload ASCII files in bulk and upload them into a searchable database.

Shawn and I impressed with the wealth of info in HBD, and we are testing a method of splitting HBD into separate messages or groups of threaded messages and putting them into a searchable database for posting on AOL. Do you have an objection to us doing this? We think that it would be very helpful. Naturally, we would give HBD proper credit and publish the address. Please let me know what you think.

By the way, no sense in sending two HBDS to the same office, so please delete goldwyn@aol.com from the subscriber list, and make sure ludford@aol.com stays in.

Drink in good health,

Craig Goldwyn, Host, Wine & Dine Online

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Date: Thu, 05 Aug 1993 21:07:31 -0400 (EDT)  
From: MIKEPOTASKI@delphi.com  
Subject:

SUB HOMEBREW MICHAEL POTASKI

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End of HOMEBREW Digest #1198, 08/06/93  
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Date: Thu, 5 Aug 1993 21:56:11 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: Sour Mash Brewing

With all the discussion concerning the overnight mash, I'd like to raise the issue of the sour mash. As you may know, the sour mash method ala Papazian is somewhat similar, the difference being that the mash is inoculated with about 1/2 pound of raw grain at 135-140 degrees F. The mash is then left to sit overnight 15-24 hours, depending on the degree of sourness desired. A week and a half ago, I found myself contemplating the merits of this procedure as I was attempting to produce a slightly sour Belgian witbier. I was troubled by the overnight mash: would I end up with an extremely attenuated beer, which I guess is somewhat desirable for the style, by allowing excessive conversion? would the bugs even grow at such a high temperature, this is pretty high for your garden variety bacillus? Okay, so I worried and decided to hedge my bet - do the complete mash and lauter, then add bugs that were cultured several days in advance from the grain and let it go 12-13 hours. I figured that the actively growing bugs would push the souring time ahead. I examined the cultures from the grain under the microscope. All kinds of stuff gets started from the grains - mainly wild yeast and bacilli, but also some little round guys all strung together (cocci). It seemed like there was a lot more in there than I had wanted. I worried some more and hedged some more - I started a culture using sourdough starter, at least I had had some previous experience with it. So there I was at 1 a.m. as the wort cooled, "sourdough or grains? sourdough or grains? Okay, grains it is." I pitched the culture from the grains and went to bed. In the morning, I was sourly disappointed to see no activity and no souring. Why, Charlie P. had me anticipating little fuzzies growing all over my wort. I wondered whether the high temperature had inhibited growth (I had cooled to 115 F before pitching).

So, I figured what the hell and added the sourdough culture and let it go 6 hours more. Eventually, a bacterial scum accumulated on top, but I never got an impressive souring (I could only wait so long).

It turns out that sourdough starter requires a symbiotic relationship between a wild yeast (Candida) and a lactobacillus (sanfrancisco, no less), and perhaps it comes as no surprise, the sourdough and grain cultures looked surprisingly similar under the scope. Now, maybe, my experience indicates that it's not surprising that little if any spoilage occurs with other people's overnight mashes - it's difficult to get it when you're trying. I suspect that the high temperature of the mash is not all that conducive to the growth of lactobacillus. It is true that there are species of lactobacilli that do well above 45C, but the sour mash guidelines are, I believe, roughly 10 C above this. Besides, are these

stray bugs

the ones I want spoiling my beer? Traditionally, *Lactobacillus brevis* is used in the brewing industry to sour beers, or causes spoilage (also *Pediococcus cervesiae* and *Lactobacillus pastorianis* (a no longer valid name). It works well at lower temperatures (ideally 15C). This seems to be the bug that one finds in a bottle of Berliner Kindl Weissbier, at least

it won't grow very well above room temperature. Anyway, maybe the sourness

will come through once the sugars have been fermented. Does anyone else have a sour mash theory or experience? Has anyone added lactic acid or citric acid to sour a beer? What are the odds that I could successfully utilize the *Lactobacillus* culture from the Berliner Kindl?

Thanks.

Todd M. Gierman  
Department of Microbiology  
Duke University Medical Center

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Date: Fri, 6 Aug 93 08:49 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: bgros

Brian Gros..... mail is bouncing to you. Send me your  
phone number or call me at 312 685 1878

js

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Date: Fri, 6 Aug 93 10:16:21 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE dunkelweizen recipes

Hi All,

In HBD#1197, Andy Phillips asks:

>I'd like to have a go a making a dunkelweizen soon. I have  
>a few questions about recipe formulation:  
>1. What grain should I use, and how much, to get the colour  
> right?

A dunkelweizen is supposed to have a soft, understated maltiness. I use 1/2 pound of chocolate malt, added at mashout. IMHO, roasted barley or black patent would lend a sharp, biting sort of flavor. Since a weizen is supposed to be lightly hopped, I'd also avoid crystal, the beer may come out too sweet.

I also use a pound of 8L-10L Munich malt, which contributes some color and maltiness.

From the guidelines for the 1991 AHA Nationals:

d) German-style Dunkelweizen "Chocolate-like maltiness evident."

>2. Hops? Hallertauer?

Hallertauer is fine, though I personally prefer Tettnang. Keep the hopping levels low, 15 IBUs or so. Speaking from experience, the combination of extreme cloviness and high hoppiness is quite unpleasant. I'd also recommend adding all the hops at once at the beginning of the boil, late additions are inappropriate for this style. You don't want a lot of hop flavor masking the more subtle phenolics found in a weizen, i.e., banana, vanilla, etc.

>3. Yeast? I know of no source of liquid cultures of wheat beer yeasts  
> in the UK. I can buy several HefeWeizens, which of these do you  
> think would make the best starter: Thurn und Taxis HefeWeizen  
> or Roggen, or Erdinger DunkelWeizen? The last of these seems  
> to throw a good sediment, so this is my first choice. Are all  
> HefeWeizens bottle conditioned, or are some pasteurized?

I use the Weihenstephan #66 strain, which does a beautiful job of producing the clovy, spicy character one expects in a weizen. I don't know about availability in the UK.

Andy, you might have a problem getting a good fermentation strain from commercial dunkelweizens. These beers are generally bottle conditioned with a lager yeast. I don't know offhand of any specific commercial brand that has the fermentation strain in the bottle. Anyone else know?

>4. Temperature? Unfortunately, I have no control over this,  
> so I may have to wait for autumn before I start. The temperature  
> in Bristol today is a sizzling 67F.

Please forgive me, I have to laugh at the notion that 67F in August is "sizzling". Here in New England, it was in the 90s and humid for most of July, which did not prevent me from brewing three batches of weizen. The W66 strain is supposed to be fermented at standard ale temperatures, though mine were fermented at 70F-72F, and came out fine.

One more note. If you can get the Belgian wheat malt from DeWolf-Cosyns malting, do it. This malt is plumper and contains far less protein than any German or American wheat malts I have used in the past. The resultant high extraction and ease of lautering make this a very nice malt with which to work.

Cheers,  
Jim

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Date: Fri, 6 Aug 93 11:09:55 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Otter Creek Copper Ale

Otter Creek (of Middlebury, VT) makes an interesting "Copper Ale" that they claim is inspired by Dusseldorf Alt. It's got a very interesting flavor, sort of "grainy" (as opposed to malty). Does anyone know how they get this flavor? Is it the malt? the yeast? the hops? Some combination?

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Date: Fri, 6 AUG 93 11:34:19 EST  
From: DEROSEGA%ML%WPAFB@MLGATE.ML.WPAFB.AF.MIL  
Subject: Water and carbonation

A batch of stout I made in February (extract + specialty grains) started out by having "perfect" carbonation and head retention, but after aging in the bottles it became overcarbonated to the point of pouring nearly all foam about 2 months ago. When I opened a bottle last night, which was first chilled, I let it sit on the counter for about 5-10 minutes before pouring, and foam slowly rose to the top and slightly poured over. Pouring as slowly as I could still gave me about a 4" head in a 12 oz slant-sided glass, which I had vigorously rinsed in hot tap water to remove any rinse agent residue from my dishwasher. The beer tastes fine, so infection does not seem to be the culprit. This leads me to a question for those who know more about water than I. I used my city tap water for the brew, which contains a lot of lime and other minerals (Fairborn, OH). Is there a relation between high mineral content of water and increased carbonation as a function of time? Could the "yuck" in my water serve as nucleation sites for bubbles?

Thanks for sharing your observations,  
Guy DeRose  
Physicist, pilot, homebrewer.

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Date: Fri, 6 Aug 1993 09:47:17 +0700  
From: Brian.Smithey@Central.Sun.COM (Brian Smithey)  
Subject: Re: Wyeast 1007

>>>> Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU> writes:

Jonathan> There's been a lot of interest in Wyeast 1007 the last  
Jonathan> couple of issues. This is one I haven't used myself, yet.  
Jonathan> I know it's the "Alt" yeast, and Russ Gelinas says it makes  
Jonathan> a nice Porter. Russ, or anyone else out there, I'd be  
Jonathan> interested in more discussion and/or recipes which are a  
Jonathan> nice match for this yeast.

The "Alt" yeast is #1338 (or something like that), Wyeast calls it European Ale. Wyeast 1007 is called German Ale, and I believe is Wyeast's original ale yeast. Byron Burch mentions in the special Yeast issue of Zymurgy that this is a "true top-fermenting" yeast. I recently brewed a cherry beer with this yeast, fermentation was quite vigorous and pushed a lot of sticky yeast up through the high krauesen foam, resulting in a tan/brown cap. This yeast would seem quite suitable for the practice of skimming the yeast at high krauesen for pitching into the next batch.

One thing I did notice with Weast 1007 -- I pitched when quite warm (80+ F), and after a day of strong fermentation I noticed a pronounced banana aroma from the fermenter. When I racked this beer at about a week the gravity sample had a definite banana ester character. I don't know first-hand how this yeast bahaves at more appropriate fermentation temperatures -- I think that Byron's article reports it to be a good general-purpose Ale yeast, fairly clean but with a bit more complexity than Sierra Nevada's yeast -- but if you're in an area where the homebrewers suffer from Summer heatwave-induced warm ferments, be aware that this yeast will give you some banana component. I'm pretty happy with the yeast-fruity background in this beer, so you might consider warm fermenting with 1007 when doing fruit beers.

Brian

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Brian Smithey / Sun Microsystems / Colorado Springs, CO  
smithey@rmtc.Central.Sun.COM

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Date: 06 Aug 93 11:38 EST  
From: WILSON.TROY@FORUM.VA.GOV  
Subject: HBD Garbage

Greetings fellow HBDers! I've been reading the HBD for over 3 years now and am finally putting in 2 cents. Sadly, however, it has little to do with the beloved art of brewing. I find myself having to respond to a post from lyons%adc2@swlvx2.msd.ray.com in HBD 1197 (whoever this person is). This individual provided the following input to a post by Mr. Geoff Reeves:

>Is this a joke? I can't stop laughing! Actually we shouldn't be laughing  
>about the mathematically ignorant. In case that this is not a joke,  
>please review your concepts of dimensional analysis or seek help.

And continues with:

>Did you get a high school diploma?

In my opinion, these comments are insulting, inflammatory, childish, etc. and have absolutely \*NO\* place in this forum. Whoever you are, you provided no input to the digest with your post. By using this forum as a platform to insult others you do serious damage to the HBD. How many long time readers (and experienced brewers) will see your post as the last straw and no longer subscribe? I recall the last time such nonsense occurred, many long time HBDers dropped out because it just wasn't worth tolerating. Further, how many new brewers have now been frightened into \*not\* asking beginner questions for fear of being ridiculed? As right, wrong or indifferent as a post may be, there is no justification for attempting to humiliate the poster. I believe that Mr. Reeves is due a public apology for these comments, and I hope other HBDers will join me in this call.

Hopefully my next post will be on a maltier subject...

Troy  
wilson.troy@forum.va.gov  
Iowa City, IA (living in the swampland)

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Date: Fri, 6 Aug 93 10:40:13 PDT  
From: sc@vcc.com (Steve Casselman)  
Subject: I want a new factor!

Having read the latest about pts-gal/lb I keep thinking I would like to have a factor that when multiplied by the number of lbs of grain I used would give me the lbs of extract I would need to get the same OG. This would be ratio of weight of the grain bill over the weight of the dissolved solids in the wort (or vice-versa). This would be dimension-less and would tell me how much grain I dissolved during my mash, a kind of efficiency. My question is this derivable from pts-gal/lb and would it be useful? I believe it would be a useful number for recreating grain rescpes with extracts.

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| "Today's Software is Tomorow's Hardware" --- A.S. Tannenbaum |  
| Virtual Computer Corporation -- FPGA based custom computing systems.  
| Steve Casselman E-mail sc@vcc.com Phone (818) 342-8294 |  
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Date: Fri, 6 Aug 93 13:01:55 PDT  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Utilization

John Palmer writes:

>\*The Utilization Rate\* (from Karl King)  
>If the boiling time is less than 23 minutes, then %U = (0.64 \* time) -  
2.62  
>Otherwise, %U = (0.4 \* time) + 3

I haven't run a lot of values through this formula, but it's obvious that it's not right. For example, a 60 minute boil gives you (0.4\*60)+3 or 27% utilization. That's way too high. To quote Gail Nickerson in a recent conversation I had with her, "The big brewers will tell you they get 25% utilization, but they don't get it. They actually get between 18 and 22%." BTW, this is for a 90 minute boil.

The formula also will give a linear slope (for values above 23 minutes anyway) and that's not right either. The slope is not first order either, but looks more like this:

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*
  *
   *
    *
     *
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Forgive my "ascii" representation, but the idea is that it almost looks first order, but there is a "limiting factor" (suspected to be caused by the dropping pH of the wort) somewhere at the top end that causes the slope to be less steep than a true first order slope. Reference is an article by D.R. Maule in Vol. 72, 1966 of the Journal of the Institute of Brewing.

It's also clear from this article and others that, despite Rager's table and even my own version of it presented here, boil times of greater than 60 minutes do have an impact on the utilization (the tables assume anything greater than 50 minutes is the same).

Mark

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Date: 6 Aug 1993 10:20:46 U  
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>  
Subject: Rats! Mistake in Last Equation

In the last issue of HBD, I wrote:

*\*Doing it Backwards\**

What if you say to yourself, I would like most of the hop charactor from Northern Brewer, Some from Fuggles, and some from Saaz? Well the IBU equation can be worked backwards for the amount of Hops that need to be boiled for a given time.

$$Wt = (\% \text{ of total charactor}) * (\text{Target total IBUs}) * VT / \%U / \% \text{ alpha} / 7462$$

Where the % of the total hop IBUs is expressed as a percent. Ex. 60% of 50 IBUs total from Northern Brewer would be  $0.6 * 50 * VT$  etc. The time boiled is expressed as the percent utilization from the equations above. I hope this will be useful to all of you as well as correct the mistakes in Zymurgy.

DID YOU NOTICE I FORGOT GA?! AARGH! (kick, kick, kick)  
Anyway, it should be:

$$Wt = (\% \text{ of ttl}) * (\text{ttl IBUs}) * GA * VT / \%U / \%A / 7462$$
  
Ok that should do it,  
JP Entropy is always increasing...

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Date: Fri, 06 Aug 1993 13:53:00 -0700 (PDT)  
From: Philip Atkinson 356-0269 <PATKINSON@galaxy.gov.bc.ca>  
Subject: AHA Judging results

Help!

Several people from Victoria BC sat the AHA judge's exam at the 'Wort You Brewin?' competition in Vancouver in April (that's five months ago!). The Victoria Mocabrewery Festival is scheduled for October 23 and we need to know how these folks faired so they can (or cannot) judge the homebrew competition. Can anyone put me in touch with the appropriate authority? Or them in touch with me?

e-mail direct please and thanks in anticipation etc ...

Phil Atkinson  
Victoria, BC

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Date: Fri, 6 Aug 93 16:44:50 -0400  
From: Philip J Difalco <sxupjd@anubis.fnma.COM>  
Subject: Re: Barreling Beer

Thanks for the responses I've received concerning Barreling Beer.

Should one sally forth into an adventure of barreling their beer, prevailing sentiment suggests one should:

- read Terry Foster's book, "Pale Ale" (from the "Classic Beer Series" book collection).

I plan on barreling my next batch (in the coming month or so) - I'll keep you all informed of this adventure (unless predilection dictates otherwise).

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email: sxupjd@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior SomethingOrOther, Advanced Technology  
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

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Date: Fri, 6 Aug 93 14:42:35 PDT  
From: raines@radonc.ucla.edu (Marybeth\_Raines)  
Subject: Lactic Briess Malt Extract

>Date: Mon, 26 Jul 93 12:02:29 CDT  
>From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
>Subject: Briess, Northwestern

>Thanks to all of those individuals who let me know that Briess and  
>Northwestern malt extracts are one and the same, the only difference  
being >the packaging. Now I have a real problem on my hands, namely  
figuring out >what the Hell is going on with my brew!!!

Rest assured that your brewing is fine and there is indeed a problem  
with your Briess malt extract. I routinely use Briess malt extract  
(and some grain adjuncts) to brew 5 gallon test batches to evaluate  
new yeast strains for Brewers Resource and have not had a problem  
until recently. About six weeks ago I brewed a Brown Ale and  
Continental Lager both of which tasted sour (lactic acid) out of the  
primary fermenter. This nasty flavor has remained in my brew. As it  
turns out several other homebrewers have called Brewers Resource and  
complained of a similar problem. One person picked up this off flavor  
in the wort prior to fermenting. We believe that there is a bad batch  
of DME floating around. Brewers Resource has notified Breiss of this  
problem and demanded compensation. Most unsuspecting homebrewers  
however are probably stuck with this substandard product and are  
attributing this off flavor to some systematic error. Good luck in  
trying to get your 60 lbs replaced.

So much for evaluating some new yeast strains now I'm stuck with some  
sour beer which I must doctor in some way to make it drinkable. I  
added a few tablespoons of Hersheys chocolate syrup to the brown ale  
(Bosco beer) and my softball team sucked that five gallons down in no  
time. I'm still pondering what to do with the lager maybe some  
fruit; I've yet to taste the lager since I racked it into the  
secondary so we'll see.

The real question is do you have DME left and what to do with it?  
Maybe you can use it as a substitute for a sour mash and make a  
lambic-like beer. Some other HBD brewers may have some other creative  
ideas.

P.S. In case you all-grain snobs are wondering, yes I do brew all  
grain (40 gallons) but moving to a studio apartment in Manhattan a  
couple of years ago forced me into extract brewing and you know what I  
liked it! I continue to use extract brews for testing yeasts since I  
can brew 2 different five gallon batches at once and can do it in  
about 3 hours without any help. Plus it gives us some variety to  
what's on tap.

M.B. Raines  
<mraines@radonc.ucla.edu >

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Date: Fri, 6 Aug 1993 17:19:28 -0500 (CDT)  
From: BIRMINGHAM@FNE683.FNAL.GOV (Cree-ee-py Boy)  
Subject: Dr. Beer

I'm thinking of organizing a Dr. Beer session for my edification and that of the other Headhunters. I'd like to get hints on what effects are good to produce, and how to produce them.

Please e-mail me at [birmingham@fne683.fnal.gov](mailto:birmingham@fne683.fnal.gov) with suggestions. I will be typing up a summary which I will e-mail to interested parties,  
or post to the Digest if there is enough interest.

Thanks,  
Phillip

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Phillip J. Birmingham "Tampering in God's Domain since 1965!"  
[birmingham@fne683.fnal.gov](mailto:birmingham@fne683.fnal.gov)

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Date: Fri, 6 Aug 1993 21:16:47 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Prescription Beer**

I was talking to an elderly gentleman today and he said that during prohibition the doctor had told his mother she had to drink beer every day, so he gave her a prescription for beer which she had to pick up at the drugstore. Has anyone ever heard of this? Why would a woman be medically required to take beer daily? Vitamins?

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Sat, 7 Aug 93 03:13:35 EDT  
From: 07-Aug-1993 0320 <michaud@star.enet.dec.com>  
Subject: Auto Reply from Watch\_Mail for 7-AUG-1993 00:00 to 16-AUG-1993 00:00

Hello,

I am currently out of the office and will return on Monday, August 16th. I will respond to your mail at that time.

If you have an issue that cannot wait until I return, please contact Linda Benson (STAR::LBENSON).

Regards,  
Peter

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Date: Wed, 4 Aug 93 08:24:41 EDT  
From: wiehn@evax.gdc.com  
Subject: Montreal - Breweries/Brewpubs?????

Can anyone lead me to any good Brewpubs in Montreal? Also are any of the big breweries in Montreal open for tours?????

Thanks!!!

JOHN WIEHN  
WIEHN@EVAX.GDC.COM

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Date: Sun, 8 Aug 93 15:15:12 -0600  
From: Mike Zulauf <zulauf@orbit.Colorado.EDU>  
Subject: cooler as a mash tun

Hello fellow homebrewers!

After doing several partial mash beers, three batches using my own design of a wort chiller, and two full boils, I now feel ready to proceed into the world of all-grain brewing.

The only real questions I have concern the mash tun. I am planning on using some type of cooler. I would prefer to use one of the cylindrical

ones, as I feel that I could obtain a deeper grain bed, and it would be easier to fit a false bottom, etc. What types and sizes have people used, and how well do they work? Are there any problems with using a cooler designed to store cold liquids with hot materials? (ie melting, off flavors from the plastic, etc.) What size will be required for mashing say 20 lbs of grain? Anything else I should know?

All responses appreciated,

Mike Zulauf  
zulauf@orbit.colorado.edu

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End of HOMEBREW Digest #1199, 08/09/93

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Date: Mon, 9 Aug 1993 15:21:34 +0400 (EET-DST)  
From: NIKKANEN@ntcclu.ntc.nokia.com (Kari Nikkanen, design engineer)  
Subject: Bitter rye ale

I posted a question to r.c.b in june, asking if anyone knew any beers that are brewed using rye malts, and also mentioned that I had brewed one rye ale myself. As an answer for those who asked me about the recipe, here it comes:

Kari's Bitter Rye Ale

Ingredients (for 10 litres = 2.6 gallons):

4 pounds Finnish sahti malt mixture  
(= 85% pilsner malt and 15% crystal malt)  
7 ounces Finnish rye (kalja) malt  
1/2 pound British crystal malt  
1 ounce Northern Brewer hops (60 min boil)  
1/4 ounce Fuggles hops (30 min boil)  
1/4 ounce Fuggles hops (10 min boil)  
1/3 cup priming sugar

yeast from a Tellford kit (not really recommended,  
I'll use liquid yeast next time)

Procedure: 1.5 hours mash at 140-145 , sparge water  
temperature about 175 F. Total boiling time 75 minutes.  
Yeast was dehydrated 2-3 hours before pitching. O.G was  
about 1040-42. Primary fermentation 4 days and secondary 7  
days.

Comments: There are some things I'll change when I brew my  
next rye ale. First, I'll do a temperature controlled mash  
with starch conversion at about 150-155 deg F. I won't use  
more than 3-4 ounces rye malt, because the rye malt I use is  
very dark and quite bitter, so 7 ounces is simply too much.  
The hops I used were not exactly fresh, and didn't have any  
alpha rating, so I think 1/2 ounce of fresh Northern Brewer  
will be enough next time. When this beer was only few weeks  
old, it was far too bitter and sharp, and the bitterness of  
rye malt was (too) clearly distinguishable. So I let it age.  
Now, after 7 months it's much smoother, but a bit thin. It  
has a nice amber colour and a smooth long lasting head, and  
even my wife says it's quite drinkable, so with these  
suggestions to improve it, I finally dare to post this  
recipe.

Cheers!/Kari

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Date: Mon, 9 Aug 93  
From: Tom.Weicht@arrc.ncsu.edu (respond to deb\_neher@ncsu.edu)  
Subject: *S. delbrukii* or *S. cerevisiae*? Also notes on *S. uvarum*, *S.*

*carlsbergensis*, *S. pastorianus*.

Re: Jim Busch and BT errors.

I am a recent arrival to HBD.

*Saccharomyces delbrukii* or *S. cerevisiae*?? I personally believe both are technically incorrect. From the best that I have been able to find in the mycological taxonomy literature, the true name of this organism is *Torulospora delbrukii*, this is how the American Type Culture Collection lists it which sparked my interest and pursuit of this subject. An incorrect but often used synonym is *Saccharomyces*. Both genera are in the family *Saccharomycetaceae* and subfamily *Saccharomycetoideae*. The vegetative morphology of both genera is identical. However, the genera differ in their mode of conjugation and the morphology of sporulation (fide Barnett, Payne and Yarrow, 1979, *A Guide to Identifying and Classifying Yeast*. Cambridge University Press, New York. (fide = "on the authority of")). I feel German Wheat Beer by Eric Warner had excellent coverage of the biochemistry of weissbier yeast as it pertains to the final product, but failed to give the yeasts the proper taxonomic treatment. Yeasts from single cell cultures as those used in fermentation do not undergo their sexual cycle and as such a brewer would not be able to distinguish *T. delbrukii* from *S. cerevisiae*. INDUSTRIAL USERS OF MICROBES, BREWERS INCLUDED, FREQUENTLY TEND TO IGNORE TAXONOMICAL NOMENCLATURE BECAUSE THEY ARE MOST INTERESTED IN THE BIOCHEMICAL PROPERTIES IMPORTANT TO THEIR PROCESS (Beer! in this case).

An interesting, but just as esoteric discovery I have made suggests that a better name for *S. carlsbergensis* (syn. *S. uvarum*) is *S. pastorianus*. *Saccharomyces* speciation based on biochemistry has resulted in much confusion. Therefore, about every ten years major reordering of the genus occurs. One Italian study showed that in a university's industrial yeast collection, 144 out of 1014 isolates had mutated to another species when nutritional biochemistry was used for speciation. The result was that in *The Yeasts a Taxonomic Study-III* (Kreger van-Riji (Ed.), 1984) twenty one species were lumped into *S. cerevisiae*. A review article (Vaughan Martini and Martini, 1989, *A proposal for correct nomenclature of the domesticated species of the genus Saccharomyces*; in *Biotechnology Applications in Beverage Production*) cited two studies using a molecular genetic technique, DNA/DNA reassociation, which showed that the III and V (3rd and 5th) chromosomes of *S. cerevisiae* and *S. carlsbergensis* were significantly different and a greater than 80% homology exists between *S. carlsbergensis* and *S. pastorianus*. As *S. pastorianus* is the older name it takes precedence (I am assuming and need to verify before staking a reputation on this statement). To oenologists *S. pastorianus* is an agent of wine fermentation in cold climates.

AS BREWERS SMALL OR LARGE OUR CONCERN IS THE BIOCHEMISTRY OF THE YEAST AS IT PERTAINS TO THE FINAL PRODUCT. DON'T let the taxonomy get you down, but don't slam somebody else's taxonomy when basing an opinion from a single source either. From extensive experience wading through the taxonomy of fungi more than one name can be correct depending on the resource used for identification, and names are never static. FOR A BREWER MORE INFORMATION IS OBTAINED FROM AN ISOLATE'S DESIGNATION IN AN INDUSTRIAL CULTURE COLLECTION SUCH AS "WEIHENSTEPHAN #68" THAN WHEN ONE WORRIES ABOUT

ITS TAXONOMIC POSITION IN THE MYCOLOGICAL NOMENCLATURE. A rose by any other name...

I really apologize for this long entry, but felt things were so different from the current popular literature that explanations and citations were needed.

Tom Weicht

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Date: Mon, 9 Aug 93 06:23:10 PDT  
From: 09-Aug-1993 0920 -0400 <ferguson@zendia.enet.dec.com>  
**Subject: Stainless Steel disconnects**

I recently acquired some stainless steel disconnects (ball-lock) for my cornelius keging system. The are much smoother then the plastic disconnects and, as far as i can tell, nearly indestructable. I have a plastic one that I cracked (still usable though). I highly recommend the stainless steel disconnects.

plastic disc: about \$3.20  
stainless: about \$8.50

FYI for you keggers out there.

- - -  
JC Ferguson  
ferguson@zendia.enet.dec.com

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Date: Mon, 9 Aug 93 06:45:38 PDT  
From: 09-Aug-1993 0940 -0400 <ferguson@zendia.enet.dec.com>  
Subject: supplying beer at a wedding / beer flavors for late october

I'm getting married in late october of this year and i'd like to supply at least some if not all of the beer at my wedding. With this in mind, I have a few questions:

- 1) In today's sue-your-neighbor environment, what kind of legal issues, insurance, etc. do i need to worry about if i serve my home-brewed beer at my wedding (on a private estate that is not owned by our families)? This is in the state of Massachusetts.
- 2) If it isn't much a legal hassle/worry, I'd like to think about brewing some stuff up now. I'd like to brew one heavier brew, appropriate for the season, and perhaps one lighter beer, that would please the occasional beer drinker. Suggestions? I'm most comfortable w/ extract brewing, partial-mashes, and full mashes, in that order.

- - -  
JC Ferguson  
ferguson@zendia.enet.dec.com

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Date: Mon, 9 Aug 93 07:49:00 -0600  
From: Jason Goldman <jason@gibson.sde.hp.com>  
Subject: Re: Prescription Beer

Domenick Venezia <venezia@zgi.com> writes:

> I was talking to an elderly gentleman today and he said  
> that during prohibition the doctor had told his mother she  
> had to drink beer every day, so he gave her a prescription for  
> beer which she had to pick up at the drugstore. Has anyone  
> ever heard of this? Why would a woman be medically required  
> to take beer daily? Vitamins?

I haven't heard of picking up a beer scrip at the pharmacy. Of course, we're not in prohibition now.

In any case, my mother's doctor advised her to start drinking beer. In her case it was because she was fairly underweight and the beer would help the problem because of its high carbos.

Jason "Unfortunately, I didn't inherit my mother's weight problem"  
Goldman  
jason@gibson.sde.hp.com

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Date: Mon, 9 Aug 93 10:18:00 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Weihenstephan #68

I have had some email over the number and taxonomy of the weizen strain, Weihenstephan #68. It is indeed 68, and as far as can be determined it is indeed a *S. Cervesae*, and not a *Delbreuckii*:

<From Daniel\_F\_McConnell@mailgw.surg.med.umich.edu  
<*S. delbreuckii* is indeed an appropriate synonym for *Torulaspora delbreuckii*,  
but according to Kreger-van Rij (1984) so are about 36 others! Of the 59  
*Torulaspora delbreuckii* strains studied by Kreger-van Rij for this classification, NONE of them were isolated from beer of any type (rather: raw  
came sugar, sheep milk, grape juice, dates, cucumber brine, sour figs... ..).  
Thus I have my doubts that these yeasts make good beer.

Thanks Dan,  
Jim Busch

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Date: Mon, 09 Aug 1993 09:17:28 -0500 (CDT)  
From: "Robert K. Toutkoushian" <TOUTKOUS@vx.cis.umn.edu>  
Subject: Question about dry hopping

Hello there:

I have a question concerning dry hopping. This is my first shot at this, so please bear with me:

I am in the process of making a Belgian Ale (just pitched it this morning :- ) ), and the recipe calls for dry hopping w/2 oz. Fuggles hops. I understand that dry hopping involves adding hops to the wort after transferring it to a secondary fermenter.

My problem is that I have a limited amount of brewing equipment, and no \$\$\$ to expand right now. I have been using a primary fermenter, and then once the SG has stabilized, transferred to a second carboy that has a spicket attached to the bottom for bottling (this carboy does not have a lid).

Anyway, I'm somewhat confused on the logistics of dry hopping, given this equipment. From what I can gather, dry hopping usually involves transferring the wort to a secondary fermenter, adding the additional hops for a few days, and then transferring to something else for bottling. I guess that I could transfer the wort to my 2nd carboy and add the hops, but w/o a lid I don't want to leave it sit around for any period of time exposed to the air. I guess I could always transfer it back to the primary fermenter, but then I'd have to transfer it again for bottling. The other option that I see is to transfer the wort to the 2nd carboy once the SG has stabilized, add the hops, let it sit for an hour or two, and then bottle.

Does anyone have any suggestions? I am a novice brewer (although I'm Armenian I'm not Papazian!!), so please excuse any real obvious errors in my brewing technique, etc. I could also skip the dry hopping altogether, but I'd like trying new things. But, if no dry hopping is preferable to the above option of dry hopping for a short time, I'd like to know that as well. Also, if dry hopping is done, and the wort is not filtered again, won't these hops get into the bottles?? Thanks in advance for any help.  
..

Rob Toutkoushian  
University of Minnesota  
INTERNET: toutkous@vx.cis.umn.edu

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Date: Mon, 9 Aug 93 09:57:45 -0400  
From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)  
Subject: questions

Greetings All:

While setting up a brew session this past weekend, I came up with a few questions that I was hoping the good people of the net would help me with.

First--

I was going to start a batch of yeast in anticipation of brewing later in the week. When I went to get my petri dish with the culture on it out of the fridge, I noticed that the entire surface of the dish was covered with a green growth of mold :-(. I had to start from a new slant with a different strain than I had intended to use. Anyone have any suggestions on how to improve my techniques in handling cultures so that this type of contamination does not happen again.

Second--

I purchased some plugs of Irish moss from a garden supply store about a year ago. These are incredible growers; going from <1" plugs when originally planted to > 18" clusters in just 1 year. They make a great ground cover with a thick compact mass of growth about 1 1/2" tall. A neat addition to the landscape. Now on to the question-- Anyone have any experience using fresh IM for brewing? Do I need to dry it or can it be used right from the ground? Any precautions to prevent contamination?

Third--

While watching "Mary Poppins" for the ten thousandth time (can you say parent of a three year old? ;-)), I noticed a line that goes "and doesn't smell like barley water". My first thought was that this must be an objectionable perfume but after thinking about it for a few minutes I realized that this must be a reference to some type of alcoholic beverage. Anyone knowledgeable in early 20th century London slang have any idea as to whether this refers to our favorite malt beverage or the other venerable potion made from barley malt (for those that can not figure out the obscure reference, I am talking about 'the good stuff' Scotch whiskey)..

Thanks for the help---

Keep brewing-

--S  
^

ENJOY LIFE---THIS IS NOT A REHEARSAL

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Date: Mon, 9 Aug 93 08:31:04 -0600  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Prescription Beer

> I was talking to an elderly gentleman today and he said  
> that during prohibition the doctor had told his mother she  
> had to drink beer every day, so he gave her a prescription for  
> beer which she had to pick up at the drugstore. Has anyone  
> ever heard of this? Why would a woman be medically required  
> to take beer daily? Vitamins?

Was the Doctor also, by chance, the "pharmacist"? I've heard other  
similar stories regarding the medicinal properties of wine/beer (but only during  
prohibition).

John 8^) Adams

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Date: Mon, 9 Aug 93 10:13:17 EDT  
From: richk@icad.COM (Richard Kasperowski)  
Subject: Re: Prescription Beer

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

Here in Massachusetts, that prohibition-era law still exists. There are a handfull of pharmacies in Boston (as reported in a recent Boston Globe) at which you can fill a prescription for a bottle of liquor.

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Date: Mon, 9 Aug 93 09:06:40 PDT

From: dbell@cup.portal.com

**Subject: A Draft Chili Beer?**

I've followed with interest the occasional thread on chili beers, and, since I've enjoyed a few Cave Creek bottles, I'd like to put up a batch for a party about 10 weeks off. However, I prefer to (Cornelius) keg my beers, and I'm wondering a bit about just how much of what variet(ies) of peppers to use! I can certainly add 48 peppers to the keg, but I think that might be a gross overkill, besides adding that much more chance of contamination...

What about a chili extract in alcohol? Would enough of the actives (capsaicins?) be dissolved? Or adding \*a few\* cut up/open chilis to the keg? As far as contamination is concerned, has anyone tried blanching the peppers in boiling water before adding to the bottles?

Too many questions, not enough time to experiment! Hopefully the collective wisdom of the Digest can shed some light...

Dave  
dbell@cup.portal.com

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Date: Mon, 9 Aug 93 12:03:02 -0400  
From: cm199@cleveland.Freenet.Edu (Thomas G. Moore)  
Subject: Wet Milling

In Eric Warner's German Wheat Beer book he mentions milling malted barley wet as to keep the husks intact. This will help combat stuck run-offs during lautering. Has anyone used this method with wheat beer decoctions? It sounds like a good idea. I was wondering if this would be practical for the home brewer or even needed. Comments?

- - -

Will work for homebrew!

Thomas G. Moore  
cm199@cleveland.freenet.edu

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Date: Mon, 9 Aug 93 9:59:08 MDT  
From: npyle@n33.stortek.com  
Subject: Propane vs NG / Used Cow stuff

I have just acquired a 10 gallon stainless steel cream can from an old dairy. This thing is tapered at the top, but I think it will be fine for a kettle, which is what I wanted it for. I fitted it with a nice 1/4 turn gas valve for draining. Now I need a way to heat it. (I currently use a Bruheat as a boiler but I'd like to speed it up and increase my boiler capacity).

I know all the talk about "Cajun Cooker"s and "King Kooker"s, etc. but I'm a cheapskate. Also, I like to tinker and I have a water heater element, designed for Natural Gas. I want to use propane because that is the easiest fuel to get into my garage. I've been told propane has more potential BTUs and therefore needs more oxygen. I think I verified this by firing up this NG element with propane. The flame was high, about 6 inches, and yellow. Also, there was a lot of soot forming as it burned. I opened the air inlet all the way and it helped a little, but it still didn't burn anywhere near clean. I think I need to decrease the aperture (jet) that the gas passes through so that I will need less oxygen. Does this sound correct? Anyone else do this successfully? How? I'd appreciate any advice on this.

As an aside, old dairy equipment can be used in homebrewing in many areas: boilers, tuns, even fermenters. Most of it is stainless so look for it. I got a 10 gallon SS vessel for \$50, with a lid. Try to find that price in a yuppie cooking catalog!

Cheers,  
norm  
- - -

Norm Pyle, Staff Engineer  
npyle@n33.stortek.com  
Storage Technology Corporation  
2270 South 88th Street  
Louisville, CO 80028-0211  
(303) 673-8884

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Date: Mon, 09 Aug 1993 11:29:23 -0600 (CST)

From: PISICHKO@UWPG02.UWINNIPEG.CA

Subject: NO wax nor flames from the "GREAT WHITE NORTH" -- just ICE.

Practical jokers aside, this forum should nor degenerate into a free place for verbal fisticuffs. I enjoy a practical joke - even if it leads to an earfull. However, like it or not, others do not. Lets keep it clean please. Not everyone has equal brewing skills nor other skills. Many are reading this forum to learn from others. If anyone really wants to help someone with their brewing problem/ math skills then contact the "needy one" by private e-mail. Be a good samaritan and save us some time and bandwidth.

The icepack seems to be flowing south of the 49th parallel. Several weeks ago while in a drought of home-brewed beer, I broke down and bought a couple of 12-packs of so-called ice beer. It was on sale for 12.?? (Canadian dollars) per 12 pack. Remember we also pay province and federal tax (7% +7%) on this to help fund our "free" medical system and other social nets. Now to get back on subject -- this ice beer was quite smooth, and everyone who drank it at my home in a "blind test" liked it. The complicating factor was that the beer was free. Nevertheless, this "ice beer" is certainly smoother in my opinion that many other Canadian beers.

Now that I have bottled four different batches of beer, I can forget this commercial stuff and start drinking "real beer". After all, winter is comming - -- there will be snow here in less than 3 months. Right now there are flooded basements due to all the rain, but my sump pump is helping to keep mine dry.

As Charlie P. has written "Relax, have a homebrew"

Ken P.

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Date: Mon, 9 Aug 1993 09:45:57 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Beer Rx

On Prescription Beer

>  
> I was talking to an elderly gentleman today and he said  
> that during prohibition the doctor had told his mother she  
> had to drink beer every day, so he gave her a prescription for  
> beer which she had to pick up at the drugstore. Has anyone  
> ever heard of this? Why would a woman be medically required  
> to take beer daily? Vitamins?

>  
I don't know if I want to weigh in on any answer that implies I'm an "elderly gentleman", but... although my mom didn't carry me during prohibition, and didn't need a prescription, her doctor did recommend she drink beer during the period she was nursing. The idea, as I recall, was that beer encouraged "let-down", in other words, it helped her relax and increased milk flow to her handsome baby child. It is possible, I suppose, that children of mothers who breastfed while drinking beer turn into beer snobs; I don't have enough data.

- --Jeff

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Date: Mon, 9 Aug 1993 14:11:48 -0400 (EDT)

From: FARMERM@mcl.saic.com

Subject: Prescription for Brew (ref. Domenick Venezia)

In response to Domenick Venezia's question about a prescription for beer. Yes, My wife's grandmother, who lives in South America, was prescribed a dark beer w/ a raw egg everyday. The dark beer in South America is different, however. They refer to it as "malta" and has no alcohol in it, its just used for cooking. What the purpose of this is, I'm sorry I can't say.

Speaking of weird stories from prohibition:

I spoke with my grandfather last year about the strange things that went on at that time. There is one incident he mentioned that really sticks in my mind. He said that during prohibition, people would line up at hardware stores and buy denatured alcohol and then go to the grocery store to buy several loaves of bread. They would take the alcohol and pour it from one end the loaf of bread to the other. After filtering it through a few times, it was good enough to drink. Mmm Mmm.

Happy, Happy

Beer, Beer

Mike F.

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Date: Mon, 9 Aug 93 13:11:49 EST  
From: John Glasscock <JGLASSCO@ucs.indiana.edu>  
Subject: Address for American Brewmaster in Raleigh, NC?

Can someone from the RTP area (Research Triangle Park in Raleigh-Durham-Chapel Hill, NC) e-mail me the new address for American Brewmaster in Raleigh, please? I moved and lost my price list for them, and have found them to have the best prices and best quality overall for (at least my extract) brewing supplies.

Thanks.

<=> <=> <=> <=> <=> <=> <=> <=> <=>  
John Glasscock Ether\_Dog^:>  
Indiana University jglassco@silver.ucs.indiana.edu (unix)  
100 N. Jefferson JGLASSCO@UCS.INDIANA.EDU (vax)  
Bloomington, IN 47408 tel: 812-336-0246

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Date: Mon, 09 Aug 93 14:21:00 EDT  
From: CW06GST <CW06GST@SJUMUSIC.STJOHNS.EDU>  
Subject: Honey Priming Thanks

A couple of months ago I had asked about using honey as a priming agent. Thanks to those of you who responded to my post and prevented me from making glass grenades.

As it turns out, using honey as a primer works very well, and follows the same guidelines as any other agent.

I used 7/8 of a cup of Golden Blossom (tm) honey, and had good carbonation in about ten days. The bubbles were a little different than if using corn sugar or DME. It was a lot like champagne bubbles or a sparkling mead. In any event it was an interesteing effect and it tasted quite good.

Here is a copy of the recipe:

3.3 lbs Munton & Fison light malt extract  
3.3 lbs Munton & Fison wheat extract (1/2 malt, 1/2 wheat)  
3 lbs clover honey (generic supermarket brand)  
2 oz. styrian goldings hops (plug) for boil-60 min  
1 oz same for last 2 min  
2 pkgs Cooper's dry yeast (rehydrated)  
7/8 cup honey for priming

I had no idea what this beer was going to turn out like, but it made what I would consider a very fine IPA. Original gravity was 1.048. Final gravity was 1.008.

Thanks agian for all the help!

Erik Zenhausern  
Bronxville, NY

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Date: Mon, 9 Aug 93 13:59 CDT

From: korz@iepubj.att.com

Subject: Decoction/Brewing Techniques errors/Secondary Questions

Jim writes (quoting me):

>>4. decoction -- dough-in or mash-in with the full mash volume and then  
>>remove parts of the mash to a kettle in which this "mash fraction," which  
>>is called a decoction, is heated to boiling and then returned to the rest  
>>of the mash to raise it's temperature. There are several variations to  
>>this (double (two decoctions), triple (three decoctions), etc.) in which  
>>some of the decoctions are replaced by infusions or the entire mash is  
>>moved to a kettle and then direct heat is used in place of one or more  
>>decoctions. It is interesting to mention that decoction mashing can  
>>be done WITHOUT A THERMOMETER, given enough experience, which I've read  
>>is the reason that it was invented (they did not HAVE thermometers at the  
>>time).

>Almost correct. The "mash fraction" that is boiled is also raised to a  
>saacharafication rest temp, usually 147-158 or both, and after conversion,  
>is then denatured through boiling. This rest is often ommitted by home  
>brewers and may result in lost efficiency. Note that in a weizen decoction  
>program, the main mash sits at protein rest temps for over an hour while the  
>mash fraction is raised, held, then boiled.

Oops. You're right. On the other hand, the way you worded it, may be unclear to those unfamiliar. Permit me to paraphrase Jim:

The "mash fraction" is moved to a kettle and it's temperature raised to 147-158 for a saccharification rest. It is then heated again to boiling before being returned to the main mash.

\*\*\*\*\*

In Marybeth Raines' article on Sanitation, it's a real shame that she failed to mention iodophor and a recently new sanitizing agent, marketed under the name "One Step," which is peroxide-based and comes in powder form. I would have been very interested in her recommended contact times for iodophor and OneStep. I haven't forgotten that I promised to take all the info I've collected from HBD and personal correspondence regarding sanitation for homebrewers and post it. I still intend to do this, but the arrival of "One Step" has thrown an monkeywrench in the cogs and delayed my posting.

Jim writes:

>Anyone else catch the mistakes in this issue? Dave Miller claims  
>that hefeweizens are made with S. Delbrukii, NOT! It is S. Cerveasae,  
>see Eric Warners book, Brewing Wheat Beers.

also

Tony writes (from Eric's book):

> - You need the right yeast. One doesn't need s. delbruckii, just an  
>ale yeast with the right flavoring properties.

I've read that S. Delbrukii is used for German Weizens in numerous books and magazines. Eric Warner's book is the only one which reportedly contradicts this. Despite Eric's proven knowledge of German Wheat beers, the data seems quite heavily stacked against him. Comments?

One piece of data from me in Eric's defense: the Troubleshooting Issue of Zymurgy lists wheat malt as a source for phenolic (clove-like) character. Perhaps this is the true source of the clove-like character in German Weizens or maybe it's a combination of this and the yeast. This is getting complicated no? I've yet to find the time to read "German Wheat,"

so I'm afraid I can only go on pieces of info as posted by Jim and Tony.

\*\*\*\*\*

John writes:

>1. Is racking to a secondary fermenter only/mostly used for Ale yeasts, >Lager Yeasts, or both (ie. yeast is not the criteria)? When (and other >adverbs) do I need to rack and secondary ferment?

In my opinion, it's not the yeast that you use (some use lager yeasts at ale temperatures), but rather the time that the beer will stay in the primary. If you will be bottling/kegging within two to three weeks of pitching, I feel that going to a secondary is an unnecessary sanitation risk. If you're adding fruit or making a lager (at, say 45F), then I think that a secondary would be a good idea.

>2. According to Dave Miller, he racks when the bubbles slow down to 1/30 >seconds (I think). What span of time has passed (typically) 3 days, a >week?

It depends on the temperature, how much oxygen you gave the yeast, the strain of yeast and the amount of nutrients in the wort (worts with a high percentage of sucrose or corn sugar will have less nutrients). As reported recently, Wyeast 1007 (German Ale) is really a quick yeast. Many dry yeasts are very quick fermenters. I've used a yeast that I've cultured from an Orval bottle that regularly takes two months to ferment out 1055 wort. Temperatures in the low- to mid-60s will give you slower ferments, whereas temps in the high-70s can ferment-out the beer in a day.

If you don't give the yeast a good supply of oxygen, they can take much longer to complete fermentation.

>3. Okay, approx 3 days - a week has passed in the primary fermenter (white >bucket) and I am racking to a glass carboy (6 gal). At this time I would be >adding my dry Hops. Do I need a Blow-Off Tube? Do I need the Brew-Cap?

If you are not adding any fermentables (like fruit) and you have waited till the fermentation has mostly subsided, then you don't need a blowoff tube. A BrewCap(tm) could be used (I'm not sure about 6-gallon carboys) if you want to bottom-crop yeast from the secondary, but you don't \* need\* anything other than an airlock.

>4. After secondary ferm'g of 2 weeks, I will rack to my bottling pail and >prime. Is oxygen damage my main concern, or is lambic still a problem?

A small amount of oxygen should not be a problem, but you should still try to minimize aeration as much as you can. I don't understand your "is lambic still a problem?" (Personally, if all my beers tasted like

lambieks, I would consider it a mixed blessing!) Do you mean "can I still infect my beer?" The answer to this question is most definately yes. Assuming you did not infect the beer with attenuative wild yeast or bacteria earlier in your process, there will be some unfermentable sugars/dextrins in your beer. These can still be consumed by some wild yeasts and bacteria. Granted, at this point in the process, they will add less perceptable flavors/aromas to your beer than if you infected at pitching time (when there were a lot more sugars and less alcohol and a higher pH), but you can still have problems with gushers.

Al.

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Date: Mon, 9 Aug 1993 15:12:43 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: hops, 1007

Wyeast 1007 is not their "alt" yeast. It is called "German Ale". Their alt yeast has a different number (1338?). I haven't used 1007 in a couple of years, and the porter made with it is what I remember, possibly because it came as a surprise that it worked so well. If I were to use it again, I'd probably try for a dry, hoppy, very pale ale, sort of a pilsner-ale.

Speaking of hops, try putting a freshly picked hops cone into a bottle of beer. Instant dry hop aroma, and even some noticeable bitterness if the beer is one of those "super-premium-extra-light-draft" US brews. A bottle works better than a glass; the cone gets sloshed around as the bottle is tipped, and the neck concentrates the aroma. Try it.

Russ G.  
esp/opal  
unh

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Date: 9 Aug 93 10:48:56 EST  
From: "CANNON\_TOM" <CANNON\_TOM@hq.navsea.navy.mil>  
Subject: Decoction Mashing

Message Creation Date was at 9-AUG-1993 15:29:00

I've been reading the recent threads on decoction mashing which is convenient in that we will be trying our first decoction mash on our Dopplebock this weekend. I've read Noonan and Warner and I was wondering if any of you HBDers that have tried decoction mashing have any other practical tips that will help us ensure success on our first attempt.

TIA  
Tom Cannon

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Date: 09 Aug 93 15:57:12 EDT  
From: "Elizabeth Gold, zymurgy/Brewers" <75250.1351@CompuServe.COM>  
Subject: Light Beer for zymurgy

Help! Please send me your recipes for light beer as well as any quick  
info on  
the style. They're needed to accompany an article in zymurgy. Your  
haste  
would be MOST appreciated!  
All the best,  
Elizabeth Gold, zymurgy editor-in-chief

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Date: Mon, 9 Aug 1993 15:02:09 -0500 (CDT)  
From: "RIKI::EDGELL"@UWMFE.NEEP.WISC.EDU  
Subject: The 7th Annual Great Taste of the Midwest Beer Festival

ANNOUNCING....

The 7th Annual Great Taste of the Midwest Beer Festival

WHEN: Saturday, Aug 21 1993, 1-6 pm  
WHERE: Olin Terrace, Madison, Wisconsin  
COST: \$13 in advance, \$15 at the door

Sample over 60 different beers fresh from the brewery! Tempt your palate and educate your taste buds with ales, lagers, pilsners, stouts and more. All served by over 30 Midwest brewpubs, micros and regional breweries.

Festival tickets include a commemorative beer glass and UNLIMITED beer samples

Tickets are available by phone (608-256-1100) with MC/VISA

Proceeds benefit Community Radio - WORT

Organized by The Madison Homebrewers and Tasters Guild.

Participating breweies in this year's beer festival:

August Schell Brewing Co.  
Broad Ripple Brewing Co.  
Capital Brewing Co.  
Cherryland Brewing Co.  
Chicago Brewing Co.  
Detroit & Mackinac Brewing Co.  
Dubuque Brewing & Bottling Co.  
Fitzpatrick Brewing Co.  
Frankenmith Brewing Co.  
Golden Prairie brewing Co.  
Goose Island Brewing Co.  
James Page Brewing Co.  
J.D. Nicks Brewpub  
Joe's Brewing Co.  
Joseph Huber Brewing Co.  
Kalamazoo Brewing Co.  
Lakefront Brewing Co.  
Lienenkugels Brewing Co.  
Melbourne's Brewing Co.  
Midcoast Brewing Co.  
Millrose Brewing Co.  
Minnesota Brewing Co.  
Pavichevich Brewing Co.  
Pete's Brewing Co.  
R.J. Ginseng Beer Co.  
Spanish Peaks Brewing Co.  
Sprecher Brewing Co.  
Stevens Point Brewing Co.  
St. Louis Brewing Co.  
Summit Brewing Co.  
Water Street Brewing Co.  
Woodstock Brewing Co.

IMPORTANT NOTES:

1) We sold out shortly after opening last year. So, if you come from out of town, buy your tickets in advance! We don't want to have to turn away people who have driven long distances but we will have to if we are full.

2) The festival is at Olin TERRACE not Olin PARK (also in Madison). Olin Terrace is right downtown at Wilson St. and Martin Luther King Jr. Blvd. It is just two blocks from the State Capital Dome and thus easy to find.

3) As mentioned above the ticket cost covers a beer glass with this year's logo and all the beer you want to sample. There is no messing with beer tickets or any charge for additional tickets etc. The only additional cost would be if you purchased brewery merchandise or food from our food vendors (recommended if you are sampling over 60 beers!)

4) The date listed for our event in "Brewing Technology" is completely wrong. I believe it is the date we used 3 years ago which is backed up by their calling it the 4th and not the 7th also. We at the club have no idea where they got that date and wish to apologize for any inconvenience that may ensue.

5) What great call letters for the community radio station that proceeds are donated to, WORT, eh!

For further information Contact:

By Mail - The Madison Homebrewers and Tasters Guild,  
PO Box 1365,  
Madison WI 53701

By Phone - 608-256-1100

By e-mail - [edgell@uwmfe.neep.wisc.edu](mailto:edgell@uwmfe.neep.wisc.edu)

Dana Edgell,  
Madison Homebrewers and Tasters Guild

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The Country that controls Magnetism can Control the World!  
- Dick Tracy  
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[edgell@uwmfe.neep.wisc.edu](mailto:edgell@uwmfe.neep.wisc.edu)  
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Date: Mon, 09 Aug 93 13:15:39 -0700  
From: Drew Lynch <drew@chronologic.com>  
**Subject: Cold Plates**

I recently acquired an 18"x24" Cornelius 3 line cold plate. It's pretty grungy, so I filled it with TSP solution and let it soak for a while. Should this be enough, or is there some other, more potent, cleaner I could use? I don't think it would be possible to feed any sort of brush through it.

Also, this thing is more than I need. I would be open to trading it for some combination of smaller cold plate(s) and cornelius kegs. Email or call me if you are interested.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312 x18  
drew@chronologic.com

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Date: Monday, 9 August 93 15:20:23 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: chipotle

Howdy,

In HBD #1198, I reported on my serrano beer being a success. Saturday afternoon, my brother & I popped open the two bottles of chipotle beer we set up. Bad mistake. Do not put a chipotle into your bottle of beer. It will make a nasty concoction that is undrinkable, unpleasant, & all around unlikable.

As I reported on the serranos, the beer tasted fine, the pepper came through nicely but not overpowering, & all in all it was a success. We also added one chipotle each to two bottles of the same pilsner. Twenty days later, we tried them. Both beers had changed from the nice golden color to brown, one looking like an American bock, the other not quite as dark. Both were flat, even though they gushed when opened. The lighter colored of the two was so spicy that it could not be drunk (we think there was a crack in the pepper, allowing the seeds direct contact with the beer). We were unable to determine quality of taste of this bottle. The darker one was not too spicy. However, it was sweetish in taste, & not in a pleasant sense. The smokiness came out, but again, it just didn't work. It was as if it was a completely different beer from the original, which was a nice, well balanced pilsner. All in all a bad idea.

I did discover that beers bottled with chili peppers do need to be consumed rather quickly. The first serrano bottle I tried was 17 days after bottling, & was spiced just right. I tried a second one last night, 21 days after bottling, & it was pushing the limits on the spiciness scale for me. A friend who also enjoys spicy foods agreed with me. This is something to keep in mind if you are planning the bottling method of chili beer.

So, to sum it up: Don't consider chipotles. Serranos may be washed in water, dropped into the bottle & the primed beer racked onto them. Drink within 3 weeks, unless you have a particularly hardy palate.

BTW, I'm taking a trip to Bastrop, TX in September. Anyone know of any good brewpubs, breweries, expensive bottled beer bars, hop farms, barley farms, yeast labs, glassworks or beer coaster factories worth visiting near there?

Happy brewing,

Alan, Austin

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Happy brewing,

Alan, Austin

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Date: Mon, 9 Aug 93 16:26:53 -0400  
From: <geotex@engin.umich.edu>  
Subject: Mackeson Clone

Hi all!

I really want to brew a Mackeson XXX Stout Clone!

There are a few recipes in The Cat's Meow II that are supposed to be like Mackeson.

Has anyone tried any of these?

Does anyone have a recipe they they consider very much like delicious Mackeson?

Please respond by e-mail or to HBD if you think anyone else is interested.

Alex  
geotex@engin.umich.edu

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Date: Mon, 9 Aug 93 17:04:48 PDT  
From: raines@radonc.ucla.edu (Marybeth\_Raines)  
Subject: RE: Perscription Beer

Domenick Venezia recently wrote:

>I was talking to an elderly gentleman today and he said  
>that during prohibition the doctor had told his mother she  
>had to drink beer every day, so he gave her a prescription for  
>beer which she had to pick up at the drugstore. Has anyone  
>ever heard of this? Why would a woman be medically required  
>to take beer daily? Vitamins?

Some of my british brewing partners contend that Guinness is still  
prescribed to women in Britian as a supplement for anemia. Presumably  
Guinness is rich in iron. They say that many times in the pubs you can  
see older women sippin' a pint of Guinness, some of whom don't really  
care for it. IMHO it sure beats Geritol.

M.B. Raines

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End of HOMEBREW Digest #1200, 08/10/93

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Date: Mon, 9 Aug 93 20:47:54 PDT  
From: Bob Regent <b\_regent@holonet.net>  
Subject: RE: I need a new factor!

Steve Casselman asked about the ratio of weight of grains vs the weight of dissolved extract. This is typically known as the extraction potential (%)

. This is the way that the data is presented from the maltster, they dont represent the data way that most homebrewers are used to. (pts/lbs/gallon)

My program, Brewer's Calculator, comes with the extraction potentials for most

malts using both the extraction percentage and pt/lb/gallon methods. It also allows you to enter your own data using either technique, and automatically converts the other. (cheap plug, sorry)

To convert from one to the other is easy.

Extract X .461 = pt/lb/gallon - 1

For example, if your grain has an extract potential of 76%, then

$76 \times .461 = 35$  or (1.035)

This may or may not be usefull in recreating grain recipes using extracts.

You must remember that Syrup extracts contain only about 76% solids and DME is

97.6 so you would have to take that into considerations when formulating.

- --bob

-----

Date: Tue, 10 Aug 1993 09:38:06 -0300  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: irish moss/ barley water

Steve Lichtenberg writes:

>Second--

>I purchased some plugs of Irish moss from a garden supply store about  
>a year ago. These are incredible growers; going from <1" plugs when  
>originally planted to > 18" clusters in just 1 year. They make a great  
>ground cover with a thick compact mass of growth about 1 1/2" tall. A  
neat  
>addition to the landscape. Now on to the question-- Anyone have any  
>experience using fresh IM for brewing? Do I need to dry it or can it  
>be used right from the ground? Any precautions to prevent  
contamination?

I've got bad news. The irish moss you have is not the irish moss used in  
brewing. The irish moss clarifying agent is from a marine alga (seaweed)

.

>Third--

>While watching "Mary Poppins" for the ten thousandth time (can you say  
>parent of a three year old? ;-)), I noticed a line that goes "and  
>doesn't smell like barley water". My first thought was that this must  
>be an objectionable perfume but after thinking about it for a few  
minutes  
>I realized that this must be a reference to some type of alcoholic  
>beverage. Anyone knowledgeable in early 20th century London slang  
>have any idea as to whether this refers to our favorite malt beverage  
>or the other venerable potion made from barley malt (for those that  
>can not figure out the obscure reference, I am talking about 'the good  
>stuff' Scotch whiskey)..

One possibility: Malted barley infused with warm water was used as  
a tonic. With all those wonderful enzymes coursing through it, it's sure  
to cure what ails you. I can try asking my dad, since his dad published  
the books in the first place.

---

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax  
NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |

| "I'm not racist, but..." |

+-----+

Diversity in all things. Especially beer.

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Date: Tue, 10 Aug 93 08:47:47 EDT  
From: Lee=A.=Menegoni@nectech.com  
Subject: Wheat beer yeast

Re: Wheat beer yeast. The strain of yeast DOES matter to the end product.  
This summer HBD contributor Jim DiPalma has brewed some good wheat beers using a strain of Weinstephen yeast but they lacked the clovey character. He then got the "correct" yeast and his brews were excellent with clovey and fruity tones. Given his meticulous brewing technique and similarity in recipe the differences were clearly the product of the yeast used.

RE: Prescription beer. My high school Spanish teacher told us they would feed their young child beer, which they had warmed to remove alcohol and CO2, while traveling in South America since the water supply was unreliable.  
The beer was rich in carbohydrates too. I have heard that another reason to "prescribe" alcohol was to circumvent prohibition.

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Date: Tue, 10 Aug 93 08:01:15 PDT  
From: tima@wv.MENTORG.COM (Tim Anderson)  
Subject: Prescription Beer

My grandmother loves to tell me the story of how Grandpa's homebrew saved my uncle's life. She always tells it in a conspiratorial tone, when my parents aren't around. Which is pretty cute, since I'm in my mid forties.

My grandparents were Nebraska farmers during prohibition, and like lots of folks during that time, they were brewers of the best kind of beer: available. Their third child, Charles, had serious digestive problems as an infant. He was unable to keep anything down, including his mother's milk. He was dangerously thin and his parents were resigned to losing him. One day as Grandpa was walking him around the room trying to give some comfort, he took a drink of beer. Baby Charles smacked his lips, apparently in response to the smell of the beer. Grandpa dipped his finger and put it into the baby's mouth. He sucked eagerly. The expected reaction didn't occur, so he got a little more. After several serious dips from the ol' beer stein he nursed and didn't lose it. He binged for a couple of weeks, was fat and healthy and they took him off the beer without ill effect.

I offer no theories, I just tell 'em the way I hear 'em. I'd love to add that Uncle Chuck continues to have his beer with a milk chaser, but it just ain't so, and I've resolved to keep my stories mostly honest. But I have noticed that whenever he's drinking beer, he tends to get awfully friendly with his wife, and she tends to give him those "drop dead" kinds of looks.

tim  
"I said 'mostly', OK?"

-----

Date: Tue, 10 Aug 93 11:10:01 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: moldy dishes, wet milling, weizen yeast

Hi All,

In HBD#1200, Steve Lichtenberg wrote:

>I was going to start a batch of yeast in anticipation of brewing later  
>in the week. When I went to get my petri dish with the culture on it  
>out of the fridge, I noticed that the entire surface of the dish was  
>covered with a green growth of mold

>Anyone have any  
>suggestions on how to improve my techniques in handling cultures so that  
>this type of contamination does not happen again.

I'm not sure your techniques are to blame, I've never had any success  
with long-term storage of cultures on petri dishes. The top and bottom  
halves do not form an airtight seal. After streaking the plates, I seal  
them with electrician's tape, and store them in a warm place. Two or  
three

days later, the colonies are sufficiently grown to harvest them, I then  
innoculate several slants. After one or two days at room temperature, I  
store the slants in the refridgerator, they're good for several months.

I have noticed that even when I reseal the plates with the tape, within  
a week or so fuzzy growths appear that look like mold. From this, I  
concluded that long term storage on petri dishes was not a good idea, and  
have been using the above procedure with good results.

Disclaimer: I'm a software engineer, not a microbiologist (hence the  
use  
of the decidedly non-technical term "fuzzy growths"), so would welcome  
comments by others more knowledgable.

\*\*\*\*\*

Also in HBD#1200, Thomas G. Moore writes:

>In Eric Warner's German Wheat Beer book he mentions milling  
>malted barley wet as to keep the husks intact. This will help com-  
>bat stuck run-offs during lautering. Has anyone used this method  
>with wheat beer decoctions?

I tried this exactly once, the first batch of weizen I brewed after  
reading Warner's book.

I sprinkled the barley gently with water, and kept turning it until  
it was all lightly moistened. I ran it through an adjustable Maltmill,  
which does an excellent job of keeping husks intact in any event. This  
procedure \*does\* work, at least in terms of minimizing husk damage. It  
appeared as though each kernel had been gently opened - the water  
definitely  
helped reduce tearing of husks. The problem was cleaning the mill  
afterwards - the grooves in the rollers filled with the "paste" that  
resulted from flour and water, which dried quickly and became rock-hard.  
It was a major chore to clean up the rollers afterward, so I never tried  
this again. I get a good quality crush with the MM, and use a staggered  
protein rest and decoction mashing when brewing weizens, so I haven't had  
any problems with cloudy or stuck runoffs.

If you use a corona, I think this would be worth a try. It does reduce

husk damage, which is one of the corona's biggest drawbacks, and cleanup shouldn't be a problem with a mill that doesn't have grooved rollers.

\*\*\*\*\*

Also in HBD#1200, Al Korz writes:

>One piece of data from me in Eric's defense: the Troubleshooting Issue of  
>Zymurgy lists wheat malt as a source for phenolic (clove-like) character.  
>Perhaps this is the true source of the clove-like character in German  
>Weizens or maybe it's a combination of this and the yeast.

Working from memory here, don't have Warner's book in front of me, but he writes that an important precursor to the 4-vinyl guaiacol phenolic, which is responsible for the clove-like flavor, is free ferulic acid. He goes on to state that ester bonds bind ferulic acid to pentasanes in the grain (can't recall if he meant wheat or barley), and recommends an acid rest at 110F to produce ferulic acid in it's free form.

That said, I've had an interesting time brewing weizens this summer. I obtained a Weihenstephan #68 culture early in May, and brewed a couple of batches, dutifully following Warner's procedures. While the beers were OK, neither had the desired clove character.

I did some investigation, as it turned out, the strain I had obtained was quite old. I found out that the strain was the original 1991 vintage, which apparently "pooped out". Commercial weizen brewers have experienced the same problem with this strain. It was quietly replaced in 1992 by those who distribute this yeast with a strain that has displayed considerably longer staying power. Since then, I have brewed three other batches of weizen, two dunkels and a pale, with the 1992 vintage, same recipes, same procedures. These brews are \*wonderful\*, hit-me-over-the-head clovey, well balanced with banana, with hints of vanilla, nutmeg, cinnamon - everything I love about weizens.

So, the moral is: IT'S THE YEAST.

Cheers,  
Jim

-----

Date: Tue, 10 Aug 93 09:10:57 MDT  
From: resch@craycos.com (David Resch)  
Subject: Re: Irish Moss Question

Steve Lichtenberg writes:

>I purchased some plugs of Irish moss from a garden supply store about  
>a year ago. These are incredible growers; going from <1" plugs when  
>originally planted to > 18" clusters in just 1 year. They make a great  
>ground cover with a thick compact mass of growth about 1 1/2" tall. A  
>neat  
>addition to the landscape. Now on to the question-- Anyone have any  
>experience using fresh IM for brewing? Do I need to dry it or can it  
>be used right from the ground? Any precautions to prevent  
>contamination?

The "Irish Moss" you bought at a garden supply store is not the same as  
the  
Irish Moss used as a kettle coagulant in home brewing. The Irish Moss  
that  
we use is actually a marine red algae (*Chondrus Crispus*, if I am  
remembering  
correctly from my marine biology days).

Dave

-----

Date: Tue, 10 Aug 1993 06:02:04 PDT  
From: wegeng.XKeys@xerox.com  
Subject: Re: A Draft Chili Beer?

>However, I prefer  
>to (Cornelius) keg my beers, and I'm wondering a bit about just  
>how much of what variet(ies) of peppers to use!  
>[...]  
>What about a chili extract in alcohol?

Have you considered using hot pepper sauce? A couple years ago someone on the HBD suggested using Tabasco Sauce (any hot sauce based only on peppers would do, so experiment to determine which varieties you like best). You can determine the amount to add by adding one drop at a time to a pint of beer, stirring and tasting after each addition, until you determine how many drops/pint give you the desired degree of hotness. Then multiply this by the number of pints of beer that you want to make to determine how many drops to add to your keg (perhaps subtracting 10% to be safe).

I haven't tried this, but it would seem to be more predictable than adding whole peppers (and more repeatable, too).

/Don  
wegeng.xkeys@xerox.com

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Date: Tue, 10 Aug 1993 08:32:17 -0700 (PDT)  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Testing yeast viability and cell density

How does one test yeast viability? Do you stain, then dilute, then estimate at the fraction of the yeast that are stained (the bad ones) while viewing at low magnification? Please, someone explain this technique to me in detail.

I am also interested in the techniques used to determine the quantity of yeast in a starter for proper pitching ratios.

Bob Jones

It was one whole day before I had a beer after returning from Portland! The best beer I had in Portland was a beer called "Mirror Pond" from Deschutes.

What a great ale, big hops, great malt character and incredible depth and complexity. All the beers were good and the Portland people seem to be very serious about their beer.

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Date: 10 Aug 1993 11:29:03 U  
From: "Walker John" <jwalker@msmac.prc.hq.nasa.gov>  
**Subject: Bottled Water**

Does anyone have any comments or experiences using bottled spring water for brewing. How does it compare and are there any obvious advantages or disadvantages (other than cost).

John Walker  
jwalker@prc.hq.nasa.gov

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Date: Tue, 10 Aug 93 11:41:34 EDT  
From: blazo@aol.com  
Subject: Water and carbonation

In HBD 11999, Guy DeRose (DEROSEGA%ML%WPAFB@MLGATE.ML.WPAFB.AF.MIL)  
writes:

>A batch of stout I made in February (extract + specialty grains) started  
out  
by having "perfect" carbonation and head retention, but after aging in  
the  
bottles it became overcarbonated...The beer tastes fine, so infection  
does  
not seem to be the culprit... Is there a  
relation between high mineral content of water and increased carbonation  
as a  
function of time? Could the "yuck" in my water  
erve as nucleation sites for bubbles?<

I think that the most salient question is: what was the starting and  
finishing gravity of the brew in question? Ofttimes, "gushing" is caused  
by  
incomplete fermentation or infection (which you feel you have ruled out)  
,  
which is not always detectable via tasting. What is the mineral content  
of  
your water? All the Burton-on-Trent brews (Double Diamond and Bass, to  
name  
a couple) are made with extremely high mineral content water. Write back  
to  
us about the O.G. & F.G. & exact recipe, including priming agent &  
dosage.

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Date: Tue, 10 Aug 93 10:49 CDT  
From: "Michael Barre" <MBARRE@NOMVS.LSUMC.EDU>  
Subject: Second batch of beer

Thanks to the advice given by Mark, Al, and Tom over this forum, my second batch of beer is good! I made a Pale Ale using Northwestern Gold extract, Wyeast (American Ale), Cluster hop pellets (the homebrew store's suggestion), and Ozone spring water.

Hot break: After the water/malt had heated for 25 minutes, it began changing from very cloudy to egg-drop-soupy. After 45 minutes it reached a fast boil and I then added 3/4'ths (1.5 oz.) of the hops.

Aroma hops: After another 30 minutes, I added the last 0.5 oz. and removed the pot to the ice-water-filled-sink.

Cold break: After 45 minutes I poured the wort into a settling bucket (w/out straining), leaving 1/8'th inch of hop residue in the pot. A couple of minutes later I poured the wort into the carboy with 3 gallons of jug-aerated water, leaving behind more residue.

Liquid Yeast: It smelled good. Rehydrated dried yeast does not. I pitched the yeast into the 75F wort. 12 hours later no yeast activity was apparent. After 24 hours, the beer was swimming and foaming like crazy. Fermentation continued for 5 days. I then racked to a secondary, losing the siphon once because I didn't realize that the curve of the siphon tube in the carboy put the racking tip almost 4 inches up off the bottom.

Irish Moss: I rehydrated about 2 teaspoons of I.M. and added it to the secondary before racking, resulting in globs-of-goop all in the beer, which congregated at the top and bottom after 4 days.

Racking tip: I then siphoned the beer into the bottling bucket using the racking tip in the trub and discarding the first cup or two of beer.

Bottled Beer: Clear and tasty!

Thanks.

-----

Date: Tue, 10 Aug 93 10:48:45 CDT  
From: paulb@mist@juliet.ll.mit.edu (Paul Biron)  
Subject: OKC brew stores

Does anyone know of any H.B. supply stores in the Oklahoma City/Mustang/  
Yukon  
area. We're moving there in October and I need to know if I should stock  
up in  
Ft. Worth before the move.

Paul Biron  
MIT/Lincoln Laboratory  
Dallas, TX

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Date: Tue, 10 Aug 93 09:01:14 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: New Sanitizing Agent ?

Has anyone experimented with hydrogen peroxide as a sanitation agent ?

I'm not clear on the mechanics of the substance, but, besides reacting with organic matter, it also super-oxidizes the solution it is added to.

I have heard of hydrogen peroxide being used as a food additive, also. The theory is that the environment humans evolved in was far more rich with oxygen than it is now, especially in city environments - and that this subtle but detectable oxygen deprivation leads to anaerobic bacteria populations increasing within one's body ... resulting in more opportunities for infection, lethargy, et caet.

Specific infections I've heard it mentioned in connection with include herpes and warts ( both anaerobic viruses ), as well as AIDS. I'm not saying that it's a panacea, just noting that there is research on this topic here in the Bay Area.

( I've been trying this - neither hydrogen nor oxygen are poisonous, and hydrogen peroxide is recommended by dentists after oral surgery, as a dilute mouth rinse - and a wart on one finger \*does\* appear to be in remission. Just a data point. I'm using three droppers-full, twice a day, in a glass of Tang, each time. )

In connection with brewing, could it not also be used to oxygenate the wort ? Just a wild idea, but it makes intuitive sense to me ...

Further experimentation is indicated ...

- -- richard

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| | "A cloak is no longer a cloak if it does not keep one warm." |  
| | richard childers pascal@netcom.com |
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Date: Tue, 10 Aug 1993 09:07:49 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Dry Hopping Belgians & Irish Moss NOT

> From: "Robert K. Toutkoushian" <TOUTKOUS@vx.cis.umn.edu>  
> Subject: Question about dry hopping  
>  
> Hello there:  
>  
> I have a question concerning dry hopping. This is my first shot at  
> this, so please bear with me:  
>  
> I am in the process of making a Belgian Ale (just pitched it this  
> morning :- ) ), and the recipe calls for dry hopping w/2 oz. Fuggles  
> hops.  
> I understand that dry hopping involves adding hops to the wort after  
> transferring it to a secondary fermenter.  
>  
> First of all, this is a bizarre recipe, given that Belgian Ales (in all  
> their utter complexity and diversity) are known for a near-total lack of  
> hop aroma. So, forget it this time.

>  
> My problem is that I have a limited amount of brewing equipment,  
> and no \$\$\$ to expand right now. I have been using a primary fermenter,  
> and  
> then once the SG has stabilized, transferred to a second carboy that  
> has a  
> spicket attached to the bottom for bottling (this carboy does not have  
> a  
> lid).  
>

A carboy by definition, I should think, has some sort of lid, doesn't it? At any rate, what is generally referred to as a carboy is a glass bottle (usually 5-7 gallons); there are things I might call a "carboy" in a pinch that are made out of plastic. Are you referring to a plastic bucket? If you can spend the limited \$\$ necessary to pick up a glass carboy (around \$10-12 max.) you would be doing yourself a service -- unless you have a very sterile area to keep your open secondary in. An open primary, maybe, with very vigorous yeast growth, but a secondary is pretty scary.

Assuming that you have something safe to put your beer in for a secondary, simply place loose hops in a cheesecloth bag, tie it closed and stuff it in the secondary. For simplicity's sake, don't bother sterilizing rocks or marbles and stuffing them in the bag -- an utter waste of time, in my book. If you want a real hoppy flavor, use very aromatic hops, use lots of them and leave them in for weeks. When you bottle, simply rack over into that dubious secondary with the spigot; the hops will stay in the bag.

Putting hops in for a couple of hours is likely a waste of time and effort; for that result you could simply add hops at the end of the boil, or run the hot wort over fresh hops on the way to the fermenter.

But for now, leave them out!

> From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)  
>

> Second--  
> I purchased some plugs of Irish moss from a garden supply store about  
> a year ago. These are incredible growers; going from <1" plugs when  
> originally planted to > 18" clusters in just 1 year. They make a great  
> ground cover with a thick compact mass of growth about 1 1/2" tall. A  
neat  
> addition to the landscape. Now on to the question-- Anyone have any  
> experience using fresh IM for brewing? Do I need to dry it or can it  
> be used right from the ground? Any precautions to prevent  
contamination?  
>  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAaHHHHHH!!!!

Stop! Irish moss is NOT MOSS! The stuff used in brewing is produced  
from seaweed (kelp, probably). It's also not from Ireland. Leave your  
moss on the ground and keep it out of the beer!

Speaking (as you were) of kids' movies, we watched Darby O'Gill and the  
Little People the other night. Those old guys could really suck down  
the Guinness.

(Not the little people; they drank whiskey -- just goes to show what  
distilled beverages will do to you.)

- --Jeff Frane

-----

Date: 09 Aug 1993 22:06:45 -0600 (CST)

From: RBSWEENEY@msuvx2.memst.edu

**Subject: banned brews**

A small article in Monday's USA Today caught my attention. Montpelier, Vermont:

"The state is cracking down on strong beers, banning restaurants and stores from buying more, Dept. of Liquor Control officials say. Included are malt beverages with higher than 6% alcohol by volume - such as Sierra Nevada or Anchor."

I was wondering if any of the digest subscribers in VT could throw some light on this situation. Have there been incidents of rowdy Bigfoot Barley Wine drinkers getting out of control? Or is this just another example of government of the people, government of the people, government of the people?

Just curious,

Bob Sweeney  
Department of Management Information Systems  
Memphis State University  
RBSWEENEY@MEMST.MSUVX2.EDU

-----

Date: 11 Aug 1993 00:58:04 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: New Factor

The "new factor" Steve Casselman is looking for is the weight-percent yield of extract. It is the fraction of the weight of a mash or kettle ingredient which appears as extract in the wort. A 100% yield will give 46.3 points/lb/gal @ 60F, so some typical examples of %-yield are:

Dry Malt Extract at 45 pt/lb/gal =  $45.0/46.3 = 0.97$  (97%)

2-Row Malted Barley at 34 pt/lb/gal =  $34.0/46.3 = 0.734$  (73.4%)

The tables published in Dave Miller's book and in Zymurgy can be converted to %-yield using this factor. Noonan's "Brewing Lager Beer" has good table of %-yield from a number of extract sources, which can be converted to pt/lb/gal, if desired. Professionals generally use %-yield, and the typical lab analysis of a sample of malt or other grain will give extract figures in this form.

So, to make 5 gallons of beer of SG 1.048, with an expected yield of 73.4%, the amount of grain needed is  $(48 \times 5) / (0.734 \times 46.3) = 7.06$  lb. To convert this weight to an equivalent amount of dry malt extract, you need  $7.06 \times (0.734 / 0.97) = 5.34$  lb.

Martin Manning

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Date: Tue, 10 Aug 1993 10:18:48 -0600 (CST)  
From: John Mare <cjohnm@ccit.arizona.edu>  
Subject: RE: Yeast contaminant: Irish moss: Barley water

Steve asks about yeast culturing techniques, growing Irish moss, and drinking barley water. About your agar contamination problem: It is hard to comment not being familiar with your technique. A few comments may be helpful. Work in a still (draught-free) place, use a flame (eg. propane torch) and a platinum loop (ex microbiology kit at a hobby shop). Start from a clean liquid culture and after flaming the loop streak the surface of your agar quickly and replace lid. Keep at room temperature for a few days until colonies are visible, place in plastic bag (eg. sandwich bag) and refrigerate. When making starters pick individual colonies with a sterile but cooled loop (dip into clear area of agar plate). DON'T flood agar plate as has been suggested recently. This is a sure way to pick up the odd contaminant which may find its way into you surface culture. "Irish moss" as used in fining during the boil is carageenan, a seaweed found among other places off the coast of Ireland Scotland and Wales. The weed is harvested, dried and flaked or pelleted for use as a fining agent. The "Irish moss" you are growing is another creature unless you have a spot of ocean at your disposal! One of the bane's of my early years growing up in the "British Way" was having to endure "barley water" which my mother prepared because "it was good for you!" This was simply a mild barley broth, strained, and served cold when we were well, and hot with added "Marmite" (yeast extract) when we were ailing! In the Mary Poppins context which you quote there may be a another more spirituous dimension!  
John Mar!, John's Alehouse, Tucson.

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Date: Tue, 10 Aug 93 13:16 CDT  
From: korz@iepubj.att.com  
Subject: Rye ale/"New" Formula/dryhopping/moldy plates

Kari writes:

>Comments: There are some things I'll change when I brew my  
>next rye ale. First, I'll do a temperature controlled mash  
>with starch conversion at about 150-155 deg F. I won't use  
>more than 3-4 ounces rye malt, because the rye malt I use is  
>very dark and quite bitter, so 7 ounces is simply too much.

Interesting. Red Hook Brewing Company is currently making a  
Summer Rye, which is quite pale. It's an interesting beer  
and although I was at the brewery and got a tour of the new,  
\*automated\* keggling line, I did not get to talk to the brewmaster.  
So, I did not get the percentage of rye in this beer or what the  
other base malts might be. Judging from the flavor, I would  
say that there may be a considerable percentage of wheat in  
this beer. Could someone from Seattle look into this?  
Domenick? Darryl?

\*\*\*\*\*  
Subject: I want a new formula

Alas, I've lost the original poster's name, and Kieran did post sort-of  
a formula for what the poster wanted, but I feel that just a couple of  
number is all that they really needed, so I'm posting my suggestions.

For substituting syrup for pale/pils malt, I recommend multiplying by 0.  
74  
and for substituting dry malt extract for pale/pils malt, multiply by 0.  
67.

I used 28 pts/lb/gal for the grain, 38 pts/lb/gal for the malt extract  
syrup  
and 42 pts/lb/gal for the dried malt extract.

Actually, everything is dependent on the efficiency of the extraction  
that  
the author of the recipe achieved and on the brand of syrup/DME you use.  
A much more accurate way to duplicate all-grain recipes using extract is  
to look at the OG of the recipe and figure out how much extract you need  
to hit this target. What I do is use the crystal and roasted malts/  
grains  
as they are listed in the recipe and then subtract their contribution  
from  
the OG. Here's an example:

5 gallons of Pale Ale with an OG of 1055 that contains 3/4 lb  
of light crystal malt.

1. subtract away the water (1.000) leaving 0.055
2. let's say you know that you get 0.022 per pound per gallon from your  
crystal malt, so you do the math:

$$0.022\text{pts} * 0.75\text{lbs} / 5 \text{ gallons} = 0.0033\text{pts}$$

3. subtract the 0.0033 from the 0.055 target and you get about 0.057

4. let's say you know you get 0.040 per pound per gallon from Northwestern Gold Extract, so you decide you will use 6lbs in the 5 gallon batch and make up the difference with dry extract, so again you do the math:

$$0.040\text{pts} * 6\text{lbs} / 5 \text{ gallons} = 0.048\text{pts}$$

5. subtract the 0.048 from the 0.057 and you're left with 0.009pts

6. let's say you know you get 0.044 per pound per gallon from M&F DME, so you do the math:

$$0.009\text{pts} * 5\text{gallons} / 0.044\text{pts} = 1.02\text{lbs}$$

So you use 3/4 lb of crystal malt, 6 lbs of NW Gold and 1 lb of M&F DME.

\*\*\*\*\*

Rob writes:

> I am in the process of making a Belgian Ale (just pitched it this morning :-), and the recipe calls for dry hopping w/2 oz. Fuggles hops.  
>I understand that dry hopping involves adding hops to the wort after transferring it to a secondary fermenter.  
>  
> My problem is that I have a limited amount of brewing equipment, and no \$\$\$ to expand right now. I have been using a primary fermenter, and then once the SG has stabilized, transferred to a second carboy that has a spicket attached to the bottom for bottling (this carboy does not have a lid).

If you have the room, add whole Fuggles (they float, so it will be easier to siphon out from under them) to your primary. Let them sit for 7 to 10 days and then bottle as usual. If you don't have the room, you can siphon the beer into your bottling bucket, rinse and re-sanitize your primary and siphon the beer back onto the hops in the primary.

\*\*\*\*\*

--S (sorry, lost your whole name) writes:

>I was going to start a batch of yeast in anticipation of brewing later in the week. When I went to get my petri dish with the culture on it out of the fridge, I noticed that the entire surface of the dish was covered with a green growth of mold :-(. I had to start from a new slant with a different strain than I had intended to use. Anyone have any suggestions on how to improve my techniques in handling cultures so that this type of contamination does not happen again.

Molds are aerobic. Luckily, yeasts are anerobic. You can put your petri dish in a "Tupperware" container and then purge the container with CO2. If you don't have a tank of CO2 handy, you can pour a cup of beer into a pitcher, loosely cover the top and agitate (cheap beer will work for this) briskly. The agitation will cause the CO2 in the beer to come out of solution and you can then pour-off the CO2 (remember, it's heavier than air) into the "Tupperware" container. Work slowly, in a room with still air (turn off the a/c and let the air settle down) and you'll have enough CO2 left in the bottom of the container to displace the air that the molds are breathing. Just picture the CO2 as an invisible liquid, like the fog from a fog machine. Hey, if you have some dry ice available,

you can just plop a piece of it next to the petri dish in the tupperware (leave the top open a crack till the dry ice disappears or drill a hole and put in an airlock so the top doesn't blow off). Don't do this work in a damp basement where there's more molds in the air.

A1.

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Date: Tue, 10 Aug 93 14:37:45 -0400  
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>  
Subject: Weddings and homebrew

JC Ferguson writes:

> I'm getting married in late october of this year and i'd like to supply  
> at least some if not all of the beer at my wedding. With this in  
mind,

> I have a few questions:

>

> 1) In today's sue-your-neighbor environment, what kind of legal  
issues,

>

Well, I don't see any difference between serving homebrew or commercial  
brew - unless it is unusually potent or something like that - but you  
never

what what they'll dream up to stick you with.

> 2) If it isn't much a legal hassle/worry, I'd like to think about  
brewing

>some stuff up now. I'd like to brew one heavier brew, appropriate for  
>

I am getting married this Saturday and I'll have six kegs of homebrew at  
the

wedding. I brewed two kegs of weizen and two of a bitter that I planned  
on serving during the day time. Both of those brews were on the light  
side

(O.G. 1.042 or so) so that people won't get schnockered on two glasses. I  
also plan on having one keg of commercial light beer (which, as my brew-  
partner is fond of saying, is for those who don't like beer) and one case  
of non-alcoholic beer. Although that sounds like a lot of beer we have  
260

people coming. That averages about 1 pint (or two 8 oz glasses) per  
person

which I think is a sane amount. Of course, there is no guarantee that  
one

person won't get drunk and I can't police 260 people. So as an added  
level

of control we have hired a bartender to police the kegs and keep an eye  
on

things. It's not a perfect system but we hoped it would be a nice  
compromise

between people having responsible fun and not letting it get out of hand.  
Estimating that only half the people coming will actually drink beer,  
that

still comes out to two pints per person. Consuming that much beer over a  
four hour period and in addition to a meal should be within reason.

The extra two kegs are a heavier pale ale (still not too heavy though,  
maybe

1.050? I can't remember off hand). But I am only going to serve that  
beer

in the evening for people staying overnight - one keg at the rehearsal and  
one the day of the wedding. There should be about 40 people for each of  
those nights and, again, I think that is a sane amount.

Good luck on your event! I certainly would recommend getting a head  
start

on it. It's not so far away that you should be worrying about stability  
problems. I may have more insight into the wisdom of serving homebrew at

an event like that when I come back from our honeymoon.

- Bob Santore  
rsantore@mailbox.syr.edu

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Date: Tue, 10 Aug 93 11:03 CDT  
From: akcs.rab@vpnet.chi.il.us (Alan Belke)  
Subject: Mini Keg System

This is my first posting to HBD so please be gentle. First I have an observation and then a question.

Since I have been receiving HBD I have noticed many times that a question doesn't seem to get answered. Then all of a sudden there is a post from the person who asked the question saying thanks for the help. What is the protocol here? Are answers supposed to be e-mailed or posted back to the digest? Since I am interested in the digest as a learning tool I, obviously, would prefer the dialog be done in the digest.

Now the question: Has anyone seen, used, or done anything with the mini keg system advertised by Brew Ha Ha. It looks very attractive to me since I brew fairly infrequently (4 times a year or less) and it would be nice to get out from under bottles.

Thanks,  
Al Belke

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Date: Tue, 10 Aug 93 16:51:01 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Weihenstephan #68 & T. Delbrukki

In the last digest,  
<From: Tom.Weicht@arrc.ncsu.edu (respond to deb\_neher@ncsu.edu)  
<Subject: S. delbrukii or S. cerevisiae?

<I am a recent arrival to HBD.  
Welcome!

<Saccharomyces delbrukii or S. cerevisiae?? I personally  
<believe both are technically incorrect. From the best that I have  
<been able to find in the mycological taxonomy literature, the true  
<name of this organism is Torulospora delbrukii, this is how the  
<American Type Culture Collection lists it which sparked my interest  
<and pursuit of this subject. An incorrect but often used synonym is  
<Saccharomyces.

<AS BREWERS SMALL OR LARGE OUR CONCERN IS THE BIOCHEMISTRY OF  
<THE YEAST AS IT PERTAINS TO THE FINAL PRODUCT. DON'T let the  
<taxonomy get you down, but don't slam somebody else's taxonomy when  
<basing an opinion from a single source either.

I am not claiming to be an expert on yeast taxonomy, but I do have some  
sources. I also do not intend to provoke a flame fest, but here goes..  
In the ATCC, S. delbrukki is listed as a valid synonym for T. Delbrukki,  
but  
appears to have been isolated from sources other than beer, ie wine and  
tree sap. So , unless other references are available that I am unaware  
of, it appears that this organism is not involved in wort fermentation.

Referring to the Weihenstephan catalog , an english translation of the  
catalog, calls the yeast a top fermenting S. cerevisiae. No doubt that  
T. Del exists but unless further evidence is found, I will stick with  
the designation from the Weihenstephan laboratories.

Tom's comments regarding the importance of the biochemical properties  
of the strains in our beer production over the importance of the  
taxonomy is quite true. I am merely attempting to clarify what I have  
found to be a confusing aspect of the homebrewing literature.

Good brewing,  
Jim Busch

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Date: Tue, 10 Aug 93 14:27:06 -0700  
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
Subject: Irish Moss

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>  
>Date: Mon, 9 Aug 93 09:57:45 -0400  
>From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)  
>Subject: questions

>  
> Greetings All:

>  
> While setting up a brew session this past weekend, I came up with a few  
> questions that I was hoping the good people of the net would help me  
with.

>  
>  
>  
>Second--

>I purchased some plugs of Irish moss from a garden supply store about  
>a year ago. These are incredible growers; going from <1" plugs when  
>originally planted to > 18" clusters in just 1 year. They make a great  
>ground cover with a thick compact mass of growth about 1 1/2" tall. A  
neat  
>addition to the landscape. Now on to the question-- Anyone have any  
>experience using fresh IM for brewing? Do I need to dry it or can it  
>be used right from the ground? Any precautions to prevent  
contamination?

"Irish Moss" for beer is a kind of seaweed. I don't know what kind if  
"Irish Moss" you are growing, but it sounds like something entirely  
different. Does the plant grow in solid masses and have a single really  
small round leaf at the end of each "blade"? I've seen a groundcover  
like this called "Irish Moss".

- --arne

:  
:  
>  
>Thanks for the help---  
> Keep brewing-  
> --S

>-----

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Date: Tue, 10 Aug 93 14:50:53 PDT  
From: Robert Pulliam <Robert\_Pulliam@rand.org>  
Subject: Bottling Kegged Beer

Greetings,

Just another quickie... How does one go about bottling some of his/her brew that has been kegged? Will I lose my fizz? How/what does a counterpressure filler work/do? Can I build my own? Inquiring minds.

Robert J. Pulliam |+|all thoughts, statements, and opinions, |+|  
Los Angeles, CA. |+|demented or not, should be my own; and |+|  
pulliam@monty.rand.org |+|I'm certainly not associated . . . . . |+|

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Date: Tue, 10 Aug 93 18:16:52 EDT  
From: dturner@sca.com (David Turner)  
Subject: Sanitizing swing-top bottles

Greetings,

I am preparing to bottle my third batch of HB, using swing-top ("Grolsch") bottles for the second time. The first time I used them, I replaced all the rubber gaskets, as they were several years old and suspect. I boiled them at bottling time, i.e., I sanitized them seperately from the bottles.

For this round of bottling, I know the bottles are clean (of grunge), and don't plan a TSP bath. A good washing, then a chlorine soak, then bottle.

My question: can I leave the rubber gaskets on the bottles during the chlorine soak? Will they absorb chlorine odor/taste? Will they deteriorate? Must I remove them first, and boil them seperately, as I did the first time? Was that more than one question?

Thanks for any/all advice...later...DT

- - - - -  
David Turner  
dturner@sca.com

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Date: Tue, 10 Aug 93 09:22:07 MST  
From: vlsiphx!karoshi!vahsen\_j@enuucp.eas.asu.edu (Jim Vahsen)  
Subject: Subject: A Draft Chili Beer?

On Dave's question about chili beer,  
Try using some habanaro(sp) pepper extract, a little dab'le  
do ya... Hot stuff. Don't think I'd actually throw them in  
the keg, but the extract would be OK. Be aware that these  
are considerably hotter than your average chili pepper...

BigJim  
vlsiphx!vahsen\_j@asuvax.eas.asu.edu

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Date: Tue, 10 Aug 1993 15:34:04 -0700  
From: Michael.Burgeson@Eng.Sun.COM (J. Michael Burgeson)  
Subject: water filter

I was in the plumbing supply store yesterday, and saw filter housings and cartridges on sale. I thought this would be the perfect opportunity to add a water filter to my brewery.

I intend to removing chlorine and particulate matter from my brewing water, so I was looking at activated carbon filter cartridges. But one carbon filter caught my eye because it also claimed to filter at the 0.5 micron level. Isn't 0.5 microns fine enough to remove most bacteria and micro-flora? Would someone who is microbiologically literate please comment?

Assuming the output side of the filter was sanitary, wouldn't water filtered at this level be safe to rinse sanitized brewing equipment, without worrying about introducing a contaminant? Or are there contaminants that would pass through this filter?

The rinse/don't rinse debate has gone on here for a long time, but I never heard of anyone using filtered water to rinse. It seems this would be a great time savings over pre-boiling rinse water, and you have the added benefit of being able to filter your brewing water. I hope I'm right 0.5 microns being fine enough to remove bacteria.

BTW, there were 2 different 0.5 micron, activated carbon cartridges on the shelf, and were priced at \$24 and \$40.

- --mik

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Date: Tue, 10 Aug 1993 16:12:24 MDT  
From: "KEVIN SCHUTZ, X-1738, M/S 10125" <kschutz@atmel.com>  
Subject: Suggestions/Thoughts/Recipes for Plum beers/meads?

Hi,

I was recently at a local Farmer's Market, and noticed that this year's crops of Plums are looking pretty good and at fairly decent prices. I was wondering if anyone has any good comments, thoughts, and/or recipes for some Plum beers or Meads. I'm interested in both beers and meads.

Also, my favorite Plums are the dark purple varieties. I've seen them labeled as "Western Purple" Plums. I'm not sure if that's a real variety or not. We also have access to some red and green (when ripe) plums.

Thanks in advance,

Kevin

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End of HOMEBREW Digest #1201, 08/11/93  
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Date: Mon, 9 Aug 93 18:15:02 MDT

From: npyle@n33.stortek.com

Subject: Chiller conversion

I have just invested in a new brew kettle (described in a previous post) which is a 10 gallon cream can from a dairy. It is tapered toward the top and therein brings a small problem. My immersion chiller will not fit into this small(er) opening and I'd like to convert it to a counterflow chiller. It is about 35 feet of 3/8 inch copper tubing coiled to about a 1 foot diameter. Any suggestions?

Actually, one of my ideas was to convert to a chiller (I can't come up with a descriptive name) in which there is one coil sitting in a bucket of sorts. The bucket contains cold water, maybe ice water, and the coil contains the wort. The cooling liquid could, probably should be flowing in/out. The wort would be siphoned through the coil, cooling it. Stoelting makes something like this for several hundred dollars, which I refuse to pay. Anyone done this? Anything I should be aware of?

Thanks,  
norm

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Date: Tue, 10 Aug 93 21:20:57 EDT

From: thomash750@aol.com

Subject: Chipotle

Alan of Austin says: "Do not put a chipotle into your bottle of beer."

My experience cooking with chipotles makes it obvious to me that 1  
chipotle  
per bottle (i.e., \*50\* or so per 5 gallon batch) is going to blow your  
head  
off (to use technical chile lingo). Chipotles are \*hot\* (underlined, in  
caps, bold face, etc.).

However, that should not prevent homebrewers from trying chipotles  
altogether. Rogue River Brewery, in Ashland OR, puts out a beer called  
"Mexicali Rogue" that is flavored with chipotle. Very good stuff.

tom

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Date: Tue, 10 Aug 93 22:02:11 CDT  
From: philb@pro-storm.metronet.com (Phil Brushaber)  
Subject: Sam Adams Winter Lager

I know old Ed Koch has been taking a few lumps here and on other forums. But last year he made a Winter Lager that was out of this world IMHO.

Does anyone have a recipe for a similar brew? Bob Jones published a recipe for Boston Lager many months back, I tried it and it turned out great! But it's not Winter Lager.

Gotta get started now for those Holiday parties!  
Thanks for your help.

Phil Brushaber  
Dallas, Texas (Yeah, it's STILL hot!)

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Internet: philb@pro-storm.metronet.com  
UUCP: metronet.com!pro-storm!philb  
Bitnet: philb%pro-storm.metronet.com@nosc.mil

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Date: 10 Aug 93 22:09:56 MDT (Tue)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: re: Light Beer for zymurgy

I honestly don't know what to make of this!  
Elizabeth Gold (Zymurgy editor-in-chief) writes:

> Help! Please send me your recipes for light beer as well as any quick  
info on  
> the style. They're needed to accompany an article in zymurgy. Your  
haste  
> would be MOST appreciated!

What are we about to get here? A hasty article about light beer? The  
supposed leader asking the followers to show the way?

What's the hurry, anyway? Is correctness the handmaiden to expediency?  
(Or, as the programmer's saying goes, "If we don't have time to do it  
right, how will we ever have the time to do it over???" )

Has Ms Gold not read the recent HBD comments about Zymurgy falling down?

---  
Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA  
...Simpler is better.

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Date: Tue, 10 Aug 93 23:48:44 EDT  
From: chuck@synchro.com (Chuck Cox)  
Subject: LiBeer Digest

Introducing LiBeer, the Libertarian Beer Digest. This is an Internet mailing list dedicated to the discussion of issues of interest to libertarian brewers and beer lovers. This digest was created to provide a forum for the discussion of libertarian tactics to prevent and circumvent the rising tide of neo-prohibitionism, especially as applied to the brewing and drinking of beer. It is also a social forum and a good place to post excellent jokes. The LiBeer Digest is sponsored by SynchroSystems and the Riverside Garage & Brewery, located in The People's Republic of Cambridge, Massachusetts.

submissions: libeer@synchro.com

administrative requests: libeer-request@synchro.com

Please send subscription and unsubscription requests to the administrative address.

- - -

Chuck Cox - BJCP Master Beer Judge <chuck@synchro.com>  
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

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Date: 10 Aug 1993 23:49:52 -0600 (CST)  
From: RBSWEENEY@memstvx1.memst.edu  
Subject: extraction rates

I put together the following list of maximum extraction rates for grains based on some information obtained from a few extremely charitable HBD subscribers and from Dave Miller's book Brewing the World's Great Beers. There are two numbers listed for a few of the grain due to source discrepancies (Miller's figures are in lower caps) and I was wondering if someone with more knowledge than myself about such matters would lend a hand and tell me the \*right\* number to use. Thanks.

boB Sweeney

| Type of malt         | Yield | Lovibond |
|----------------------|-------|----------|
| Black                | 24    | 540 x    |
| BLACK PATENT         | 29    | 540 x    |
| BROWN SUGAR          | 45    | 15       |
| CARA-PILS            | 30    | 1.5      |
| Chocolate            | 24    | 350 x    |
| CHOCOLATE            | 29    | 350 x    |
| CRYSTAL 10L          | 31    | 10       |
| CRYSTAL 20L          | 31    | 20       |
| CRYSTAL 40L          | 30    | 40       |
| CRYSTAL 60L          | 30    | 60       |
| CRYSTAL 80L          | 29    | 80       |
| CRYSTAL 100L         | 29    | 100      |
| CRYSTAL 120L         | 29    | 120      |
| DEXTRINE POWDER      | 45    | 0        |
| Flaked barley        | 30    | 1.5 x    |
| FLAKED BARLEY        | 20    | 1.5 x    |
| FLAKED MAIZE         | 39    | 0.5      |
| FLAKED OATS          | 25    | 2.2      |
| HONEY                | 35    | 1        |
| LAGER 2-ROW          | 35    | 1.7      |
| LAGER 6-ROW          | 31    | 1.7      |
| MALT EXTRACT (DRY)   | 45    | ?        |
| MALT EXTRACT (SYRUP) | 35    | ?        |
| MILD ALE             | 35    | 4.2      |
| MUNICH DARK          | 30    | 18       |
| MUNICH LIGHT         | 33    | 8        |
| PALE ALE             | 36    | 3        |
| PILS 2-ROW           | 35    | 1.2      |
| PILS 6-ROW           | 30    | 2        |
| RICE                 | 39    | 0        |
| RICE SYRUP           | 36    | 0        |
| ROAST BARLEY         | 29    | 500 x    |
| Roast barley         | 24    | 500 x    |
| VIENNA               | 30    | 4        |
| WHEAT                | 39    | 1.7      |

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Date: 11 Aug 93 06:50:34 EDT  
From: Robin Garr <76702.764@CompuServe.COM>  
Subject: Re: A Draft Chili Beer

In HB1201, wegeng.XKeys suggests:

> Have you considered using hot pepper sauce? A couple years ago  
someone  
> on the HBD suggested using Tabasco Sauce ...  
  
> I haven't tried this, but it would seem to be more predictable than  
adding  
> whole peppers (and more repeatable, too).

Disclaimer: I haven't tried it either. But I'd be cautious. Tabasco in particular, and hot sauces in general, have vinegar as a major component.

The best commercial chile-pepper beers (Rogue Mexicali Rogue and a sample from Fort Collins that Paul Edwards delivered to the AHA in Portland, thanks, Paul!) are not merely hot but present the distinct flavor of peppers in a much more complex flavor profile than I believe Tabasco and other commercial hot sauces would provide.

Robin Garr | "I have enjoyed great health at a great age because  
Associate Sysop | every day since I can remember I have consumed a  
bottle  
CompuServe | of wine except when I have not felt well. Then I have  
Wine/Beer For | consumed two bottles." -- A Bishop of Seville  
76702.764@compuserve.comrgarr@panix.com

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Date: Wed, 11 Aug 1993 13:04:40 +0100 (BST)  
From: D S Draper <D.S.Draper@bristol.ac.uk>  
Subject: Lagers/weizen from extract?

Hi all, There has been much bandwidth on weizen style beers in the HBD and on rec.crafts.brewing lately. I am wondering if anyone out there can recommend any recipes for weizens or even lagers that are malt-extract based. I am keen to start full-grain-ing, but my available space is too limited--I must wait till some time in the future. Unfortunately, the malt extracts available to me here are very few--Young's light dried malt extract is all my local shop stocks. I started a thread on UK and US brewing differences awhile back that resulted in several kind souls sending me names and addresses from which other malt extract types are available here in the UK, so that info need not be repeated. Please send email to me at d.s.draper@bristol.ac.uk and I will summarize if warranted.  
Thanks in advance, Dave

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Date: 11 Aug 93 07:33:49 EDT  
From: CHUCKM@PBN73.CV.COM  
Subject: Weihenstephan #68 source

Greetings...

I've a few questions regarding weissbier yeast.

1. Where is a source for Weihenstephan #68 and how much should I expect to pay?
2. dipalma@banshee.sw.stratus.com (James Dipalma) in hbd 1201 writes that there is a difference in the pre and post 1992 versions of this yeast. How do I know which one I get?
3. Wyeast has a new weissbier yeast out (so I've heard... not yet seen it in the Boston area yet). How does this relate to the Weihenstephan #68?.

Prosit  
chuckm@pbn73.cv.com

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Date: Wed, 11 Aug 93 09:09:40 EDT  
From: bszymcz@ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: Sanitation

In HBD1200 Al Korzonas writes:

>In Marybeth Raines' article on Sanitation, it's a real shame that she  
>failed to mention iodophor and a recently new sanitizing agent, marketed  
>under the name "One Step," which is peroxide-based and comes in powder  
>form. I would have been very interested in her recommended contact  
times  
>for iodophor and OneStep. (...stuff deleted)

While we're still giving out constructive criticism of Maribeth Raines' article in Brewing Techniques on Sanitation, there was something else in the article that I didn't understand. Namely, the difference between dry and moist heat as a sanitizer. For example, why does moist heat at 250 deg. F only require 15-30 minutes to sterilize while dry heat at 350 deg. F requires 60-180 minutes? I use dry heat to "sterilize" my racking canes which are copper, and have been baking for only 1/2 hour at 350 deg F. Do I need to raise the oven temperature to 400 or 450 degrees to sterilize in 1/2 hour? Overall, the article was good and I learned something new in the fractional sterilization process. It could have been better by perhaps explaining more of the why's of sterilization than simply the how to's and some references to the statistics posted would definitely have improved the article.

Also Steve Lichtenberg asked about storing petri dishes and received some answers in HBD1201. I've found that whenever mold starts growing in a petri dish it was always starting from the edge (in the two or three dishes that went bad on me). Since then I've been careful in resealing the dishes after taking a sample. After closing the dish (and actually before also) use a cotton ball soaked in a bleach solution or alcohol and wipe the rim of the dish. Pass the edge over a flame which helps dry the bleach (be careful if you use alcohol and/or a plastic petri dish) before resealing with parafilm. I stack the dishes upside down in ziploc bags in the refrigerator. I've resealed some plastic plates I purchased from the Yeast Culture Kit and they have survived for over a year now without any sign of mold. Actually, the plates which were resealed have outlasted two of the originally "clean" plates without any culture, supplied in the Kit. Five out of six of the other plates I prepared myself about 4 months ago are still free of contamination.

Bill Szymczak  
bszymcz@ulysses.nswc.navy.mil  
Gaithersburg, MD

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Date: Wed, 11 Aug 93 08:40:00 CST  
From: Montgomery\_John@lanmail.ncsc.navy.mil  
Subject: Recipe formulation

Hi all,  
As with all the other "first time posters", please be patient with me.  
I have questions about formulating my own recipes.

I have about 10 or 11 batches of All Grain brews under my belt (all puns intended) and have, to date, been following TCJoH and TCHoH recipes. I am interested in stepping out into the "great unknown" and developing my own recipes, but seem to be having a hard time finding guidelines for such.

Should I just "waste" 10 - 15 gallons of brew for each style until I get it just the way I want it or is there some publication that offers particulars of and suggestions for recipe formulation? Do I need to study articles for each of Hops, Malts, Adjuncts, Water, Yeasts, etc... and postulate from there?

Many, many thanks in advance.

jbm <montgomery\_john@lanmail.ncsc.navy.mil>

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Date: Wed, 11 Aug 93 08:54 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Aeration

Last week I put together an aquarium pump type aerator for the weekend batch to see what all the excitement was about myself.

After following Miller's procedure, I found that the commencement of fermentation was, if anything, later than it would have been using my standard procedure of simply squirting the wort into the fermenter.

I usually get fermentation at 40F within 24 hours but this time it took about 48 hours.

Several things come to mind:

One being that I was a victim of enthusiastic promotion based on unsound, anecdotal experience and wishful thinking.

Miller claims to use the same type of system on a large scale commercial operation as described for home brewing. The only exception he takes is that some part (presumably the airstone or hoses) are stainless.

It is simply preposterous to believe that one can get enough oxygen into a large batch of beer using an aquarium pump and an airstone for 15 minutes.

What makes it preposterous is that this is the same system/time recommended for a 5 gallon batch. [I used a total of 30 minutes pumping in my batch because 15 seems totally inadequate]

The idea of getting fermentation started in "3 to 8 hours" was enough to tweek my interest but I believe I fell into another trap created by non-critical writing; viz., he failed to mention whether he was talking about ale or lager and the fermentation temperature.

I can only now presume that he was talking about ale yeast at room temp and my enthusiasm has fallen an order of magnitude.

To settle the issue, I have constructed a controlled experiment which is now in process and I will report back in a few days.

In the meantime, does anyone have any such experience as Miller reports at lager temperatures?

js

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Date: Wed, 11 Aug 1993 09:52:42 -0400 (EDT)  
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov  
Subject: bad cider, Belgian wyeast, hydrogen peroxide

A couple of items:

I tried posting this from America On-line but never saw it or a rejection notice.

We recently tried making an apple cider by adding frozen, non-preserved apple juice over the dregs of a great cider. After a number of months it finally cleared after adding pectinase. However, while siphoning, I detected a distinct acetic acid smell and taste. It obviously has turned to vinegar, 5 gallons worth. We bottled some and my wife tried to save tthe rest by adding sodium metasulfite then sugar and fresh yeast to the remaining gallons. My question is: what organisms are responsible and does anyone believe it can be saved-- it still has a good apple aroma buy little alcohol.

I also recently made a Belgian Ale using a recipe in the Belgian Ale book and Belgian Wyeast (can't remember the number). Anyway its beautifully clear in the secondary, smells good, but has a really strange flavor I can't describe. I doubt it is contaminated and I feel the flavor is due to the yeast strain. Will this dissipate with aging after bottling? Any suggestions?

Finally, Rich Childers posts about using hydrogen peroxide as a sanitizing agent. It can be used as a sanitizing agent although I would be careful with it. Strong solutions will oxidize tissue. Oxygen is not innocuous or a cure all. Most aerobic organisms evolved developing protection from oxygen, since oxygen, especially peroxides, produce free radicals. These are thought to be responsible for some endogenous cancers, tissue aging, mutation, chromsome damage, and cell death. I don't want to flame the West Coast but ascribing increased viral and bacterial infections to lower concentrations of oxygen in the environment seems to be, well Californian !!(:^0.

Andy Kligerman

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Date: Wed, 11 Aug 93 06:55:37 PDT  
From: julie@eddie.jpl.nasa.gov (Julie Kangas)  
Subject: Re: A Draft Chili Beer?

wegeng.XKeys@xerox.com writes:

>Have you considered using hot pepper sauce? A couple years ago someone  
on the  
>HBD suggested using Tabasco Sauce (any hot sauce based only on peppers  
would  
>do, so experiment to determine which varieties you like best). You can  
>determine the amount to add by adding one drop at a time to a pint of  
beer,  
>stiring and tasting after each addition, until you determine how many  
>drops/pint give you the desired degree of hotness. Then multiply this  
by the  
>number of pints of beer that you want to make to determine how many  
drops to  
>add to your keg (perhaps subtracting 10% to be safe).

I have doubts about this. Hot sauces are not just pure chiles but  
contain vinegar and a bunch of other stuff. If you like that in  
your beer....

But, if you're looking for a way to get consistent heat in your beer,  
I think the best way is to use capsaicin extract. It is pure chile  
heat without any other flavor and is consistent in heat. Many  
salsa manufacturors use extremely mild chiles and then add capsaicin  
extract in order to bring the product up to whatever level of heat  
they want. You can get capsaicin extract from spice companies  
specializing in hot foods or 'oddball' stuff.

Julie

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Date: Wed, 11 Aug 93 07:51:34 PDT  
From: 11-Aug-1993 1044 -0400 <ferguson@zendia.enet.dec.com>  
Subject: water / keg->bottles

>Date: 10 Aug 1993 11:29:03 U  
>From: "Walker John" <jwalker@msmac.prc.hq.nasa.gov>  
>Subject: Bottled Water  
>  
>Does anyone have any comments or experiences using bottled spring water  
for  
>brewing. How does it compare and are there any obvious advantages or  
>disadvantages (other than cost).

According to some brewers, your city water is mostly fine for brewing.  
You  
may have to adjust it slightly to make it friendly for brewing, but other  
then that, city water should be OK. We can all thank COORS for  
portraying  
the image that pure Rocky Mountain water is the key to making smooth  
beer.  
This isn't the case at all, but, many people believe it is.

>Date: Tue, 10 Aug 93 14:50:53 PDT  
>From: Robert Pulliam <Robert\_Pulliam@rand.org>  
>Subject: Bottling Kegged Beer  
>  
>Greetings,  
>  
> Just another quickie... How does one go about bottling some of his/  
>her brew that has been kegged? Will I lose my fizz? How/what does a  
>counterpressure filler work/do? Can I build my own? Inquiring minds.

Well, one day I needed my keg and it was almost empty, so i figured,  
what  
the heck, i'll bottle the balance of it. I sanitized by bottles in a  
bleach  
solution, sanitized the caps by boiling them, pulled my keg from the  
fridge,  
hooked up the CO2, and began filling bottles. Capped 'em. Chilled 'em.  
No problems with carbonation - it was a little bit under carbonated, but  
that  
was easily fixed by pouring the beer from about 6" away from the glass (a  
rough pour, in other words).

JC FERGUSON  
ferguson@zendia.enet.dec.com

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Date: Wed, 11 Aug 93 11:58:18 EDT  
From: hpfcla.fc.hp.com!scr!sead.siemens.com!jm (Jeff Mizener)  
Subject: The Alcohols: rubbing, denatured, etc.

I read this post and it didn't sound right to me:

From: WEIX@swmed.edu  
Subject: Alcohols

Hi all,  
IHTNPB (I Hate To Nit Pick But):  
Methanol=wood alcohol=denatured alcohol, but NOT rubbing alcohol.  
Rubbing alcohol is isopropanol(or 2-propanol).

So I asked my local research pharmacist, who provided me with the following information:

=====  
==

Ethanol - CH<sub>3</sub>-CH<sub>2</sub>OH - The good stuff - Distilled or fermented from sugar (cane, grain, grapes) - If ingested: drunkenness

Methanol - CH<sub>3</sub>OH - Wood alcohol in common parlance - Distilled from wood pulp - If ingested: blindness, death

Isopropanol - CH<sub>3</sub>-CHOH-CH<sub>3</sub> - The usual contents of a bottle marked "Rubbing Alcohol" - Produced in petroleum cracking - If ingested: headache, nausea, death (less toxic than methanol)

Denatured Alcohol - Ethanol that has had an ingredient added to make it unfit for human consumption (and therefore exempt from taxation); there are many formulae, examples follow:

SDA 3A = 100 gallons ethanol + 5 gallons methanol  
SDA 28 = 100 gallons ethanol + 10 gallons benzene  
SDA 28A = 100 gallons ethanol + 1 gallon gasoline  
SDA 30 = 100 gallons ethanol + 10 gallons methanol

The list is endless. You can get your own formula approved by the Treasury Department (or as they say here in Tennessee, The Revenuers)

Hope this clears it up.

Kevin

=====  
==

Das War's.

Jeff

=====  
Jeff Mizener / Siemens Energy & Automation / Raleigh NC  
jm@sead.siemens.com / Intelligent SwitchGear Systems  
=====

PLEASE: Reply to this address and not the one in the header.

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Date: 11 Aug 93 11:31:42 EDT  
From: CHUCKM@PBN73.CV.COM  
Subject: Fermentation with no kreusen?

Hello Brewers...

Here's my problem, maybe someone can help.

For 3 years I have done partial mashes and have just switched to full mash (eg all grain, 3 batches). I mash in a picnic cooler with a slotted pipe manifold. I boil in a homemade Bruheat-like bucket.

Now, my problem....

During fermentation I do not appear to get a kreusen. If I do get one it comes and goes while I sleep because I never see it. However, full fermentation takes place and the resulting beer tastes ok but is much cloudier than I am used to. I have tried two different strains of wyeast ....European ale and american ale... with the same results. My yeast starter had a nice kreusen but nothing in the fermenter. Can anyone shed some light on what might be going wrong?

Thanks in advance,  
chuckm@pbn73.cv.com

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Date: 11 Aug 1993 13:00 EDT  
From: dab@cc.bellcore.com (dave ballard)  
Subject: murphy's in a can

hey now- at a place called the hog sty bay cafe on grand cayman i  
ordered  
a murphy's stout and got a can that looked identical to a guinness pub  
draught can! it was tall and skinny and had directions about chilling,  
opening, etc. there was also a little logo thingy that proclaimed the  
can to be murphy's "draughtflow system" with a patent pending.

has anyone else seen these cans? it tasted fine, although i detected a  
little more "canny" taste than guinness. is this the same doohicky that  
guniss uses or did murphy's invent/copy one of there own?

dab

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Date: Wed, 11 Aug 1993 10:25:10 -0600 (CST)

From: John Mare <cjohnm@ccit.arizona.edu>

Subject: RE: Water sterilization by filtration

Mik asks about the efficacy of a 0.5 micron filter for sterilizing water. You are right in assuming that most bacteria would be removed by such a filter, BUT you also identified the problem with this approach, namely "assuming the output side of the filter is sanitary". Do you have a means of ensuring this? (not easy unless the whole setup is autoclavable or you have an ethylene oxide sterilizer handy!). Even then some of the smaller bacteria eg. mycoplasmas, chlamydia, etc. will pass a 0.5 micron filter. I have cultured the very hot water from my tap and have not found bacteria. I therefore use very hot tap water for rinsing, which is probably as safe as the more expensive and cumbersome use of filtered water. John Mare.

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Date: Wed, 11 Aug 93 11:35 EDT

From: gcw@granjon.att.com

**Subject: Redhook Rye Beer**

Redhook's Rye Beer is unfiltered and made from 10% flaked organic rye, 5% Munich malt and the rest being 2-row Klages. Hops used are Mt. Hood (bittering and aroma) and Yakima Hersbrucker (aroma). The rye taste does not stand out, but you know there is something "else" in the beer besides barley. The beer is light-medium weight is a refreshing summer beer. This beer is part of Redhook's Blueline Program of limited release beers. The 1993 rye beer evolved from a trail batch of rye beer brewed for their 10th anniversary last year.

Geoff W.

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Date: Wed, 11 Aug 93 13:39:26 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: **banned brews**

I'm sure it's a prime example of stupid, asinine, ridiculous, idiotic, baseless, half-witted, nonsensical, pointless, typical liquor laws in action.

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Date: Wed, 11 Aug 93 10:50:18 PDT  
From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)  
Subject: keg -> bottle

[Robert Pulliam writes :]  
> Just another quickie... How does one go about bottling some of his/  
> her brew that has been kegged?

Robert :

I recently tried a simple minded method of rebottling. The background is that I haven't had good results from my keg and was worried about losing an entire batch. What I did was the following :

- 1) insure that keg was not pressurized. In my case, the keg was leaking so no pressure had built up.
- 2) Mix in a some boiled corn sugar water. Since the keg started with 2 1/2 gallons, I only used 1/3 cup of corn sugar.
- 3) Siphon some of the beer into bottles.
- 4) cap bottles. Repair keg. reseal keg.

The theory is that the 2nd priming will provide enough carbonation for the bottled beer and whatever was left in the keg. This is done at a potential risk of altering the flavor of what was originally an all malt brew. I've never seen anyone else describe this technique. There might be a reason why ;-). Since the keg was leaking, I felt that I should reprime anyway, and this made a good opportunity to experiment with rebottling.

Unfortunately, I can't report yet on the results. I did this just a few days ago. I'll try to remember to post the results next week. At the same time that I had originally 1/2 filled the keg, I put the other 2 1/5 gallons into bottles. Therefore, I have some "reference" bottles that were processed in the normal way for comparison. The rebottling was done about 3 days after I had "kegged" (into a leaking vessel !! ^\$\*^&%\*\$)

Bart

(Brewing equipment destroyed this experiment : 0)

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Date: Wed, 11 Aug 1993 10:44:00 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Redhook Summer Rye**

I called the Redhook Brewery and spoke to Thomas Price, a very nice and helpfull guy. Sorry, Al, but there is no wheat malt in their Summer Rye. Here's the scoop:

10% flaked organic rye  
5% Munich  
85% 2-row barley (probably Briess)

Mt. Hood - bitter hops  
Mt. Hood - aroma hops  
Yakima Hersbrucker - aroma hops

I'm heading for the Trolleyman tonight to sample this brew.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Wednesday, 11 August 93 13:50:29 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: chili beer with flavor

Howdy,

In HBD #1201, Don of Xerox & Jim Vahsen make suggestions for kegged chile beer. Don suggests Tabasco sauce, & Jim suggests habanero extract. I would suggest neither. Tabasco sauce is not just pureed peppers; it also has vinegar &, if memory serves me right, salt in it. Plus, it would add little to no real chili pepper flavor to the beer, which, to me, is half the point. Habaneros are so spicy, that you would have to use so little that, again, you would miss out on the chili pepper taste. In fact, one big complaint about habaneros in cooking is that no flavor comes through because the amount used is so small. If you're going for no flavor & straight spice, add some fresh habaneros to the carboy when you start the fermenting process. If you want a good, clean pepper taste as well, & something that's not overpowering, I would suggest adding whole fresh serranos or jalapenos, about 40-50, to the carboy about one week before kegging. I may be wrong, but that's how I would do it.

Happy brewing,

Alan, Austin

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Date: Wed, 11 Aug 93 13:31:36 PDT  
From: Oh Noo- Mr.Bill <coxco@dpmmai.enet.dec.com>  
Subject: post

Date: 11-Aug-1993  
From: Bill Cox (COXC@DPDMAI.UNET.DEC.COM)  
Subject: Grolsch Bottles

>I am preparing to bottle my third batch of HB, using swing-top  
>"Grolsch")bottles for the second time. The first time I used them, I  
>replaced all the rubber gaskets, as they were several years old and  
>suspect. I boiled them at bottling time, i.e., I sanitized them  
>seperately from the bottles. For this round of bottling, I know the  
>bottles are clean (of grunge), and don't plan a TSP bath. A good  
>washing, then a chlorine soak, then bottle. My question: can I leave  
>the rubber gaskets on the bottles during the chlorine soak? Will they  
>absorb chlorine odor/taste? Will they deteriorate? Must I remove  
>them first, and boil them seperately, as I did the first time? Was  
>that more than one question?

I have been bottling with Grolsch bottles (green) that I kept after  
drinking the contents and Grolsch "look alike" (brown) which I bought  
at the local brew shop. Several observations;

The grolsch bottles seem to have a better stainless steel tension wire.  
The brown grolsch look alike oxidize a bit in the dishwasher.

My younger brother claims that the beers he's sampled are better  
carbonated using the brown bottles versus the real grolsch green bottles.  
I'm still researching whether it's the brew or him talking ;)

I have done 4 brew batches using both green and brown bottles and have  
had good luck with cleaning them - rinse bottles after emptying brew;  
wash in the dishwasher with the other dishes (put them neck  
down thru the slots in the rack-not neck in the pin holders, in the top  
rack where the glasses go); store in boxes and sanitize with a bleach  
solution (2-5oz./5 gal.) in a bottling bucket- 3 min. contact time just  
before bottling; and bottle wash them with a Phil's bottle washer-  
making sure to rinse the outside and cap too. No chlorine taste or  
smell- I would notice since the last two batches have been light  
lagers.

I have not noticed deterioration-although I have lost a couple of gaskets  
in the dish washer. I have replaced those. Still using the original  
gaskets that came with the bottles and they have been thru 4 brewings  
and 7 washings.

Also, in cases where I have left a half opened brew in the refrig., the  
remainder of the contents was carbonated and was very drinkable 5  
days later.

- ---Mr. Bill---

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Date: Wed, 11 Aug 93 21:10:00 +0000  
From: WHEATON\_JOHN/HPBOI1\_03@hpdmd48.boi.hp.com  
Subject: Primary Fermentation

Item Subject: D:/MEMO/2NDARY.TXT  
From: "Robert K. Toutkoushian" <TOUTKOUS@vx.cis.umn.edu>  
Subject: Question about dry hopping

>From what I can gather, dry hopping usually involves transferring the wort to a secondary fermenter, adding the additional hops for a few days, and then transferring to something else for bottling. I guess that I could transfer the wort to my 2nd carboy and add the hops, but w/o a lid I don't want to leave it sit around for any period of time exposed to the air. I guess I could always transfer it back to the primary fermenter, but then I'd have to transfer it again for bottling. The other option that I see is to transfer the wort to the 2nd carboy once the SG has stabilized, add the hops, let it sit for an hour or two, and then bottle.

Does anyone have any suggestions?....

Rob Toutkoushian

Rob,

Consider using only a primary fermentation and dry hopping after fermentation nearly ceases, usually after 4-5 days depending on your temperature. Dry hop directly into the carboy and let sit for another 1-2 weeks. This is all done with an air lock. I use hop pellets for dry hopping and they settle out real nice before transferring to my keg or mixing carboy for bottling. I have found that the dry hopping aroma affect is much better in the fermenter vs in the keg. Just make sure you don't dry hop too early while the fermentation is very active else you defeat the purpose as the CO2 seems to "scrub" out the hop essence.

I and many other brewers in our area don't do a secondary but we also do full boils, do a rapid chill down (15-20 min for 10 gal) and pitch a starter from liquid yeasts. I have cut my sediment in the fermenters by half by doing full boils.

John in boise

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Date: Wed, 11 Aug 93 13:51 CDT  
From: korz@iepubj.att.com  
Subject: Viability/bottled water/aroma hops/1 hoppy Belgian/"anaerobic" DUH!

Bob writes:

>How does one test yeast viability? Do you stain, then dilute, then estimate  
>at the fraction of the yeast that are stained (the bad ones) while viewing  
>at low magnification? Please, someone explain this technique to me in detail.

George Fix describes the procedure in the 1992 AHA National Conference Proceedings. From memory, you seem to have the procedure about right, but I must defer to the proceedings for details.

>It was one whole day before I had a beer after returning from Portland!  
The  
>best beer I had in Portland was a beer called "Mirror Pond" from Deschutes.

I \*saw\* Mirror Pond, hand-pumped at the Red Door just down the street from Red Hook Ale Brewery in Seattle. Alas, they had just switched to a new keg and the beer was pouring cloudy, so they were not serving it while I was there. I'll make sure to seek it out next time!

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John writes:

>Does anyone have any comments or experiences using bottled spring water for  
>brewing. How does it compare and are there any obvious advantages or  
>disadvantages (other than cost).

If your tapwater tastes good and is not too hard, there's no reason to resort to using bottled water. If your water is just too hard for some styles, then you can blend it with distilled water (also available from your bottled water people). You should be able to get an analysis of the bottled water so you can see what it has and doesn't have in terms of minerals. There was an issue of Zymurgy that had a few articles on water which despite a few minor errors was quite good. You can use the main article in that issue to adjust your water to the style of beer you wish to brew. Note that you will have to account for whatever minerals are already in your water.

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Michael writes:

>second batch of beer is good! I made a Pale Ale using Northwestern  
>Gold extract, Wyeast (American Ale), Cluster hop pellets (the homebrew  
>store's suggestion), and Ozone spring water.  
> Hot break: After the water/malt had heated for 25 minutes, it began  
>changing from very cloudy to egg-drop-soupy. After 45 minutes it  
>reached a fast boil and I then added 3/4'ths (1.5 oz.) of the hops.  
> Aroma hops: After another 30 minutes, I added the last 0.5 oz. and

A 30 minute boil will boil-off any aromatics your hops might have added. Actually, since you used Clusters, you are probably lucky you did. Clusters

are not considered an aroma hop, but everyone's taste is different. If you want hop flavor, add some hops with 15 minutes left in the boil (anything longer will boil off the flavoring). If you want hop aroma, add some hops with 1-5 minutes left in the boil or you can dryhop. Dryhopping gives you a lot more aroma per ounce of hops than adding the same amount to the boiling wort. I recommend using hops that are generally regarded as aroma hops for the flavor and the aroma. The classic Pilsner hop is Saaz, but Tettnanger is a relatively close approximation. For German-style aroma hops, Hallertauer Mittelfruh (the best, but in very scarce supply), other types Hallertauer ("Tradition" I believe is one), Hersbrucker, Mt. Hood and Liberty (the last two being American varieties intended to duplicate Hallertauer Mittelfruh). English-style aroma hops include East Kent Goldings (my personal favorite), Fuggles (a little rougher), Willamette (an American Fuggle relative) and Styrian Goldings (actually Fuggles, but grown in Slovenia). The classic American-style hop is the Cascade, with it's faint grapefruit aroma, it has become the signature of the nose in several American microbrewed beers, such as Sierra Nevada Pale Ale.

Some say that all boiling hops are equal, but I disagree. Some of the higher-alpha hops (Chinook, for example), even in the boil, will give a harsh bitterness. It appears to me that with some lower-alpha hops you can't overbitter with them! Two that I've found with which it is next to impossible to make an undrinkably bitter beer are East Kent Goldings and Cascades. I've already posted about Thom Thomlinson's 135 IBU IPA, which was made with Cascades: super-bitter, but very drinkable -- YUM!

\*\*\*\*\*

Jeff writes:

>First of all, this is a bizarre recipe, given that Belgian Ales (in all >their utter complexity and diversity) are known for a near-total lack of >hop aroma. So, forget it this time.

Lest we forget Orval, with it's wonderful E.K.Goldings/Hallertauer aroma, \*when\* \*fresh\*. True, however, hoppy-nosed beers are very rare among Belgian brewers.

\*\*\*\*\*

I wrote:

>Molds are aerobic. Luckily, yeasts are anerobic. You can put your petri

Duh! What I meant was, that molds need oxygen, yeasts CAN live without it.

Al.

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Date: Wed, 11 Aug 1993 21:30:45 EDT  
From: weintrau@vs2.uh.cwru.edu  
Subject: Grain to Extract Conversion

I am about to create my first all-grain beer with a friend who has made quite a few all grain beers before. He has, however, left the recipe to me.  
I would very much like to duplicate a favorite Stout recipe of mine, but I do not know how to make the conversion between an extract recipe and a grain recipe.

Here is the Stout recipe I want to convert, mostly taken from CP's Toad Spit Stout:

Grendel's Stout

3/4 lb crushed british crystal  
6 oz. crushed black patent malt  
6 oz. crushed roasted barley  
3 lbs Muntion and Fison dried dark malt extract  
4 lbs Mountmellick Famous Irish Stout hopped extract  
3 oz. Northern Brewers Hops (3 \* 7.0 = 21 AAU) (boil)  
1 oz. Fuggles hops (4.3 AAU) (aroma)  
1 tsp irish moss  
1 pkg Burton Salts  
1 pkg EDME Ale Yeast

(Ingredients for 5 gallons)

Water was brought to a boil with all of the grains in a grain bag, steeping.  
The grains were removed a bit before the boil began. At the start of boil, the extracts were added.  
The Northern Brewers was added at three different points in the hour long boil with the last ounce added 20 min before the end of the boil. The fuggles was added over the last five minutes.

OG 1.052  
FG 1.022

I would also like to switch to a liquid yeast but would like to keep the relatively low attenuation of the EDME.

If you have any suggestions, please let me know by direct e-mail, as I may not have time to look through the HBD between now and when we brew on Saturday.

Thanks in advance...

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| LIFT ME UP AND TURN ME OVER | Thanks... |  
| LEAD ME ON INTO THE DAWN | --The Bug. |  
| TAKE ME TO THE HIGHEST MOUNTAIN | (Scott Weintraub/sfw@po.cwru.edu)



| TIE ME UP, LOVE IN A STORM | ...Truth, Temperance and Tolerance... |

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Date: Wed, 11 Aug 93 20:02 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: factor, schmactor

I don't use the "pts/lb/gal" method of calculating efficiency. Never have, never will. It's a totally unfriendly method and I wouldn't be at all surprised if it was devised by some long-dead, neo-prohibitionist math teacher who is having the last laugh.

I prefer the method of "% Efficiency". I like it so much that I wrote a program called the Beer Recipe Formulator and rendered it unto the masses so that they could revel in it's perfection as I do. It runs on MS-DOS 3.2 or higher and requires 640K and a monochrome monitor. The software is available via ftp at mthvax. If you don't know what ftp means (I know I don't) and you have a computer with a modem, you can download it from a number of sites:

HBU BBS (708) 705-7263  
Maltose Falcons BBS (818) 342-0530

to name a few. The version on HBU BBS has the most recent data files. The latest version release is 1.1 but 2.0 is coming soon to a theatre near you.

Did I hear someone say "shameless plug"? You betcha.

Did I hear someone else say "shareware"? Yup.

chris campanelli

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End of HOMEBREW Digest #1202, 08/12/93  
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Date: Thu, 12 Aug 1993 13:26:31 +0000  
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)  
Subject: Re: murphy's in a can

dab@cc.bellcore.com (dave ballard) writes

>hey now- at a place called the hog sty bay cafe on grand cayman i  
ordered  
>murphy's stout and got a can that looked identical to a guinness pub  
>draught can! it was tall and skinny and had directions about chilling,  
>opening, etc. there was also a little logo thingy that proclaimed the  
>can to be murphy's "draughtflow system" with a patent pending.  
>  
>has anyone else seen these cans? it tasted fine, although i detected a  
>little more "canny" taste than guinness. is this the same doohicky that  
>guniss uses or did murphy's invent/copy one of there own?

There are 3 different dohicky systems now patented and used in the UK for  
draught beer in a can. The Guinness system has been described here  
before.

The "draughtflow" system is owned by Whitbread and, for example, is used  
by  
them in Boddingtons. I don't know the commercial relationship 'twixt  
Murphy's  
and Whitbreads.

The draughtflow system has a larger capsule containing pressurised N2.  
The  
'lid' of the capsule contains a tiny hole (in the middle) which is  
closed,  
whilst the can remains under pressure, by the end of a 'peg' protruding  
from  
the centre of the 'base' of the capsule (the 'base' being the opposite  
side  
to the 'lid'). As the can is opened, its pressure drops, the N2 in the  
capsule  
expands thus flexing the lid away from the peg and thereby opening the  
tiny  
hole through which most of the N2 now passes. Hey presto!

If this is the system in Murphy's, there is an interesting demonstration  
you  
might attempt. The nature of the system is such that not all the N2  
escapes  
and the capsule is still under slight pressure. Identify which is the lid  
by  
locating the hole. Using a suitable implement (eg the edge of a coin)  
gently  
prise the lid off the body of the capsule. With a 'pop' the lid will fly  
across the room. OF COURSE be careful about 'flying object'

And if you are the type that hasn't any common sense and sue at the drop  
of  
hat, don't do it, or don't bother suing - the UK civil laws are  
different  
from the US. :-)

Geoff

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Geoff Cooper Phone: +44 71 975 5178  
Computing Services Fax: +44 71 775 3221

QMW e-mail: G.A.Cooper@uk.ac.qmw  
Mile End Road  
London, E1 4NS

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Date: 12 Aug 1993 20:43:51 -0600  
From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>  
Subject: Zymurgy Light Beer Request

I was just this morning thinking that no one had responded to the posting  
by  
Elizabeth Gold requesting information on amateur-brewed light beer. Today  
Dick  
Dunn did the unthinkable - he asked WHY?

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Date: Thu, 12 Aug 93 15:07:09 +0200  
From: dejonge@tekserv.geof.ruu.nl (Marc de Jonge)  
Subject: Culturing yeast from bottled beers

Recently I came across some interesting statistics of the 1990 and 1991 open championships for amateur brewers, organised by "de Roerstok" in tilburg. They have published a booklet with a lot of information on the homebrew entered in this competition. Since questions pop up every now and again about culturing yeast from bottles, I will summarize a nice table from this (without permission, so destroy this before you read it):

The #1 field indicates the total number of entries, #2 is the number that scored over 6.4 (assuming that these are successful attempts), the score is the average score on a scale of 0[Yech]-10[Yum] for the 'over 6.4' beers (Not quite sure if Yech and Yum are SI units or Imperial)

| Beer/brewer#1     | #2   | Score |
|-------------------|------|-------|
| Achouffe          | 3 2  | 7.5   |
| Arcener tarwe     | 2 1  | 6.5   |
| Brugs Tarwe9      | 2 2  | 7.1   |
| Brugse Tripel     | 2 2  | 7.4   |
| Chimay            | 16 7 | 7.7   |
| Christoffell      | 1 1  | 6.8   |
| Corsendonk        | 3 2  | 8.0   |
| Dentergems Wit    | 2 2  | 6.9   |
| Dommelsch         | 3 1  | 6.6   |
| Drie Ringen2      | 1 1  | 6.5   |
| Duvel             | 2 1  | 6.6   |
| Erdinger Weisse   | 2 2  | 6.9   |
| HertogJan Tripel7 | 3 3  | 7.6   |
| Hoegaarden        | 9 4  | 7.5   |
| La Trappe         | 4 3  | 7.7   |
| Lowenbrau weiss   | 1 1  | 7.0   |
| MacChouffe        | 1 1  | 8.5   |
| Oerbier           | 1 1  | 7.7   |
| Rochefort         | 1 1  | 6.6   |
| Schneider         | 1 1  | 8.6   |
| Verboden Vrucht   | 3 3  | 6.9   |
| Westmalle         | 9 6  | 6.9   |
| West Vleteren     | 5 4  | 7.6   |
| Wieckse witte     | 1 1  | 7.3   |

Note 1: The fact that a certain yeast gives a good score does not mean that it is the original brewing yeast of the beer. For some of the above I'm almost certain that a bottling strain has been cultured; but then, if it tastes good who cares ?  
Note 2: Of the top 12 of 1991 only two beers were brewed with cultured yeast (Chimay and West Vleteren).

Marc de Jonge (dejonge@geof.ruu.nl)

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Date: Thu, 12 Aug 93 09:36:43 EDT  
From: hpfcla.fc.hp.com!scr!sead.siemens.com!jm (Jeff Mizener)  
Subject: Re: water filters -- a data point

I have been using a T-10 carbon filter on the cold water line in my kitchen for 3 years now. I replace the filter every 6 months or so. I extract/adjunct brew and sanitize with bleach. I rinse and brew with water out of the tap that has been filtered. I have yet to have an infection. I boil about 2 gallons and top up to five with water out of the tap. Searching about madly for a piece of wood upon which to knock, I say that there has never been a problem with this method.

The reasoning is that the water coming into the filter and surrounding the filter on the inlet side is sanitized. I flush the filter out by letting the water run for a minute before using it for anything critical, and bacteria never have a chance to take hold.

I got mine from American Brewmaster and paid less for it (and it's a big under-sink filter) than something cheaper-looking at the hardware super-store.

Cheers, Jeff Mizener

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+-----+  
| Siemens Energy & Automation, Inc. |  
| Somewhere near Lizard Lick, NC   |  
| jm@sead.siemens.com              |  
+-----+
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Date: Thu, 12 Aug 1993 14:41:52 +0000  
From: G.A.Cooper@gmw.ac.uk (Geoff Cooper)  
Subject: *S. cerevisiae* & *S. delbrueckii*

There's been a little discussion about the 'correct' name of this yeast. I know little about the technicalities, but I can add a few more 'facts'. (I like facts 'cos they can cause such good arguments)

When I first saw reference to *S. delbrueckii* (yes I first came across it on HBD), I checked my catalogue from the AFRC National Collection of Yeast Cultures (NCYC) and found that no such yeast was listed, so I was a bit confused. My confusion was relieved when I located a couple of yeasts that had been originally deposited under the name *S. delbrueckii*, but now were classified with a different name.

I found *S. cerevisiae* strain number 92, deposited in 1933 by A.C. Chapman, original deposit name *S. delbrueckii*, NCTC 3964. (NCTC = National Collection of Type Cultures, Collindale). There was no ATCC number. So I concluded that the *S. delbrueckii* were really just strains of *S. cerevisiae*, but that (home) brewers used the term *S. delbrueckii* as a convenient 'handle' by which they could refer to a particular strain (or strains).

I also found *Torulasporea delbrueckii* (perfect form of *Candida colliculosa*) with 10 strains listed, all of which had been originally deposited under a different name (I was amused by *S. inconspicuous*. NRRL Y-7435). One of these, number 408, had been deposited as *S. delbrueckii* var *mongolicus*.

I think I shall stick with my first assumption, which corresponds nearest to that of Jim Busch. Perhaps because it gives me a warmer feeling :-). That is, *S. delbrueckii* might not be the correct name, but when we use it, we refer to those yeasts, now considered strains of *S. cerevisiae* that have particular properties of interest to us; namely they make good wheat beer.

OK. So that contains a few more facts; what's the truth?

Geoff (who cares about the truth if it makes good beer) Cooper

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Date: Thu, 12 Aug 93 09:57:10 -0400  
From: Rich Ryan <ryancr@install4.swin.oasis.gtepsc.com>  
Subject: Petes

> I saw this recipe in the cats meow 2. Can anyone suggest how  
> I would convert this to an extract recipe.

Pete's Wicked Clone

Source: Richard Stern (rstern@col.hp.com)  
10/16/92

Ingredients:

8-9 pounds, pale malt  
1 pound, crystal malt  
1/4 pound, chocolate malt mash at 155F  
1/2 ounce, Cascade (60 min boil)  
1/4 ounce, Chinook (60 min boil)  
1/2 ounce, Cascade (10 min finish)  
Wyeast #1056

Procedure:

Mash malts at 155 F. Add 1/2 ounce Cascade and 1/4 ounce of Chinook  
for  
boil. Use 1/2 ounce Cascade to finish.

Comments:

I've requested a recipe for Pete's Wicked Ale, but nobody sent one, so  
I  
guess I'm going to have to wing it. This recipe is based on the  
GABF  
program, which says " Pete's has: pale, crystal and chocolate malts,  
and  
Chinook and Cascade hops. OG: 14P" (Isn't that 1.056?)

Pete's is pretty malty with a low hop bitterness and aroma. I think  
the  
malt combination should be ok, as long as I get enough body from  
the  
155F mash temperature.

> Rich Ryan  
> Chantilly, VA  
> ryancr@swin.oasis.gtepsc.com

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Date: Thu, 12 Aug 1993 10:18:01 EDT  
From: hmcook@boe00.minc.umd.edu (Hardy M. Cook)  
Subject: Re: Mini Kegs and Briess DME

Subject: Mini Kegs

I bought, use, and like the 5 liter mini kegs. Some stores sell imported commercial beer in these kegs. These can be reused if you have a tapper like the one that comes with the Brew Ha Ha offer and DO NOT use the method recommended with the purchase.

I too had foaming problems until the found the secret of the tapper. Once the pressure gets low, add only a little bit more of CO2 and then turn the CO2 back to the off position; in other words, don't keep the CO2 pressure on -- after a few seconds, turn it off and proceed.

Subject: Q: Briess DME

After reading Dr. Raines's posting on HBD concerning contaminated Briess DME, I wonder if there is a way to identify "bad" lots. I recently purchased from Brewers Resource 25 lbs of Briess, Brewers Gold DME. I first brewed with it only a few days ago, but I brewed a Trippel with 10 lbs of the Briess.

I would really hate to find out in four months that I brewed with the contaminated lot.

Hardy M. Cook  
HMCook@boe00, minc.umd.edu

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Date: Thu, 12 Aug 93 07:18:33 PDT  
From: 12-Aug-1993 1015 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Murphy's in cans

>Date: 11 Aug 1993 13:00 EDT  
>From: dab@cc.bellcore.com (dave ballard)  
>Subject: murphy's in a can

[...]

>has anyone else seen these cans? it tasted fine, although i detected a  
>little more "canny" taste than guinness. is this the same doohicky that  
>guniss uses or did murphy's invent/copy one of there own?

Yup, sure have seen 'em and I have perhaps 1 or 2 left in my closet. When I went to Ireland last year (Oct '92), I grabbed a couple of 4-packs to bring home w/ me. When I first sampled it, i thought it was better then guinness in a can. Pretty much the same design as guinness, as far as i can tell.

I've had guinness in a can that one can buy in the states. the ones i brought back from ireland, imo, we better tasting then the cans bought in the states.  
unscientific datapoint, fwiw! :-).

jc ferguson

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Date: Thu, 12 Aug 1993 09:21:58 -0500 (CDT)

From: cush@msc.edu

**Subject: To Secondary or not to Secondary**

In HBD1202 John in Boise writes that he and many brewers in his area do not use a secondary fermentation.

I know this has been discussed several times, but I thought I would throw in my \$.02. For quite a while I did not do a secondary fermentation: I fermented in primary for about a week, then bottled. The result was beer that primed very quickly, but seemed to have a slight but harsh flavor undertone. The bottles also had a fair amount of yeast sediment. I came to wonder if the harse undertone was a result of yeast autolysis.

I then tried shifting to doing a one-week primary fermentation, followed by a one-week secondary fermentation. The secondary step is actually more of a rest to allow yeast to settle and thus be separated from the brew. After bottling, the result is brew that primes more slowly, but throws less yeast sediment. That harse undertone also appears to be gone, and the beer is noticeably smoother.

My conclusion: the settling of yeast that occurs in secondary produces a smoother brew than a single-step fermentation gives. You can make a drinkable beer faster using just a primary, but I amusing a secondary settling step from now on....

- - -

> Cushing Hamlen | cush@msc.edu

> Minnesota Supercomputer Center, Inc. | 612/337-3505

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Date: Thu, 12 Aug 93 10:41:48 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: re: sanitation 'criticism'

>>Date: Wed, 11 Aug 93 09:09:40 EDT  
>>From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
>>Subject: Re: Sanitation  
>>  
>>In HBD1200 Al Korzonas writes:  
>>  
>>>In Marybeth Raines' article on Sanitation, it's a real shame that she  
>>>failed to mention iodophor and a recently new sanitizing agent,  
marketed  
>>>under the name "One Step," which is peroxide-based and comes in powder  
>>>form. I would have been very interested in her recommended contact  
times  
>>>for iodophor and OneStep. (...stuff deleted)  
>>  
>>While we're still giving out constructive criticism of Maribeth  
>>Raines' article in Brewing Techniques on Sanitation, there was

Well, while we're being 'constructive', I'll add my 2 cents.

I sent her email about not mentioning B-Brite, which I had acquired  
from my local homebrew shop and later realized was not labelled with  
a 'dosage' recommendation.

She replied that she didnt know the 'dosage', but would call the  
manufacturer. She did, and replied to me in about 2 hours via email.

Kudos,  
jim

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Date: Thursday, 12 August 93 09:31:12 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: chipotle

Howdy,

In HBD #1202, Tom mentions how chipotles may be too spicy for beer. This was not the problem with the beer I discussed in #1201. One of the two bottles was too spicy; the other was quite tolerable in terms of spiciness. My warning is against putting the chipotle pepper directly into the bottle with the beer. The results were inconsistent & made an otherwise good beer undrinkable. Chipotles themselves, in terms of overall chili pepper spiciness, are about mid-spicy, according to the measuring technique known as the Scoville units. Bell peppers rank low, like around 10, jalapenos (& by extention, chipotles) are around 2500-5000, serranos around 5000-7000, and habaneros around 3 billion (my figures may be a little off). Please don't get me wrong; chipotles will hurt you if you just pop one into your mouth. I'm just saying that if the spiciness of serranos can be controlled, then the spiciness of chipotles can be controled.

Mexicali Rogue sounds like good stuff. Any idea how the make it?

Happy brewing,

Alan, Austin (where there's a Tex-Mex restaraunt on every corner)

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Date: Thu, 12 Aug 93 10:35:26 EDT  
From: Jim McManus <jjm@Think.COM>  
Subject: Grolsch bottles

Mr Cox and Bill were talking about Grolsch bottles and sanitation of them along with a few other things.

I have been using a mixture of Grolsch, Fischer Amber and regular bottles with about every batch. I use the Grolsch and Fischer bottles for myself and the regular bottles go to friends. :-)

Anyways, all I do is soak all the bottles in the tub with a good amount of bleach for an hour, rinse them, and bottle. Nothing fancy. I haven't had a problem yet (10+ batches). Also, keep in mind, the bottles I get are from a Package Store that my roommate works at so I'd consider these worst case type of bottles.

As far as carbonation goes, I notice 0% difference from bottle to bottle. I keep all my bottle together in the dark, so I wouldn't expect a difference. There might be a difference if you had all the bottles exposed to light I guess.

The bottles are great to use if you can find them. It beats the heck out of capping.

jjm

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Date: Thu, 12 Aug 93 10:53:27 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: Weihenstephan #68 source

Hi All,

In HBD#1202, chuckm@pbn73.cv.com wrote:

>I've a few questions regarding weissbier yeast.

>2. dipalma@banshee.sw.stratus.com (James Dipalma) in hbd 1201  
>writes that there is a difference in the pre and post 1992  
>versions of this yeast. How do I know which one I get?

I've received a few similar inquiries via private email, so I thought I'd post and reassure all concerned.

The information I have is that the yeast that did not perform well is no longer commercially distributed. After about one year, it simply stopped producing spicy, phenolic flavor characteristics, so it was replaced with another strain quite some time ago.

I obtained the older, non-performing strain from the yeast bank of a local homebrew club, where it had apparently been stocked for a long time. What added to the confusion was that a member of this club, who is a mutual acquaintance of Jim Busch and myself, had a weizen yeast that he listed as "W66". The two different numbers, in addition to the disparate performance, contributed to the false perception that there were two different strains in circulation.

I've exchanged email with Jim on this issue, and he's assured me that the strain currently being distributed as Weihenstephan #68 is displaying considerably greater staying power than it's predecessor. Having brewed a few batches with it, I can personally vouch that this is a great weizen yeast, and recommend it without reservation.

Cheers,  
Jim

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Date: Thu, 12 Aug 93 09:29:12 -0600  
From: Jason Goldman <jason@gibson.sde.hp.com>  
Subject: Re: Aeration

Date: Wed, 11 Aug 93 08:54 CDT

>From:

**Subject: Aeration**

arf@genesis.mcs.com (Jack Schmidling) writes:

> Last week I put together an aquarium pump type aerator for the weekend batch

> to see what all the excitement was about myself.

>

> After following Miller's procedure, I found that the commencement of fermentation was, if anything, later than it would have been using my standard procedure of simply squirting the wort into the fermenter.

...

>

> The idea of getting fermentation started in "3 to 8 hours" was enough to

> tweek my interest but I believe I fell into another trap created by non-critical writing; viz., he failed to mention whether he was talking about

> ale or lager and the fermentation temperature.

>

> I can only now presume that he was talking about ale yeast at room temp and

> my enthusiasm has fallen an order of magnitude.

I use the aquarium pump idea in conjunction with my normal methods of aeration. I've tried this for numerous batches of ale and one batch of lager. My normal aeration method is to splash the beer while siphoning it into my carboy and periodically stopping the siphon and shaking the carboy vigorously. I noticed a slight improvement in lag times for all of the batches.

Lag time is controlled by a lot of variables. Pitching volume (and what stage the pitched yeast are in) probably has a greater effect on lag time than the aquarium pump.

BTW, I would expect that Miller was almost certainly talking about ale yeast in his 3-8 hours figure.

Jason

jason@gibson.sde.hp.com

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Date: Wed, 11 Aug 1993 14:03:09 -0700  
From: drew@eskimo.com (Andrew Cluley)  
Subject: Blackberry Mead

Doew anyone have a good recipe for Blackberry Mead?  
E-mail me direct. Thanks.

Drew Cluley > Seattle Wa. drew@eskimo.com

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Date: Thu, 12 Aug 93 9:38:51 MDT  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Re: Water, Chiles

> ...city water should be OK. We can all thank COORS for portraying  
> the image that pure Rocky Mountain water is the key to making smooth  
beer.  
> This isn't the case at all, but, many people believe it is.

Certainly the water is only a small part of what goes into a fine beer,  
but the importance of a good water source (especially for large  
commercial breweries) can't be underestimated. I think one of the  
reasons that the Pacific Northwest and Colorado have become large  
brewing centers *is* for the water -- it simplifies things greatly if  
you can just use the city supply. Water here in Fort Collins is great  
right out of the tap; I don't have to pre-boil or add minerals or  
anything.

Some slight drift here...

> Habaneros are so spicy, that you would have to use so little that,  
> again, you would miss out on the chili pepper taste. In fact, one big  
> complaint about habaneros in cooking is that no flavor comes through  
> because the amount used is so small.

And it's a crying shame, too. Habaneros (also known as Scotch Bonnets)  
have a wonderfully fragrant, sweet aroma that complements food, and  
probably beer, very well. Does anyone know of "de-capsiacin-ized"  
habaneros or habanero essence without the fierce burn? Where's the  
chile-pepper mailing list? Why is there a rec.food.sourdough but no  
rec.food.chiles? Thank goodness we have HBD and rec.crafts.brewing.

- - -

Jeff "you ought to see my hot sauce collection" Benjamin  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Thu, 12 Aug 93 09:18:03 -0700

From: tims@ssl.Berkeley.Edu

Subject: recipe formulation - relax!

To the person who was worried about "wasting" 10 - 15 gallons as they "perfected" a recipe: My plan for formulating a recipe is to find one of a similar style, either all-grain or extract based, and copy its proportions of pounds of grain or pounds of extract to hops (IBU's). Add any other ingredients in the proportions you think, being on the gentle side (better to underdo than overdo). I have used this philosophy for perhaps 15 batches, and have always had very drinkable results. I don't worry that "it doesn't taste exactly like Bass," because I don't care that much - if it is a well-made beer, they taste great.

As always, R,DW, HAHB! Cheers,

Tim Sasseen

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Date: Thu, 12 Aug 1993 12:19:39 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: The Tumbleweed Report (Part 4)

Having covered the equipment we're using at Tumbleweed, now I'm really going to bare my soul concerning the brewing procedures, ingredients, and recipe decisions we faced. I find this part particularly interesting because here is where we found it necessary to scrap ideas that had been cast in stone for us as homebrewers. All sorts of factors caused us to rethink basic procedures. Clearly, our main concerns were the change in scale and the economics of trying to make money. It's funny how money (or the lack thereof) can influence decisions!

Ingredients and Materials:

The biggest question was whether we were going to continue with the extract beers Tumbleweed was brewing with and brewing, in all honesty, rather poorly. Should we go all-grain? Or bear down on producing a decent extract beer?

Since I've been brewng all-grain beers for 12 years, I thought long and hard about the feasibility of all-grain brewing in 40 or 60 gallon batches.

To go that route we would have had to design an awfully big insulated mash tun. We would have had to worry about the ever changing mineral content of the town water we were using. We had to worry about where to store and grind the grain in an already overcrowded space. As if this wasn't daunting enough, we would be looking at 12 hour brewing days. With my teaching duties at ASU and the demands of operating BrewCo, I frankly didn't have that kind of time.

So we decided to brew with extracts. Since this was, in some sense a "cheat", we figured we'd cut no corners on the rest of the process. We would use pure yeast cultures, fresh hops, specialty grain infusions, and filter our water.

Extracts were appealing because (1) storage was easy (we already had a walk-in cooler), (2) it cut our brewing day down to 6-8 hours, and (3) we could count on a certain stability in the malt product and didn't have to worry about the variability in the quality of grain and the headache of wrestling with our water. We had enough to worry about already so far as redesigning the equipment and getting used to brewing on a larger scale was concerned. Later, after we got all these factors under control, we figured we could consider the move to all-grain.

The decision to brew with extracts still bothers me. I could see myself making excuses (like I'm doing now) to my brewing buddies and my newly acquired peers in the commercial brewing world. But this was no time to be dogmatic. Instead we had to be realistic about the physical brewing environment and the market we were trying to crack. I've had enough bad all-grain beers to know that the decision to go all-grain was not going to ensure a high quality product. And I've had enough outstanding extract



beers to know that it *\*is\** possible to brew a decent beer using extracts. Technique is everything. We inherited some pretty sorry ingredients when Burton and I signed on. The extracts were old and stale. The hops were pelletized and God knows how well they were stored before we got them. Still we brewed with what we had and the difference between what we brewed and what was brewed before was noticed by all. The quality improved even more once we started getting fresh malt, fresher hops, and instituted the hop back.

Regarding our market, we had to be realistic about what the common drinking public was going to expect from us. We figured they wanted a beer that was a huge cut above Budmiller. No problem. But I didn't really expect them to come in and be disappointed if they weren't drinking beers comparable to a Pilsner Urquell, a Sam Smith's Oatmeal Stout, or a Liberty Ale.

Neither did we expect, nor have we found, very many beer drinkers that are going to get down to the level of criticism that we have come to expect from ourselves and our fellow homebrewers. So, what the hell, we resigned ourselves to the conclusion that the extracts, though unlikely to produce that godalmighty awesome beer we all dream about, would allow us to turn out a fairly reliable, quality beer that would be as good or better than anything the average guy ever drank out of a bottle and would impress 99% of the people who walked through our door.

And they have. Most of the homebrewers who come into Tumbleweed are surprised to learn they're drinking an extract beer.

We started out using Premier's 100% malt extract. It comes to us in 5 gallon pails and is as clean as a whistle. So far we've found that it doesn't attenuate below 1.012. The color is not as light as Alexander's, which we've just began experimenting with. The Alexander's is very light in color and attenuates to below 1.010.

Our present feeling is to use the Alexander's on our lighter beers and stay with the Premier for our heavier ales when we want the higher terminal gravities. We like the idea of using two extracts because this gives us some diversity in the different beers we brew. We're also playing with Briess at the moment but the results aren't in as yet. If we find that they all produce clean beers then we'll play around with mixing them together for single batches to add even more complexity to the malt side of the flavor profiles.

Of course, these aren't just straight extract beers. We only buy light malt extract and depend on specialty grain infusions/steepings as the water comes to a boil to add grain character to the beer. Nothing new here. 1000's of homebrewers have been doing this for years.

(To be continued)

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Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.  
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Date: Thu, 12 Aug 1993 10:05:29 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Red Hook's Malt

Domenick Venezia writes:

>  
> I called the Redhook Brewery and spoke to Thomas Price, a very nice and  
> helpfull guy. Sorry, Al, but there is no wheat malt in their Summer  
> Rye. Here's the scoop:  
>  
> 10% flaked organic rye  
> 5% Munich  
> 85% 2-row barley (probably Briess)  
^^^^^^^^ ^^^^^^^

Given that the Red Hook Brewery is within 175 miles of Great Western's Vancouver, WA plant (and in the same state), this seems bizarre if not completely unlikely. As far as I've been able to determine over the years, virtually every west coast brewery gets their base malt fm GW. Even if the quality of their malt wasn't the question, surely shipping rates would be.

- --Jeff

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Date: Thu, 12 Aug 1993 09:16:17 -0700 (PDT)  
From: jal@plaza.ds.adp.com (Jim Larsen)  
Subject: Open letter to Zymurgy

The following item, in response to Elizabeth Gold's request for light beer recipes, bounced on its way to her Compuserve address.

> Elizabeth,  
>  
> Do you propose publishing in Zymurgy beer recipes which you have  
neither  
> tried nor even tasted?  
>  
> This is not the sort of responsible journalism that would keep Zymurgy  
> at the fore of the homebrewing industry.  
>  
> Jim  
>  
>  
>  
>

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Date: Thu, 12 Aug 93 11:28:12 MST  
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
Subject: Tannic verses

I was wondering if anyone out there can give me some advice about treating my water for brewing. Our water here in Phoenix is very hard and very alkaline, (pH ~ 8). As I recall, the hardness number is about 250 (ppm?) and the alkalinity is about 170.

I tried my first partial mash a few weeks ago, tasted the results last night, and it is OK, but had noticeable tannic astringency. I recall hearing that the pH of the sparge water has a strong effect on tannin extraction during sparging.

For the record, I kept the sparge water at or below 168 deg F, and I had to cut the sparging short because another user needed the kitchen resources.  
The initial runnings were > 1.080, final > 1.020.

TIA for your help.

Joel Birkeland  
Motorola SPS  
birkelan@adtaz.sps.mot.com

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Date: Thu, 12 Aug 1993 07:58:48 -0400 (EDT)

From: GONTAREK@JHUVMS.HCF.JHU.EDU

Subject: Rapid chilldowns after boiling

Hi all! I've been a homebrewer for about a year now, and since I live in a small apartment, I can only brew from extracts and partial grain recipes. A few days ago, I saw a brief post on the HBD where someone said NOT to dump a boiling hot wort into a carboy filled with cold water. Why not? I know Papazian says to do this, and while I would not jump off a bridge if he told me to, I had never heard otherwise (I am a new subscriber to HBD).

My brews have all been quite good (if I don't say so myself), so I don't know what the problem is with doing this. Please, someone, set me straight.

I'd like to get the facts.

Thanks in advance,

Gontarek@jhuvms.hcf.jhu.edu

Rick Gontarek

Dept. of Biology

Johns Hopkins Univ.

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Date: Thu, 12 Aug 93 12:19:38 PDT  
From: TAN1%SysEng%DCCP@cts27.comp.pge.com  
Subject: Re: Recipe Formulation

John Montgomery writes in HBD 1202

>Should I just "waste" 10 - 15 gallons of brew for each style until I get it just the way I want it or is there some publication that offers particulars of and suggestions for recipe formulation?

If beer be the is drinkable it is never a waste (obvious but worth mentioning!). The 1991 Special Styles issue of Zymurgy has a wealth of information concerning styles. The Cat's Meow here on the net also has literally hundreds of recipes classified by style, although not as tightly classified as the Zymurgy issue. Most issues of Zymurgy also have the style guidelines describing the characteristics of a style for competition entry.

There are also many books which have specific recipes included, the Winners Circle comes to mind offhand, but there are several.

As a final tidbit there are also computer programs which can help you formulate recipes to duplicate styles. My program, the Brewer's Workshop, has the style definitions from Zymurgy built in and calculates gravity, bitterness and color so you can match those characteristics of a particular style. Please note that there are other programs that do the same thing, I am not trying to make this a commercial. People tend to get very touchy on the net when they smell advertising.

I would recommend starting with the styles issue and working from there. There were also two good articles in the first issue of Brewing Techniques, one by Darryl Richman on recipe formulation and another article on recipe formulation using a spreadsheet. Hope this gets you started in the right direction. Prosit!

Tom Nelson

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Date: Thu, 12 Aug 93 8:21:33 PDT  
From: gbaldw@zaphod.usin.com (Gordon Baldwin)  
Subject: Irish Moss revisited

Going back to an earlier discussion about using higher ammounts of Irish Moss, I have a data point. I brewed last weekend and I upped my IM rate from 1 teaspoon to 1 Tablespoon per 5 gallon batch. After racking to the secondary the beer is already a lot clearer. The interesting thing was the sediment in the bottom of the primary. I use a plastic bucket for the primary and ususlly the sludge in the bottom is a slurry of hop particles and other small particle precipitate. Kind of a loose mud consistancy. With the higher rate of IM it had more the consistancy of large flake oatmeal. It had large chunks of what I think is protien. I will be interested in the difference in body. I won't be able to do a direct comparison as my kegs should be arriving today and the bottles are going to the recycler. Unless there is someone in the Olympia WA area that wants 4 cases of well used bottles (I am keeping a couple cases)

Gordon Baldwin  
gbaldw@usin.com

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Date: Thu, 12 Aug 93 12:49:07 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Chiller conversion

> Actually, one of my ideas was to convert to a chiller (I can't come up  
> with a descriptive name) in which there is one coil sitting in a  
> bucket of sorts. The bucket contains cold water, maybe ice water, and  
> the coil contains the wort. The cooling liquid could, probably should  
> be flowing in/out. The wort would be siphoned through the coil,  
> cooling it. Stoelting makes something like this for several hundred  
> dollars, which I refuse to pay. Anyone done this? Anything I should  
> be aware of?

Norm,

I did this, and you can have it if you want it. I am building a true counterflow chiller tonight. I had to run huge amounts of water through the damn thing to get sufficient cooling, and that's not PC out here in drought land. I put 50' of 3/8" od? copper tubing in a 5 gallon bucket, and attached garden hose fittings to the bucket as well. When I tried to attach a hose to the outflow to use the water in the garden, the top of the bucket kept popping off, if I used enough cold water flow to chill the wort enough.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312 x18  
drew@chronologic.com

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Date: Thu, 12 Aug 93 16:15:18 EDT

From: lanbrew@aol.com

Subject: Kegged Chili-Beer

I have done quite a few chili-beers in the past, including one on draft.

Here's how:

I used 5 ounces of serrano and jalapeno peppers in the last 15 minutes of the

boil. The peppers were halved and seeded. Since the batch size was 10 gallons, the heat and flavor from the chilis was very subtle. My partner bottled his half and I kegged mine.

Desiring more chili character, I decided to "dry-chili" the brew. Using a

muslin hop bag and a generic zip-tie, I contained approx. 1 ounce of dry whole peppers and 1 ounce of serrano peppers (fresh) halved and seeded. I boiled the whole works for about 5 minutes to sanitize and threw it into the

keg. The beer had already been carbonated and was chilled.

Within three days the brew went from mild to hot, with incredible complexity

and depth. I opened the keg and removed the bag 'o' chili, re-sealed the keg

and purged the O2.

Afterward, I noticed two things:

1) The beer did not become tainted one bit in the four months I had it on

tap, so the process, although unorthodox, resulted in no obvious flaws.

2) Within a week of "dry-chiling" the beer fell brilliantly clear. Hmm.

. .

Overall, a very good experience and I'll try it again.

Lanny

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Date: Thu, 12 Aug 93 10:29:43 EDT  
From: pacasey@lexmark.com (Patrick Casey)  
Subject: fermenting a lager

Is there any way to ferment a lager without using a refridgerator and one of the fancy thermostats? For example, what's wrong with shoving the carboy into the normal fridge? Does the temperature fluctuate too much? Or does the thermal mass of 5 gallons of beer buffer this temperature change sufficiently?

Thanks!

- Patrick

Patrick A. Casey pacasey@lexmark.com

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Date: Thu, 12 Aug 93 17:21:07 EDT  
From: "John R. Calen - Contacting Systems - E.F., N.Y" <calen@vnet.IBM.COM>

**Subject: Hot pepper sauce**

I've been following the recent thread about hot pepper sauce in brews.

Please forgive me if this has been posted before. The hot pepper sauce itself is fermented. This is what I remember from a documentary about Tabasco Sauce.

The red peppers, presumably red chiles, are macerated and comprise the mash. They ferment in wood barrels under a layer of salt which is about an inch thick.

Particulars are a trade secret, as such I don't know them. The yeast, any additives, i.e. sugar, and type of wood I'd have to guess.

This all happens on an island in Louisiana, so I'd assume that it's a rather warm ferment.

The stuff sits for about three years, after which the salt is removed, the barrel emptied and the mash is infused with vinegar. The whole magilla is then pressed and bottled.

If you've got some gallon bottles around, a bunch of peppers, and lots of patience, why not give it a shot? (How's mine? What, are you kidding?)

Regards,  
John R. Calen -- calen@vnet.ibm.com (All disclaimers apply)

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Date: Thu, 12 Aug 93 16:43 CDT  
From: korz@iepubj.att.com  
Subject: Re: extraction rates/Klages

RBSWEENEY writes:

>I put together the following list of maximum extraction rates for grains based  
>on some information obtained from a few extremely charitable HBD subscribers  
>and from Dave Miller's book Brewing the World's Great Beers. There are two  
>numbers listed for a few of the grain due to source discrepancies (Miller's  
>figures are in lower caps) and I was wondering if someone with more knowledge  
>than myself about such matters would lend a hand and tell me the \*right\* number  
>to use. Thanks.

<snip>

>MALT EXTRACT (DRY) 45 ?  
>MALT EXTRACT (SYRUP) 35 ?

<snip>

The snag is that each manufacturer's extracts have very different numbers.  
I've found less variability in dry extracts, but syrups I've used go all the way from 35 up to 40.

LAGER 2-ROW35 1.7  
LAGER 6-ROW31 1.7

PALE ALE 36 3  
PILS 2-ROW 35 1.2

Again, potential varies by maltster and the condition of the malt when you get it. Are there a lot of different malts available to us homebrewers?  
You bet: DeWolf-Cosyns, Crisp Maris Otter, Ayinger, Briess, Great Western, Minnesota Malting, Gambrinus, Munton & Fison, Golden Promise (not just yet, but I'm working on it -- it's the malt used by Caledonian Brewing Co. to make what's marketed in the US as McAndrew's Scotch Ale), Canada Malting.  
..  
just to name a few.

Since we're on the subject of malt, I'd like to mention that Klages is no longer grown commercially. It's replacement is Harrington. After a few years, barley tends to lose it's disease resistance and the growers switch to a new strain. Currently, like I said, it's Harrington. If your retailer is really selling you Klages, then it's very, very old. Alas, even the wholesalers don't really understand this too well and some still contend that they are wholesaling Klages, so it may not be your retailer's fault, then again, shouldn't he/she know these kinds of things? On the bright side, there's no doubt on the pronunciation of Harrington ;^).

A1.

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Date: Thu, 12 Aug 1993 19:06:57 -0400 (EDT)

From: CCAMDEN@delphi.com

Subject: First Batch

Hello to everyone. I am new here and have read a couple of issues of the HBD and I plan on checking out back issues.

This is very timely for me, as I plan on starting my first batch of homebrew this weekend. Are there any suggestions that anyone would like to

make to me regarding this first attempt?

I have read the Papazian book, have assembled my supplies and equipment, and read the book. I feel like I am ready.

I will be making a Nut Brown Ale with a Muntons kit.

I've noticed some discussion here and at rec.craft.homebrew about chilling

the wort. Should I be concerned about this? (Although I have made mental plans to accomplish it if I have to.)

Any advice that anyone has will be welcomed.

I am excited, and I'm trying hard to relax, not worry and look forward to having a homebrew.

Cary Camden \*\*\*Imagine a witty phrase here\*\*\*

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Date: Thu, 12 Aug 1993 20:42:27 -0400 (EDT)

From: kj <kj@world.std.com>

Subject: Tabasco pepper question

Hi!

As a fan of \*hot\* food, I've been enjoying the discussion about using chili peppers in beer. I love Tabasco(R) sauce, and I was wondering if anyone knew what kind of pepper is used to make it? The ingredient list is as follows: Vinegar, Red Pepper and Salt. I'd like to use those peppers to make a chili beer. I have access to the official Tabasco(R) cookbook, but it doesn't identify the pepper type either. :- ( Any ideas? kj.

kj -Somewhere in the Terran system  
Internet: kj@world.std.com

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Date: Thu, 12 Aug 93 20:52:05 EDT  
From: brewerbob@aol.com  
Subject: Home Brew Competition

To: All Home Brewers  
>From BrewerBob@aol.com  
Subj: Homebrew competition

Press Release:

The Northeast Florida Society of Brewers, in conjunction with The Hogtown Brewer of Gainesville, FL and The Home Brewery of Brooksville, FL, announces it's 1st Annual First Coast Brewer's Challenge, an AHA sanctioned homebrew competition open to all home brewers. Entry deadline is October 29, 1993, with final judging to be held on November 7, 1993. Beer styles for this competition are Pale Ale and Stout. Fee is \$6.00 per entry. First prize will include \$50.00 in beer related merchandize, second prize will include \$20.00 in merchandize. Three bottles of beer will be required for each entry.

For information, contest rules and entry forms, contact Bob Gammie (904) 241-8879 (RobertG211@aol.com), Chuck Cummins (904) 292-2166, or Joe Bryant (904) 399-3367 (Prodigy BPNS42A) or write to: Brewer's Challenge, 354 Magnolia Street, Atlantic Beach, FL 32233.

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End of HOMEBREW Digest #1203, 08/13/93  
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Date: Thu, 12 Aug 1993 22:14:01 -0400  
From: patterso@mason1.gmu.edu (F. G. Patterson Jr.)  
**Subject: Stainless Steel Pot**

Last year (the year before?) there was a discussion of the best place to buy a SS Pot. Has anyone bought one recently of good quality for a good price? I will appreciate a recommendation of a supplier.

Pat Patterson  
Fairfax, Virginia

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Date: Fri, 13 Aug 93 08:25:33 EDT  
From: bszymcz@ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: Re: Chiller Conversion

In HBD1202 Norm asks

> Actually, one of my ideas was to convert to a chiller (I can't come up  
> with a descriptive name) in which there is one coil sitting in a  
> bucket of sorts. The bucket contains cold water, maybe ice water, and  
> the coil contains the wort. The cooling liquid could, probably should  
> be flowing in/out. The wort would be siphoned through the coil,  
> cooling it. Stoelting makes something like this for several hundred  
> dollars, which I refuse to pay. Anyone done this? Anything I should  
> be aware of?

and Drew Lynch responded

>Norm,  
> I did this, and you can have it if you want it. I am building a  
>true counterflow chiller tonight. I had to run huge amounts of water  
>through the damn thing to get sufficient cooling, and that's not PC  
>out here in drought land. I put 50' of 3/8" od? copper tubing in a 5  
>gallon bucket, and attached garden hose fittings to the bucket as  
>well. When I tried to attach a hose to the outflow to use the water  
>in the garden, the top of the bucket kept popping off, if I used  
>enough cold water flow to chill the wort enough.

A slight modification of Drew's idea can work very well.  
First, I needed an immersion in ice chiller not because of a small  
kettle opening but because our tap water in the summer is 80 deg.  
F. What I use (in the summer) is a large plastic bucket (they sell  
them at the Price Club for storing toys for about \$7 and hold about  
20 gallons). Drill a hole near the bottom so that a flexible  
siphon hose can fit snugly (without leaking too much). This hose  
will be connected inside the tub to the copper coil carrying the  
wort and outside to your carboy. Fill the tub with a few gallons  
of water and you'll need about 5 gallons of ice (about 45 pounds)  
to chill 5 gallons of boiling wort to about 60 deg F. With a  
little more ice and stirring the ice water in the tub you can  
get your wort down to 50 degrees F in 15 - 20 minutes (for lagers).  
One problem with this procedure is the amount of ice needed. You  
could use less if you first chilled the wort using an immersion (in  
hot wort) chiller using tap water and then running it through the  
immersion in ice chiller. (I've done this for my last two batches  
and also noticed Rick Garvin has done this when he described his  
award winning old ale recipe). Another  
problem with this setup is starting the siphon through the copper  
coil. I found it was too difficult to begin by simply sucking,  
which is why I attach the flexible hose coming out of the tub to  
a small copper racking cane which fits snugly into one of the holes  
on the carboy cap. Through the other hole I use a hand pump to  
begin the siphon. (Of course you wouldn't have this problem if you  
had a spigot at the bottom of your kettle.)

Hope this helps.

Bill Szymczak  
bszymcz@ulysses.nswc.navy.mil

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Date: Fri, 13 Aug 1993 05:56:44 PDT

From: wegeng.xkeys@xerox.com

Subject: Re: Tabasco pepper question

kj says:

>As a fan of \*hot\* food, I've been enjoying the discussion about  
>using chili peppers in beer. I love Tabasco(R) sauce, and I was  
>wondering if anyone knew what kind of pepper is used to make it?

We're getting off the subject of homebrewing, but since someone may want  
to  
brew some tabasco beer...

Tabasco(tm) sauce is made using tabasco peppers. There are at least two  
varieties, but I'm not sure which variety is used to make the sauce. The  
Tabasco Country Store (a mailorder catalog from the Tabasco sauce people)  
sells

a "kit" for growing the peppers. I've also seen the seeds in the Tomato  
Grower's Supply Co. catalog (and a catalog from a California supplier:  
the

Redwood City Seed Company or something like that). I've grown them here  
in New

York state, and they are \*very\* hot.

/Don

wegeng.xkeys@xerox.com

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Date: Fri, 13 Aug 93 08:56 EDT

From: smc@hotsc.att.com

Subject: Re: Water and mineral content (hardness)

> Jeff Benjamin <benji@hpfcbug.fc.hp.com> writes:

>

> Certainly the water is only a small part of what goes into a fine beer,  
> but the importance of a good water source (especially for large  
> commercial breweries) can't be underestimated...

We are moving into a new house with a well and water softener. The water tastes \*slightly\* salty, (but it maybe that's because I was expecting it to taste salty), and is clean and clear and free of any bacteria (at least from our lab test).

A few questions:

1. Where is the best place to get a water hardness analysis?
2. Given the above info, is there a target for hardness?  
I understand that different beer styles usually call for different mineral content.
3. Are there better methods for water softening than the standard salt method (sodium/calcium exchange)?

I'm an extract brewer (for now), if that helps.

Thanks,

Steve Casagrande  
smc@hotsc.att.com

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Date: 13 Aug 93 08:58:45 EDT  
From: Robin Garr <76702.764@CompuServe.COM>  
Subject: Mexicali Rogue/chipotles

In HB1203, Alan in Austin (where there's a Tex-Mex restaurant on every corner) asks about the procedure Rogue Brewery uses to make its chipotle-flavored Mexicali Rogue Ale.

I asked the Rogue folks that question at last year's GABF and didn't get a totally forthcoming answer, but the short of it is, they "dry pepper" with chipotles in the secondary. How many? "Not too many." How long? "Not very long." It really is great stuff, and goes ever so well with Tex-Mex and other spicy stuff. It's starting to turn up here and there around the U.S. in 22-ounce bottles. I found some at Carlo Russo's World of Wine & Spirits in Fort Lee, N.J., the other day.

Say hello to Evita's Salsitas for me, Alan. I love that place ...

Robin Garr | "I have enjoyed great health at a great age because  
Associate Sysop | every day since I can remember I have consumed a  
bottle  
CompuServe | of wine except when I have not felt well. Then I have  
Wine/Beer Forum | consumed two bottles." -- A Bishop of Seville  
76702.764@compuserve.comrgarr@panix.com

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Date: Fri, 13 Aug 93 9:42:03 EDT"  
From: card@apollo.hp.com  
Subject: Re: Zymurgy

I think we should lighten up a bit here regarding Elizabeth Gold's request for light beer recipe's. Give her a chance and at least read the article before condemning her. Personally, I'm flattered that she respects our opinions.

/Mal Card

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Date: Fri, 13 Aug 93 10:21:52 EDT  
From: pgs@ai.mit.edu (Patrick Sobalvarro)  
Subject: Malta & "Malzbier"

Date: Mon, 9 Aug 1993 14:11:48 -0400 (EDT)  
From: FARMERM@mcl.saic.com  
Subject: Prescription for Brew (ref. Domenick Venezia)

In response to Domenick Venezia's question about a prescription for beer. Yes, My wife's grandmother, who lives in South America, was prescribed a dark beer w/ a raw egg everyday. The dark beer in South America is different, however. The refer to it as "malta" and has no alcohol in it, its just used for cooking. What the purpose of this is, I'm sorry I can't say.

I grew up in Puerto Rico, where "malta" was a popular drink for children, in the way that root beer is here. I never heard of it being used in cooking, though. I'm not sure what the brewing process is, but malta is available here in the Boston area at major supermarkets (like Star Market) in the section where they sell Hispanic foods. I think the ingredients on the variety I bought recently were barley, hops, molasses, and water.

I've had it recently, and it's really quite sweet, with just a little hop bitterness and no hop nose. The molasses and malt tastes can be readily distinguished. It is dark brown or black, with a lot of body, and forms a brown head that was not retained very long in the brand I tried. It's drinkable, if you're in the mood for something very sweet.

When I was growing up, malta was brewed by a number of major brewers who distributed in Puerto Rico. Two Puerto Rican breweries were "India" and "Corona" (distinct, to my knowledge, from the Mexican brewer of the same name); they both sold undistinguished (and indistinguishable) pilseners, and also Malta India and Malta Corona. But some non-local brewers sold a malta product, as well. In particular, I remember that Rheingold sold a "Malta Rheingold," and there may have been a "Malta Amstel," although I'm not sure; but it must be admitted that there was no "Malta Miller" or "Malta Budweiser" (although both of these beers were popular on the island).

Sometimes children would mix malta with milk when drinking it. Some people would even go so far as to mix this already very sweet and heavy drink with sweetened condensed milk (I swear I did not make this up). What I find interesting is that, while malta was popular with some adults, none of the brewers on the island ever seemed to realize that this might mean that there would be a market for a darker, sweeter, heavier beer for adults, in addition to the watery pilseners that they sold.

Close to ten years ago, I did have such a beer that was in fact brewed in Latin America. I was doing some consulting in Sao Paulo, where two of the more popular brands of beer were called "Antarctica" and "Brahma." It seemed that most of the beer sold by these brewers was (the ubiquitous and undistinguished) pilsener, but they also sold a black beer that they called "Malzbier," pronounced as it would be in German. These "Malzbiers" were typically sold in 22-ounce bottles, and, if memory serves, tasted sort of like a highly sweetened Doppelbock. The popular claim was that "Malzbier" was rich in vitamins and minerals, and thus this beer was recommended to pregnant

women (I suppose fetal alcohol syndrome wasn't so well-documented then as it is now). People would often mix a sort of black and tan from a bottle of "Malzbier" and a pilsener, but I never saw an attempt to keep the layers separate, as seems to be the practice when mixing a stout and an ale.

There is a Brazilian beer sold in the United States that is a similar to these beers -- it's called "Xingu," and I'm sure that a lot of people reading the HBD will be familiar with it. However, it is a little different, in that it isn't nearly as sweet as I remember "Malzbier" being.

Which brings up a question -- was "Malzbier" indeed what I suspect, a local mutant style derived from Doppelbock by sweetening or possibly brewing with an unattenuative yeast, or is such an extremely sweet black beer known in other parts of the world? I'd be interested in hearing about similar styles.

-P.

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Date: Fri, 13 Aug 1993 09:00:10 -0700 (MST)  
From: Cisco <FRANCISCO@lan.ccit.arizona.edu>  
Subject: Tannic verses

> From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
> Subject: Tannic verses

>

>

> I was wondering if anyone out there can give me some advice  
> about treating my water for brewing. Our water here in Phoenix is very  
> hard and very alkaline, (pH ~ 8). As I recall, the hardness number is  
> about 250 (ppm?) and the alkalinity is about 170.

>

> I tried my first partial mash a few weeks ago, tasted the results last  
night,

> and it is OK, but had noticeable tannic astringency. I recall hearing  
that

> the pH of the sparge water has a strong effect on tannin extraction  
during

> sparging.

I brew all grain English style ales here in Tucson which has almost  
identical water to Phoenix - it's wonderful for ales! When I sparge  
I add one teaspoon of lactic acid to reduce the PH for sparging. I  
just can't seem to remember what it drops the PH to at the moment but  
I used the info I got from Miller's book. I noticed that when I  
started using lactic acid to reduce my PH for sparging that any tannic  
astringency was now gone and the most importantly my extraction rate  
improved. Remember not to over sparge because you can still extract  
tannins even if you adjust the PH.

John

Francisco@lan.ccit.arizona.edu

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Date: Fri, 13 Aug 93 11:34 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Lite, Aeration

>From: "Manning, Martin P" <manning#m#\_martin\_p@mcst.ae.ge.com>

>I was just this morning thinking that no one had responded to the  
posting by  
Elizabeth Gold requesting information on amateur-brewed light beer.  
Today Dick  
Dunn did the unthinkable - he asked WHY?

I suspect most of us who did respond, did so via email for obvious  
reasons.

However, I see no reason not to share my two cents with the Digest so  
here is  
what I told her, more or less.....

>Subject: Light Beer for zymurgy

First of all, please do not dismiss this as a joke. It is serious and  
in the  
final analysis, more or less what the commercial brewers do.

To make a "lite" beer, one makes ones favorite beer and at bottling  
time,  
simply add an appropriate amount of "brewing water", prime and bottle or  
keg  
and carbonate as usual.

"Brewing water" is defined as boiled and cooled or otherwise de-  
oxygenated  
and sterile water.

To make a "lite" beer to style, it should be a Pilsner type beer but in  
the  
generic notion of a lite beer, i.e., lower calories, lower alcohol and  
easy  
drinkability, any beer can be used.

I have used as high as a 50:50 ratio of beer to water to produce very  
nice  
"lawn mower" beer. I would suggest starting at one gallon in a five  
gallon  
batch and working up to one's liking.

As outrageous as this seems to homebrewers, there obviously are people  
out  
there who like lite and we might as well know how to make it. I would  
also  
point out that "lightened" homebrew, if made from a good beer, will out-  
taste  
the commercial stuff by a mile.  
.....

I then pointed out that I developed this process in conjunction with my  
experiments with NA and included my NA process for her edification.

>From: Jason Goldman <jason@gibson.sde.hp.com>

>Lag time is controlled by a lot of variables. Pitching volume (and what stage the pitched yeast are in) probably has a greater effect on lag time than the aquarium pump.

That is why I designed my experiment to include only one variable; viz. aeration. Should be ready for Monday's Digest.

>BTW, I would expect that Miller was almost certainly talking about ale yeast in his 3-8 hours figure.

Gotta be as I have not heard anyone yet make any such claims for lager since posting my comments.

>From: birkelan@adtaz.sps.mot.com (Joel Birkeland)

>Subject: Tannic Verses [cute]

>I was wondering if anyone out there can give me some advice about treating my water for brewing. Our water here in Phoenix is very hard and very alkaline, (pH ~ 8). As I recall, the hardness number is about 250 (ppm?) and the alkalinity is about 170.

>I tried my first partial mash a few weeks ago, tasted the results last night, and it is OK, but had noticeable tannic astringency. I recall hearing that the pH of the sparge water has a strong effect on tannin extraction during sparging.

I think we need to turn the Ayatola loose on those who continue to scare people about the pH of the sparge water.

You may indeed have a problem but you can not assume this unless you actually do a mash. My water also has a pH of around 8 but as soon as I dough in the malt, it drops below 6.

As you are making extract beer and sparging adjuncts grains this could present different problems but it's worth looking into anyway.

In any case, mix some malt into your water and check the pH before and after before concluding that you need to do something about.

In an all grain beer, the mash can buffer out the high pH of a lot of sparge water without increasing the pH of the runoff more than a few tenths of a point.

The important thing is to run through your whole process before messing with the water.

>For the record, I kept the sparge water at or below 168 deg F, and I had to cut the sparging short because another user needed the kitchen resources.

The initial runnings were > 1.080, final > 1.020.

You threw away a lot of beer.

>From: pacasey@lexmark.com (Patrick Casey)  
>Subject: fermenting a lager

>Is there any way to ferment a lager without using a refridgerator and one of the fancy thermostats? For example, what's wrong with shoving the carboy into the normal fridge?

Nothing. Other than the fact that most people can't spare the space in the kitchen fridge for the time it take to make a lager. If you have a spare and a carboy fits, you'er in business.

js

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Date: Fri, 13 Aug 1993 13:16:54 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject: Yeast FAQ

Hi to all in HBD land. I have received several requests both to post the information that I collected on yeast and to make a Yeast FAQ. I will have to divide the information into several chunks to post to the HBD. Almost all of this data was plagerized from somewhere by me or others; however, I have not knowingly used any copyrighted stuff. (I was very careful \*not\* to check anything for a copyright ;-).) I have altered the focus of some documents to more accurately reflect what I feel to be the interests of the \*home\* brewer. Some of the information is very basic; some, more technical. I have tried to give a basic introduction to what yeast are, how they affect beer taste, and the proper handling of yeast.

Some portions of the following were taken from the Wyeast information circular mailed to me by David Adams; the sections pertaining to yeast culturing are adapted from an upcoming book by Dr. Fix. Dr. Fix also provided the section on the proper method of yeast rehydration. The information on the "reputations" of the many yeast strains was collected from the HBD over the years by Doug O'Brien. Many thanks to David Adams, Dr. George Fix, and Doug O'Brien for providing me with almost all the materials used to write this summary. Others are thanked for their contributions where appropriate. My name is Patrick Weix, and I am a graduate student in the Genetics and Development program at UT Southwestern at Dallas. I hope you find this document useful. I would appreciate any comments and criticisms of a constructive nature before I submit this to the homebrew archives at [sierra.stanford.edu](http://sierra.stanford.edu).

This document is composed of rampant hearsay and rumor. Any attempts to pin anything on me or my co-conspirators will be resisted. If all else fails I will call your boss and ask him why you are reading the HBD at work instead of grinding out the Fitzsimmons contract. What do they pay you for anyway? Don't you have anything better to do?...

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Date: Fri, 13 Aug 1993 13:17:24 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject:

## SECTION II: Yeast Profiles

### Part 1: Dry Ale Yeast

Ales (*Saccharomyces cerevisiae*)

#### Coopers Ale Yeast

Good to very good reputation. The Coopers is quite fruity fermented at 65F. It's not phenolic at all and all the flavour is a very clean fruitiness.

#### Glenbrew Special Ale Yeast

Specially designed for use in "all malt" beers. Contains a special enzyme to obtain extremely low terminal gravities.

#### Doric Ale Yeast

Ok to very good reputation.

#### Edme Ale Yeast

Starts quick. Produces some fruity esters. Attenuative. Good reputation

#### Lallemand Nottingham Yeast

This yeast is remarkable for its high degree of flocculation. It settles out very quickly and firmly. Very good reputation. Very fast to create a krausen and needed blowoff tube 6 hours after pitching hydrated yeast. Quick fermentation at 62F. It's very clean and only very slightly fruity in the keg, but tastes/smells nutty in the bottled version. Nottingham appears to be relatively attenuative (more so than the Coopers).

#### Lallemand Windsor Yeast

Produces a beer which is clean and well balanced. This yeast produces an ale which is estery to both palate and nose with a slight fresh yeast flavour. Very good reputation. Not a quick as the Nottingham. Not attenuative. Definite banana smell at racking.

#### Munton-Fison Ale Yeast

Starts quick. Produces some fruity esters. Attenuative. Phenolic taste. Fair to good reputation.

#### Red Star Ale Yeast

This brand had a very bad reputation in the past, and for a while production was suspended. A different strain (AHY 43391) was selected by the company and is now being sold as Red Star Ale Yeast. The new strain is much improved! Reports from Dr. Fix, a brewer's yeast consultant, suggest that this is an excellent general purpose ale yeast with a clean taste. Apparent attenuation 76-78%.

#### Whitbread Ale Yeast

Fast starter. Distribution switch[ed][ing] to Crosby and Baker with [evidently] a change in the yeast. Very good reputation despite past quality problems.

## Part 2: Liquid Ale Yeast

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Date: Fri, 13 Aug 1993 13:17:45 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject:

Part 2: Liquid Ale Yeast

WYeast 1007 German Ale Yeast

Ferments dry and crisp leaving a complex yet mild flavour. Produces an extremely rocky head and ferments well down to 55 deg. F (12 deg. C). Flocculation is high and apparent attenuation is 73-77%. Optimum fermentation temperature: 62 deg. F (17 deg. C). A good balance of sweetness and tartness, with a pronounced green-apple note. A very pleasing yeast.

WYeast 1024 Belgian Ale Yeast

Banana estery flavour. With both clove-like phenolics and alcohol spice, the Belgian will tell you right away that it's no ordinary yeast. Tartness often develops over time. Ferment warm or with inadequate aeration and you're likely to get a bubblegum-like note. Intended for abbey beers, and works very well for that. And, depending on the wort composition, \*lots\* of banana notes.

WYeast 1028 London Ale Yeast

Rich mineral profile, bold woody slight diacetyl production. Medium flocculation. Apparent attenuation 73-77%. Optimum fermentation temperature: 68 deg. F (20 deg. C). Complex, woody, tart, with strong mineral notes, this one will bite you horribly if you over-hop or if your water is high in carbonates. If you avoid that Scylla and Charybdis, it produces ales of marvellous complexity and sophistication. Most of the time you'll wish you'd used 1098 or 1056. Had best results in porters. Over-hopping is especially bad, but if you throttle the hops back, the results are indeed marvellous. Used this yeast in a Kolsch once, and it was \*fantastic\* The wood and mineral notes fused with the Hallertauer hops (which were used with some restraint), and a couple of months of cool ageing brought out some green apple in the aroma as well as the palette. It tasted a good bit hoppier than it really was, and overall was well-balanced and smooth.

WYeast 1056 American/Chico Ale Yeast

Ferments dry, finishes soft, smooth and clean, and is very well balanced. Flocculation is low to medium. Apparent attenuation 73-77%. Optimum fermentation temperature: 68 deg. F (20 deg. C). The cleanest of the bunch, but mutation-prone. This is Sierra Nevada's yeast. Probably the best available all-around yeast, this strain can be used for anything, without embarrassment.

WYeast 1084 Irish Ale Yeast

Slight residual diacetyl is great for stouts. It is clean smooth, soft and full bodied. Medium flocculation and apparent attenuation of 71-75%. Optimum fermentation temperature: 68 deg. F (20 deg. C). Soft, round, malty; the least attenuative of the Wyeast line. Very nice for any cold-weather ale, at its best in stouts and Scots

bitters.

WYeast 1098 British Ale Yeast

Ale yeast from Whitbread. Ferments dry and crisp, slightly tart and well balanced. Ferments well down to 55 deg. F (12 deg. C). Medium flocculation, apparent attenuation 73-75%. Optimum fermentation temperature: 70 deg. F (21 deg. C). Tart, crisp, clean. Great in pale ales and bitters, good in porters.

WYeast 1338 European Ale Yeast

Ale yeast from Wissenschaftliche in Munich. A full bodied complex strain finishes very malty. Produces a dense rocky head during fermentation. High flocculation, apparent attenuation 67-71%. Optimum fermentation temperature: 70 deg. F (21 deg. C). It's clean and malty, especially well suited to Altbier.

Yeast Lab A01 Australian Ale Yeast

This all purpose strain produces a very complex woody and flavourful beer. Australian origin. Medium attenuation, medium flocculation. Great for Brown Ales and Porters.

Yeast Lab A02 American Ale Yeast

This clean strain produces a very fruity aroma, with soft and smooth flavour when fermented cool. Medium attenuation and low flocculation. This is an all purpose ale yeast.

Yeast Lab A03 London Ale Yeast

Classic Pale Ale strain, very dry. A powdery yeast with a hint of diacetyl and rich mineral profile, crisp and clean. Medium attenuation and medium flocculation.

Yeast Lab A04 British Ale Yeast

This strain produces a great light bodied ale, excellent for Pale Ales and Brown Ales, with a complex estery flavour. Ferments dry with a sharp finish. Medium attenuation and medium flocculation.

Yeast Lab A05 Irish Ale Yeast

This top fermenting strain is ideal for Stouts and Porters. Slightly acidic, with a hint of butterscotch in the finish, soft and full bodied. Medium attenuation, high flocculation.

Yeast Lab A06 Dusseldorf Ale Yeast

German Altbier yeast strain finishes with full body, complex flavour and spicy sweetness. Medium attenuation, high flocculation.

Yeast Lab A07 Canadian Ale Yeast

This strain produces a light bodied, clean and flavourful beer, very fruity when fermented cool. High attenuation, medium flocculation. Good for light and cream ales.

Yeast Lab A08 Trappist Ale Yeast

This is a typical Trappist strain, producing a malty flavour with a balance of fruity, phenolic overtones when fermented warm. Alcohol tolerant, high attenuation and high flocculation.

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Date: Fri, 13 Aug 1993 13:17:57 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject:

Part 3: Lager Yeast (*Saccharomyces uvarum*)

Dry Lager Yeast:(generally not recommend--tend to be inconsistent)

Liquid Lager Yeast: Much preferred over dry types!

WYeast 2007 Pilsen Lager Yeast

Our original Lager Yeast Strain. Specific for pilsner style beers. Known as many things, we call it Pilsen. Ferments dry, crisp, clean and light. Medium flocculation. Apparent attenuation from 71-75%. Optimum fermentation temperature: 52 deg. F (11 deg. C).

WYeast 2035 American Lager Yeast

American Lager Yeast. Unlike American pilsner styles. It is bold, complex and woody. Produces slight diacetyl. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 50 deg. F (10 deg. C).

WYeast 2042 Danish Lager Yeast

Danish Yeast Strain. Rich, yet crisp and dry. Soft, light profile which accentuates hop characteristics. Flocculation is low, apparent attenuation is 73-77%. Optimum fermentation temperature: 48 deg. F (9 deg. C).

WYeast 2112 California Lager Yeast

Warm fermenting bottom cropping strain, ferments well to 62 deg. F (17 deg. C) while keeping lager characteristics. Malty profile, highly flocculant, clears brilliantly. Apparent attenuation 72-76%.

WYeast 2124 Bohemian Lager Yeast

The traditional saaz yeast from Czechoslovakia. Ferments clean and malty, rich residual maltiness in high gravity pilsners, medium flocculation, apparent attenuation 69-73%. Optimum fermentation temperature: 48 deg. F (9 deg. C).

WYeast 2206 Bavarian Lager Yeast

Lager yeast strain used by many German breweries. Rich flavour, full bodied, malty and clean. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 48 deg. F (9 deg. C).

WYeast 2308 Munich Lager Yeast

Lager yeast from Wissenschaftliche in Munich #308. One of the first pure yeast available to American home brewers. Sometimes unstable, but smooth soft well rounded and full bodied. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 50 deg.F (10 deg. C).

Yeast Lab L31 Pilsner Lager Yeast

This classic strain produces a light lager in both flavour and body, fermenting dry and clean. High attenuation and medium flocculation.

Yeast Lab L32 Bavarian Lager Yeast

Use this classic strain for medium bodied lagers and bocks, as well as Vienna and Marzen styles, rich in flavour with a clean, malty sweetness. Medium attenuation and medium flocculation.

Yeast Lab L33 Munich Lager Yeast

Wissenschaftliche strain for medium bodied lagers and bocks, subtle and complex flavours, smooth and soft, a hint of sulphur when fresh. Medium attenuation and medium flocculation.

Yeast Lab L34 St. Louis Lager Yeast

This strain produces a round, very crisp and clean fruity flavour, with medium body. High attenuation and medium flocculation. Good for American style lagers.

Yeast Lab L35 California Lager Yeast

A California common beer strain, malty with a sweet woody flavour and subtle fruitiness. Medium attenuation and high flocculation.

Part 4: Weissen, mead, and barleywine styles.

*Saccharomyces delbrueckii*, *S. cerevisiae*

WYeast 3056 Bavarian Weissen Yeast

A 50/50 blend of *S. cerevisiae* and *delbrueckii* to produce a south German style wheat beer with cloying sweetness when the beer is fresh. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 56 deg. F (13 deg. C). Problematical to get the right flavour, often just produces bland beer, without the lactic flavour.

Yeast Lab W51 Bavarian Weizen

This strain produces a classic German style wheat beer, with moderately high, spicy phenolic overtones reminiscent of cloves. Medium attenuation, moderately flocculent. Evidently much more consistent than WYeast at producing a true Weizen flavour.

The following are available from Brewtek at (800) 8BREWTE:  
(P.S. I swiped the following descriptions of the net myself (PW).)

CL-90 Belgian Wheat -- A top fermenting yeast which produces a soft, bread like flavor and leaves a sweet, mildly estery finish.

CL-92 German Wheat -- A true, top fermenting Weizenbier yeast, Spicy, clovy and estery. High attenuative.

CL-94 American Wheat - Offers a smooth, slightly sweet wheat beer, with a full, clean, underattenuated malt flavor.

Mead Yeast

Yeast Lab M61 Dry Mead

Very alcohol tolerant, ferments dry, fruity and clean, yet leaves noticeable honey flavour and aroma.

Yeast Lab M62 Sweet Mead

This strain has reduced alcohol tolerance, therefore produces a very fruity, sweet mead with tremendous honey

aromas.

#### Wine Yeast

Lallemand Lalvin Wine Yeast

S. Bayanus. Good reputation.

Red Star Pasteur Champagne Yeast

Very attenuative. Good for mead. Good reputation.

WYeast 3021 Prise de mousse Champagne Yeast

Institute Pasteur champagne yeast race bayanus. Crisp and dry, ideal for sparkling and still red, white and fruit wines. Also can be used for Barley wines. Optimum fermentation temperature: 58 deg. F (14 deg. C).

WYeast 3028 Wine Yeast

French wine yeast ideally suited for red and white wines which mature rapidly. Enhances the fruity characteristics of most wines. Optimum fermentation temperature: 72 deg. F (22 deg. C).

#### Malo-lactic Bacteria

Leuconostoc oenos

WYeast 4007 Wine Yeast

Malo-lactic culture blend isolated from western Oregon wineries. Includes strains Ey2d and Erla. Excellent for high acid wines and low pH. Softens wines by converting harsh malic acid to milder lactic acid. Can be added to juice any time after the onset of yeast fermentation when sulphur dioxide is less than 15 ppm.

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Date: Fri, 13 Aug 1993 13:18:08 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject:

### SECTION III: YEAST MANAGEMENT

#### Part 1: Hydration Procedure For Dry Yeast

- a. Use 14 grams of dry yeast (usually 2 packets) per 5 gallons of brew.  
\*\*\*Rigorously\*\*\* sterilize everything used in the hydration procedure.
- b. Add the dry yeast to 1/2 cup of water at 90F (32C). Leave for 15 mins.
- c. Combine the hydrated yeast with 1-2 gallons of wort that is as close to  
the wort to be fermented as possible. You can take samples from the  
main wort at the end of the mash/sparge and rapidly boil and cool it.
- d. Aerate the starter as much as possible under sanitary conditions.
- e. Don't forget to properly oxygenate the main wort once it is \*chilled\*  
(Shaking hot wort is dangerous, but even worse it can cause oxidation  
and give your beer funny flavors.)
- f. Pitch the starter into the main wort once the latter has been chilled to  
the recommended fermentation temperature (65-68F or 18-20C). Yeast  
with good viability will result in minimal lags. (The longest experienced in  
test brews using the new Red Star Ale Yeast was 2 hrs.)

An alternative but slightly sub-optimal method is to cool the yeast-in-water  
mix from "b" to room temperature. Once the wort has been chilled and aerated  
(shaking the carboy works well), pitch the yeast. Stir or invert the carboy to  
disperse the yeast. Put in the blow-off tube or fermentation lock.

The two most essential things are to:

1. Sanitize everything in sight.
2. Aerate your wort to insure rapid initial yeast growth--your best defence  
against secondary infection.

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#### Part 2: Propagation of Yeast Strains

or  
How to have your very own yeast ranch!

##### A. General Comments

There is no single item as important as the selection of a yeast strain,  
or  
if appropriate strains, to be used in commercial brewing. The same  
applies to



homebrewing. Sensory characteristics -- taste and smell -- will normally determine the type of yeast that is appropriate to any particular beer formulation. This section contains the necessary procedures for achieving self-sufficiency in pitching yeast. The part treated in this section is often called the Hansen pure culture system. The heart of this system is the so-called "yeast slant". It is a test tube containing a solidified media sloped at an angle. Often Petri dishes are used, but the media is level, and hence the term "slant" is not always appropriate. In any case, yeast cells are streaked on the surface of the solid media. When refrigerated, these slants will keep at least 3-4 months before they have to be recultured. Yeast are taken from the slants, and built up so there is enough to pitch a full batch. The system also contains procedures for doing the exact opposite, i.e., adding yeast to slants for storage and future use.

## B. Equipment

The equipment needs for operating a pure culture system with slants are rather modest. The following are the major items.

1. Refrigerator. This is needed for slant and media storage.
2. Autoclave or pressure cooker. This will be needed to sterilize equipment and media for yeast work. A pressure cooker will do, but it should have a pressure gauge attached so that the conditions during sterilization can be controlled.
3. Media. The preferred media for slants is malt extract and agar. These can be obtained from any scientific outlet. Food grade agar is also available from some oriental markets. The flaked form is easier to work with.
4. Misc. A number of minor items will also be needed. These include inoculation loops, glassware, petri dishes, and test tubes.

## C. Propagation of Yeast

This process consists of transferring some of the yeast on slants to a small flask or jar containing wort, then building this up until there is

enough to pitch a full brew. the most delicate steps are the initial ones.

Experience has shown that the best results are obtained by using full strength hopped wort for propagating yeast. The ideal situation is when the

wort used in propagation is identical to the wort that will be used in brewing.

Practical experience has also shown that it is best to pitch yeast freshly

harvested from slants at the maximum acceptable rate. Anticipating the results in the next section, this for lager yeast amounts to pitching 1 volume of yeast \*SOLIDS\* for each 250 volumes of wort. Thus, we need  $5\text{gal}/250 = 0.02\text{gal} \cdot 128\text{oz}/\text{gal} = 2.5\text{oz}$  of yeast solids for a 5 gallon batch.

Using the estimation that yeast solids are 1/10 the total volume of a yeast culture, that means that one needs about 25oz or a little more than 3 cups culture. For ale yeast all of these numbers are reduced by a factor of two, so (3/2) to 2 cups of an ale yeast culture would be sufficient.

In the procedure described below new wort is added just after the end of the period of high kraeusen, and in particular after the foam starts

to recede. The reason for this is to keep the yeast in the aerobic exponential growth mode. This will insure a steady buildup of yeast cells, and thereby minimize the number of wort charges that are required. The importance of taking great care when adding fresh wort can not be overemphasized. To avoid infections not only is it

necessary

to properly sanitize equipment, but it also important to sterilize necks

of vessels and jars by flame or 200 proof alcohol solutions. The easiest

way to flame a jar at home is with a lighter (esp. the ones for pipe-smokers!). Be extremely careful, and don't use both alcohol and a lighter.

The first four steps described below are done under the cleanest conditions

possible using 1000 ml. starter jars. At the end of step (iv) there will

invariably be more than enough yeast in each starter jar to pitch a 25 liter

brew (about 6gal); i.e., there will be at least 1/10 liter of yeast solids as

can be checked by visual inspection. These numbers are based on the requirements of lager yeast. As will be seen below there will be no harm in

producing too much yeast in this procedure since at the end only the correct

amount will be added to the fermenter.

(i) Preparations:

a. Carefully inspect all the slants that are to be propagated. Those which have unusual growth patterns and/or discoloration should be discarded. The ideal is thin white yeast layer on top of the solid media.

b. Autoclave the starter jars and the rubber stoppers for the airlocks for 5 mins. at 15 psi. Alternatively, use your favorite chemical sanitizing agent.

c. Add 250 ml. (about 8 oz) of wort to each starter jar. Wipe their necks with a 200 proof alcohol solution. After this add the airlocks.

d. Pasteurize the wort by adding the starter jars to a water bath at 60 C (140 F), and hold this temperature for 20 mins. Cool to 18 C (75 F).

e. In a clean room with no air movement (turn off fans and air conditioning

for at least 15 min to give the dust a chance to settle) and then place starter jars, yeast slants, inoculation loops, and a 200 proof alcohol

solution in a clean, quiet spot (i.e. lock the door after first  
insuring  
that Fido, Fluffy, and Junior are on the other side of it :-) !).

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End of HOMEBREW Digest #1204, 08/16/93  
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Date: Fri, 13 Aug 1993 13:18:19 -0500 (CDT)  
From: WEIX@swmed.edu  
Subject:

(ii) Inoculation:

a. For each jar, start by sterilizing its neck. Then sterilize ("flame") the inoculation loop. Open a slant, quench the loop in clean agar ("sizzle") and use the loop to remove some yeast. Remove the airlock and then add the yeast to the starter jar. Replace the airlock, and then start work on the next jar.

(iii) Initial Buildup:

a. Place the starter jars in a location where 68F (18C can be held). Aerate twice daily by vigorously shaking jars. 1L Erlenmeyer flasks are excellent for this purpose because they permit vigorous swirling without getting the wort up by the neck and opening.

b. A widely used practice is to discard any starter that is not active within 48 hours. Certainly if some of the starters are active within this period, then the inactive ones should be discarded. In any case, any starter not active within 72 hours should definitely be discarded even if this means they are all discarded.

(iv) Second Wort Charge

a. When the foam has receded prepare 250ml. of fresh sterile and aerated wort for each starter.

b. The new wort is to be added to each starter, and this should be done as cleanly as possible.

c. Before pouring the wort into the starters, it is very important to swab the necks of the starter jar and the wort jar with a 200 proof alcohol solution to prevent contamination or flame them with a lighter.

d. It is also desirable to reduce the temperature to a point closer to the temperature that will be used in production if that is lower than 18 C. For example, with lagers fermented at 10 C, this is usually taken to be 14-15 C.

e. The starters should be aerated at the start and then again after 12 hours. New activity should be seen before 24 hrs. Those which are not active within 36-48 hours should be discarded.

f. Increase the volume of wort until you have sufficient volume to pitch.

(v) Pitching the Yeast

a. At this time you should have a jar with about 500ml (a little more than 2 cups) of yeast for a 5gal ale batch. I would suggest pitching before the krausen (foam) totally dies down so that the yeast are still in rapid growth phase. The total volume will vary with batch size, yeast type, and your personal experience/whim. Remember to keep yeast notes along with your beer notes so that you can learn from experience!

b. Clean the outside of the jar with 200 proof alcohol or weak bleach and allow to dry.

c. It is not advised that you pitch the old wort and yeast into the fermenter because the media has been exposed to air and oxidized, etc, etc. Therefore, pour off or siphon off the old media, leaving the yeast on the bottom of the flask. Pour this slurry into the primary or resuspend this slurry in sterile water and add immediately to the wort. A short exposure to water will not harm the yeast, although they should not be exposed to it for long periods or they will lyse.

#### D. Preparation of New Slants

Two steps are needed in the preparation of new slants. The first consists of adding the proper media to test tubes or petri dishes. Once prepared the slants will store well for a very long time when refrigerated, so many can be prepared at one time. The second step consists of inoculating the slants with yeast.

For the homebrewer who cannot afford several refrigerators: Please be advised that your refrigerator is a haven for bacteria, mold, and wild yeast. Anyone wishing to store sterile slants in their refrigerator is advised to 1. Wipe down the slants before storage with ethanol or your favorite sanitizing solution. 2. Seal the slants with parafilm or electrical tape. 3. Keep the slants in a ziplock bag. 4. Wipe down the bag with ethanol or your favorite sanitizing solution before opening.

#### Preparation of Media:

- (i) The media consists of dry malt extract and agar. As a general rule 4 tablespoons of malt extract and 1 tablespoon of agar per cup of water will yield 16-18 slants.
- (ii) Bring the water to a boil, and then stir in the malt extract. Boil for 10 mins.
- (iii) Remove from heat, and then start stirring in the agar. This will take some effort, but this usually indicates that

a good solidification will ultimately be achieved. If your slants "sweat" too much, increase the amount of agar you use. Although commercial/scientific agar will vary little, I cannot answer for "food grade" supplies.

Gelatin is easier to dissolve, but it sometimes does not always give a proper solidification.

(iv) When the agar is dissolved, the malt/agar solution should be added to the test tubes, filling each to approximately a third of their volume. Add the screw cap, but do not fully tighten.

(v) Autoclave the tubes at 15 psi for 5 mins.

(vi) Tighten the caps on the tubes, and place them at a 30 degree angle. Allow them to solidify at room temperature. Solidification should become apparent within a few hours. Tubes which are not solid after 24 hrs. should be discarded.

(vii) Refrigerate until needed.

Note: Petri dishes can not be autoclaved, and so alternate procedures are needed for them. A common practice is to autoclave the malt/ agar solution in

small jars. The agar solution is then poured into the petri dishes. Let the

agar cool until the jars are hot but touchable. If the agar is too hot it will warp the plates. Swirl it gently to mix but avoid bubbles. It is also a

good idea to leave petri dishes prepared in this way at 25-30 C for 1-2 weeks

to make sure bacteria or molds are not present. Let the poured plates dry overnight in a clean quiet room. Wipe them down, seal them, and bag them, but

leave them at room temperature for 1 week. The bad bugs, if they are there,

will be visually apparent at the end of that period and the contaminated plates discarded. While Petri dishes are more trouble than test tubes, they

do offer the distinct advantage of having more surface area and being easier

to store. After the trial period the dishes should be refrigerated.

#### Inoculation of Slants:

(i) Collection a small portion of the yeast to be added to the slants. It goes without saying that one should strictly follow the standard sterilization procedures of all items used to collect this yeast.

(iii) With one hand sterilize the inoculation loop (flame or alcohol solution). With the other hand open the cap of a slant.

(iv) Dip the loop into the yeast solution, and remove a small amount.

(v) Slowly insert the loop into the tube avoiding contact with either the sides or neck of the tube. Streak the yeast over the solid. Only a thin layer is wanted, and one should try to use as much of the surface area as possible.

(vi) Slowly remove the loop avoiding contact with tube walls or neck. Add the screw cap back on the tube and tighten.



(vii) When finished store the tubes at 25 C for one week. Visually inspect all tubes at this time both for yeast growth, and also for any irregularities. Discard those which are not satisfactory.

(viii) Store the remainder at 2-8 C. After 3-4 mos. of storage, unused tubes should either be discarded or recultured; i.e., propagated by the procedures in Section III.2.c and then put on fresh slants. The best idea is to put production yeast on slants on a regular basis so that reculturing is not necessary.

Note: The larger surface area afforded by Petri dishes can be used to advantage in the above procedure. In particular, it useful to streak out yeast in parallel lines which make angles with each other. This allows for a better examination of growth patterns. Petri dishes should be sealed after the 1 week trial period with electrician's tape and refrigerated.

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Date: Fri, 13 Aug 93 14:26:35 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: re:Zymurgy bashing

IN the last digest:  
<Date: Thu, 12 Aug 1993 09:16:17 -0700 (PDT)  
<From: jal@plaza.ds.adp.com (Jim Larsen)  
<Subject: Open letter to Zymurgy

<The following item, in response to Elizabeth Gold's request for light  
<beer recipes, bounced on its way to her Compuserve address.

> Elizabeth,  
>  
> Do you propose publishing in Zymurgy beer recipes which you have  
neither  
> tried nor even tasted?  
>  
> This is not the sort of responsible journalism that would keep  
Zymurgy  
> at the fore of the homebrewing industry.

I think this is uncalled for. Many of us will agree that the AHA has not  
done a very good job of appealing to the more advanced brewers. I think  
we should be welcoming the change in the AHA that is evident by the  
editor  
of Zymurgy requesting technical info from us the HBD community. It is  
quite apparent that there is some technical brewing knowledge right here  
and it is a welcome change to see the powers that be asking for input  
from us, even if it is on a "light beer style" question (eechhh).

It is also naive to believe that any publication would have the time or  
resources to actually taste or verify the recipes that are given by  
people who are supposed to be knowledgeable in the subject matter.

Good brewing,  
Jim Busch

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Date: Fri, 13 Aug 1993 11:32:54 -0700  
From: drew@eskimo.com (Andrew Cluley)  
**Subject: Blackberry Mead Responses**

Thank you for your help. I'm posting these responses so all can enjoy. Sorry for the spacing. I guess my initial estimate of 3-4 lbs of fruit is way too low.

Subject: RE: HBD 1203 (blackberry mead)

Date: Fri, 13 Aug 93 8:25:32 EDT

**Subject: Blackberry Mead Responses**

Hi Drew,

You are about to embark on a homebrewing experience that will leave you forever changed. I brewed a black raspberry mead last season that was probably the best stuff (beer or mead) that I have ever made. The recipe was patterned after Papazians "Purple Haze Hendrix Mead" which was posted in some past Zymurgy issue (I'm working without my references here). Pap says in comments following this recipe that this is one of his all-time favorites and I would have to second that opinion. This season my parents and girlfriend gladly helped to pick about 32 lbs of fresh black raspberries at the local U-pick-um farm with the understanding that they will all be supplied with the resulting nectar. BTW it was an incredible year for raspberries here in Ohio. My recipe goes something like this:

**Black Raspberry Melomel**

8-12 lbs of good quality honey (I like raw orange-blossom)  
10-15 lbs of very ripe black raspberries (picked fresh then frozen for a days before brewing)  
2.5 tsp pectic enzyme  
1.25 tsp good yeast energizer (I like the stuff that is primarily urea but also contains a bunch of B-vitamins and various amino acids)

**Optional:**

1-2 oz fresh ginger (grated or finely sliced)  
1 oz dried lemongrass

(the reason most of the ingredients have a range of quantities is that I varied the recipe a bit this year)

**Procedure:**

- Bring 2 gal of good brewing water to a boil and add honey
- Boil honey must for 10-15 min (you can skim the scum if you want to, but I'm not convinced it makes a difference)
- Add raspberries, ginger, and lemongrass, stir and turn off heat
- Cover and let steep (read pasteurize) 20 min
- Cool, dilute to 5 gal and add pectic enzyme and yeast nutrient
- Aerate VERY well and pitch your favorite mead yeast ->If you dont have a favorite, I can recomend "Lalvin S. Cerevisiae (an eppernay type) as an excellent choice.
- Wait patiently

**Notes:**

1. I use two stage fermentation with the racking of the mead coming when the CO2 is down to about 1 bubble every 15-30s (usually about 1 wk.)
2. I have used the Lalvin yeast on my last six or so batches of mead and I am very pleased with the speed with wich it starts and finishes. It

also flocculates well and besides all that it leaves a nice clean slightly sweet finish. I have been ready to bottle after only about a month of fermentation (counting both stages) since I started using this yeast. BTW I think the yeast energizer is critical to this as well.

3. The above recipe is pretty general. I used essentially the same program to make both strawberry and mullberry melomels as well this summer.

Let me know if you have other questions.

Good Brewing,

Mark Fryling  
Department of Chemistry  
The Ohio State University  
<mfryling@magnus.acs.ohio-state.edu>

"Never let your sense of morality prevent you from doing what is right"  
I. Asimov

>From davep@cirrus.com Fri Aug 13 09:35:52 1993

ss

Message-Id: <9308131635.AA01544@sunscreen.cirrus.com>  
Subject: Blackberry mead  
To: drew@eskimo.com

Date: Fri, 13 Aug 1993 09:35:10 -0700 (PDT)

**Subject: Blackberry Mead Responses**

Hi Drew,  
Your request for a Blackberry mead recipe caught my eye in the HBD. Being from Seattle, I know that the blackberries are ready to pick this weekend, so if you get any recipes, could you forward them to me?

TIA,

Dave

Subject: re: Blackberry Mead

Date: 13 Aug 93 11:08:18 MDT (Fri)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: Blackberry Mead Responses

> Does anyone have a good recipe for Blackberry Mead?

Not a specific recipe, but based on the variations I've done: Use around 2 lb fruit per gallon to get a strong fruit character. Use around 2 lb honey per gallon. (I normally use a full gallon of honey--which is a bit under 12 lb--in a 5 gallon batch.) You can use a fairly strong honey with berries like this.

That's it--berries, honey, water, and a suitable yeast. My current favorite yeast for melomels is "Prise de Mousse".

Crush the berries; you don't actually need to extract the juice. Use a plastic-pail primary fermenter. Assuming you get a good fast start to fermentation, I'd skim out all the berry-crud and rack it after about a week. That should be enough to ferment out most of the berry sugar. If you leave the berries in much longer, you'll get too much astringent character.

You might consider a mixture of berries--say blackberry+raspberry. Depending on the type of blackberries and what the growing season was like, blackberries can be rather bland. (This surprised me.)

Frozen fruit works just fine; in fact the freezing helps break up the berries and release the juice. However, given your location and the season, I'm guessing you have plenty of fresh fruit.

- - - -  
Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
    ...Simpler is better.

Date: Fri, 13 Aug 93 08:08:05 EDT  
From: sims@pdesdsl.scra.org (Jim Sims)  
Subject: Blackberry Mead Responses

Subject: re: blackberry mead

I'm not sure if I have a 'good' recipe or not - I think I bottled some mead with blackberries (i know I did some with raspberries, strawberries, and (i think cherries)). I'll check when I get home tonite and if i've got one i'll give it a try (thanks for giving me a great excuse to try it - been waiting for a long time)...

jim

Drew Cluley > Seattle Wa. drew@eskimo.com

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Date: Fri, 13 Aug 1993 13:35:43 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast FAQ possible mix up

Hi all.

I tried to post my yeast FAQ to the HBD today, and one of my messages was rejected, and the bounced back message was all garbled! I apologize in advance if any of the other submissions of mine are messed-up or out of sequence. Rather than try again today and drown the net with garbage, I will wait until tomorrow and see what came through.

Sorry!

(Well, I am!)

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Date: Fri, 13 Aug 1993 13:52:29 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast FAQ part 2 of 7 (read this after intro then continue in seq.)

## SECTION I: Yeast Characteristics

Yeast are unicellular fungi. All brewing yeast belong to the genus *Saccharomyces*. Ale yeast are *S. cerevisiae*, and lager yeast are *S. uvarum* (formerly *carlsbergerensis*). Weizen yeasts are usually 50/50 mixtures of *cerevisiae* and "*delbrueckii*" (*delbrueckii* may or may not be an accepted taxonomic class, however its use as a label appears widespread, and it is used herein for simplicity). You may ask, "If all these yeast are the same species, why all the fuss?" The fuss has to do with strain variation. Just as all dogs are the same species, yet no one will ever mistake a basset hound for a doberman (at least not twice :-). Using different strains can add fun and spice to brewing, especially if you have an idea of the differences. I originally put together this guide to catalogue the different affects of different strains. This information is in Section II.

Some yeast strains are more active and vigorous than others. Lager strains in particular do not show as much activity on the surface as many of the ale strains. Most packages provide an adequate quantity of yeast to complete fermentation with varying amounts of lag time depending on strain, freshness, handling, and temperature. If you find it too slow, make a starter as recommended on the package or as listed in Section III. In any event, a closed fermenter with an airlock is recommended.

### Temperature

The slow onset of visible signs of fermentation can be improved by starting fermentation at 75 deg. F (24 deg. C) until activity is evident, then moving to your desired fermentation temperature. A few degrees does make a significant difference without adversely affecting flavor.

The normal temperatures for ale yeast range from 60-75 deg. F (16-24 deg. C). A few strains ferment well down to 55 deg. F (13 deg. C). 68 deg. F (20 deg. C) is a good average. Lager strains normally ferment from 32-75 deg. F (0-24 deg. C). 50-55 deg. F (10-12 deg. C) is customary for primary fermentation. A slow steady reduction to the desired temperature for secondary fermentation typically works well.

The fermentation rate is directly related to temperature. The lower the temperature, the slower fermentation commences. Fluctuations in temperature such as cooling and warming from night to day can adversely affect yeast performance.

#### Attenuation

Attenuation refers to the percentage of sugar converted to alcohol. Apparent attenuation of yeast normally ranges from 67-77%. The attenuation is determined by the composition of the wort or juice and the yeast strain used. Each yeast strain ferments different sugars to varying degrees, resulting in higher or lower final gravities. This will affect the residual sweetness and body.

Really, it's slightly more complex than that (isn't everything ?-). There's

"apparent attenuation" and "real attenuation". The difference comes about

because alcohol has a specific gravity less than 1 (about .8). Real attenuation is the percent of sugars converted to alcohol. So, if you had a

10% (by weight) sugar solution (about 1.040), and got 100% real attenuation,

the resulting specific gravity would be about 0.991 (corresponding to about

5% alcohol by weight). The apparent attenuation of this brew would be 122%!

George Fix published a set of equations relating apparent and real attenuation and alcohol content last year. To wit:

A = alcohol content of finished beer in % by wt.

RE = real extract of finished beer in deg. Plato

Since A and RE are generally not known to us, additional approximations are

needed. The following are due to Balling, and have proven to be reasonable.

Let OE and be defined as follows:

OE = original extract (measured deg. Plato of wort)

AE = apparent extract (measured deg. Plato of finished beer).

Then,

$RE = 0.1808 * OE + 0.8192 * AE$ , and

$A = (OE - RE) / (2.0665 - .010665 * OE)$ .

The "tricky part" here is the expression of the sugar content in degrees

Plato. This is a fancy term for % sugar by weight, and corresponds \* roughly\*

to "degrees gravity" divided by 4. That is, a 1.040 wort has an extract of

10 degrees Plato. He goes on to calculate an example: To take a specific

case, first note that from Plato tables an OG of 1.045 is equivalent to OE =

11.25 deg. Plato, while a FG of 1.010 is equivalent to AE = 2.5 deg. Plato.

Therefore,  $RE = 0.1808 * 11.25 + 0.8192 * 2.5 = 4.08$  deg. Plato, and  $A =$

$(11.25 - 4.08) / (2.0665 - .010665 * 11.25) = 3.68$  % wt. The apparent attenuation is 75%

(from 1.040 to 1.010), the real attenuation is  $(11.25 - 4.08)/11.25 = 64\%$ .

N.B. Most attenuation figures are given in terms of \*apparent\* attenuation.

(Thanks to Chris Pencis quoting Stuart Thomas quoting George Fix).

### Flocculation

Flocculation refers to the tendency of yeast to clump together and settle out of suspension. The degree and type of flocculation varies for different yeast. Some strains clump into very large flocculate. Some flocculate very little giving a more granular consistency. Most yeast strains clump and flocculate to a moderate degree.

### pH Ranges

Typical pH range for yeast fermentations begins at about 5.1 and optimally 4.8. During the course of fermentation the pH reduces to typically 3.9-4.1 and as low as 3.1 in some wines.

### Alcohol Tolerances

The alcohol tolerance for most brewing yeast is as least to 8%. Barley wines to 12% can be produced by most ale strains. Pitching rates need to be increased proportionally to higher gravities. Alternately, Champagne and Wine yeast can be used for high gravities sometimes reaching alcohols to 18%.

### Smells and Tastes

Although the principle tastes present in a beer are the result of the malts and hops used, the strain of yeast used can also add important flavors, good and/or bad. Yeast that add little in the way of extra flavors are usually described as having a "clean" taste. These yeast are especially useful for beginners because they permit experimentation with different ingredients without worrying about yeast influence. Yeast produce three main classes of metabolic by-products that affect beer taste: phenols, esters, and diacetyl. Phenols can give a "spicy" or "clove-like" taste. Esters can lend a "fruity" taste to beer. Diacetyls can give beer a "butterscotch" or sometimes a "woody" taste. The desirability of any one of these components depends largely on the style of beer being brewed. In addition, there are certain by-products in these families that are more noxious than the others. A lot depends on the individual palette and the effect you're aiming for.

A final note: some yeast, especially lager yeast during lagering, can produce a "rotten egg" smell. This is the result of hydrogen sulfite production.

Although the scent of this bubbling out of the air-lock is enough to make the strongest homebrewmeister blanch, fear not! The good news is that this will usually pass, leaving the beer unaffected. Relax, etc.

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Date: Fri, 13 Aug 1993 11:56:34 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: RedHook's Malt

I wrote in #1202:

> I called the Redhook Brewery and spoke to Thomas Price, a very nice and  
> helpfull guy. Sorry, Al, but there is no wheat malt in their Summer  
> Rye. Here's the scoop:

>  
> 10% flaked organic rye  
> 5% Munich  
> 85% 2-row barley (probably Briess)

^^^^^^^^ ^^^^^^^

Jeff Frane wrote in #1203

> Given that the Red Hook Brewery is within 175 miles of Great Western's  
> Vancouver, WA plant (and in the same state), this seems bizarre if not  
> completely unlikely. As far as I've been able to determine over the  
> years, virtually every west coast brewery gets their base malt fm GW.  
> Even if the quality of their malt wasn't the question, surely shipping  
> rates would be.

My original guess that their 2-row was Briess was based on the stacks of  
Briess Malt sacks glimpsed through the brewery's window. A phone call  
to Thomas Price clarified the matter. Redhook gets their wheat malt  
from Briess and as Jeff correctly surmised they get virtually everything  
else from Great Western.

Yikes! This is a TOUGH room.

Domenick Venezia

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Date: Fri, 13 Aug 93 15:09:13 -0400  
From: Philip J Difalco <sxupjd@anubis.fnma.COM>  
Subject: Grolsch bottles & Carbonation

I also use Grolsch bottles (using usual anal sanitation precautions), and have had no problems with any of my batches.

However, concerning carbonation, I did notice that the few beers that I put into the fridge, for a little over a weeks time, experienced less carbonation than the ones I stored in my basement. The gaskets are relatively new (as the bottles are not even 5 months old)

.

I was thing that the colder fridge temperatures may have caused the gaskets to contract enough to make an imperfect seal letting gas escape from the beer (to outside the bottle), thusly reducing the beer's carbonation (factor).

- - - -

email: sxupjd@fnma.com (NeXT Mail Okay)  
Philip DiFalco, Senior SomethingOrOther, Advanced Technology  
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

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Date: Fri, 13 Aug 1993 15:44:00 -0400  
From: Bill Flowers <waflovers@qnx.com>  
Subject: Hard, high pH water treatment for new masher

I've started mashing and I think I might have a problem: my water supply has a high pH (8.0-8.2) and is quite hard (250 ppm). Its perfect for the fish I keep (rift valley cichlids), but I'm not sure what to do with it for brewing. Before I started mashing I never concerned myself with it, but now I'm mashing and wanting to make pale ales and pilsners instead of stouts and Munich dunkels, so it is now a concern. I've got a call into the lab to get the water analysis details, but I won't have them until Monday.

I've also got access to lower pH, softer (but still not soft) water here at the office. I'll get the details of it on Monday too.

I've read Miller on water treatment, and it just left me more confused than ever. Why can't he just say: "Do this if you have this water, do that if you have some other water"?

What I want is a recipe or flow chart (or hand holding) on what to do with my mash and sparge water. Can anyone help me? Or at least put Miller's explanation in terms I might understand.

-----  
W.A. (Bill) Flowers email: waflovers@qnx.com  
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Date: Fri, 13 Aug 93 15:31:39 CDT  
From: Mark S. Hart <hart@hvhp1>  
**Subject: cleaning swinger**  
Full-Name: Mark S. Hart

Just a data point.

I have always used the brown and green swing top/Grolsch bottles. Being a procrastinating lazy sort here's the easiest way I've found to clean them with out a single mishap to date.

Rinse the bottles after emptying and stick em in the dish washer with the dinner stuff. Save these bottles (usually only 5 or 6) until you have enough to bottle the next batch. When your ready to bottle the next batch wash all the bottles again and toss 1 or 2 ounces of bleach into the washer. The washer will recycle the bleach water solution a few times before beginning the rinse cylcle. Bottle when washer stops and every thing is dry. I usually don't use any soap on the second washing. Scoff all you want but I've done my last 7 or 8 batches this way with no worries or infections. Initially I was concerned about the bleach deteriorating my washers seals so I now dilute the 1 or 2 ounces of bleach in a gallon of water and dump the whole mess in the washer. So far everything is O'tay. I also have noted that the green bottles are superior in quality to the brown.

See Ya, M. S. Hart

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Date: Fri, 13 Aug 1993 16:54:53 -0400  
From: Bill Flowers <waflovers@qnx.com>  
Subject: Re: double fermentation (ref. HBD #1184)

My apologies for the long delay in responding. Its amazing how far backlogged I can get in reading HBD when I go away for vacation.

Anyway, in HBD #1184, STBLEZA@grove.iup.edu wrote:

> Third: Has anyone on the digest tried to use a double fermentation on beer?  
> I heard about the process, and was thinking of trying it, but I decided to  
> consult higher authorities first. For those un-familiar to the process, you  
> pitch a yeast with a low alcohol tolerance (ale and lager yeasts) into your  
> primary, then wait until the fermentation slows due to alcohol abundance,  
> transfer into a secondary, and pitch a second yeast in that has a higher  
> tolerance (such as a wine or champagne yeast). What effects would this have?  
> Is it at all desirable? Has anyone done this? Is there any literature on  
> this topic (I can't find the source that gave me the idea for this)?  
Have I  
> finally gone off the perverbial 'deep end'?

Nope, you've not gone off the deep end. I've used this technique (based on 2nd hand information which was supposed to have come from the now retired, former senior biochemist for John Courage) on my Barley Wine, and it tastes fantastic! Before pitching the ale yeast, I put 1L of wort in a sanitized mason jar into the fridge. About 3 days into the primary fermetation, I removed the wort from the fridge in the morning to warm up. That evening I mixed it with 1L of boiled and cooled water (to get the gravity down to something more reasonable for a "starter") and pitched some champagne yeast. When that was well started I added it to the fermenting barley wine.

For a beer like this where you want to get the typical ale flavor (esters) as well as the higher alcohol content, I highly recommend the technique.

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W.A. (Bill) Flowers email: waflovers@qnx.com  
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)  
(613) 591-0931 (voice) mail: 175 Terrence Matthews  
(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

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Date: Fri, 13 Aug 1993 15:09:34 -0700  
From: Richard Stueven <gak@wrs.com>  
Subject: Re: The Tumbleweed Report (Part 4)

Kinney laments:

The decision to brew with extracts still bothers me. I could see myself making excuses (like I'm doing now) to my brewing buddies and my newly acquired peers in the commercial brewing world. But this was no time to be dogmatic. Instead we had to be realistic about the physical brewing environment and the market we were trying to crack.

Sounds like you've slammed face-first into the Difference Between A Hobby And A Business.

Good luck, Kinney!

have fun  
gak

Richard Stueven, Castro Valley CA  
gak & gerry's garage, brewery and hockey haven

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Date: Fri, 13 Aug 93 18:53:51 EDT  
From: pblshr@aol.com  
Subject: Blackberry Mead

If anyone sent Drew Cluley the recipe for Blackberry Mead, I'd appreciate getting a copy.

PBLSHR@AOL.COM (Tom Finan)

---

Date: Fri, 13 Aug 93 16:58:53 PDT  
From: b\_roach@emulex.com (Brad Roach)  
Subject: Brew Pubs in Vancouver/Victoria

I am vactioning in Vancouver and Victoria during September. If anyone knows of some good brew pubs or beer bars worth checking out, please pass along the information.

Thanks,

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 / / /  
 /\_ / / ( ( < ( /

Brad Roach / QLogic / Costa Mesa, Calif  
b\_roach@emulex.com

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Date: Fri, 13 Aug 1993 22:40:57 -0400 (EDT)  
From: Jim Griggers <brew@devine.ColumbiaSC.NCR.COM>  
Subject: Shipping live yeast

I bought a "Yeast Culture Kit" from ~~\_\_\_\_\_~~ when I was at the AHA Conference in Portland. I had been thinking of buying one for some time, and their "special show price" of \$29.90 seemed great.

"Save \$10 since the regular price is \$34.95 and you save the \$5 shipping."  
"

I was told the slants would be inoculated on Monday after they got back to California. They would check for viability, and send them out by UPS. (Conference was July 27 - July 29)

I called ~~\_\_\_\_\_~~ Thursday, August 12 to check on the yeast. I was told it was shipped out Monday, August 9, by surface, which I assumed was by UPS.

The yeast arrived Friday in a plain manila envelope in the US Mail. My mail box is a standard flat-black metal rural box that spends 75% of its time in direct sunlight. Today is fairly cool (90F) and mostly cloudy. The temperature inside the box was around 105F. I guess I am lucky in that: 1) I was home, 2) I checked the mail early, and 3) today has mostly overcast skies.

To quote their catalog: "IMPORTANT NOTE: Due to the delicate nature of live yeast and the temperature extremes in many parts of our country, we STRONGLY recommend 2nd Day Air delivery of your yeast culturing kits. (2nd-Day Air delivery is the only way we can guarantee your live yeast cultures to be viable upon receipt)." They charge \$6.00 for this BTW.

I was disappointed. I know they saved money shipping it by US Mail (\$0.52 stamp), but why put the "IMPORTANT NOTE" in their catalog if it does not matter? I know the owner will make good on the yeast if it turns out to be fried, but that is not the point. I had delayed brewing because I didn't have any more yeast and I wasn't going to get more Wyeast since I had this yeast on order. (I drive 80 miles, each way, to Charlotte, NC to buy yeast, so I usually stockpile.) If the yeast turns out bad, then it would be another two weeks before I could expect a replacement.

I guess I am asking the yeast experts out there what they think about the above conditions in the handling of yeast. What is affected by high temperatures of yeast on a slant, other than possibly lower viability? Can elevated storage temperature cause undesired fermentation characteristics?

I am NOT knocking the shop owner or ~~\_\_\_\_\_~~, but I am questioning their choice of shipping. I have heard nothing but praise about their operation.

The kit I bought is supposed to be the best on the market. The yeast I received may be in perfect condition. I am simply asking for information regarding yeast handling, since I am certainly not an expert on this subject.  
Thanks.

-Jim Griggers    [jdg@devine.columbiasc.ncr.com](mailto:jdg@devine.columbiasc.ncr.com)  
West Columbia, South Carolina

PS. Since I have not tested or used the yeast in question, I feel that it would be unfair to name the shop.

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Date: Fri, 13 Aug 1993 08:17:44 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: RE: fermenting a lager

Patrick asks in HBD 1203 about \*fermenting\* a lager by placing the carboy in a referigerator without using an AirStat(tm) or other thermostat. His concern was temperature fluctuations.

The problem isn't so much with temperature fluctuations as with the mean temperature, Patrick. To ferment, you're looking for temperatures in the 45 - 55 F range. This is too warm for most referigerators. They're expecting to keep things in the 32 - 40F range. Note that this is ideal for lagering, but not for the fermentation. In fact, I have an AirStat(tm) and the main problem I have with it is that it only goes down to 40F. Why? Well, who sets their air conditioner below 40 degrees? So, I use the AirStat(tm) to control in the fermentation and serving range, and just use the built-in referigerator thermostat when lagering. There's a guy in our local brew club who uses a thermostat he got from Granger -- it controls over the whole range we want, and costs about the same as the AirStat(tm). You don't get the fancy LCD display though. If you have a Granger catalog, you might check it out.

Hope this helps...

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Tom Leith InterNet: trl@wuerl.WUstl.EDU  
4434 Dewey Ave. CompuServe: 70441,3536  
St. Louis, Missouri 63116  
"Tho' I could not caution all  
314/362-6965 - Office I still might warn a few:  
314/362-6971 - Office Fax Don't lend your hand  
314/481-2512 - Home + Infernal Machine to raise no flag  
atop no Ship of Fools"  
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Date: 14 Aug 93 18:41:56 EDT  
From: Harry Covert <73232.167@CompuServe.COM>  
Subject: Brewpot w/Electric Water Heater Element

I am about to make a brewpot from a 15.5 gallon SS keg. Since I want to brew indoors I would like to heat the pot with an electric water heater element. Has anyone else done this, and if so, how did you do it?  
Thanks.

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Date: Sun, 15 Aug 93 23:36:00 BST

From: r.wize@genie.geis.com

Subject: Missing Head

I have made some decent all grain beer lately but have noticed a significant difference in the way they hold a head. I have been very careful to pour the beers in the same type cleansed glassware so the only variable I can turn to is the grains. What makes this unique I believe is that the beers which do not hold a head are Wheat beers. My pale ales keep a head for a good 5 minutes while my wheat beers lose their head within 2 minutes. Two comparable grain brews were;

|            |        |      |
|------------|--------|------|
| Wheat Pale |        |      |
| Brit Pale  | 08lbs  |      |
| Klages     | 6lbs   | 1lb  |
| Wheat      | 3.5lbs | .5lb |
| Crystal    | .5lb   | .5lb |

Is there something I don't understand here? I always thought wheat beers would have longer lasting heads and that is why you add a little wheat to most recipes.

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Date: Sun, 15 Aug 1993 22:07:53 -0500 (EST)  
From: MIKE LELIVELT <MJL@UNCVX1.OIT.UNC.EDU>  
Subject: Fifth annual TRUB open

A brief announcement for an upcoming competition.

The TRIangle's Unabashed homeBrewers (TRUB) will host its fifth annual TRUB open on 10/16 of this year in Durham, NC. All catagories except Sake will be judged. If you are interested in obtaining an entry form or in judging for the competition, send me an e mail message at "mjl@uncvx1.oit.unc.edu". In the past we have received more than 75 entries thus judges have received a full experience point. Accommodations (read fellow member's sofas) will gladly be made available to travelling judges who request them. Prizes in the form of ribbons and a trophy and a case of Sam Adams whatever for best of show will be awarded. MIKE

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Date: Mon, 16 Aug 93 05:45:39 EDT  
From: Greg Roody - MCS Prod Srvc Mgmt O/S Domain - 508-496-9314 16-Aug-1993 0545 <roody@stowoa.enet.dec.com>  
Subject: Auto Reply from Watch\_Mail for 13-AUG-1993 11:30 to 31-AUG-1993 08:00

I will be out of the office on Vacation from Friday 13 August (afternoon only) until Monday 30 August.

I will be back in the office on Tuesday, August 31st.

I cannot check my voice mail (at DTN 276-9314 (508-496-9314)) while I'm away, so:

-- If this is a non-critical & non time dependent matter, please leave a message and I will deal with things when I return.

-- If you don't wish to wait, you can try contacting my partners in NT, Annemarie Davies at 276-8250 or Ed Mchugh at 276-9149, or my manager Susan Dugdale at 264-3699.

/greg ()

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\* Note this will be the only "Automatic" message you will receive until  
\*  
\* I return. Of course, if you are on a cluster, this is the only  
message \*  
\* that this "node::user" will receive; using a different node::user  
will \*  
\* fool this silly little .com routine and you will get another copy of  
\*  
\* this message. \*  
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Date: Mon, 16 Aug 93 05:51:57 PDT  
From: 16-Aug-1993 0845 <macdonald@alvax.enet.dec.com>  
Subject: Homebrew Market Size Data

I have an idea for a product that might be of interest to homebrewers. While I'm working on a prototype I'm also searching for sources of information on the homebrewer marketplace. Data on U.S., Canada, and Europe is of interest. I'm interested in estimates of the number of homebrewers, the dollar value of the market, and detail on how the dollars are spent (supplies, equipment, etc.) If anyone knows a source or has this sort of information I would love to hear from you via E-mail.  
regards,  
Bruce

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End of HOMEBREW Digest #1205, 08/17/93  
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Date: Mon, 16 Aug 93 08:51 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: WORT AERATION

WORT AERATION PRIOR TO PITCHING

Jack Schmidling  
Aug 14, 1993

There has been a great deal of enthusiastic reporting on the use of aquarium air pumps to aerate wort prior to pitching yeast and many rather preposterous claims of shortened time to the onset of fermentation resulting from the use of same. As the author's experience on one batch did not support any such claims, a controlled experiment was designed to determine the validity of said claims.

The experiment described herein compares the air pump aerator with several other less exotic methods along with an un-aerated control batch.

The wort used was withheld from a batch of Pilsner style beer with a gravity of 1.050. It was re-boiled several days after the original batch was pitched so that it could be pitched with controlled amounts of krausen from the new batch. The re-boiling was to re-establish an anaerobic environment along with re-sterilizing the wort.

Prior to pitching, the wort was divided into (4) 500 ml samples in sterile, one quart mason jars and aerated in various ways as follows:

#1 Control... No aeration. Just gently poured from kettle into jar.

#2 Siphon Simulation... Poured into jar from a height of 12 inches in a narrow stream to simulate what one would get simply by siphoning and letting the stream fall into a fermenter.

#3 Pumped from kettle through nozzle to "squirt" into jar. This is the system normally used by the author to transfer from kettle to fermenter.

#4 Aerated with aquarium pump and fine mist airstone. Pump was run until foam volume equaled wort volume then shut off till the foam collapsed. This was repeated 5 times for a total on-time of (2) minutes. The time was based on a very conservative scale down from Miller's suggested time of 15 minutes for a 5 gallon batch. It represents about 5 times the amount of air per unit wort volume recommended by Miller. (\*1)

The wort was cooled to a temperature of 70F before being aerated. All four samples were pitched with 50 ml of working krausen. This active wort was taken as a single sample and thoroughly mixed prior to dividing into 4 individual portions to assure a homogeneous and identical yeast in each test.



The yeast used was Pilsener Urquel recultured from a slant obtained from Paul Farnsworth. (\*2)

After pitching, the four test batches were placed in a refrigerator at 40F and checked every four hours for signs of incipient fermentation.

RESULTS.....

No sign of fermentation was detected until the 72 hr check. At this time, a small island of bubbles was just visible in the center of all four samples.

To accelerate the conclusion of the experiment, the samples were removed from the refrigerator and allowed to rise to room temperature (75 F). They were monitored until the entire surface of the fermenters were covered with foam. This occurred about 9 hours later on all four samples.

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ALE YEAST

To take the experiment one step further, a similar but abbreviated experiment was conducted with ale yeast.

Two 500 ml samples of a similar wort were treated as follows:

#5 Control... No aeration

#6 Shook jar vigorously until foam volume equaled wort volume. This was allowed to settle and repeated (5) times.

Both samples were pitched with 0.4 grams of granulated EDME ale yeast, poured directly on top of the wort.

They were maintained at a temperature 75 F and monitored regularly until the onset of fermentation. This occurred at 4.5 hrs in both samples. The tops of both fermenters were covered with foam at 10 hrs total elapsed time.

CONCLUSION...

The experiment seems to confirm the author's previous experience and points to the conclusion that the method of aeration used has no correlation with or effect on the time to onset of fermentation. Contrary to frequently stated anecdotal experience, the un-aerated control samples started fermenting as soon and with the same vigor as the variously aerated samples. This was true both in the case of cold temperature lager yeast and room temperature ale yeast.

This experiment was not intended to test any other aspects of the brewing process that may be affected by wort aeration. Much has been written on the subject and the present author's intent was only to study the effects of aeration on the onset of fermentation.

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\*1 Dave Miller on Hung Fermentations, Brewing Techniques,

May/June 1993

\*2 Dr Paul Farnsworth, Scientific Service, San Antonio, TX

js

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Date: Mon, 16 Aug 93 10:40:20 -0400  
From: <geotex@engin.umich.edu>  
Subject: Lager yeast at warm Temp.

I am preparing to brew up a pilsner from Charlie P's book. I have purchased Wyeast American Lager yeast.

I realize that that I will not obtain a true pilsener without a lagering operation, but at this time, I don't have the means to keep the fermentation cool. (I had hoped I would by now).

So the big question is: Should I go ahead and brew this batch at a warm temp. (70+) with the lager yeast? More specifically, will I get a complete fermentation from lager yeast at the warm temp?

Charlie P. says that the lager yeast will do okay at room temp, but I wanted to see if anyone had any bad (or good) experiences with this type of situation. (Or, if anyone had any suggestions)

You can e-mail me to save bandwidth.

Thanks for the input,  
Alex

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Date: Mon, 16 Aug 93 10:01 CDT  
From: korz@iepubj.att.com  
Subject: To: Bart Thielges

Bart--

My machines cannot reach your machines - please call me at 708-430-HOPS  
some evening. Sorry for use of bandwidth.  
Al.

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Date: Mon, 16 Aug 93 9:32:27 MDT  
From: npyle@n33.stortek.com  
Subject: Re: Recipe formulation

John Montgomery asks about formulating his own recipes. He says he has 10 or 11 all grainers behind him and wants to strike out creating his own recipes.

This brings up an interesting point to me. I wonder how many people with this much experience have done this little experimenting. I have brewed a total of 16 batches, the last 5 or 6 being all-grainers. I have been trying new things with recipes since the second batch. Now, maybe I'm taking more creative credit than I'm due, because I usually start with a recipe. I then adjust it for my setup, ingredients on hand, ingredients available at the local HB shop, my whims, etc. Doing this, I've only really screwed up one batch due to poor recipe formulation, and I used it for boiling brats, etc. so it wasn't a total loss.

The biggest variability I found was with hops. Once I found Rager's formulas in the Zymurgy hops special addition, this went away. Of course, yeast is a big contributor, but with some common sense, you probably can't pick a yeast that will ruin a brew. The grain affects final flavor in a big way too, but again, you won't ruin a batch by picking an American 2-row rather than a Belgian 2-row. It will be different, and you may prefer one over the other (I bet I know which one!) but it won't be bad.

With John's experience, he should be experimenting a lot, IMHO. Maybe I screw around too much but then I'm not out to win contests. I'm only out to brew a beer I really like. For me that means variety, and variety means experimentation, which is a major reason I homebrew. I guess I've rambled enough about this. Comments?

norm  
- - -

Norm Pyle, Staff Engineer Storage Technology Corporation  
npyle@n33.stortek.com 2270 South 88th Street  
Louisville, CO 80028-0211  
(303) 673-8884

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Date: Mon, 16 Aug 1993 11:32:05 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Sham(?) Glassware

I've lost track of this company. Can somebody help me get in touch with them?  
Address and/or phone number would be greatly appreciated....

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Date: Mon, 16 Aug 93 12:53 CDT  
From: korz@iepubj.att.com  
Subject: Yeast FAQ corrections

First off, 3 cheers to Patrick for the effort in compiling all that yeast information!

I have a few additions and corrections, however:

- > Lallemand Nottingham Yeast
- > This yeast is remarkable for its high degree of flocculation. It settles out very quickly and firmly.
- > Very good reputation. Very fast to create a krausen and needed blowoff tube 6 hours after pitching hydrated yeast. Quick fermentation at 62F. It's very clean and only very slightly fruity in the keg, but tastes/smells nutty in the bottled version. Nottingham appears to be relatively attenuative (more so than the Coopers).
- >
- > Lallemand Windsor Yeast
- > Produces a beer which is clean and well balanced.
- > This yeast produces an ale which is estery to both palate and nose with a slight fresh yeast flavour. Very good reputation. Not a quick as the Nottingham. Not attenuative. Definite banana smell at racking.

According to two fellow Brewers of South Suburbia, Dick and Steve, the Windsor is more powdery (doesn't flocculate as well) as the Nottingham and thus tends to be more attenuative.

- >
- > Munton-Fison Ale Yeast
- > Starts quick. Produces some fruity esters. Attenuative.
- > Phenolic taste. Fair to good reputation.

I believe I was the one who reported the intense phenolic nose and flavor with M&F "Muntona" yeast. It appears, however, that they have gone to a new strain and a recent batch I made had none of the phenolics I reported earlier. I've read that improper rehydration (rehydration in wort rather than water) can lead to off flavors, so maybe that was the problem I had with the Muntona yeast.

>WYeast

First off, it's Wyeast and it's sort of a pun, since Wyeast is the Native American name for Mt. Hood which is not far from Wyeast Labs.

Also, a frequently asked question is "how do you pronounce Wyeast?" Well, it's pronounced like "WHY-yeast."

- > WYeast 1007 German Ale Yeast
- > Ferments dry and crisp leaving a complex yet mild flavour. Produces an extremely rocky head and ferments well down to 55 deg. F (12 deg. C). Flocculation is high and apparent attenuation is 73-77%. Optimum fermentation temperature: 62 deg. F (17 deg. C). A good balance of sweetness and tartness, with a pronounced green-apple note. A very pleasing yeast.

I did not get a green-apple note when I used this yeast. Perhaps it was just tasted young and it was actually acetaldehyde which is often found in young beers but later fades unless the beer is filtered (like Budweiser).

> WYeast 1028 London Ale Yeast  
> Rich mineral profile, bold woody slight diacetyl  
> production. Medium flocculation. Apparent attenuation  
> 73-77%. Optimum fermentation temperature: 68 deg. F (20  
> deg. C). Complex, woody, tart, with strong mineral  
> notes, this one will bite you horribly if you over-hop or  
> if your water is high in carbonates. If you avoid that  
> Scylla and Charybdis, it produces ales of marvellous  
> complexity and sophistication. Most of the time you'll  
> wish you'd used 1098 or 1056. Had best results in  
> porters. Over-hopping is especially bad, but if you  
> throttle the hops back, the results are indeed  
> marvellous. Used this yeast in a Kolsch once, and it was  
> \*fantastic\* The wood and mineral notes fused with the  
> Hallertauer hops (which were used with some restraint),  
> and a couple of months of cool ageing brought out some  
> green apple in the aroma as well as the palette. It  
> tasted a good bit hoppier than it really was, and overall  
> was well-balanced and smooth.

This is one of my two favorites (1056 being the other) and I've brewed some very high IBU ales with it without the overhopping problems reported here. Just 40 datapoints or so. Also, I'd like to mention that this yeast was used for the 1992 B.O.S.S. Challenge 1st place Barleywine, brewed by none other than Brian and Linda North.

> WYeast 2007 Pilsen Lager Yeast  
> Our original Lager Yeast Strain. Specific for pilsner  
> style beers. Known as many things, we call it Pilsen.  
> Ferments dry, crisp, clean and light. Medium  
> flocculation. Apparent attenuation from 71-75%. Optimum  
> fermentation temperature: 52 deg. F (11 deg. C).

It is worth mentioning that this yeast strain is reportedly used quite a bit in St. Louis, if you know what I mean ;^).

> WYeast 2035 American Lager Yeast  
> American Lager Yeast. Unlike American pilsner styles.  
> It is bold, complex and woody. Produces slight diacetyl.  
> Medium flocculation, apparent attenuation 73-77%.  
> Optimum fermentation temperature: 50 deg. F (10 deg. C).

This yeast allegedly is the one used by August Schell in new Ulm, MN.

> WYeast 2112 California Lager Yeast  
> Warm fermenting bottom cropping strain, ferments well to  
> 62 deg. F (17 deg. C) while keeping lager  
> characteristics. Malty profile, highly flocculant,  
> clears brilliantly. Apparent attenuation 72-76%.

Allegedly, the Anchor steam yeast.

> WYeast 2124 Bohemian Lager Yeast  
> The traditional saaz yeast from Czechoslovakia. Ferments  
> clean and malty, rich residual maltiness in high gravity  
> pilsners, medium flocculation, apparent attenuation  
> 69-73%. Optimum fermentation temperature: 48 deg. F (9



> deg. C).

Allegedly, one of the four (?) Pilsner Urquell yeasts.

> WYeast 2308 Munich Lager Yeast  
> Lager yeast from Wissenschaftliche in Munich #308. One  
> of the first pure yeast available to American home  
> brewers. Sometimes unstable, but smooth soft well rounded  
> and full bodied. Medium flocculation, apparent  
> attenuation 73-77%. Optimum fermentation temperature: 50  
> deg.F (10 deg. C).

I'd like to mention that I got an intense off aroma (like home perm solution) with this yeast fermented at 45-50F, but it miraculously disappeared after four months aging in the bottle at 40F.

> WYeast 3056 Bavarian Weissen Yeast  
> A 50/50 blend of *S. cerevisiae* and *delbrueckii* to produce  
> a south German style wheat beer with cloying sweetness  
> when the beer is fresh. Medium flocculation, apparent  
> attenuation 73-77%. Optimum fermentation temperature: 56  
> deg. F (13 deg. C). Problematical to get the right  
> flavour, often just produces bland beer, without the  
> lactic flavour.

No, no, no. Lactic sourness is the requisite characteristic of a \*Berliner\* weiss, not a Bavarian weizen -- Bavarian weizens are characterized by clove-like aromas/flavors and often some mild banana esters. What the original poster probably meant was: "Problematic to get the right flavor, often just produces relatively unattenuated beer, without the clove-like aroma/flavor." I have been thinking that perhaps it's the freshness of the Wyeast #3056 that makes the difference in whether you get the clove-like aroma/flavor or not. Any other data points?

> Red Star Pasteur Champagne Yeast  
> Very attenuative. Good for mead. Good reputation.

Popular yeast for Imperial Stouts and Barleywines due to it's high tolerance for alcohol. Some use it by itself, others pitch Pasteur after their chosen beer yeast poops out.

>Part 1: Hydration Procedure For Dry Yeast

>  
>a. Use 14 grams of dry yeast (usually 2 packets) per 5 gallons of brew.  
> \*\*\*Rigorously\*\*\* sterilize everything used in the hydration procedure.  
>  
>b. Add the dry yeast to 1/2 cup of water at 90F (32C). Leave for 15 mins.

According to the Lallemand newsletter, the proper temperature for rehydration is 104F to 110F. Also, you may want to mention that this should be boiled and cooled water, so chlorine is boiled off and so the water is sanitized. You would be surprised at how literally some people take directions!

Al.

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Date: Mon, 16 Aug 93 13:30 CDT  
From: korz@iepubj.att.com  
Subject: Re: rapid chilldowns after boiling

Rick writes:

>Hi all! I've been a homebrewer for about a year now, and since I live  
in a  
>small apartment, I can only brew from extracts and partial grain  
recipes.  
>A few days ago, I saw a brief post on the HBD where someone said NOT to  
>dump a boiling hot wort into a carboy filled with cold water. Why not?  
>I know Papazian says to do this, and while I would not jump off a bridge  
>if he told me to, I had never heard otherwise (I am a new subscriber to  
HBD).  
>My brews have all been quite good (if I don't say so myself), so I don't  
>know what the problem is with doing this. Please, someone, set me  
straight.  
>I'd like to get the facts.

I think the most important reason is to avoid aerating the hot wort. It  
would be okay to instead \*gently\* pour or (even better) siphon the hot  
wort  
into the cold water. Once the temperature of the wort has dropped to  
below  
80F (that's the commonly agreed upon temperature) you should then aerate  
the heck out of the wort, but not while it's still hot. Before I built  
a wort chiller, I used to gently lower blocks of boiled-then-frozen water  
into the kettle and then topped up the fermenter with boiled-cooled  
water.  
I noticed a BIG difference in the flavor and stability of my beer. I  
think  
you will too.

Al.

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Date: Mon, 16 Aug 93 14:41:51 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: Sanitation 'crit' - mea culpa

OOPS!

It was actually Al Korzonas, from Sheaf & Vine Brewing Supply, that called the manufacturer and emailed me the proper dosage (1 tbsp/gal) for B-Brite.

Sorry, Al

And THANKS!

jim

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11) Coil this using your favorite round object as a form. I used my old 5 gallon brewpot. Zip tie the coils together.

I attached 3/8" id plastic tubing to each end of the chiller. For the "in" end, I attached a 3/8" od copper racking cane. I hose clamped a copper Chore Boy scrubber to the end of the racking cane, to filter out hop particles.

To sanitize, I siphon iodophor solution through the chiller into the carboy. To start the siphon, put a female garden hose to 3/8" hose barb fitting on the "out" end and attach it to a water source, Place the "racking cane" into a bucket filled with sanitizer. Then run the water until all the air is removed from the system, disconnect the water source, and place the "out end" lower than the "in end" immersed in sanitizer. I use this same method to start the siphon from the hot wort (remember not to blow bubbles into the hot wort though).

This design works very well. I was able to drop boiling wort to within 5 degrees F of the tap water temperature. I found three drawbacks: 1) The flow is very slow. It took about 20 minutes to siphon 5 gallons through the system. 2) a fair amount of wort is left in the tubing then the siphon quits. 3) a fair amount of wort is left amongst the hops in the bottom of the brew kettle. I have a small food grade pump which I may attach to the outflow of the chiller next time I use it, which should solve #1 & #2 and help #3.

I may also add another, bare copper coil between the outflow of the CF chiller and the carboy. This coil will be immersed in a small ice bucket. This will minimize the amount of ice needed, and get that final, desirable drop in temperature.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312 x18  
drew@chronologic.com

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Date: Mon, 16 Aug 1993 13:39:37 -0700 (PDT)  
From: bmv@plaza.ds.adp.com (Brian M. Vandewettering)  
Subject: Welding Stainless

What special considerations are there for welding stainless steel for brewing equipment? I've heard that Cadmium rod should be avoided since it could leach into the hot wort. Are there other things to consider?

I've heard that you can arc weld stainless. While heli-arc gives a cleaner result, are there other reasons not to use a simple arc welder?

-brian

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Date: Mon, 16 Aug 1993 20:15:24 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Re: Water and Mineral Hardness

Steve asks:

>A few questions:

> 1. Where is the best place to get a water hardness analysis?

Check your local aquarium shop. They have kits that allow you to test your own water hardness.

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Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.

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Date: Mon, 16 Aug 93 17:27:38 PDT  
From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)  
Subject: re-priming results

As promised, here are the results from my attempt to recarbonate a partial batch of ale. This is a follow up to last week's response to Robert Pulliam's question about rebottling beer that has already been kegged. I can now comment on the results.

First, some history of the batch. It was brewed from a Boot's "mild" kit combined with 4lbs of unhopped amber extract. The following dates refer to time relative to the initial priming/kegging/bottling :

day 0 - batch is combined with 1/2 cup corn sugar and mixed in a 5 gallon cornelius keg. 2.5 gallons are then siphoned off into bottles.

day 2 - After noticing that the keg does not build up any pressure, I finally figure out an error that I made in reassembly. The error is corrected, but I am even more suspicious of the viability of the kegged beer. 1/3 cup of corn sugar in boiling water is added to re-prime the beer. About 1 gallon is siphoned off into bottles, leaving about 1.5 gallons in the 5 gallon keg. The relief valve at the top of the keg is left open overnight to allow air to be replaced with CO2.

day 12 The kegged beer is sampled. The keg starts with about 20psi and is relieved to about 5psi for dispensing. It is iced down from the cellar temperature of 70F to 50F. It tastes fine.

day 15 The kegged beer is iced down and sampled again. Now it has developed a harsh unpleasant bitter taste. Making the assumption that the lowered pressure has somehow activated a "bad" mode of yeast growth, I repressurize to 20psi.

day 16 The taste test. (see below)

The taste test involved comparing the three different sub-batches. Batch A is the originally bottled beer from day 0. Batch B is the beer rebottled on day 2. Batch C is what remained in the keg. Here's the comments from the tasters :

Batch Taster 1 Taster 2

- - - - -

A Tastes good. mature Tastes fine, full bodied

B Good, but a little "green" Like batch A except much more carbonation and a little thinner.

C Like batch B, but flat too bitter, a bit flat

So, one conclusion is that the re-priming technique seems to work well at the expense of losing some of the body. If it were re-primed with DME, perhaps the body could be preserved. In retrospect, 1/3 cup of corn sugar was too much for the repriming.

However, I am somewhat baffled about why the beer turned harshly bitter between days 12 and 15. This is the second time a kegged



batch turned out with this bitter taste. The first keg started out bitter even when filled to 5 gallons. It did however, have a long ride in the back of a car soon before tapping.

These bitter kegged beers are somewhat disappointing. So far, I have yet to get a good batch of beer from a keg. My bottled beers do not exhibit this problem. Does anyone have any guesses as to why my kegged batches are turning bitter ? Surely 100s of homebrewers using cornelius kegs can't be wrong.

Until I can figure out what is going wrong, Mr. Cornelius Keg is on probation.

Bart

(brewing equipment destroyed in this experiment : 0)

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Date: Mon, 16 Aug 93 17:39:59 PDT  
From: Victor Stevko (Human Genome Center, LBL) <stevko@genome.lbl.gov>  
Subject: hydrogen peroxide

DO NOT DRINK Hydrogen Peroxide! Gee whiz - look at your logic: hydrogen and oxygen aren't poisonous, you say. Sodium and chlorine ARE, yet table salt, sodium chloride, is an essential nutrient. Besides, even granting your (incorrect) logic, oxygen IS poisonous. Oxygen damages your body. Vitamin C is supposed to do its job by being an anti-oxidant - any connections? Your body does a great deal of work trying to keep oxygen, which, yes, is essential, from damaging you beyond repair. Honest- I did

a thesis on a related matter.

The super-oxidation of solutions you refer to IS the chemical reaction you are looking for - it breaks down proteins, lipids (fats), cell walls, etc.

That's how it kills bacteria as an antiseptic

Data point: Viruses don't respire aerobically or otherwise. An anaerobic

virus is a meaningless term.

Data point: Warts come and go, often spontaneously.

In beer, hydrogen peroxide will kill your yeast. Remember, it's supposed to stop infections?

Data point: There is a POISON label on that bottle oof peroxide. Why might it be there?

Mr. Childers, I am sorry to be so vehement, but I fear you are doing yourself harm. Stop drinking hydrogen peroxide, and do deep breathing exercises, if you want more oxygen. Call the researchers you refer to, and ask them about this, if you must. But do the research before the experimentation with your health and life - please.

---Victor Stevko  
stevko@genome.lbl.gov

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Date: Mon, 16 Aug 93 19:19:00 +0000  
From: WHEATON\_JOHN/HPBOI1\_03@hpdmd48.boi.hp.com  
Subject: SS 55 Gallon Drum

Item Subject: d:/memo/jw55gal

I am in search of expanding my boiling kettle to over 25 gallons. I have heard that there are 55 gallon SS drums that are used in the food industry. Does any one know where I can get one. I have checked our local cafeteria but they say no one uses them anymore.

Any clues? I did find 55 Gal. SS drum behind a restaurant but it is being used for old grease. Yum! that will make for quite a clean up and is my last resort to ask them for it.

Does anyone have any other suggestions for making a 25< boiling kettle? Remember, I have a (very) limited brew equipment budget.

John in boise

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Date: Tue, 17 Aug 93 9:09 BST  
From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>  
Subject: Strike temperature

Until recently, I mashed using a Bruheat boiler (a brewing bucket fitted with thermostat and element), but I became dissatisfied with the poor control of temperature, hot spots near the element etc. I've now bought an insulated mash tun (actually a picnic chest with tap and slotted pipe sparge manifold).

This is probably an FAQ, but can someone tell me the specific heat capacity of crushed malt, so that I can heat my strike liquor to the right temperature (65C)? Dave Line's books don't seem to take the mass of grains into account when calculating strike temperature. Alternatively, could you tell me what mass of grains you use and at what temperature, the volume of water and strike temperature, and the final mash temperature, so that I can work it out for myself.

Thanks

Andy Phillips

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Date: Sun, 15 Aug 1993 18:13:18 -0700 (PDT)  
From: Marcia Ingrid Hageman <MHAGEMAN@OREGON.UOREGON.EDU>  
Subject: Fruit Beer/calories

Fellow Brewers:

A couple of questions for you. Thanks in advance for your help!

1. Fruit Beer - I have a large amount of fresh-picked wild blackberries that I'd like to preserve for later addition to beer. What's the best way? Are they best frozen, or first made into syrup and canned? If canned, can I safely omit sugar, or is that needed for prevention of spoilage?
2. Fruit Beer - OK, so I've got the berries... now what? How much fruit is added to what kind of "base" beer? Any recipes?
3. Beer belly - Are there reliable ways of measuring caloric content of homebrew? This is of some concern to my wife, who sees my once svelte > ; -) abdomen tending toward flab.

Thanks again,

Kyle Hammon  
MHAGEMAN@UOREGON.OREGON.EDU

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Date: Tue, 17 Aug 93 08:28:03  
From: neal.ridgeway@mms.raleigh.nc.us  
Subject: ICE-BREWED BEER

A friend of mine just returned home from Canada and he told me of a new slogan being used by the Canadian breweries. He said they were now selling "Ice Brewed" beers! I asked him if he didn't mean "Cold Filtered" and he assured me that it wasn't cold filtered or ice filtered but "Ice Brewed". He told me he like Labatt's the best, but also like Molson's, Carling Black Label, and others.

Is this something new in brewing like "Dry Beer" was or are we talking about the old process of Lagering?

Also - Like JS, I have used an aquarium pump to try to aerate my new batches of ale. For me it just never did as well as my old reliable 18 inch stainless steel 3/8 inch tube with the 4 1/16 inch holes drilled 2 inches from the top. With my SS Keg/Boiler sitting at approx 3 feet of the ground, approx 2 feet of 3/8" ID vinyl tubing connecting the spigot of the boiler to the SS tubing, when I open the spigot and start pouring 65-70 degree wort into my primary, the air rushing through the holes in the SS tubing COMPLETELY aerates the wort. When finished there is a good 12 inches of foam protruding out of the fermenter.

Hoppy trails to U.  
Neal

neal.ridgeway@mms.raleigh.nc.us

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Date: Tue, 17 Aug 93 09:07:14 EDT

From: gorman@aol.com

**Subject: Reusing Yeast Slurry**

I'd like to try to pour another batch of wort on top of the yeast slurry that's currently bubbling away in my primary fermenter. It's Wyeast California Lager.

Any advice via private email on things to do/not do, etc. would be appreciated.

Thanks in advance,

Bill Gorman  
America Online

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Date: Tue, 17 Aug 93 8:10:33 PDT  
From: ghultin@sfu.ca  
Subject: water, beer in BC, homebrew data

I enthusiastically second the kind of info Bill Flowers called for regarding water alterations. I have never fooled with my water, but it would be nice to see some more straightforward talk and less scientific language (which is difficult for me, a non-science type to understand).

Beer in BC. There are several microbreweries in BC. Don't be fooled by the name however, my experience (limited) with Seattle micros suggests that BC micros are smaller versions of the big brewers. Sure, Okanagan Spring, Whistler Breweries make good beer, but they do not have a diverse range of product, tending to stick with what sells in our relatively small canadian market. Don't even bother with Granville Island beers, they aren't worth it. If you've tried Canadian you've had these supposed micro beers. (actually, it's not that bad, but the general drift of meaning is there).

I do recommend Horseshoe Bay breweries. But Best for Last, go to Spinnakers Brewpub in Victoria. It is close to downtown, just the other side of the blue lift bridge, and they have wonderful brew, and a wonderful variety. Swann's Brewpub is also a good choice in Victoria. I tend to favour Spinnakers, but that's personal choice for you.

Finally, I would be most interested in any collected database of homebrew oriented information. If this collection does get made, are there any plans to share/post/distribute it? I would enjoy a copy.

geoff.

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Date: Tue, 17 Aug 93 12:08:39 EDT  
From: carlson@61.267.ENET.dec.com  
Subject: FWD: It was foamy with a mature flavor ...

LONDON (UPI) -- Divers exploring the wreck of a Royal Navy ship that sank near the Isle of Skye off Scotland during World War II have recovered a small treasure -- 48 bottles of beer, unopened and unspoiled after 50 years on the sea bed, officials at the Whitbread brewery said Tuesday.

The divers, members of the Hartlepool Diving Club, were exploring Royal Navy mine-layer HMS Port Napier when they discovered the cache of Whitbread beer in the ship's galley. When they brought the bottles to the surface, they sampled the brew and found it still drinkable.

``It was foamy with a mature flavor and you could still taste the beer,'' said Tony Brumwell, one of the divers.

The divers handed over some of the beer to Whitbread's Castle Eden brewery for testing.

``Beer is not meant to last a long time but our brewers are interested in analyzing it to test its condition and alcoholic content,``

said Whitbread Regional Director Jim Kerr.

A fire broke out on the HMS Port Napier in 1942 as it started out on a mine-laying mission. It sank in 80 feet of water. The navy later salvaged the mines from the vessel but the ship remains on the sea bed and is a favorite for exploration by divers.

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Date: Tue, 17 Aug 93 12:20:07 EDT  
From: "John R. Calen - Contacting Systems - E.F., N.Y" <calen@vnet.IBM.COM>  
Subject: RE:Grolsch Bottles and Carbonation

Philip J. Difalco suggests that contracting gaskets from the cold of his refrigerator may lead to reduced carbonation in his beer.

I disagree.

Assuming that the conditioning is finished, the "problem" is more likely the vapor pressure of the brew. The apparent carbonation is a function of temperature and atmospheric pressure.

Basically, beer with a given content of Carbon Dioxide in solution, will bubble more vigorously when it's warm than when it's cold. (Also on a rainy day vs. a sunny one. But that difference is slight.)

It's very likely that the one which is 40 degrees F or so cooler than the other will appear less carbonated.

Getting the thing nice and chilly is a good way to help offset the effects of an overcarbonated brew. In fact, I've got a batch right now that will gush if merely cooled, but is manageable once chilled. (Though it still needs decanting. Hey, I thought it was done!)

Regards,  
John Calen

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Date: Tue, 17 Aug 93 13:03:41 EDT  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: reLYeast culture kits & shipping

In the last digest,

<Date: Fri, 13 Aug 1993 22:40:57 -0400 (EDT)  
From: Jim Griggers <brew@devine.ColumbiaSC.NCR.COM>  
Subject: Shipping live yeast

<I bought a "Yeast Culture Kit" from ~~\_\*deleted\*\_~~ when I was at the AHA Conference in Portland. I had been thinking of buying one for some time, and their "special show price" of \$29.90 seemed great.

<The yeast arrived Friday in a plain manila envelope in the US Mail. My mail box is a standard flat-black metal rural box that spends 75% of its time in direct sunlight. Today is fairly cool (90F) and mostly cloudy. The temperature inside the box was around 105F. I guess I am lucky in that: 1) I was home, 2) I checked the mail early, and 3) today has mostly overcast skies.

I exchanged email with Jim, and just wanted to clarify that the kit in question was **\*NOT\*** from the Yeast Culture Kit Company. I was a bit concerned of this, thinking that there is a supplier that is not following the preferred methods of shipping. When shipping yeasts in the hot hot summer, it is most definitely a good practice to fork over the 6 bucks and get fast delivery. The yeast may be fine, it may not. A small test ferment is in order to ascertain the condition of the yeast.

Good brewing,  
Jim Busch

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Date: Tue, 17 Aug 93 12:09:24 -0600  
From: Mike Zulauf <zulauf@orbit.Colorado.EDU>  
Subject: withholding grains until after conversion

Hi everybody!

Now that I have my Gott insulated mash/lauter tun all set and ready to go, I have a couple quick questions.

I have heard from numerous different sources of the benefits of leaving any crystal malt of the mash until after conversion. This supposedly keeps the complex sugars in the crystal malt from being reduced to simpler, more fermentable ones, and has the effect of yielding a maltier tasting beer.

My first question is, how many people do something like this? Does it work?

Also, what other grains would benefit from this treatment? I've heard rumbles that dextrine malts might as well, but I would like a little more reassurance before I try it.

Thanks,  
Mike  
zulauf@orbit.colorado.edu

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Date: Tue, 17 Aug 93 14:00:23 -0400  
From: "Phillip Seitz" <p00644@psilink.com>  
Subject: Visiting Los Angeles

I will be in the Los Angeles area (mostly mid-town and Orange Co.) from this Saturday, August 21 through Thursday, August 26, and will likely have a lot of evening time to burn. Can anybody recommend any beer-related venues where I should spend my time?

More to the point, are there any brewers out there who'd like to meet up? A Maltose Falcons meeting?

Please send any suggestions to me via direct e-mail, and TIA!

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Baudouin Albert Charles Leopold Axel Maria Gustave of Saxe-Coburg Gotha  
(1930-1993)  
Fifth King of Belgium, 1950-1993

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Date: Tue, 17 Aug 1993 15:58:35 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: top fermenting infection?

Last may I used the last of my malt extract to make a smoke lager. I made the mistake of using yeast that hadn't seen fresh wort in six months and the fermentation took off very slowly and never picked up much speed. It fermented over a month in the fridge with no sign of stopping, and being an impatient person I took it out so it would finish up faster. It didn't. Even the heat wave didn't finish it off.

Finally two weeks ago I tasted it. Sour. Infected. Tasted terrible. So, two days ago I finally get around to dumping it out. After the first few inches of beer gurgled out of the carboy I noticed the beer aroma had improved. I poured myself a glass, and sure enough the bad flavor was gone! What's happening here? Shouldn't the whole batch be as bad as the stuff on top? Has anyone else ever experienced anything like this?

Steve Peters = sp2q+@andrew.cmu.edu  
\*Oxnar demands a \_Sacrifice!\_\*

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Date: Tue, 17 Aug 93 14:05:56 -0700  
From: dons@ca.sandia.gov (sheaffer donald a)  
Subject: Remove me from your mail list

Please remove my email address from your daily account.  
Thank You. dons@sn11-arpagw.11n1.gov.

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End of HOMEBREW Digest #1206, 08/18/93  
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Date: Tue, 17 Aug 93 12:38 CDT

From: korz@iepubj.att.com

Subject: yeast FAQ comments/Zymurgy Bashing/more yeast comments

Patrick writes:

> a. Place the starter jars in a location where 68F (18C can be held).  
Aerate  
> twice daily by vigorously shaking jars. 1L Erlenmeyer flasks are  
excellent  
> for this purpose because they permit vigorous swirling without getting the  
wort up by the neck and opening.

Yes, but I've read that although fermentation may be done at lower temps, 80F is a better temperature for starters. Remember, you're trying to increase your yeast bulk here, not make beer. Also, 1L Erlenmeyer flasks are extremely expensive from most places, unless you buy in bulk. If you're interested in a source for inexpensive 250ml, 500ml and 1L Pyrex Erlenmeyers in single-quantities, email me.

Another interesting point is that if you use a glass airlock, you can put that in your pressure cooker or autoclave (this is definately NOT recommended with a polystyrene airlock!). Jack Schmidling gave me a great tip that I use when I make starters on the stovetop: put an empty glass airlock on the flask and let the boiling wort's steam sanitize and FILL the airlock too! Again, don't try this with a plastic airlock (YUCK!).

> d. It is also desirable to reduce the temperature to a point closer  
> to the temperature that will be used in production if that is  
> lower than 18 C. For example, with lagers fermented at 10 C, this  
> is usually taken to be 14-15 C.

Yes and this should be done slowly. You should \*slowly\* lower the temperature of the starter to the temperature of the wort into which you will be pitching. A few degrees difference is okay, 10 degrees may increase your lag time, 20+ degrees may shock your yeast so they are never quite the same.

> a. At this time you should have a jar with about 500ml (a little more  
than 2  
> cups) of yeast for a 5gal ale batch. I would suggest pitching before the  
> krausen (foam) totally dies down so that the yeast are still in rapid  
growth  
> phase. The total volume will vary with batch size, yeast type, and  
your  
> personal experience/whim. Remember to keep yeast notes along with your  
beer  
> notes so that you can learn from experience!

This goes against what I've found to be true. Pitching \*just after\* the krausen dies down is just about ideal. Quoting Mike Sharp:

MS> what I really wanted to address was the 'you should pitch at high  
MS> krausen' myth. Research has showed that you actually want to  
MS> pitch just after the cells have entered their stationary phase.  
MS> (thats the stage after high krausen when the yeast begins to

MS> flocculate). The reason for this relates to the glycogen level  
MS> (think of it as the cell's gas tank) in the cell. During high  
MS> kraeusen the cells are rather depleted of glycogen and are less  
MS> able to multiply. This results in slow starts, a possible  
MS> increase in sulfur dioxide levels, and a host of other problems.  
MS>  
MS> The reference I have at hand for all of this is:  
MS> Impact of Yeast-Handling Procedures on Beer Flavor Development  
MS> During Fermentation by Pickerell, Hwang, and Axcell  
MS> American Society of BBrewing Chemists Journal,  
MS> 49:2, 1991

> c. It is not advised that you pitch the old wort and yeast into the  
fermenter  
> because the media has been exposed to air and oxidized, etc, etc.  
Therefore,  
> pour off or siphon off the old media, leaving the yeast on the bottom  
of the  
> flask. Pour this slurry into the primary or resuspend this slurry in  
> sterile water and add immediately to the wort. A short exposure to  
water  
> will not harm the yeast, although they should not be exposed to it for  
long  
> periods or they will lyse.

I don't think the spent starter liquid should be oxidized or was exposed  
to  
air. If you've had activity in the starter, the air in the flask has  
been  
displaced by CO2 created by the yeast. It's not a big deal if you pour  
it  
off or pitch it. The main reason for pouring it off is if you want to  
make more yeast but you don't have room in your flask. You can then  
pour off the liquid and add fresh, sterile wort.

>(v) Autoclave the tubes at 15 psi for 5 mins.

Actually, 15-20 minutes is recommended.

>(vi) Tighten the caps on the tubes, and place them at a  
> 30 degree angle. Allow them to solidify at room temperature.  
> Solidification should become apparent within a few hours.  
> Tubes which are not solid after 24 hrs. should be discarded.

You should let the tubes cool quite a bit in the autoclave/pressure  
cooker  
before you tighten the caps. If you tighten them when they are too hot,  
they will implode. I let everything cool overnight in the pressure  
cooker.

>Note: Petri dishes can not be autoclaved, and so alternate procedures  
are  
>needed for them. A common practice is to autoclave the malt/ agar  
solution in

No, no, no. You mean disposable, polystyrene petri dishes cannot be  
autoclaved. Polypropylene and glass petri dishes can be autoclaved. I,  
personally, don't like to use disposable anything, so I've found a source  
for glass petri dishes. Email me for a single-quantity source.

Gosh, I hope I don't sound too negative about Patrick's posts -- they  
were

a lot of work and, he has said that they are collected from various sources. These sources are not always 100% on target and therefore some minor errors are inevitable. Again I must tip my (HopUnion) hat to Patrick for a well-done piece of work.

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Subject: re:Zymurgy bashing

I'm with Jim Busch on this topic -- Zymurgy and the AHA in general have been making efforts to improve and I, for one, am glad to see that they are soliciting more input from us.

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More from Patrick:

> Yeast are unicellular fungi. All brewing yeast belong to the genus  
> Saccharomyces.

Ahem, since I occasionally brew Pure-culture Lambieks, I take great exception with this statement. There are a great many different genus of yeast that play a role in Lambieks, for example, Brettanomyces. See J.X. Guinard's book Lambic for a detailed discussion of all the different microbiota that work in concert to make this most complex of beers.

Al.

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Date: Tue, 17 Aug 1993 22:17:10 -0400 (EDT)

From: CCAMDEN@delphi.com

**Subject: Your favorite supplier?**

OK, my first batch is busy bubbling away. (Is it normal to go in and just look at it every so often?) And I am already looking forward to the next time.

My local homebrew store is really just a health food store with a corner devoted to brewing and wine making. However, not only is their stock limited, but I question how old some of the stuff is. So I have been calling a few mail order suppliers and requesting catalogs. In a few days I will get 5 or 6 and then I will have to decide who to use.

So, help me out. Who is your favorite mail order supplier? Which one seems to do the best job? I welcome any and all opinions.

Email replys welcomed. (I'm sure this would be old hat to most.)

Thanks, Cary Camden

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Date: 18 Aug 93 13:16:13 GMT+1100  
From: Davin Slade <10692851@eng2.eng.monash.edu.au>  
Subject: Boiling

I am only new to the brewing idea so please forgive my ignorance.  
When people talk about boiling is this to produce the syrup that you  
can buy in the can from the homebrew shop. ie to make your own taste.

If so i assume you add the yeast later after it as cooled to the  
temperature for brewing.

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Davin Slade, 4th Year Civil Engineering, Monash Uni, Oz  
10692851@eng2.eng.monash.edu.au or  
baldrick@yoyo.cc.monash.edu.au  
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"It was georgiousness and georgosity in the flesh"  
Alexander de Large, A Clockwork Orange, Stanley Kubrik, 1971  
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Date: Tue, 17 Aug 1993 17:22:24 +0200 (MET DST)  
From: Matthias Wrase <mwr@cs.tu-berlin.de>  
Subject: my own hops

Howdy !

It's time to harvest hops down here in Germany, so I took a look and found some very good looking plants in close vicinity to my parents' house. I have two resulting questions:

1) it's most probable that these are "wild" hops. Are these useable for homebrewing anyway ?

2) if I can use these hops - how can I measure the amount of alpha-acid so I know how much to use of them for my next batch ?

Thanks in advance for any response !

Matt

- - -

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\* Matthias Wrase | \*  
\* mwr@cs.tu-berlin.de | TU Berlin - only the fittest survive \*  
\* mwr@marie.physik.tu-berlin.de | \*  
\* ag729@freenet.hsc.colorado.edu | \*

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Date: Wed, 18 Aug 1993 07:57:09 -0400 (EDT)  
From: Tom.Weicht@arrc.ncsu.edu  
Subject: C. cerevisiae taxonomy?

Respond to: deb\_neher@ncsu.edu

Re: S. cerevisiae and taxonomy, 1 of 2 (The most important IMO)

I originally had this posting over 8K. If I can post more than 8K per day, the other will follow today. Other wise, the other will follow tomorrow. There are more direct answers to others posting on this subject in 2 of 2.

The main point I wanted to make in my first posting was that in industrial/commercial culture collections taxonomy is often perverted for a variety of reasons, and as a result, caution should be used when accepting a classification as RIGHT or dismissing a classification as WRONG. The requirements for proof of a species may be beyond what is possible for every isolate used in fermentation when the current genetic status of commercial yeast cultures make this difficult at best, and impossible based on traditional taxonomic approaches. The fermentation sciences do not hold to the same naming convention as other practical sciences using mycological taxonomy. This could ultimately result in few vegetatively propagated isolates which have been in the industry for a long time, but incorrectly classified as *S. cerevisiae*. The fungi unlike other organisms can be correctly classified under more than one latin binomial. The ideal latin binomial for a fungus is the one reflecting the sex reproductive stage or teleomorph. However, a fungus (or fungal culture) which does not readily show this stage, but also, has an asexual reproductive stage or anamorph will have a latin binomial related to this stage, these are the Fungi Imperfecti. Therefore, in order to resolve controversy over a yeast's teleomorphic identity, in the case of the Saccharomycetaceae, the asci and ascospores would have to be produced. However, many commercial isolates have lost their ability to sporulate. This is the result of polyploidy (multiple genomes; greater than 2x the haploid or diploid) and aneuploidy (a genome which is not an even multiple of the haploid). This genomic status is important to the fermenting and baking industries because of the genetic stability and minimal susceptibility to mutation multiple genomes confer on an isolate. Laboratory isolates of species of the Saccharomycetaceae are often relatively stable haploids and diploids. Because of asporogenous ambiguities many authors address the species "*S. cerevisiae* (sensu lato or s.l.)" = "*S. cerevisiae* (in the broad sense)" suggesting that it may be a complex of organisms which deserve other classifications. Therefore, best source for understanding the asporogenic brewing yeasts will be the tools of molecular genetic: mapping, probing (genomes, mitochondria and ribosomes), restriction fragment length polymorphism, and random polymerase chain reaction patterns (PCR fingerprints). Fungal genomes are large and the necessary technologies are just becoming widespread enough so that probably much information will be available in the next few years. Currently, most research seems to be with laboratory isolates.

Based on classical taxonomy, the anamorph of yeasts used in brewing may be best, or most confidently, classified as *Candida* (*cerevisiae*??). The precedence established in the *Sylloge Fungorum* by Saccardo, has the hierarchy of characteristics used to classify the Fungi Imperfecti as follows: Conidia (spores or buds) take precedence over mycelial structures. A description of the genus



from Barnett and Hunter, Illustrated Genera of Imperfect Fungi reads: Mycelium not extensive; conidia (blastospores) hyaline, 1-celled, ovoid to fusoid, forming short chains by budding. Because of Saccardo's precedence to spores, I am ignoring mycelium in the description. The ontogeny of blastospores is identical to budding. The down side of this classification is that it is uninformative. This genus is basically a trash can. *Candida* has members which are both basidiosporogenous and ascosporeogenous.

When addressing a fungus in standard communications, most other sciences use a name which applies to the morphological stage which dominates process. For instance, if a vineyard were inoculated with *Botrytis cinerea*, it would be called *Botrytis* (anamorph) and not *Sclerotinia* (teleomorph). Even in brewing, when addressing the organisms which occur in a lambic, *Brettanomyces* (anamorph) is used over *Dekkera* (teleomorph). That the teleomorph *Saccharomyces* is used over an anamorphic classification in commercial industries could be the result of several circumstances. First, as stated earlier, the genus *Candida* is uninformative while *Saccharomyces* is more informative because it is a narrower description. In the above examples where anamorphs are used over the teleomorph, the anamorphs are very narrow and relate directly to one teleomorphic genus and are therefore, very descriptive and informative. The other reason *Saccharomyces* may be used over an anamorphic name may relate to a historical precedence. Almost certainly the past fermentations would have contained asci and selection toward asporogenous cultures occurred because of man's selective pressure. Because of this previous association, *Saccharomyces* was linked intimately with the nomenclature surrounding the fermentation process and because changing the nomenclature denotes less information there has been no strong pressure to change.

However, to call an isolate *Saccharomyces* spp. when only an asporogenous cultures exists has it liabilities because there is the connotation of sexual relatedness which may be unavailable. Further, because of the economic potential of these organisms there is probably much information not in the public domain. To feel secure about a particular classification of a particular isolate used in brewing or to rule another one out is probably not wise. Older more established collections of asporogenous yeasts are potentially sources where a few incorrect classifications may be found because of the fluxes which occur in the taxonomy of the entire subfamily *Saccharomycetoideae*. There is no basis upon which to classify a yeast if it only buds. Modern molecular tools and researchers studying these yeasts will establish the new basis of classification by comparing their results with traditional taxonomy. I doubt any of us have access to the teleomorphs the fungi in question or can find the appropriate citations describing these asci and ascospores in the detail required to make an independent judgement, and proof if it exists in the literature is probably buried in an article with a title like "Authentication of ATCC Strains in the *Saccharomyces cerevisiae* Complex by PCR Fingerprinting". I suspect that as more isolates are studied with the tools of molecular genetics these organisms will be shuffled and reshuffled for years to come.

Not all isolates are asporogenous, many are only difficultly sporogenous and some are relatively easily sporogenous. If any body on the HBD has information on this relative to brewing cultures I would like to know.

Tom Weicht  
(respond to deb\_neher@ncsu.edu)

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Date: Wed, 18 Aug 1993 07:59:57 -0400 (EDT)  
From: Tom.Weicht@arrc.ncsu.edu  
Subject: Taxonomy Debate

REspond to: deb\_neher@ncsu.edu

Re: S. cerevisiae and taxonomy, The debate, 2 of 2.

I originally had this posting over 8K. I would have preferred some of this prefacing 1 of 2 and some of this as post script to 1 of 2.

I would like to start by saying that I appreciate the feed back from my original posting, and I like debate as a way to refine my ideas; PLEASE DON'T TAKE ANY OF THIS AS A PERSONAL ATTACK or AN OUT OF CONTROL FIRE-FIGHT; I plan to be polite. I revisited some of the ideas and expanded on a few others in my second posting on this subject; particularly some of the subtleties of mycological taxonomy and certain areas of conflict and incongruities which have shaped my thoughts and prejudices on this subject area. Unlike just about any other area there is the potential for a great amount of debate on taxonomy.

First off, I want to say after rereading my original posting, I feel much of the response coming from it originates from an over statement of my position:

"Saccharomyces delbrukii or S. cerevisiae?? I personally believe both are technically incorrect. From the best that I have been able to find in the mycological taxonomy literature, the true name of this organism is Torulospora delbrukii, this is how the American Type Culture Collection lists it which sparked my interest and pursuit of this subject."

A more appropriate stating would have been:

"Saccharomyces delbrukii or S. cerevisiae?? I personally believe both MAY BE technically incorrect. From the best that I have been able to find in the mycological taxonomy literature, the true name of this organism is Torulospora delbrukii, this is how the American Type Culture Collection lists it which sparked my interest and THOUGHTS ON this subject."

Admittedly all I have ever looked up on this subject was the description of the teleomorph (sexual reproductive stage). Like several of the other posters (responders) both public and private, all I have found from the standard data base literature search on the subject was the reference to wine, and although I was tempted to acquire the ATCC isolate, I remember refraining because this isolate had not come from a brewing source. I suspect that if there is a publication in support of Wyeast, it is probably in molecular genetics article on S. cerevisiae and will take time to ferret out, ie. Computer data based searches on the obvious are probably incomplete. I have not prioritized this subject high enough to have done this work yet.

By the way I was reexamining my latest Current Contents search and found this citation.

Author JL Huffman  
Title Authentication of ATCC Strains in the

Saccharomyces cerevisiae Complex by PCR  
Fingerprinting (Vol16, Pg 316, 1992)  
Source Experimental Mycology 17: 2 (JUN 1993)  
Page 155

(It looks like there may have been two sources?? This is how I sucked it up from the search.)

I could conclude that I fell into a Wyeast myth as some of the posting have suggested. Admittedly, I made the assumption that there was some truth in their classification. Although there are fraudulent products available to the HOMEBREWER, I assumed there was no profit motive in this and thus, no reason to deceive the HOMEBREWER. (Antidotal reports suggest that since Siebel lost the contract for the Witbread yeast one distributor still distributes a yeast under that name; this APPEARS to be FRAUDULENT.) In fact, wouldn't the market place be more receptive to classifying this yeast as the classic weisbier yeast? HOWEVER, to base a classification on a classification in Weihenstephan is to make the same assumption I made. The only difference is that Weihenstephan is more sentimentally favored over Wyeast. (See explanation about asporogenous classification in the previous posting). The next issue of The Yeasts a Taxonomic Study will probably be a good source to settle some of our current issues of debate, but as the current issue YTS III seems to already have been surpassed by the research in the area of classification it too will also become out dated quickly (see the second half of my first posting where *S. carlsbergensis*, may be better classified as *S. pastorianus*). IMO there will be a explosion in taxonomical rearrangement as more isolates are tested with the tools of molecular genetics.

Because of the asporogenous nature of some isolates classified as *S. cerevisiae* the current status of the species is that of a repository for many isolates which may not be proven true members of the species. ie. *S. cerevisiae* has become a taxonomic trash can to a limited extent. Essentially, this status diminishes the information that can be concluded based on classification alone. It maybe interesting to contact Wyeast and see if they would share their source for classifying their isolate and if it is related to the Weihenstephan #68. I will write them a letter when I have time again to write some thing, and I will share this response if I get one.

Again, if there is a source of information about which isolates are sporogenous please inform me. I would enjoy proving the taxonomic status of any questionable isolates, and I am happy to change my opinion about the isolates in question.

I should include a small biography to let readers know where I am coming from, but I written a lot and have taken more time than I have for my brewing hobby. I'm too lazy to say much more than: I have two degrees in Plant Pathology (under grad and masters) from UC Davis. I have had two mycology courses in my history, an undergrad and grad, one of which I have also TA'ed. The grad version was an eclectic mix of every taxonomical opinion ever sustained in the discipline for more than one author. I collect slime molds as pets (for real) and pursue *Chantharellus* and other edibles in the woods regularly. I have published one key, but to tomato diseases not fungi, although a small fungal/pathogen key is part of the whole.

Tom Weicht  
(respond to deb\_neher@ncsu.edu)

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Date: Wed, 18 Aug 1993 08:59:00 +0000  
From: "Rick (R.) Cavasin" <cav@bnr.ca>  
Subject: re:WORT AERATION

Jack,  
Just a little quibble with your experiment. I wonder if there isn't one confounding variable you've overlooked, namely, fermenter geometry. The surface area/wort volume ratio, and the amount of head space in the quart jar fermenters is radically different than what most people would encounter in normal sized homebrew batches, even for people doing open fermentations in buckets. (people using blowoff tubes would fill their carboys near full, resulting in small surface areas with almost no headspace). I wonder if the rate of diffusion of oxygen from the headspace into the wort doesn't compensate for the lack of aeration in your 'control' sample. If people were using half empty carboys as primary fermenters (which I've done actually, got tired of fiddling with blowoff tubes and such - just split the batch between two carboys for the primary, then rack back into one for secondary), the comparison would be more valid. In the case of your lager test, is a starter/wort ratio of 1/10 typical? (don't know, don't do lagers myself)

Cheers, Rick C.

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Date: Wed, 18 Aug 93 9:22:11 EDT  
From: pconti@mercury.hyperdesk.com (Paul Conti)  
Subject: strike temperatures

> Andy Phillips writes:  
> Subject: Strike temperature  
>  
> This is probably an FAQ, but can someone tell me the  
> specific heat capacity of crushed malt, so that I can  
> heat my strike liquor to the right temperature (65C)? Dave Line's  
> books don't seem to take the mass of grains into account when  
> calculating strike temperature. Alternatively, could you tell me  
> what mass of grains you use and at what temperature, the volume of  
> water and strike temperature, and the final mash temperature, so  
> that I can work it out for myself.

It depends on the moisture content of the grain, but a good figure is  
.4 c/gram.

You will most likely need to experiment in any case when you run your  
numbers. For single step infusion using my gott cooler with slotted  
copper pipes and assuming grain at room temperature (68F), and  
further assuming 1qt of water per pound of grain my strike  
temperatures are:

| Strike Heat  | Mash Temp    |
|--------------|--------------|
| 160F (71.0C) | 148F (64.4C) |
| 162F (72.1C) | 150F (65.5C) |
| 164F (73.3C) | 152F (66.6C) |
| 167F (75.0C) | 154F (67.7C) |
| 169F (76.1C) | 156F (68.8C) |
| 172F (77.7C) | 158F (69.9C) |

When I do an upward step infusion I use 24oz of water per pound of  
grain with a strike heat of 146F (63.3C) and I get a mash temp around  
122F (50C). For the second step I add an addition 1/2 qt of boiling  
water 212F (100C) per pound of grain and my mash goes to 150F (65.5C).

I find it best to add strike water at few degrees higher than I really  
want. I then let it drop to the correct temperature in my mash tun  
before adding my grains. This works best for me. Your mileage may vary.

- - -  
Paul Conti | HyperDesk Corporation | Email: paul\_c@hyperdesk.com

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Date: 18 Aug 93 14:49:04 GMT  
From: GANDE@slims.attmail.com  
Subject: re: Welding Stainless

In HBD1206, Brian Vandewettering asks about welding stainless steel. A year or so ago I made a boiler out of a Sanke keg and welding a nipple into the bottom was required. I took the keg to a "professional" welding shop and inquired. The welders comments re stainless were:

1. It's considered a white metal and arc welding is very difficult if not impossible.
2. MIG welds (Metal Inert Gas) contain cadimum. Poisonous and could leach into your brew, the welder said MIG's are never put on surfaces to be in contact with food.
3. TIG welds (Tungsten Inert Gas) contains no toxic metals, will weld white metals, very strong and non-toxic. This is what I had put on my keg and it's been fine for over a year.

TIG welding is an art, apparantly, so it may cost a little more. My job (weld 3 little legs and a nipple, 2 holes cut with a plasma torch) ran about \$45(CANADIAN).

....GA

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
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Date: Wed, 18 Aug 93 10:11:40 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: Yeast Culture Kit Company

Does anybody have the address or phone number of the Yeast Culture Kit Company?

- --Tony

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Date: Wed, 18 Aug 1993 10:45:59 EST  
From: Kristof\_Mueller@voyager.umeres.maine.edu  
Subject: Bar Harbor Ale

I just tried a fantastic microbrew last night. It is from Bar Harbor, Maine, my home state. They have three brews: Real Ale, Pale Ale, and Coal Porter (a stout) They were all good, and I suggest trying some if you are ever in the area. They also give tours of there brewery, so check that out as well.  
- --Kris Mueller

Beer, Beer  
Starts with a B  
Ends with a R  
And has two E's

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Date: Wed, 18 Aug 93 10:39 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: Yeast

>From: Jim Griggers <brew@devine.ColumbiaSC.NCR.COM>  
>Subject: Shipping live yeast

>The yeast arrived Friday in a plain manila envelope in the US Mail. My  
mail  
box is a standard flat-black metal rural box that spends 75% of its time  
in  
direct sunlight..... (I drive 80 miles, each way, to Charlotte, NC to  
buy  
yeast, so I usually stockpile.)

One of the great advantages of culturing one's own yeast is that yeast  
purchases become a very rare event, dictated more by wanting to try  
something  
new than by the brewing schedule.

An obvious solution to the hot mailbox is to purchase culture yeast in  
cool  
weather.

Actually "buying" yeast could become a thing of the past. I haven't  
purchased any yeast since the last time I used EDME. They have all come  
via  
swaps with other homebrewers.

It occurs to me that yeast swapping could be very effectively supported  
by  
computer networks. If we can use them to find out the names of pubs in  
a  
town to be visited, we should be able to just as effectively find a free  
yeast culture we want.

ATTN: YEAST SWAP

I will start the ball rolling by offering a PU culture for a good  
European  
red wine culture.

>I am NOT knocking the shop owner or ~~\_\_\_\_\_~~, but I am questioning  
their  
choice of shipping.

I thought it was YOUR choice. Didn't they offer air as an option?

>From: korz@iepubj.att.com

> WYeast 2124 Bohemian Lager Yeast  
> The traditional saaz yeast from Czechoslovakia. Ferments  
> clean and malty, rich residual maltiness in high gravity  
> pilsners, medium flocculation, apparent attenuation  
> 69-73%. Optimum fermentation temperature: 48 deg. F (9  
> deg. C).

<Allegedly, one of the four (?) Pilsner Urquell yeasts.

Two rumors I would like verified here....

The first is the blending of (4) different beers from (4) different yeasts by

PU. This was reported in an article I just read but do not recall where.

Nothing of this sort was reported by Daryl Richman from his visit to the brewery.

I was told by "someone" and it may have been the owner of Wyeast that they do

not have a yeast from PU. It is similar but not one of their yeasts.

The yeast I use was obtained by Paul Farnsworth from PU and in a conversation

with him, he mentioned nothing about (4) yeasts. I would not have started

using it if it was just one of four used. I will call him but would like

some backup facts/rumors first.

js

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Date: Wed, 18 Aug 93 10:34:38 -0600  
From: Kelly Jones <k-jones@ee.utah.edu>  
Subject: Heat Capacity of Malt / Infusion Calculations

In HBD #1206, Andy Phillips asks about the heat capacity of crushed malt, to be used for calculations of infusion mashes. I have found that the number 1350 (where water is about 4200) to work well for me. I believe the units are J/Kg/K, but this is not important. Alternately, one could use the dimensionless number 0.32 for the malt, where water is equal to one. Of course, this will vary somewhat depending on the type of malt used, the moisture content of the malt, etc. but this should be a good starting point.

For those not familiar with these calculations, I will present them here:

First, let  
Cpm= heat capacity of your malt, about 0.32  
Cpw= heat capacity of water, 1.0  
Mw = mass of water used  
Mm = mass of malt used  
Tw = temperature of strike water  
Tm = beginning temperature of malt (usually room temperature)  
Tf = final temperature of mixture (rest temp)

Masses and temperatures can be in any units, as long as you are consistent.

The basic formula, then, is

$$(1) \quad T_f = (C_{pm} * M_m * T_m + C_{pw} * M_w * T_w) / (C_{pm} * M_m + C_{pw} * M_w)$$

This can be rearranged in many ways to solve for the desired unknown. For example, if we want to know the quantity of water to add to result in a desired protein rest temperature, we can write

$$(2) \quad M_w = C_{pm} * M_m * (T_f - T_m) / (C_{pw} * (T_w - T_f)) \quad \text{or, using the numbers for } C_{pm} \& C_{pw},$$

$$(3) \quad M_w = .32 * M_m * (T_f - T_m) / (T_w - T_f)$$

SO, suppose you have 4Kg of malt at 25C, and you want to add some quantity of water at 54C to achieve a protein rest temperature of 50C:

$$M_w = .32 * 4 * (50 - 25) / (54 - 50) = 8 \text{Kg of water}$$

These formulas can also be used to calculate additional water quantities to raise the mash temp further. However, different variables must be used: Instead of Mm, we will substitute Mmash, the mass of the mash, equal to the total mass of malt and water used so far; for Tm, we will substitute Tmash; and for Cpm, we must use Cpmash, calculated as

$$C_{pmash} = (C_{pm} * M_m + C_{pw} * M_w) / (M_m + M_w)$$

Thus, the revised formula (2) is

$$M_w = C_{pmash} * M_{mash} * (T_f - T_{mash}) / (T_w - T_f)$$

continuing our example, we have Mmash = 4Kg + 8Kg = 12Kg, Cpmash =

$(.32*4+1*8)/(4+8) = .773$ . Suppose our mash temp is still at 50C, and we want to raise it to 66C for a saccharification rest using some quantity of water at 100C. Then

$M_w = .773*12*(66-50)/(100-50) = 3\text{Kg}$  of additional (boiling) water.

Some simplifying assumptions have been made here, but they seem to work out just fine. (So please don't get on my case about enthalpies of mixing, non-additive Cp's, etc.) You may need to play around with the value of Cpm to get these equations to work out better for you. Also remember that your mash tun will absorb some heat, resulting in a rest temperature slightly lower than that predicted here. You may want to shoot for a degree or so higher to compensate. Note that your boiling water temp may not be 100C.

Equation (1) may be rearranged, if instead it is desired to know, for example, what water temperature should be used to obtain a given temperature rest for a given volume of water ( if one is shooting for some specific mash thickness).

Hope this helps (or did it just confuse the hell out of you?),

Kelly <k-jones@ee.utah.edu>

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Date:Wed, 18 Aug 93 11:35:23 CDT  
From: inline@vnet.IBM.COM  
Subject: Cold plates and wort chilling

With all the recent talk about cooling wort, I started wondering if you could use a cold plate to accomplish this. If the tubing inside the cold plate isn't SS you might get off flavors, or you might clog the thing up with hop particles, but is it a valid idea ? Any thoughts/experiences ?

\*\*\*\*\*  
Chris Williams  
inline@vnet.ibm.com  
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Date: Wed, 18 Aug 93 11:47:14 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: re: Wort Aeration

A comment on Jack Schmedling's experiment on wort aeration and my own experience.

Jack very interesting experiment. Thanks for running it and posting results. I have two questions/concerns about the small scale of your experiments.

1) I'm curious about the geometry of your small fermenters. Specifically I'm wondering about the relative amount of wort exposed to air and thereby oxygen. Let's call the specific area exposed to air Aa: This is

$$Aa = \frac{\text{area exposed to air (sq in)}}{\text{volume of wort (cubic in)}}$$

For a cylindrical fermenter this number will be:

$$Aa = \frac{\pi * \text{radius}^2}{(\text{height\_of\_wort}) * \pi * \text{radius}^2}$$

or

$$Aa = 1 / \text{height\_of\_wort}$$

For my glass primary with wort say 20 inches deep in it Aa = 1/20in or 0.05/in. For a mason jar with 6 inches of wort in it Aa = 1/6in or 0.17/in. So all your small scale fermenters have access to a lot more oxygen than my 'full scale' primary fermenter.

2) It's my understanding that oxygen is important during the initial growth/reproductive phase of the yeast (help here from you microbiologists). If you pitched enough active yeast that they didn't need to reproduce (to reach the maximum number of colonies/ml), then the amount of oxygen present may be irrelevant.

Having made all these theoretical observations here is my practical experience: I siphon my cool wort into the primary through a aerating tube. The aerating tube is a 6 in long plastic tube w/ 1/32" holes drilled in the tube wall near one end. (This end is near the siphon hose not at the end the wort exits.) It works just like your sink aerator; air is drawn into the tube through the 1/32" holes and the wort exits as a frothy liquid. When the siphoning is done there is 2 to 6" of foam on top of the wort. I pitch an active starter solution. The volume of the starter solution (wort+yeast slurry) is 2 cups. I always see active fermentation within 12 hours, usually faster. (I don't get up every four hours to see if my beer is working--Jack you're dedicated.) This info is for ale yeast.

Followed this procedure last night. Pitched yeast at 11:00 pm by 8:00am this morning there was a full krausen. Bottom line: I agree with Jack at least for ales. One doesn't need the air pump system for ales, if you use a good active yeast starter and aerate wort going into the fermenter.

Sante' WAK

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Date: Wed, 18 Aug 93 12:56:58 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 18-Aug-1993 1252  
<macneal@pate.enet.dec.com>  
**Subject: Irish Ale Yeast**

The description of Wyeast's Irish Ale yeast recently posted says that is not very attenuative. I recently used it for an Imperial Stout (a variation of Miller's extract/mash recipe in Brewing the World's Great Beers). Although the OG was a bit lower than the OG in the recipe, the FG was also a bit lower than the recipe. The stout tasted quite alcoholic when bottled.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Wed, 18 Aug 1993 12:18:53 -0400  
From: Bill Flowers <waflovers@qnx.com>  
Subject: Details re. Hard, high pH water treatment for new masher

OK, I got the water analyses for my home and my office. When I actually had numbers in my hand and re-read Miller's Complete Handbook chapter on water, I finally began to understand what I was dealing with and, maybe, what to do. I'm going to post a lot of details here and some conclusions so someone with more experience and knowlege can double check me. Apologies ahead of time for the length of this.

My home tap water is drawn from two wells. Unfortunately the regional lab doesn't do a complete analysis of the well water. All I got was readings of some characteristics for the last 7 months. The averages of the pertinent numbers are:

pH 7.8 sulphates (ppm) 68  
Total Alkalinity, as CaCO3 250 Total Hardness, as CaCO3 256

There were a few other numbers of no consequence as well.

I wouldn't know what to do with this water, but it doesn't sound great. Luckily I've got another water source.

The analysis of my office's water was another matter. I received max, min and average values for both the raw and treated water, and more information than I could enter into this message (now I know how much uranium is in the water I drink). The important things (I think) are:

Treated Water  
mg/L (ppm) unless otherwise stated

minmaxavg

-----  
pH 6.89.98.3  
Total Alkalinity, as CaCO3 17.0 48.0 25.8  
Total Hardness, as CaCO3 26.0 72.0 51.7

Chloride, Cl 3.58.05.3

Calcium, Ca 15.00 18.60 16.80  
Magnesium, Mg 1.94 2.43 2.28  
Potassium, K 0.728 0.820 0.776  
Sodium, Na 2.78 3.78 3.12  
Sulphate, SO4 19.60 30.50 24.00

Other values are in the parts per billions or Miller wasn't concerned with them

(or both) so why should I be. Who cares about immeasurably small traces of Vanadium when brewing anyway?

This water seems to be rather nice for brewing. It doesn't seem too far off of Miller's St. Louis water which he discusses in detail (actually better in some areas such as sulphate and sodium). Although the pH is sometimes high the buffering capacity (total alkalinity) seems low so the mash water pH should drop. In fact, the alkalinity might be too low and I may have to add calcium carbonate. It is always easier to add than to take away. Also, just as Miller does, I should probably acidify my sparge water.

At least, that's how I interpret these numbers. How do they look to the "experts"? How important is it to acidify the sparge water? What happens if I don't? All I could find was Miller's comment: "It is desirable to keep the pH of the runoff during sparging below 6.0."

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W.A. (Bill) Flowers email: waffleflowers@qnx.com  
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)  
(613) 591-0931 (voice) mail: 175 Terrence Matthews  
(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

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Date: Wed, 18 Aug 93 13:41:32 EDT  
From: hpfcla.fc.hp.com!scr!sead.siemens.com!jm (Jeff Mizener)  
Subject: Beer in Portland, Maine & Spokane, WA

I'll be going to Portland (ME) and Spokane here pretty soon and would like pointers to any good brewpubs or drinking establishments.

Thanks, y'all.

Jeff

=====  
Jeff Mizener / Siemens Energy & Automation / Raleigh NC  
jm@sead.siemens.com / Intelligent SwitchGear Systems  
=====  
PLEASE: Reply to this address and not the one in the header.

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Date: Wed, 18 Aug 93 11:02:07 PDT  
From: Robert Pulliam <Robert\_Pulliam@rand.org>  
Subject: Indianapolis

Just a short one for those in the Indianapolis area. Any good "don't miss" watering holes there? Please reply by direct e-mail.  
Thanks

Robert J. Pulliam |+|all thoughts, statements, and opinions, |+|  
Los Angeles, CA. |+|demented or not, should be my own; and |+|  
pulliam@monty.rand.org |+|I'm certainly not associated . . . . . |+|

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End of HOMEBREW Digest #1207, 08/19/93  
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Date: Wed, 18 Aug 93 13:11 PDT  
From: lfk@veritas.com (Lynn Kerby)  
Subject: Re: Recipe formulation

In HBD1206 npyle@n33.stortek.com writes:

>John Montgomery asks about formulating his own recipes. He says he has  
10 or  
>11 all grainers behind him and wants to strike out creating his own  
recipes.  
>  
>This brings up an interesting point to me. I wonder how many people  
with this  
>much experience have done this little experimenting. I have brewed a  
total of  
>16 batches, the last 5 or 6 being all-grainers. I have been trying new  
things  
>with recipes since the second batch. Now, maybe I'm taking more  
creative  
>credit than I'm due, because I usually start with a recipe. I then  
adjust it  
>for my setup, ingredients on hand, ingredients available at the local HB  
shop,  
>my whims, etc. Doing this, I've only really screwed up one batch due to  
poor  
>recipe formulation, and I used it for boiling brats, etc. so it wasn't a  
total  
>loss.

I have to second this question, how many people brew solely from  
someone else's recipe? I have brewed over 20 batches (14 or so that  
were all grain) and have never intentionally brewed directly from  
someone else's recipe (not even on that first extract batch). Granted  
I have made some mistakes, but I think that experimentation leads to a  
better understanding of the flavor contribution of different grains,  
hops, and processes. I have won some awards in competitions, but that  
is not my primary objective when formulating a recipe.

I do enjoy reading recipes and have learned a lot about matching style  
guidelines by reading other's recipes (esp. those in the volumes of  
the Classic Beer Style series). I look at recipes as guidelines (both  
in brewing and in cooking) but I never take a recipe and follow it to  
the letter (not even one of my own!). I too like a little variety in  
the beers I drink. I suppose that I may be tempted to replicate some  
of my previous beers if I ever get one that I feel is outstanding, but  
I suppose that I am just a likely to try it with a different yeast or  
different hops.

Formulating your own recipes really isn't hard, and there has been a  
lot of good information published in recent Zymurgys and in the HBD on  
how to hit target OGs and the like. When I look at a recipe, I first  
compare the OG, IBUS, color, etc. with the guidelines for the style,  
then look at my inventory (I keep 50-100# of assorted grains, and  
several pounds of assorted hops around the house at all times) and see  
what I have that can produce a beer in that style. I break out the  
calculator and my brewing notebook and get to work! Every brew is  
different, and I like to think that they are improving as I gain  
experience.

This is not intended to knock anyone that is uncomfortable breaking  
away from cookbook type brewing. I hope that it will serve to  
encourage others to experiment and post their results (or better yet,

send me some :-).

- -  
Lynn Kerby - [apple,amdahl]!veritas!lfk or lfk@veritas.com

Disclaimer: Any and all opinions expressed herein are my own and do not  
necessarily represent the views of anyone, especially my employer.

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Date: Wed, 18 Aug 93 15:12:54 EDT  
From: Lee=A.=Menegoni@necotech.com  
Subject: RE: FAQ correction 2124 YEAST

RE: Yeast FAQ Correction / 2124 yeast  
In the 2nd Brewing Techniques article on Fest Beir "Dave from Wyeast" is  
quoted as saying that 2124 is the same as Weinstepen 34/70 is this also  
a PU strain indicated by Al K?

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Date: Wed, 18 Aug 93 13:37 PDT  
From: lfk@veritas.com (Lynn Kerby)  
Subject: Re: Yeast FAQ corrections

In HBD1206 korz@iepubj.att.com writes:  
>First off, 3 cheers to Patrick for the effort in compiling all  
>that yeast information!  
>  
Hip-Hip Hooray, Hip-Hip Hooray, Hip-Hip Hooray :-)

>> WYeast 1028 London Ale Yeast  
>> Rich minerally profile, bold woody slight diacetyl  
>> production. Medium flocculation. Apparent attenuation  
>> 73-77%. Optimum fermentation temperature: 68 deg. F (20  
>> deg. C). Complex, woody, tart, with strong mineral  
>> notes, this one will bite you horribly if you over-hop or  
>> if your water is high in carbonates. If you avoid that

[ Some descriptive text deleted for brevity ]

>This is one of my two favorites (1056 being the other) and I've  
>brewed some very high IBU ales with it without the overhopping  
>problems reported here. Just 40 datapoints or so. Also, I'd  
>like to mention that this yeast was used for the 1992 B.O.S.S.  
>Challenge 1st place Barleywine, brewed by none other than Brian  
>and Linda North.

>  
I just tried the 1028 strain on a couple of back to back english style  
ales. The first was a fairly low gravity Bitter that came out fairly  
nicely. It was not overly hopped, yet the hop bitterness came through  
nicely. I did note the woody and mineral flavor notes in this brew.  
The second brew was a fairly hoppy IPA and I wish that I had chosen a  
different yeast. I found that the attenuation was a bit much in the  
IPA, but it is still very young and may turn out fine in another month  
or so. The IPA currently has a nasty stale veggi character that I  
believe is due to using some old Cascades (they have been kept in the  
freezer since I bought them though) for dry hopping. I just replaced  
the blend of Cascades and Kent Goldings with some fresh Mt Hood in the  
keg and am hoping for the best.

>> WYeast 3056 Bavarian Weissen Yeast  
>> A 50/50 blend of *S. cerevisiae* and *delbrueckii* to produce  
>> a south German style wheat beer with cloying sweetness  
>> when the beer is fresh. Medium flocculation, apparent  
>> attenuation 73-77%. Optimum fermentation temperature: 56  
>> deg. F (13 deg. C). Problematical to get the right  
>> flavour, often just produces bland beer, without the  
>> lactic flavour.

>  
>No, no, no. Lactic sourness is the requisite characteristic  
>of a \*Berliner\* weiss, not a Bavarian weizen -- Bavarian weizens  
>are characterized by clove-like aromas/flavors and often some mild  
>banana esters. What the original poster probably meant was:  
>"Problematic to get the right flavor, often just produces relatively  
>unattenuated beer, without the clove-like aroma/flavor." I have  
>been thinking that perhaps it's the freshness of the Wyeast #3056  
>that makes the difference in whether you get the clove-like aroma/  
flavor  
>or not. Any other data points?

>  
Right! Bavarian weizens should not have a dominant lactic sourness

(though I find that just a little makes them very refreshing)!

For some more data points, I have brewed a couple of Bavarian weizens with this strain. One had virtually no clove or banana aromas or flavors and really was a bit under attenuated. The second time I used it (pitched from the slurry in the secondary on the first batch) I got a wonderfully clovey/banana weizen character (this beer took 1st place in the 1993 HWBTA competition in the wheat beer category). I have also made a couple of Bavarian weizens with the bavarian wheat strain from the Yeast Culture Kit Co (don't remember the number but it is supposed to be the Weinstephen?sp? #66 I think) that had much more pronounced weizen character. I certainly believe that the 3056 is a bit unstable based on my experience and the experience of some others and I will probably never use it again. I am looking forward to trying the new bavarian wheat strain that Wyeast is currently testing.

Lynn Kerby  
lfk@veritas.com

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Date: Wed, 18 Aug 1993 16:59:05 -0400 (EDT)  
From: Stephen Brent Peters <sp2q+@andrew.cmu.edu>  
Subject: yeast pitch experiment

With my last batch I wanted to pitch as much yeast as possible with spending as little time as possible playing with it. Here's what I did:

- 1) I boiled up enough hopped 1.020 wort to fill two 16 oz bottles, and one 32 oz bottle.
- 2) mixed a packet of wyeast belgian with one of the 16 oz bottles in the bottom of a very sanitized carboy.
- 3) the next day I added the entire 32 oz bottle to the carboy.
- 4) at 8am the next day (brew day) I added the last 16 oz bottle to the carboy
- 5) at 4pm that day I finally added the cooled wort to the carboy, areated by splashing it through the funnel/strainer combination. The wort was 1.063 gravity.
- 6) when I came home that night at 9pm the beer had an inch and a half of krausen on it. So, about five hours for a very vigorous takeoff.
- 7) by the next day the krausen had fallen and now only a week later it is almost ready to bottle. This is by far the fastest fermentation I have ever had with liquid yeast.

conclusions:

I had never used more than 16 oz of starter before because of the hassles pouring from bottle to bottle. I also used to have trouble pitching at high krausen (timing, timing) , but by using the carboy it is possible to get the yeast up to speed by adding more wort a few hours before the brewing will happen.

comments?

Steve Peters = sp2q+@andrew.cmu.edu  
-\* Sing along now, "See you, in C-U-B-A!" \*-

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Date: 18 Aug 93 16:07:46 CST  
From: "Dennis Lewis" <DLEWIS@jscdh6.jsc.nasa.gov>  
Subject: Calcium Chloride/Yeast compilation

I've looked high and low thru all of Houston (where I live) and I can't find a supplier of food-grade CaCl<sub>2</sub> anywhere. Does anyone out there in HBDLand have a source for calcium chloride? E-mail is ok.

>From NitPickLand:

>From: WEIX@swmed.edu

>

>SECTION I: Yeast Characteristics

>

<snip>

> Saccharomyces. Ale yeast are *S. cerevisiae*, and lager yeast are *S. uvarum* (formerly *carlsbergerensis*). Weizen yeasts are usually 50/50 mixtures of *cerevisiae* and "*delbrueckii*" (*delbrueckii* may or  
^^^^^^^^^^^^^^^^^^

<snip>

NO, NO, NO!!! The 50/50 mix is a bastardization of the true weissbier style dreamed up by someone at Wyeast. The true weissbier yeasts are a pure strain--*delbrueckii*, if you will. Wyeast has just started marketing a pure strain weissbier under the number 3068, which if is the Weihenstephan #68 everyone raves about (assuming the numbering scheme holds as it has for Weihenstephan 206 and 308....) Please, oh please correct this before submitting this.

I have use both and the 3056 (50/50 crud) PALES in comparison to the 3068. I've tossed every culture of 3056 that I could find.

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: Wed, 18 Aug 1993 14:50:06 -0700 (PDT)  
From: Lorne Cheeseman <lorne@unixg.ubc.ca>  
Subject: Microbreweries of Oregon (Portland)

Hello,

I am new to this list so please excuse me if this is a FAQ. I am planning on going down to Oregon within the next couple weeks, Portland to be exact, and am interested in visiting some good microbreweries and brewpubs while I am there. I would really appreciate it if anyone could send me some suggestions and contacts etc. please reply by E-mail to lorne@unixg.ubc.ca.

Thanks in advance

Lorne Cheeseman

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Date: Wed, 18 Aug 1993 15:37:12 MDT  
From: Kevin Schutz <kschutz@atmel.com>  
Subject: Use of Chilis in Beer

Hello everyone,

With all of the recent discussion going on about variations of Chili beer's and how to go about imparting chili flavoring to the beer, I just wanted to throw in my 2 cents worth.

First of all, let me begin by saying that I have not ever tried to brew a chili beer and I currently have no plans to attempt one (the chili beers I've tried, Mexacali Rogue and Cave Creek, just don't do much for me). That aside, I do consider myself an avid chili lover. As such, one of the first things one quickly learns is that individual chilis vary greatly in flavor and "heat" intensity. This holds not only for different varieties, but also within specific varieties. Unless you know the source of the chilis, it's difficult to judge this variation below using the chilis. You can come pretty close to grouping chilis based on "heat" if you pay attention to the aroma (from the oils in the skins) while roasting/peeling the chilis.

Also, when I mention "source" above, I really mean that you need to know the source. I've found that chilis vary dramatically even on different plants within my garden. Chilis can vary greatly (like any other crop) based upon micro-climate conditions, water, soil conditions, growing season, etc. If you get your chilis at a market or grocery store, odds are that you're getting a mix of chilis from various sources.

Hint for home growers: I've found that if you like really hot chilis, cut back on the watering once the blossom sets. Don't kill the plants, but cut back on the amount of water they receive. The chilis may be smaller, but they really seem to get hotter.

That said, I would have to agree (in principal) with Alan in Austin (HBD#1203) about warning against spicing beers directly using chilis in the bottle. The results, while perhaps good, would be inconsistent (bottle to bottle)

I would think that the technique of "dry peppering" or "dry-chiling" as mentioned by Lanny (HBD#1203) and Robin Garr (HBD#1204) would result in much better flavor control. Likewise, adding your chilis to the later stages of the boil could work too. The idea for consistency is to expose the entire

batch to the same chili mix. Of course, if you like the idea of not knowing what to expect, keep the mystery behind the beers and spice using individual chilis in the bottles!

Kevin

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Date: Wed, 18 Aug 93 17:45 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Message to Dan L.

This post is to Dan L. (lark@wildcat.mcpc). I can't seem to reach your site. Please send me your phone number or something.

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Date: Wed, 18 Aug 1993 21:21:01 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Aeration. What the pros say...

The latest in Jack's continuing vigil against the accursed momilies of brewing focuses on aeration.

He writes:

> There has been a great deal of enthusiastic reporting on the  
> use of aquarium air pumps to aerate wort prior to pitching  
> yeast and many rather preposterous claims of shortened time  
> to the onset of fermentation resulting from the use of same.

(snip, snip)

> The experiment seems to confirm the author's previous  
> experience and points to the conclusion that the method of  
> aeration used has no correlation with or effect on the time  
> to onset of fermentation. Contrary to frequently stated  
> anecdotal experience, the un-aerated control samples started  
> fermenting as soon and with the same vigor as the variously  
> aerated samples. This was true both in the case of cold  
> temperature lager yeast and room temperature ale yeast.

I'm not sure what Jack's claims are here. But I'll point out several points of interest that may affect his "scientific" experiment.

I shall cling to Jack's statement that his experiment "seems" to confirm his experience because his conclusions run counter to what the literature has long accepted as fact. Not wanting to allow another momily into the annals of brewing literature, I'll briefly point out that underaerated wort can have definite deleterious effects on the flavor of the beer (increased ester production, for one) and adverse effects on the speed of fermentation (read increased lag times and the resultant risk of contamination, prolonged fermentation times (speaking from experience here), and the production of several components that do not contribute to the flavor profile of what we normally call "beer").

But don't take my word for it. Here is what the pros say about the matter.

>From Malting and Brewing Science:

p.633

"To increase the oxygen content, air is often bubbled into the medium, but this has little or no effect if the bubbles escape rapidly. Small bubbles provide a larger surface area for oxygen transfer, while baffles built onto the walls of the vessel help to arrest the loss of bubbles. Shaking or swirling the medium has the effect of increasing the effective surface area of the liquid presented to the atmosphere. Furthermore, a vortex produced by an agitator has the same effect.

The rate at which oxygen passes from atmosphere into solution depends on:

(1) the degree to which the medium is saturated with oxygen, (2) the area of the interface between atmosphere and medium and (3) the ease with which oxygen passes through the interface. The rate is expressed by  $Kla(C^*-C_1)$  where

$K_1$  - The ease of passage with which oxygen passes through the interface.

$a$  - The area of interface.

$C^*$  - the oxygen concentration at which atmosphere and medium are in equilibrium.

$C_1$  - The actual concentration of oxygen in the medium.

They then measured oxygen absorption rates as follow:

| Vessel                            | Vol. of medium             | Air flow                               | $KlaC^*$  |
|-----------------------------------|----------------------------|----------------------------------------|-----------|
| (l/min)                           | (mM-O <sub>2</sub> /l/min) |                                        |           |
| 18 x 150 mm test tube             | 10 ml                      | Stationary                             | - 0.03    |
| Erlenmeyer flask 500 ml           | 20 ml                      | Stationary                             | - 0.32    |
| Erlenmeyer flask 500 ml           | 20 ml                      | Eccentric shaker (250 rev/min)         | - 1.1     |
| Indented Erlenmeyer flasks 500 ml | 20 ml                      | Eccentric shaker (250 rev/min)         | - 2-9.5   |
| 100 ml                            | 50 ml                      | Reciprocal shaker (80-100 strokes/min) | - .78-1.5 |
| 1000 ml                           | 200 ml                     | Reciprocal shaker (80-100 strokes/min) | - .22-.78 |
| Baffled Tank                      | 1460 ml                    | Stirred:                               |           |
|                                   | 3.5                        | 1750 rev/min                           | 5.8 3.6   |
|                                   | 1100                       | rev/min                                | 6.1 6.33  |

I interpret  $KlaC^*$  as being the amount of O<sub>2</sub> absorbed into the beer using the various processes above, though I could be wrong. It comes as no surprise that the different methods achieve different levels of oxygen absorption. It's interesting to note that the surface area of the samples exposed to the air makes a big difference in the rate of oxygen absorption.

Perhaps this lends credence to the theory that one of the best things you can do to aerate the wort is let it fan out over the sides of the vessel as one siphons into the fermenter.

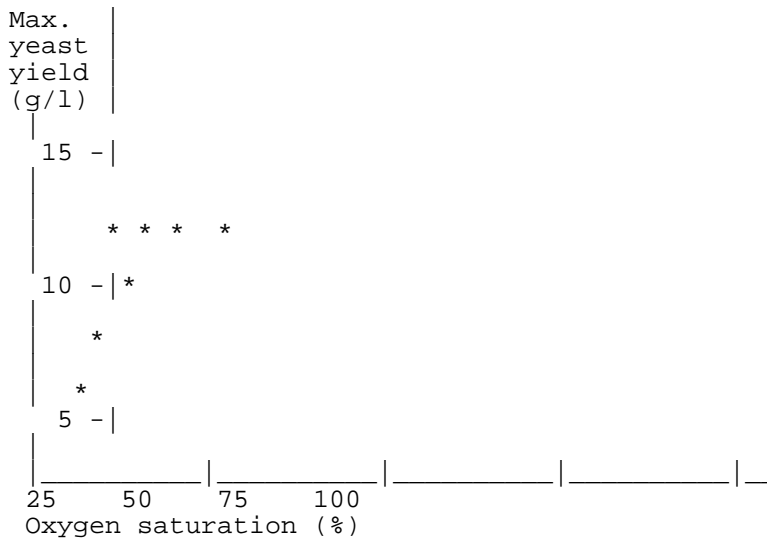
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Date: Wed, 18 Aug 1993 21:22:09 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Aeration. What the pros say... (part 2)

The authors of Malting and Brewing Science also make the following observations concerning the absorption of air into beer:

p. 634

"The role of oxygen in brewery fermentations has received study using fermenters of 30 brl capacity. Wort of SG 1.044 was pitched at .2 lb/brl at 64 degrees F and the degree of oxygenation prior to pitching was selected in the range 5-100% saturation. The weight of yeast crop was hyperbolically related to the initial oxygen concentration of the wort. Above about 20% oxygen saturation, little is achieved if the wort is completely saturated with air. Below this level, the yeast crop is greatly influenced by the initial level of oxygen and, with the strain of yeast used, it seemed likely that no growth of yeast would occur in the absence of oxygen...the rate of fermentation was related to oxygen saturation in a manner very similar to that shown (below)."



p.635

"It is now well established that different strains of brewing yeast have different requirements for molecular oxygen. Furthermore, most, if not all, of the molecular oxygen consumed by the brewing yeast is used for the production of unsaturated fatty acids and sterols, which are essential constituents of the yeast cell membrane...Where insufficient O2 is available for membrane synthesis, yeast cells fail to grow and loss of membrane integrity results in cell death. These changes are also associated with an increased production of esters...The concentration of oxygen at 100% air saturation is inversely proportional to the specific gravity; thus an air saturated wort of SG 1.040 contains 8.5 mg/l O2, whereas a wort of SG 1.070 contain 7.9 mg/l O2.

p.646

"The amount of yeast added to the wort at the time of pitching greatly influenced the speed of fermentation. (Surprise! Surprise! Surprise!-krb)

For instance top yeast pitched at 1 lb/brl into wort at 63 degrees F attenuated to 75% in 84 hr. At four times this pitching rate the same attenuation was reached in 44 hr."

p. 647

"The effects of rousing or agitating fermentation vessels include aeration and mixing. BOTH TEND TO HASTEN FERMENTATION (emphasis mine), aeration by supplementing the dissolved oxygen supplied by the wort, and mixing by bringing yeast in the head and yeast that has sedimented into suspension. The overall action is to increase yeast crops and speed fermentation.

p. 648

"Wort composition greatly influences the speed of fermentation, the extent of fermentation, the amount of yeast produced, and the quality of the beer produced. The wort constituents which play a major role include fermentable carbohydrates, assimilable nitrogenous compounds and accessory food factors. Amino acids normally limit growth...

p. 664

"With respect to the main fermentation, the control on the speed of attenuating to satisfactory gravities depends on (1) wort composition, especially the level of alpha-amino nitrogen and the spectrum of fermentable sugars, (2) DISSOLVED OXYGEN (emphasis mine), (3) temperature, (4) pressure, and (5) yeast concentration....With respect to the effect of these variables on flavor, it has been shown that dissolved oxygen content can be important. Reducing the level from 8 to 3 mg )2/l causes significant increases (2-4 fold) in the esters ethyl acetate (winey/lacquer like), isoamyl acetate (banana esters) and ethyl caproate. Acetaldehyde rises seven-fold. Level of zinc ions up to .08 mg/l may be necessary for satisfactory fermentations."

Sorry to take up so much space quoting scientific literature but I kept coming up with references that pointed to the importance of a well-oxygenated wort. Besides Jack's experiment, I have been interested in this topic of late because I have become aware that we have not been aerating our worts enough at Tumbleweed and it appears to be a factor in several of the flavor problems we've had.

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---  
Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.  
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Date: Wed, 18 Aug 1993 22:31:28 CDT  
From: "Bret D. Wortman" <wortman@centurylub.com>  
Subject: New (first!) Brewpub in Kansas City

I had the thrill of a lifetime this past weekend. Dining and drinking at a restaurant that hadn't officially opened yet.

To top it all of, the restaurant in question was Kansas City's first brewpub.

I won't dwell on the food (which was wonderful, especially the brewer's bread appetizers made from spent grains) but will get to the \*real\* reason for visiting The 75th Street Brewery at 75th and Wornall in the Waldo area.

The beer.

75th Street currently has three beers on tap that are brewed locally, with a fourth coming in September. "Cow Town Wheat" is a very light, very refreshing wheat ale. It's made from Kansas-grown wheat and Munich malts with Hallertauer and Saaz hops.

"Yardbird's Saxy Golden Ale" commemorates KC's contribution to jazz and bebop. A light, \*very\* smooth golden ale, this one uses Vienna and Munich malts with Cascade hops. A pint of this is probably the most refreshing thing the house serves.

"Possum Trot Brown Ale" is a nicely nutty, unmistakably malty classic brown ale. It uses cluster and cascade hops and I couldn't pry the malt combination from the Brew Master (who just \*loves\* showing off the setup to appreciative homebrewers -- maybe others will have more luck. ;-)

The September addition is called "Muddy Mo Stout" and is billed as a dry, Irish-style stout. It gives me a good excuse to make sure I go back next month. ;-)

In addition to these on-site brews, 75th Street also offers three guest beers. A hometown favorite, Boulevard, has contributed their "Bully! Porter" to this effort. Brewed by Brewmaster John McDonald, it's an outstanding porter. My limited beer vocabulary just ain't up to describing it any more than this.

Additionally, there's a pair of brews from Anchor Brewing Company. On KC tap, we have their "Liberty Ale". 75th Street is the only place in "Old where you can get this beer on tap. They also sent some of their "Old Foghorn" barleywine. \*Man\*, this stuff is absolutely \*indescribable\*. Again, you can't get it anywhere else in KC on tap, and it's a nice twist to the menu.

Anyone coming near KC, give me a holler and I'll help arrange a tour of

the place for you, or call them directly at 1-816-523-HOPS.

Okay, I'll say it. The service staff was unbelievably friendly. I don't think I \*ever\* saw someone standing around looking upset. Everyone was smiling. Even when things went wrong for us (hey, the place wasn't officially open yet, and it was "investor's party night"), everyone was pleasant and bent over backwards to make sure we were taken care of and happy. I can't recall the last time I was pampered like that.

My waiter's name was Ken. Ask for him. You won't regret it.

WortMan

Disclaimer: I have nothing to do with The 75th Street Brewery, save as a satisfied customer. I don't own any part of the company, nor do I work there. I know the brewmaster by first name, but he probably wouldn't remember me if I walked up to him in a crowded shopping mall, so who really cares? ;-)

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--
| Bret D. Wortman | "Stomach hairballs are nature's little way of
| wortman@centurylub.com | saying `Bad puddy cat! Stop licking
yourself!'"
| wortman@decus.org | --Berke Breathed, "Outland"
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--
```

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Date: Thu, 19 Aug 1993 01:31:22 -0400 (EDT)  
From: waltman@BIX.com  
Subject: Sunken Treasure

In HBD #1206 carlson@61.267.ENET.dec.com tells us about beer recovered  
from  
a WWII minelayer:

About a year ago there was a radio comercial about thousands of bottles  
of  
Bass Ale that went down with the Titanic. Probably not in as good of  
condition, though <grin>.

Fred Waltman  
Marina del Rey, CA  
waltman@bix.com

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Date: Thu, 19 Aug 93 07:38:09 EDT  
From: mlobo@sentry.foxboro.com (Michael T. Lobo)  
Subject: hop harvest question

Greetings:

2 Questions re: hop harvest..

1. Do you need to dry the hops before use, or is the drying a method of preservation?
2. How do you tell when the hops are "ripe"?

FYI: I planted 3 different types of hops this year. The centennial are the only plant to grow buds so far ~ 30 buds. The hallertau plant grew the fastest & biggest, but no buds. The perle only grew about 6 ft. and stopped growing about 4 weeks ago.

regards,

Michael

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Michael T. Lobo Ph: (508) 549 2487 Fax: (508) 549 4379  
Foxboro Co.  
33 Commercial Street MS C41-1H  
Foxboro MA. 02035

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Date: Thu, 19 Aug 93 08:13:24 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Water Analysis

Bill Flowers <waffleflowers@qnx.com> wrote:

```
> Treated Water
> mg/L (ppm) unless otherwise stated
>
> minmaxavg
> -----
> pH 6.89.98.3
> Total Alkalinity, as CaCO3 17.0 48.0 25.8
> Total Hardness, as CaCO3 26.0 72.0 51.7
>
> Chloride, Cl 3.58.05.3
>
> Calcium, Ca 15.00 18.60 16.80
> Magnesium, Mg 1.94 2.43 2.28
> Potassium, K 0.728 0.820 0.776
> Sodium, Na 2.78 3.78 3.12
> Sulphate, SO4 19.60 30.50 24.00
> This water seems to be rather nice for brewing.
```

This sounds very much like the water that I get at home, untreated, straight from the tap. Total hardness and alkalinity are in the 40-80 range. pH is typically 8. (I don't have the #'s with me so I can't quote values).

```
> Although the pH is sometimes high the
> buffering capacity (total alkalinity) seems low so the mash water pH
should
> drop. In fact, the alkalinity might be too low and I may have to add
calcium
> carbonate. It is always easier to add than to take away. Also, just
as
> Miller does, I should probably acidify my sparge water.
```

With such soft water, I never get an alkaline mash. Where most people have to do an acid rest, I do not. I frequently have to increase the mash pH as it is too acidic. Calcium carbonate works well for this. (Added to the mash)

I acidfy my sparge water using 1/4 teaspoon of acid blend in 5 gallons. That works well, dropping pH to mid 5's.

I've found this sort of water great to brew with. Adding desired minerals is much easier than taking them out!

Tim

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- ----
Timothy J. Dalton tjdalton@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab
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Date: Thu, 19 Aug 1993 08:17:00 EST  
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill  
Ridgely/"@mr.cber.fda.gov  
Subject: Barley Water Response

Awhile back, someone requested information about a Victorian-era English drink called "barley water". I believe this was several weeks ago, and the reference was to some dialog in the movie "Mary Poppins".

I remembered seeing something about this drink in my historical references, but it took awhile to find it. I'll post the information here for general interest. The passage is from the book "Food and Drink in Britain" by C. Anne Wilson (Barnes & Noble, 1974):

It [barley water] had a long history as an invalid beverage. In the sixth centruy A.D., Anthimus had recommended a thin drink made of barley with pure warm water as beneficial for fever patients. The later medieval version in France had the name tisane (from the Greek ptisana for barley water), and it was sweetened with sugar and seasoned with licorice and sometimes also figs. Adapted for English use, it more often comprised barley boiled in water with licorice, herbs and raisins. It was still a licorice-flavored drink in the first part of the seventeenth century but soon afterwards was brought up to date by the substitution of lemon juice for licorice.

The author went on to mention that there was no longer a barley water tradition in the English-speaking world, but that a popular version called "horchata" was still enjoyed in Spain and parts of Latin America.

BTW, Wendy and I very much appreciated the favorable response to the Chicha & Chang presentation at the AHA Conference. It was a lot of fun to do, and we were gratified so many people were willing to expand their horizons beyond the "barley, hops, and yeast" tradition. Sorry the chicha arrived late (shipping problems), but at least a fair amount finally got consumed. Gak & Gerry were seen making a significant dent in the keg following the banquet Thursday night.

Bill Ridgely (Brewer, Patriot, Bicyclist) \_\_\_o  
ridgely@a1.cber.fda.gov- /<,  
ridgely@cber.cber.fda.gov...0/ 0...

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Date: Thu, 19 Aug 1993 09:01:46 -0400 (EDT)  
From: roman@tix.timeplex.com (Daniel Roman)  
Subject: Pronunciations

Does there exist either electronically (preferably) or in print a list of common beer terms and their phonetic spelling? I've been brewing for five years and still have friends ask me how to pronounce "Saaz" or "Maerzen" and I can only shrug my shoulders. I did see the Beer Hunter series and alot of the pronunciations may have been given there but I'd like to have a reference of some sort. My college edition American Heritage does not help too much with alot of beer terms which are really proper names. Maybe a German or Czech dictionary is what I need :-)

- - -

Dan Roman Internet: roman@tix.timeplex.com (prefered address) //  
ccMail: roman\_d@timeplex.com GENie: D.ROMAN1@genie.geis.com /X/ Only  
AMIGA!

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Date: Thu, 19 Aug 93 09:58:01 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Boiling

We boil our wort for several reasons:

1. To sanitize it -- there are any number of "nasty" organisms that would just love to chomp on the sugars in unfermented wort. If you boil the wort (and any other water that goes into the fermenter), you reduce this risk.

2. To add hop bitterness -- because we started with "all grains", because we used unhopped extract, because we want a bitterer beer than the hopped extract will give us. Extraction of hop bitterness requires boiling for at least 30 minutes, and preferably an hour.

3. To add hop flavor and aroma -- hopped extracts usually have a low level of hop flavors and aromas. Boiling hops from 0 to 20 minutes adds these (the longer the boil, the lower the aroma, but you don't get appreciable flavor with less than 5-10 minutes).

4. When mashing grains to get part or all of the wort, the boil precipitates proteins that would otherwise cloud the beer and potentially produce unpleasant flavors. This requires 60-90 minutes, typically.

5. To reduce the volume and concentrate the wort -- again, when all-grain brewing, you typically get more liquid from the "mash" than you want to make beer, unless you're making a very light beer.

But, even if # 2-5 don't apply to you, a 15 minute boil to sanitize the wort is always called for.

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Date: Thu, 19 Aug 93 09:59:52 EST  
From: Tim Brickman <Tim\_Brickman@rml.niaid.pc.niaid.nih.gov>  
Subject: Homebrew suppliers, brewpubs in RTP area

I'm relocating to the Research Triangle Park area of N. Carolina soon,  
and  
would appreciate information on homebrew suppliers, brewpubs, etc. in  
that  
region.

Thanks!  
Tim

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Date: Thu, 19 Aug 1993 09:08:09 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: St. Louis Supplier

Cary --

An important consideration is the distance between you and the supplier. For instance, I get UPS from Cincinnati in two days, but it takes five or six from either coast. Anyway, here's our local supplier. She's trying to make it a full-time business and we all want her to succeed. She has a large selection of extracts, a growing selection of malt, and all the yeast, hops, books, and gadgets you could want...

t

St. Louis Wine & Beermaking  
Koelle B. Paris, Proprietor  
251 Lamp & Lantern Village  
Chesterfield, MO 63017  
314/230-8277

Standard disclaimers apply.

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=====
=====
Tom Leith InterNet: trl@wuerl.WUstl.EDU
4434 Dewey Ave. CompuServe: 70441,3536
St. Louis, Missouri 63116
"Tho' I could not caution all
314/362-6965 - Office I still might warn a few:
314/362-6971 - Office Fax Don't lend your hand
314/481-2512 - Home + Infernal Machine to raise no flag
atop no Ship of Fools"
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Date: Thu, 19 Aug 1993 10:49:31 -0400 (EDT)  
From: Chris Sinanian <SINANIAN@Eisner.DECUS.Org>  
Subject: Info on BrewPubs and BrewStaurants in the Irvine, Ca. area

howdy folks,

i have to be going into the Irvine, Ca. area for a couple of day's.  
I wouldn't mind going to a few brewpubs in the area while i'm there.

Any recommendations would be appreciated.

thanks,  
Chris Sinanian  
sinanian@eisner.decus.org

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Date: Thu, 19 Aug 93 10:38 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: WORT AERATION

>From: "Rick (R.) Cavasin" <cav@bnr.ca>

>Just a little quibble with your experiment. I wonder if there isn't one confounding variable you've overlooked, namely, fermenter geometry.

That is one of the problems with any experiment. The number of variables is usually infinite. One nails down as many as possible and those deemed unrelated to the information being sought are eliminated. It is frequently a subjective choice but that is why the results are published to allow others to ponder.

I would suggest that the geometry of a mason jar is very similar to a typical fermenter. The fact that they were half full is a detail but of no consequence in the control sample which turns out to be the most important one in the final analysis.

>The surface area/wort volume ratio, and the amount of head space in the quart jar fermenters is radically different than what most people would encounter in normal...

That is true but it remains to be proven that reducing the headspace would effect on the final results.

It is my opinion that geometry differential increases the oxygenation of the sample using the airstone because it can be aerated longer before the space is filled. This would only serve to exaggerate the difference between it and the control and tend to favor it but the results speak for themselves.

> In the case of your lager test, is a starter/wort ratio of 1/10 typical?  
(don't know, don't do lagers myself)

The amount of starter is of no consequence. It is the amount of yeast in the starter that effects the lag time. The 72 hour lag time at 40 F would indicate that, if anything, there was too little yeast.

>From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>

> 1) I'm curious about the geometry of your small fermenters. Specifically I'm wondering about the relative amount of wort exposed to air and thereby oxygen. Let's call.....

> So all your small scale fermenters have access to a lot more oxygen than my 'full scale' primary fermenter.

A valid argument but in this case, it only applies to the control sample as it enhances the aeration of the others.

In order to prove YOUR point, you would have to show that the control sample had received enough oxygen to provide a normal fermentation by the minimal handling it received and/or through the mechanism of the fermenter geometry.

The experiment proves the former. I leave it to someone else to scale it up to prove the latter.

>Having made all these theoretical observations here is my practical experience: I siphon my cool wort into the primary through a aerating tube. The aerating tube is a 6 in long plastic tube w/ 1/32" holes drilled in the tube wall near one end. (This end is near the siphon hose not at the end the wort exits.) It works just like your sink aerator; air is drawn into the tube through the 1/32" holes and the wort exits as a frothy liquid. When the siphoning is done there is 2 to 6" of foam on top of the wort.

I think that you have made one of the points I was testing for in my experiment, vis., the aquarium aerator is an unnecessary complication of the home brewing process.

Having said that, I will point out that with your approach, you only get one shot at it. With the aerator, one can repeat the foam buildup ad infinitum but the bottom line is, does it really matter?

>From: Chris Williams  
>Subject: Cold plates and wort chilling

>With all the recent talk about cooling wort, I started wondering if you could use a cold plate to accomplish this. If the tubing inside the cold plate isn't SS you might get off flavors, or you might clog the thing up with hop particles, but is it a valid idea ? Any thoughts/experiences ?

The tubing in the ones I am familiar is ss but the problem is the diameter is so small you would need to pressurize or pump the wort through it. It would be tediously slow by gravity.

js

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Date: Thu, 19 Aug 93 11:56:52 MDT  
From: npyle@n33.storitek.com  
Subject: Proteins

My last brew (although wonderfully tasty) had problems with both head retention and chill haze. It was a pale ale, the first all-grain pale ale I've done. The other all-grainers I've done were darker and had no problem with either. Is this coincidence or do dark grains helps these problems somewhat?

It seems to me that large proteins in solution link together at low temperatures (that's how they keep warm!) and form the chill haze. I believe the solution for me is to add a protein rest to my mash cycle to help the proteinase enzymes break down these large proteins. Are there other solutions to this problem, i.e. a certain grain bill, etc. I'd rather not depend too much on finings.

I've read that head retention is a function of the proteins in solution as well, although I don't know the details. Would this problem be aided by a protein rest, too?

Cheers,  
norm  
- - -

Norm Pyle, Staff Engineer      Storage Technology Corporation  
npyle@n33.storitek.com      2270 South 88th Street  
"Youth is of course, the problem, as any      Louisville, CO 80028-0211  
mature man knows." -- Michael Jackson (303) 673-8884

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Date: Thu, 19 Aug 93 14:40:38 -0400  
From: djt2@po.cwru.edu (Dennis J. Tempelton)  
Subject: Re: Taxonomy

Tom...  
your latest taxonomy post may be a little too much

BTW, ATCC has no listing for "Torulospora delbrukii", though it does for "Torulospora delbrueckii"

I find this a little confusing, since I know the grandson of the delbru(umlaut)k in question and he has no c in his name.

ATCC searches can be reached by Gopher, with this gopher information  
+INFO: 1ATCC - The American Type Culture Collection  
1/Database-local/cultures/atcc merlot.welch.jhu.edu 70

the real wuestion seems to be should we use weihenstephan 68 or wyeast.

I (the empiricist) cloned out the wyeast bavarian culture as reported in HBD a year ago and found that only about 1% of the colonies had a variant morphology and created an estery beer. I use this exclusively now. This low percentage might explain why wyeast cultures are criticized as bland.

One other question: What source is there for the Weihenstephan 68 strain??

dennis

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Dennis J Templeton, M.D., Ph.D. Biomedical Research Building  
Room 909  
Phone (216) 368-1266 Institute of Pathology  
Fax (216) 368-1300 Case Western Reserve University  
Email djt2@po.cwru.edu Cleveland, Ohio 44106

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End of HOMEBREW Digest #1208, 08/20/93

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Date: Wed, 18 Aug 93 9:35:02 MDT  
From: npyle@n33.stortek.com  
Subject: Strike Temperature / Withholding grains

Andy Phillips asks about specific heat capacity, strike temperature, etc. I have made the very same evolution in my brewery (Bruheat -> insulated mash/lauter tun w/ slotted pipe manifold) and am quite happy with it, Andy. The strike temperature problem is not much of a problem really. I add 1 qt. of 168F strike water for every pound of grain to hit around 152F initial mash temperature. For you, I'd recommend 1 litre of 75C strike water for every pound of grain to aim for around 67C initial mash temperature. If this is too high for you just lower the strike water temperature a degree or two. A lot of this depends on air temp, how much heat your mash tun absorbs, etc.

I've read that the enzymes in the grains are not too sensitive to short duration temperature extremes. The thing to do is measure your mash temperature after you have doughed in the grain, and adjust with cold or hot water accordingly. A few times doing this and you'll know what the strike temperature for your system should be.

Mike Zulauf uses a similar setup and wants to know about holding off specialty grains until after conversion. I recommend this with crystal, chocolate, black, and any other specialty grains. Crystal malt has already supposedly already undergone conversion at high temperatures so as to produce the unfermentable sugars. Another conversion is not necessary and could very well have the effect of further reduction of these sugars. Dark grains which are added for the color and flavor (not for the sugars) should never be added until mashout time, IMHO. The absolute worst brew I've ever made (the only one I've ever poured out more than I drank) was made with the dark grains in the mash. For some reason, conversion on that doomed brew took almost 3 hours and I'm sure that had a combined effect with the dark grains, but the bottom line was this brew had a harsh astringency which tasted like chewing on chocolate malt. Needless to say, I will never add dark grains until mashout again.

Cheers,  
norm  
- - -

Norm Pyle, Staff Engineer      Storage Technology Corporation  
npyle@n33.stortek.com      2270 South 88th Street  
"Youth is of course, the problem, as any      Louisville, CO 80028-0211  
mature man knows."      -- Michael Jackson (303) 673-8884

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Date: Thu, 19 Aug 1993 11:43:40 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Water treatments

Since Fuller's ESB is the best ale in the world (flame on dissenters), I have spent some time exploring the Burton-upon-Trent water. I went so far as to contact the Public Water District for Burton and the British National Rivers Authority. The PWD sent a comprehensive analysis of the Burton municipal water supply. The NRA sent me a slick pamphlet, and said that the famous brewing water neither originates from the Burton municipal water nor from the river Trent, but from shallow wells in the surrounding area. So I wrote to a number of brewers in the area asking for their water analysis and/or treatments. No responses expected for a few weeks.

Just to cover my butt, let me say that I realize Fuller's brewery is in Chiswick, London and not Burton-upon-Trent, but they do "burtonize" their water.

So in response to Geoff in #1206, and Bill Flowers in #1205, for whatever it is worth I submit the following information.

-----  
Molecular and Formula Weights  
-----

|                                                     |           |                                |
|-----------------------------------------------------|-----------|--------------------------------|
| Ca <sup>++</sup>                                    | 40.08 g   | Calcium                        |
| Mg <sup>++</sup>                                    | 24.31 g   | Magnesium                      |
| SO <sub>4</sub> <sup>--</sup>                       | 96.06 g   | Sulfate                        |
| Na <sup>+</sup>                                     | 22.99 g   | Sodium                         |
| Cl <sup>-</sup>                                     | 35.45 g   | Chloride                       |
| CO <sub>3</sub> <sup>--</sup>                       | 60.01 g   | Carbonate                      |
|                                                     |           |                                |
| H <sub>2</sub> O                                    | 18.02 g   | Water                          |
| CaSO <sub>4</sub> .2H <sub>2</sub> O                | 172.18 g  | Gypsum (hydrated)              |
| MgSO <sub>4</sub> .7H <sub>2</sub> O                | 246.51 g  | Epsom salt                     |
| CaCl <sub>2</sub>                                   | 110.98 g  | Calcium chloride (anhydrous)   |
| CaCl <sub>2</sub> .2H <sub>2</sub> O                | 147.02 g  | Calcium chloride dihydrate     |
| NaCl                                                | 58.44 g   | Table salt                     |
| Na <sub>2</sub> SO <sub>4</sub>                     | 142.02 g  | Sodium sulfate (anhydrous)     |
| Na <sub>2</sub> SO <sub>4</sub> .10H <sub>2</sub> O | 322.22 g  | Glauber's salt                 |
| MgCl <sub>2</sub> .6H <sub>2</sub> O                | 203.33 g  | Magnesium chloride hexahydrate |
|                                                     |           |                                |
| 1 Gallon H <sub>2</sub> O                           | 3785.40 g | = 3.7854 liters                |

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Ion Weight Ratios by Compound  
-----

| 1g/gal                               |                               |           |          |
|--------------------------------------|-------------------------------|-----------|----------|
| Compound                             | Ions                          | Wt. Ratio | adds ppm |
| -----                                | -----                         | -----     | -----    |
| CaSO <sub>4</sub> .2H <sub>2</sub> O | Ca <sup>++</sup>              | 0.233     | 61.6     |
|                                      | SO <sub>4</sub> <sup>--</sup> | 0.558     | 147.4    |
|                                      | H <sub>2</sub> O              | 0.209     |          |
|                                      |                               |           |          |
| MgSO <sub>4</sub> .7H <sub>2</sub> O | Mg <sup>++</sup>              | 0.099     | 26.2     |
|                                      | SO <sub>4</sub> <sup>--</sup> | 0.390     | 103.0    |
|                                      | H <sub>2</sub> O              | 0.512     |          |

|              |       |       |       |
|--------------|-------|-------|-------|
| CaCl2        | Ca++  | 0.361 | 95.4  |
| Cl-          | 0.639 | 168.8 |       |
| CaCl2.2H2O   | Ca++  | 0.273 | 72.1  |
| Cl-          | 0.482 | 127.3 |       |
| H2O          | 0.245 |       |       |
| NaCl         | Na+   | 0.393 | 103.8 |
| Cl-          | 0.607 | 160.4 |       |
| Na2SO4       | Na+   | 0.324 | 85.6  |
| SO4--        | 0.676 | 178.6 |       |
| Na2SO4.10H2O | Na+   | 0.143 | 37.8  |
| SO4--        | 0.298 | 78.7  |       |
| MgCl2.6H2O   | Mg++  | 0.120 | 31.7  |
| Cl-          | 0.349 | 92.2  |       |

1g/gal ppm = wt\_ratio\*1000 / 3.7854 = mg/L

### Burton-upon-Trent Water Recipes

#### Target Ranges

|       |         |       |     |
|-------|---------|-------|-----|
| Ca++  | 260-352 | (306) | ppm |
| SO4-- | 630-820 | (725) | ppm |
| Mg++  | 24-60   | (42)  | ppm |
| Na+   | 54      | (54)  | ppm |
| Cl-   | 16-36   | (26)  | ppm |

#### Target Recipe for 5 Gallons

|       |         |         |            |
|-------|---------|---------|------------|
| Ca++  | 260 ppm | 0.81 g  | NaCl       |
| SO4-- | 740 ppm | 5.70 g  | MgSO4.7H2O |
| Mg++  | 30 ppm  | 21.10 g | CaSO4.2H2O |
| Na+   | 17 ppm  |         |            |
| Cl-   | 26 ppm  |         |            |

|       |         |         |            |
|-------|---------|---------|------------|
| Ca++  | 275 ppm | 1.00 g  | CaCl2.2H2O |
| SO4-- | 740 ppm | 5.70 g  | MgSO4.7H2O |
| Mg++  | 30 ppm  | 21.10 g | CaSO4.2H2O |
| Cl-   | 26 ppm  |         |            |

|       |         |         |            |
|-------|---------|---------|------------|
| Ca++  | 295 ppm | 1.25 g  | CaCl2.2H2O |
| SO4-- | 787 ppm | 6.00 g  | MgSO4.7H2O |
| Mg++  | 31 ppm  | 22.50 g | CaSO4.2H2O |
| Cl-   | 32 ppm  |         |            |

#### Common Names

NaCl Table Salt  
MgSO<sub>4</sub>.7H<sub>2</sub>O Epsom Salt  
CaCl<sub>2</sub>.2H<sub>2</sub>O Calcium chloride dihydrate

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Until I hear back from a brewery or two and get a definitive answer,  
please note that the Burton target ranges are from Papazian.

Any errors are my own though I of course take no responsibility for their  
consequences.

If anyone is interested in what the municipal water of Burton-upon-Trent  
is like I can email a copy.

Domenick

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Date: Thu, 19 Aug 93 15:49 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: WORT AERATION

>From: Tom.Weicht@arrc.ncsu.edu  
>Subject: C. cerevisiae taxonomy?

Respond to: deb\_neher@ncsu.edu

> I would like to start by saying that I appreciate the feed  
back from my original posting, and I like debate as a way to refine

>Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

I would like to start by saying that this has been a fascinating  
discussion  
and I am in awe that that such experts condescend to participate in this  
humble forum.

The only problem I have is following who said what or even if there are  
two  
different people in there. I am also delighted to know there is someone  
else  
out there with pet slime molds but can't figure out who it is. Mine  
died and  
I am in need of a slimevet.

js

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Date: Thu, 19 Aug 1993 14:43:07 -0800

From: ulrich@sfu.ca

Subject: "Not much of a beer drinker", "Evolution" of Beer

The other day, someone gave an overview of BC microbreweries and said not to even bother with Granville Island. Yesterday's Vancouver Courier (local free newspaper) contained an article that I found illuminating. I quote the second and third paragraphs.

"Granville Island Brewing Co. president Ian Tostenson says consumers will soon be able to buy GI draft suds in cans. To date, Granville Island products have only been available on tap and in bottles."

"'Sixty per cent of the beer consumed in B.C. is canned,' Tostenson says. 'I'm not much of a beer drinker, but when I do drink it, I want it in a can. It's the convenience factor.'"

Would you buy beer from this man?

On a lighter note, I recently saw a cartoon (Catman by Peter Perry in Terminal City, 8/11-24/93) hypothesizing about "the 'evolution' of beer". Extrapolating from Dry Beer ("developed after conventional marketing ideas dried up") and the current fad Ice Beer, he predicts Dry Ice Beer ("Beer vapors are inhaled. This is for those who are too cool to swallow or afraid of spilling regular beer in their trendy 4x4s."), followed by Ice T Beer ("After being opened, some cans start rapping and tell you you've won a pair of rap shorts.") and Mice Beer ("due to the increasing amount of mouse parts found in big brewery beer"), and eventually Dry Mouse Beer.

Charles Ulrich

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Date: Thu, 19 Aug 93 15:04:40 PDT  
From: Oh Noo- Mr.Bill <coxco@dpmmai.enet.dec.com>  
Subject: Brewpots

GA writes about welding stainless steel, which brings up my question. I have been using a 20 cup brew pot which does not allow me all wort brewing, not to mention the mess.

I inquired about a buying a new brew pot from Brewers Warehouse in Seattle, WA. The following was quoted:

10 gal. stainless steel brew pot - \$149.00  
brass/copper ball valve,nipple,fitting - \$ 86.00  
cut to fit bottom screen to filter wort - \$ 60.00  
-----  
\$295.00

Given this is heavy gauge "restaurant gauge" stainless and they claim the pot is fabricated in house, is this worth the price or is this like "killing a fly with a shotgun"?

The only other pots that I have seen are these thin cheesy Taiwanese \$49.00 20 qt. pots in the local brew shop. I don't plan to do batches with a outdoor burner so this rules out a converted keg system. Good deal or bad? Alternatives?

Mr. Bill

-----

Date: 19 Aug 93 19:38:59 EDT  
From: Greg Demkowicz <71470.171@CompuServe.COM>  
Subject: RIMS

I've read what ever posts I could get on RIMS, however I haven't seen comments about the Rodney Morris system. Has anyone actually built his system, or tried adapting his design to 7.5 or 15.5 gal Keg? I'm sure grain compaction will be a problem with the keg geometry, but to what extent (I think Alan Gerhard? used a screen cylinder in the center, to reduce this affect)? Also, for minimal HSE, how should the warmed wort exiting the pump be directed, through a manifold over the mash, or directly into it?  
Thanks  
in advance for any assistance.

Greg Demkowicz

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Date: Thu, 19 Aug 93 21:20:16 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: Yeast Culturing Temperature(s)

"Date: Tue, 17 Aug 93 12:38 CDT  
From: korz@iepubj.att.com  
Subject: yeast FAQ comments/Zymurgy Bashing/more yeast comments

">a. Place the starter jars in a location where 68F (18C can be held) ..  
.

"Yes, but I've read that although fermentation may be done at lower  
temps,  
80F is a better temperature for starters."

I've been culturing sourdough yeast recently, and the instructions  
indicate  
that the best temperature for culturing \*this\* yeast is 85 F.

They definitely indicate that 95 F would kill the yeast.

In general, I've found bread yeasts to be pretty closely parallel to ale  
yeasts in their operating parameters.

One would hypothesize that, much as there are complementary niches in the  
'beer' and 'bread' environments for relatively warm temperatures, there  
must also be bread yeasts which complement the colder lager yeasts,  
which,  
apparently, have not yet been discovered ( although Alaskan sourdough  
yeast  
might violate this presumption :-).

They also pointed towards the ( unlit ) oven as a good, unchanging warm  
place for yeast-culturing, and I've found this to be true. Mine climbs a  
little above 85 F over a day or so, and falls down to around 80 F if I  
leave the door open, so it's good to check it out, first, over a few  
days.

Any microbiologists ( or microbotanists, microzoologists, microflorists :  
- )  
in the crowd whom might care to comment on whether there is a general  
range  
of maximum temperatures over which all known yeasts die, and another  
general  
range of temperatures under which all yeasts become dormant [ excluding 0  
Kelvin :-] ?

Didn't someone just post a four-part yeast-culturing FAQ ? Is it in there  
?

- -- richard

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| |  
| | "A cloak is no longer a cloak if it does not keep one warm." |  
| | richard childers pascal@netcom.com |
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Date: Fri, 20 Aug 93 07:59 GMT+200  
From: Michel Vandenplas <mvd@maties.sun.ac.za>  
Subject: Summer Blues - contamination

Two members of our newly formed brewclub were describing a recurrent infection that they get during the summer months. The only advice that we could come up with was for them to throw it out and try again.

How do they prevent this from happening again? Apparently the infection shows up a few days after fermentation has started and appears as a white filmy layer on top of the fermenting wort. It feels oily and the beer is undrinkable, sorry no flavour descri

Any advice would be appreciated - or is this strictly a local problem?.

Regards

Michel

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Date: Fri, 20 Aug 93 8:08 BST  
From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>  
Subject: Re: Strike temperature

Many thanks to all those who responded, by E-mail and through HBD,  
to my request for info about strike temperature; particularly to  
Kelly Jones, whose definitive submission in yesterday's HBD was  
exactly what I was after.

Cheers,  
Andy Phillips

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Date: Fri Aug 20 06:30:36 1993

From: darrylri@microsoft.com

Subject: re: Barley Water

Bill Ridgley writes:

> The author went on to mention that there was no longer a barley water  
> tradition in the English-speaking world, but that a popular version  
called  
> "horchata" was still enjoyed in Spain and parts of Latin America.

I realize that Bill didn't say this but was quoting someone else.

However,

horchata (pronounced without the leading h sound) is a common drink from Mexico and is made from ground rice and cinnamon, and is pretty sweet. In the LA area you can generally get this instead of, say, a soft drink at a restaurant. It doesn't sound like it's got very much in common with barley water, however, in either ingredients or intended use.

--Darryl Richman

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Date: Fri, 20 Aug 1993 09:33:03 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: wort aeration comment

Thanks to Kinney for his postings from Malting & Brewing Science. The literature establishes beyond doubt that wort aeration is an important factor in final beer quality and flavor. I wonder whether the usual homebrew rack and siphon to the carboy adds sufficient oxygen to the wort? It seems that the splash tube gadget is a step in the right direction. I have used an aquarium pump wort aerator since last Fall, and feel that this has contributed to shorter lag times and more vigorous fermentations. I also feel that aeration is especially important for stronger beers (SG above 1050 or so). Admittedly, I didn't do split test and control batches, but I leave that to Malting and Brewing Science. If I have a clean acid carboy available, because of its greater headspace, I'll rack the just-cooled hopped wort into it and start the aerator. Sometimes, the beer head foams up, in which case I'll leave the aerator on for 5 minutes and swirl the carboy. Every half-hour or so, I'll repeat the process. At other times, the foam head doesn't go all the way to the top, in which case I'll leave the aerator on for 3 to 6 hours. It seems to me that aerating the wort in this fashion is one of those things one can do -- like using a wort chiller or racking to secondary -- to try to make better beer.

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Date: Fri, 20 Aug 93 10:07:42 CST  
From: "William A Kitch" <kitchwa@bongo.cc.utexas.edu>  
Subject: re: Wort Aeration

Thanks to Kenny Baughman for some good data. (I wish Dover would reprint Malting and Brewing Science (MBS) in paperback for \$35). I will attempt to summarize I've learned on this aeration thread. Y'all let me know if this makes sense.

- 1) Having enough dissolved oxygen (DO) in the wort is extremely important for a proper fermentation. Inadequate DO can lead to
  - a) Long lag times w/increased risk of infection
  - b) Long or stuck fermentation
  - c) Increased production of esters and acetaldehyde leading to off flavors.
- 2) A DO level of 20% of oxygen saturation seems to be adequate (MBS via Kenny B.)
- 3) 100% air saturation is about 20% oxygen saturation. (Lucky for us--or maybe it's not luck! Could it be Divine intervention?)
- 4) Observations of the lag time by several home brewers (Jack S, myself, et al) indicate that techniques such as shaking the fermenter, splashing wort on side of fermenter, syphoning through an aerating tube, indicate that these techniques provide adequate aeration. HOWEVER, no home brewer has measured DO, nor have any tests for unwanted byproducts (e.g. esters) been done either qualitative (tasting) or quantitative.
- 5) Clearly with the air pump method one can achieve 100% air saturation, just keep pumping.

My Conclusion: For 5 gallon sized batches with OG around 1.045 splashing, shaking, or siphoning through aeration tube will provide adequate oxygen in the wort.

Sante' WAK

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Date: Fri, 20 Aug 1993 08:47:57 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Topping off secondary**

On Wednesday (took the day off to brew my first all grain batch), a great mash, a nightmare sparge (suddenly, I was standing barefoot in 1/2 gallon of hot wort), and a vigorous boil, I ended up with about 4.5 gal of 1.054

wort. I should have topped off the primary, but somehow it slipped my mind. Can I top off the secondary with impunity? I have a week long dry hop coming up and I figure to just top off at that time. Any downside besides the dilution?

Thanks in advance. Use private email unless its of general interest.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Fri, 20 Aug 93 09:09:10 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: Hydrogen Peroxide

"Date: Mon, 16 Aug 93 17:39:59 PDT  
From: Victor Stevko (Human Genome Center, LBL) <stevko@genome.lbl.gov>  
Subject: hydrogen peroxide

"DO NOT DRINK Hydrogen Peroxide! ... Honest- I did a thesis on a related matter."

I won't dispute this, in general, but I'd like to note that hydrogen peroxide can also be used to increase the oxygen content of water one uses on house plants.

"Data point: Viruses don't respire aerobically or otherwise. An anaerobic virus is a meaningless term."

I freely admit that this is outside my realm of expertise.

"Data point: Warts come and go, often spontaneously."

I can only report what I have experienced.

"In beer, hydrogen peroxide will kill your yeast. Remember, it's supposed to stop infections?"

I'd guess this depends on the concentration. It seems possible to me that as the hydrogen peroxide dissolved into solution, it would become too weak to kill yeasts en masse, but still sufficient to oxygenate the solution, at which time it might influence yeast production to surpass that growth curve represented by the yeast population, had it not had hydrogen peroxide added.

"Data point: There is a POISON label on that bottle oof peroxide. Why might it be there? "

It's not. "Topical solution USP 3%". It's not data if you don't check.

"But do the reseearch before the experimentation with your health and life."

A reasonable request, but sometimes experimentation involves risk.

Others have pointed out the danger associated with free radicals, which are the latest culprits in the search for the cause of ageing, and have pointed me to some appropriate magazine articles. ( And I thank them. )

If it's any comfort, I donate blood about once a week, and they'd be the

first to let me know if there was anything wrong with my health. As it so happens, I seem to have a very healthy cell count and blood chemistry ..  
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- -- richard

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| | "A cloak is no longer a cloak if it does not keep one warm." |  
| | richard childers pascal@netcom.com |
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Date: 20 Aug 93 03:57:01 EST  
From: "CANNON\_TOM" <CANNON\_TOM@hq.navsea.navy.mil>  
Subject: Mash Out

Message Creation Date was at 20-AUG-1993 08:10:00

I've been a faithful HBD reader for about six months now and, though this must be a FAQ, I've seen nothing addressing the Mash Out Phase of all grain brewing. We've done about 20 all grain brews, and we always do the Mash Out either in the Mash Tun or by Sparging in the Lauter Tun with 170 deg water. I know what the Mash Out does for the grain (stop enzyme activity) but what does it do for the resultant beer? Is there a difference between mashing out in the mash tun and lautering with 170 deg water? Bottom line: What is being gained (or lost if we don't mash out)? TIA.

Tom Cannon  
DH Brewery  
Fairfax/Annandale VA

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Date: Fri, 20 Aug 93 10:44:17 MDT  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: Aeration

JS> The experiment seems to confirm the author's previous  
JS> experience and points to the conclusion that the method of  
JS> aeration used has no correlation with or effect on the time  
JS> to onset of fermentation.

KB> ...I'll briefly point out that underaerated wort can have definite  
KB> deleterious effects on the flavor of the beer (increased ester  
KB> production, for one) and adverse effects on the speed of fermentation  
KB> (read increased lag times and the resultant risk of contamination,  
KB> prolonged fermentation times...

Information I have heard indicates that you're \*both\* right. The scientific literature, with experiments presumably conducted much more rigorously than Jack's, says aeration is important. Jack's experiment, and anecdotal evidence from some homebrewers, indicates otherwise (at least as far as lag times are concerned).

According to Jeff Lebesch, the owner of New Belgium Brewing, he uses a stainless-steel airstone with pure O2 because he says you just can't get the amount of oxygen you need from air. That, coupled with the fact that an aquarium pump/airstone is probably not a very efficient way to transfer O2 to the wort, indicates that \*homebrewers, without special equipment\*, may not be able to get enough oxygen into the wort to make a difference.

So I submit that the question is not whether O2 is important for yeast, but whether homebrewers can oxygenate their wort sufficiently without resorting to difficult or expensive methods. I'm ignorant of any data that may prove or disprove this -- does anyone know the volume of air pushed by an aquarium pump, what the efficiency of gas transfer might be with an aquarium airstone, O2 vs other gases in air, etc.?

Personally, I've given up on aerating with an aquarium pump, as it seemed to make no difference in my beer and, since I had no in-line filter, I was worried about introducing airborne contaminants. YMMV.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Fri, 20 Aug 1993 11:16:12 -0700  
From: Michael.Burgeson@Eng.Sun.COM (J. Michael Burgeson)  
Subject: Aeration

Thanks Kinney for siting some good sources on the topic of wort aeration! After reading Jack's article on his aquarium pump/lag time experiment (HBD #1206, "WORT AERATION"), I meant to respond, but have been too busy at work to gather information. So, I'm just going to post without my sources at hand.

I think its important that we remember, as Kinney pointed out, that poor lag time is not the only symptom of poor aeration. "Malting and Brewing Science" referred to higher ester production. An article by Dr. Fix in "Brewing Techniques" about diacetyl cited poor aeration as a possible cause of excess diacetyl production. I have also seen references to increased fusel alcohols, and other undesirable fermentation byproducts resulting from poor aeration.

The ideal level of dissolved oxygen in wort at pitching time is 8 mg/l. Coincidentally, this is approximately the maximum dissolved oxygen level you can obtain using air. This is why I have not started using oxygen to areate my wort; by simply saturatiing my wort with air, I am acheiving nearly the ideal dissolved oxygen level, without an expensive dissolved oxygen meter.

As far as Jack's experimental results, I think it would have been enlightening to measure the dissolved oxygen levels in his samples. Due to the small size of his samples, there is proportionally much more surface area exposed to the air during transfer than in a 5 gallon sample. I feel that the dissolved oxygen levels in his samples may have been closer to the same level than if 5 gallon samples were used. Also, how did they taste Jack?

One last point: 50ml of starter ("working kraeusen" in Jack's words), for a 500ml batch is an adequate amount of yeast. Most homebrewers under-pitch, since it is not practical to build up to a 2000ml starter for a 5 gallon batch. Personally, I usually pitch from a 500-1000ml starter. I know from working in a homebrew supply store tha many people pitch far less; ie. the 50ml straight from a Wyeast packet. The effects of improper aeration are multiplied when under-pitching.

I do not mean to slam Jack's experiment. It was a good controlled experiment, but I think it is incomplete without knowing the dissolved oxygen levels in the samples, and what the differences in the flavors were.

- --mik

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Date: Fri, 20 Aug 93 14:25:53 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: [SNYDERC@decus.org: RE: Irvine Brewpubs]



Date: Fri, 20 Aug 1993 19:04:00 -0400 (EDT)  
From: "Curtis P. Snyder 714-752-4760" <SNYDERC@decus.org>  
Subject: [SNYDERC@decus.org: RE: Irvine Brewpubs]

Irvine has no brewpubs itself. However, Dana Point (about 15 miles South) has Heritage Brewery, which is near the wharf area. I haven't been there, but I have tried some of their beers bottled and they are pretty good. Best recommendation however, is Goat Hill Tavern, in Costa Mesa. They have about 110 beers on tap, mostly microbrewery types, with a few big shops (Coors, Bud) thrown in for the huddled masses. If you have time, Manhattan Beach Brewery, on Manhattan Beach Blvd in Manhattan Beach, is really good, with pizza that is perfect. They are about 30-45 minutes north of Irvine on the 405 fwy (Dana Point is also on the 405, just south).

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Date: Fri, 20 Aug 93 14:03:41 CDT  
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>  
Subject: Need Keg Supplies.

Salutations!

I'm going to cornealius (sp?) keg my beer from now on and am in need of some hardware. I would like anyone who thinks they have a good supplier that mails please e-mail me with their address. I have a Pepsi type keg and I think this is the "ball" lock type. Am I correct? Anyway, I'm a student so this will have to be a relitavly cheap adventure. Thanks in advance!

Gene in Laramie (formerly Duluth)

ezimmerm@hp.uwsuper.edu

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Date: Fri, 20 Aug 1993 12:48:42 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: To blow-off or not to blow-off?

I have noted a number of beginning brewers and all-grain neophytes (like myself) in the HBD lately, and I have a question that may be of general interest to this group.

What is the feelings out there on whether to employ a blow-off fermentaion or not? Just using a 7 gal carboy and not worrying about boiling off enough to fit in a 5 gal carboy seems like a lot less stress, but I've always used a blow-off in my extract brews. And besides, all that brown tar just worries me.

Let's see public responses to this because I think it's of general interest.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Fri, 20 Aug 1993 16:17:27 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast FAQ Notice, CaCl2 info.

Hi HBD,

First off I would like to thank everyone for pointing out the errors/oversights in my Yeast FAQ. Most of the points were valid, and I appreciated the input from those with more experience than myself. I should

be posting the corrected version to the archives in about a week. If anyone

else has found errors or suspected errors, either with the technical info

or the yeast "flavor" data, please e-mail me.

To the gent looking for food-grade CaCl2: I doubt that you will find any.

The bottle at our lab reads, "Warning: Causes Irritation." This is not to

warn you off using it if you need to correct your water chemistry. I think

that the amounts used to alter the concentrations of Ca and Cl in water to be used for brewing

will not irritate you (are you using Miller's section on water ions for guidance?). Luckily, most lab grade products are more pure than food grade,

and you can get an analysis of any contaminant levels shipped with your purchase. A good general source for chemicals is SIGMA.

Ordering is (800) 325-3010

Customer Service is (800) 325-8070

Technical Service is (800) 325-5832.

I don't know what their policies are about shipping to the public, but the

numbers are toll-free. I don't own any stocks, let alone stock in SIGMA, etc. etc. Please check the contaminant levels, and buy the best grade

you

need.

Here is my info for those who want to reach me about the Yeast FAQ.

Or anything else.

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-----ooO---( )---Ooo-----|
|
| Patrick Weix      weix@swmed.edu      |
| UT Southwestern Medical Center tel: (214) 648-5050      |
| 5323 Harry Hines Blvd fax: (214) 648-5453      |
| Dallas, TX 75235      |
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Date: Fri, 20 Aug 1993 17:59:51 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: BRFWare Needed

Could I please get some kind soul to put the latest version (V1.1) of  
\_Brewer's Recipe Formulator\_ on an ftp server somewhere??? The version  
on  
the famous mthvax.cs.miami.edu is V1.0, and the author says numerous  
improvements have been made...

thanks

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Date: Fri, 20 Aug 1993 22:02:31 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: Keg Conditioning

I would like to start keg conditioning my brews and was wondering if someone could give me some information.

I need to know when I should rack my beer from the primary to the keg for optimum carbonation. Is there a formula? I assume it would be based on specific gravity readings.

Any help is appreciated.

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I used to be disgusted, now I try to be amused.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

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Date: Sat, 21 Aug 1993 15:15:59 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: yeast cultural hysteria

Well, well, well. After scanning through the ENCYCLOPEDIA MYCOLOGIA in HBD #1207, what can one say but: "well, well, well." Yes, it was excessive and uncalled for - more of an attempt to intimidate than educate, really. There's no point in attempting to unshroud Mr. Weicht's thesis from its thicket of scientific jargon and double-speak; for our purposes (homebrewing, remember?) the point is really moot. For anyone really interested in pursuing further information concerning yeast biochemistry, genetics and (yes) taxonomy, I suggest that you start with a wonderful little primer put together by one of this century's more noteworthy yeast experts, namely: The Life of Yeasts by H.J. Phaff, M.W. Miller and E.M. Mrak, 2nd edition, Harvard University Press, Cambridge, Mass., 1978. This is a marvelously thorough, yet simple overview of yeasts, including: historical aspects, morphology and vegetative reproduction, sporulation and life cycles, genetics, metabolic activities, industrial uses (well, you get the idea). Its straight forward approach makes it a pleasure to read for both scientist and non-scientist alike, I'm sure. Check your large, local university or public library.

On a more philosophical note, allow me to quote Phaff et al.,

Many controversies exist in viewpoints concerning biological taxonomy. Some investigators are "splitters," those inclined to establish many species on the basis of relatively minor differences, and others are "lumpers," wishing to reduce the number of species.

I propose for the purposes of this forum, that we consider ourselves "lumpers." It really doesn't matter what we call them, as long as everyone understands what is being talked about. It becomes increasingly meaningless in this forum to say it's this genus or that genus, etc, though for lambics (*Brettanomyces/Dekkera*) we must make an exception. The point is whether it has been used in brewing and what were the consequences. To this end, I propose dispensing with scientific names as much as possible and sticking with the common names, the ones that everyone understands and sees displayed in the local homebrew store. Let's go even further: instead of saying Wyeast #3056 or MeV 320 or whatever, why not, as has been previously requested, refer to them as Wyeast Munich or Bavarian, or Bohemian (use the number in parentheses) and eliminate cryptic references to its putative source (these may be inaccurate). I think this would be far more useful to those less familiar with the available cultures.

I have a second proposal that merges two suggestions brought up in the last

couple of issues: sharing yeast cultures via the network and  
Weihestephan

68. In the realm of scientific research, as many of you are aware, it is customary and considered "good form" to make all reagents available that have been communicated through publication. Within reason, these are freely made available gratis to any colleague who requests them. I think that there are many individuals out there who would be quite eager to obtain a culture of Weihestephan 68, myself included. This network offers

a wonderful means by which to distribute the culture, rather than wait until who knows when for its release. Certainly, someone out there has an

agar slant full of this stuff. Therefore, I am proposing a Weihestephan 68 chain letter, of a sort. It works like this: an individual with a reliable culture announces it in the HBD; all others interested in receiving a sample respond via private e-mail; each person responding denotes themselves as a culturer (one who has the ability to make agar slants and propagate the yeast) or a non-culturur (self-explanatory); the first individual (a culturur himself) selects two non-cultururs and one culturur to receive the yeast on slants via first class mail; once the designated culturur (recipient) receives his slant, the information is posted in the HBD and the process begins anew. Of course, non-cultururs have no further obligation other than to notify and thank the sender.

Once

three cultures are shipped, the culturur is relieved of any further obligation, unless colonies do not appear on the slant - then a new attempt

should be made. Slants should be streaked with more than one colony pick,

in case more than one strain is actually involved, and sent immediately even before the colonies appear, they may ship better this way. This process may take a while before everyone who wants the culture actually receives it, but, because it spreads the burden of culturing and shipping,

it should be fairly painless. So, is there anyone out there who will come

forward with Weihestephan 68? Put me down as a culturur.

Oh, yes, if you must flame me, flame me in the forum. Please don't waste my time with private e-mail flames. Thank you.

Todd Gierman

Dept. of Microbiology

Duke University Medical Center

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Date: Sat, 21 Aug 1993 23:34:35 -0400 (EDT)  
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>  
Subject: Canadian Amateur Brewers Association (CABA)

If anyone is interested in receiving information about that Canadian Amateur Brewers Association (CABA) please send me private e-mail and I'll gladly accomodate you. Take care.

Michael Ligas  
Director, CABA  
ligas@mcmail.cis.mcmaster.ca

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Date: Sat, 21 Aug 1993 20:22:14 -0600 (CDT)  
From: jim@n5ial.mythical.com (Jim Graham)  
Subject: a fantastic bock

Hey, this is a first...I actually have something other than a beginner's question to post here!

A few weeks ago, I set out to brew what would be my first true departure from kits and simple batches with a single tin of malt extract, dried malt extract or corn sugar, hops, and yeast. And to make it really worth the effort <grin>, I decided to (more or less) brew one of the recipes from TNCJoHB, that being Papazian's Dr. Bock (p. 203).

Now, I couldn't get the exact quantities that he suggested, but I wasn't particularly worried about that (I'm \*NOT\* one who follows recipes like they're cast in stone). I did have to decide between using lager yeast, and living with fermenting/aging at around 75 deg F, or just using ale yeast and not worrying about it. I chose the ale yeast (after a lot of debating the subject), based mainly on a comment in the book that said ``Don't be afraid to substitute ale yeast for lager yeast and vice-versa'' (p. 174).

Anyways, here's what it amounted to (for 5 gallons):

9 lb 6 oz (3 tins) of Superbrau amber malt extract syrup (\*)  
1/2 lb chocolate malt  
2 oz Hallertauer hop pellets (boiling)  
1/2 oz Hallertauer hop pellets (flavor)  
2 pkgs ale yeast (\*\*)  
approx. 3/4 cup corn sugar (for bottling)

(\*) Papazian calls for 8 lbs malt extract syrup  
(\*\*) Papazian calls for 1--2 pkgs lager yeast

Anyways, it's been in bottles now for just under 15 days, and even though just about everyone I talk to says to expect a bock to take a \*LONG\* time to age, it's already \*WONDERFUL\*!!! It's already the smoothest beer I've ever brewed, and I've done what I consider to be some really good beer. Scratch that...it's the smoothest beer/ale/whatever that I've ever tasted, period. I can't wait to see what this batch is like after a couple of months....what little of it is left, that is! :-)

The flavor is very smooth (creamy actually comes to mind as a better word), with a lot of malt flavor, and just a hint of a chocolate flavor from the chocolate malt. It has virtually no bitterness from the hops (other than to offset the sweetness of the malt...which, if I read things right, means I did something right! :-)). It pours very nicely, with about a 2 cm head, which holds up very nicely.

It does, however, pack a bit of a punch...much more so than any batch I've brewed to date. :-)) It's certainly a batch to be enjoyed in moderation (which helps it to last longer, too!).

Oh well, just thought I'd pass this success story along. Later,  
--jim

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-- --
#include <std_disclaimer.h>      73 DE N5IAL (/4)
-----< Running Linux 0.99 PL9 >-----
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INTERNET: jim@n5ial.mythical.com | j.graham@ieee.orgICBM: 30.23N 86.
32W
AMATEUR RADIO: (packet station temporarily offline)  AMTOR SELCAL: NIAL
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E-mail me for information about KAMterm (host mode for Kantronics TNCs).

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Date: Sun, 22 Aug 93 03:00:43 PDT  
From: LIFE'S TOO SHORT TO DRINK CHEAP BEER <UNDERWOOD@INTEL7.intel.com>  
Subject: More questions

I brewed my second all grain the other day and differed my procedure just a little. Now the questions. Usually I boil, siphon the wort into a plastic primary and let sit overnight to settle/cool. The next morning this gets racked into the carboy, yeast added, etc.

This batch I used an immersion chiller to cool and then straight into the carboy it went. The first method usually leaves about an inch of trub in the bottom of the bucket. With the chiller, I left a lot of stuff in suspension. Which is the better method?

Also with that previous batch I saved some of the slurry in a mason jar. Unfortunately the garage fridge got unplugged, now the lid is bowed. Is this yeast bad? I will have more slurry here in a day or two. Whats the proper method for saving this stuff?

Thanks for the help, Chuck

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End of HOMEBREW Digest #1209, 08/23/93  
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Date: Sun, 22 Aug 93 16:40:01 EDT  
From: rgarvin@btg.com (Rick Garvin (703-761-6630))  
Subject: RE: Yeast FAQ; and more

The yeast FAQ that Patrick (WEIZ@swmed.edu) posted was a great public service. I wanted to add my personal experiences with the Wyeast 1028 (London Ale Yeast) and 1056 strains.

Patrick's original post on 1028 said:

> WYeast 1028 London Ale Yeast  
> Rich mineral profile, bold woody slight diacetyl  
> production. Medium flocculation. Apparent attenuation  
> 73-77%. Optimum fermentation temperature: 68 deg. F (20  
> deg. C). Complex, woody, tart, with strong mineral  
> notes, this one will bite you horribly if you over-hop or  
> if your water is high in carbonates. If you avoid that  
> Scylla and Charybdis, it produces ales of marvellous  
> complexity and sophistication. Most of the time you'll  
> wish you'd used 1098 or 1056. Had best results in  
> porters. Over-hopping is especially bad, but if you  
> throttle the hops back, the results are indeed  
> marvellous. Used this yeast in a Kolsch once, and it was  
> \*fantastic\* The wood and mineral notes fused with the  
> Hallertauer hops (which were used with some restraint),  
> and a couple of months of cool ageing brought out some  
> green apple in the aroma as well as the pallette. It  
> tasted a good bit hoppier than it really was, and overall  
> was well-balanced and smooth.

Al Korzonas countered:

> This is one of my two favorites (1056 being the other) and I've  
> brewed some very high IBU ales with it without the overhopping  
> problems reported here. Just 40 datapoints or so. Also, I'd  
> like to mention that this yeast was used for the 1992 B.O.S.S.  
> Challenge 1st place Barleywine, brewed by none other than Brian  
> and Linda North.

Lynn Kerby wrote:

> I just tried the 1028 strain on a couple of back to back english style  
> ales. The first was a fairly low gravity Bitter that came out fairly  
> nicely. It was not overly hopped, yet the hop bitterness came through  
> nicely. I did note the woody and mineral flavor notes in this brew.  
> The second brew was a fairly hoppy IPA and I wish that I had chosen a  
> different yeast. I found that the attenuation was a bit much in the  
> IPA, but it is still very young and may turn out fine in another month  
> or so. The IPA currently has a nasty stale veggi character that I  
> believe is due to using some old Cascades (they have been kept in the  
> freezer since I bought them though) for dry hopping. I just replaced  
> the blend of Cascades and Kent Goldings with some fresh Mt Hood in the  
> keg and am hoping for the best.

I tend to agree with Al on this one. I am a prodigious user of the Wyeast 1056 strain, albeit not their culture. I believe that Seibel has this strain catalogued as being from the Narraganset brewery and was used by them in their Porter. It has been reported in this sage journal as being the Sierra Nevada house strain. I get this yeast from the Washington, DC local Old Dominion Brewery by the quart. I find this yeast a great performer yet too bland for many styles. In my search for a characterful

yeast I have settled on the Wyeast 1028. I use the actual Wyeast strain.

I have found the Wyeast 1028 to have the complex woody character that is ascribed to it above. It does produce many other pleasant esters that remind me of cask Wadsworth's 6X. I have found it to be a strong attenuator. The Narragsanset/Sierra Nevada yeast is a VERY strong flocculator. Once it is done with the job it DROPS! The London Ale yeast is a bit more dusty so it hangs around and nibbles on them sugars a bit longer. This may be the character that seemed to accentuate hop bitterness. I have not found this yeast to be a big diacetyl producer. On the contrary, I find the Narraganset/Sierra Nevada culture to be a bigger diacetyl producer. Especially in higher gravity beers. As far "green apple" acetaldehyde, not in my experience.

An interesting behavior of the 1028 is its "top fermenting character." Very large colonies of yeast form on top of the krausen. These are the size of pie plates.

A recent experience with this yeast bears out my description. I made a batch of 1.052 Pale Ale with this yeast. The recipe follows. The woody character of the yeast (very apparent) combined with the MT Hood characteristic resinous character to produce a very pleasant beer. Plenty of character here for me.

American Pale Ale:

Through KitchenAid Grain Mill:  
22 lbs Great Western 2 row  
1 lb Dewolf-Cosyns Cara Munich 70 Lovibond

Hop Pellets:  
2 oz Perle 8.1% AA 60 minutes  
3 oz Perle 8.1% AA 30 minutes  
1 oz Mt Hood 3.9% AA 10 minutes  
1 oz Cascades 5% AA 5 minutes  
1 oz Mt Hood 3.9% AA 0 minutes

1 teaspoon Gypsum  
2 tablespoons Irish Moss

OG: 1.052  
FG: 1.009

Procedures:

Single step infusion mash at 152-150F with Gypsum. Sparge with 170-190F water to collect 15 gallons in 2 hours 30 minutes. Boil for 30 minutes before adding first hop addition. Add Irish moss for last 30 minutes. Use immersion chiller for 30 minutes while setting up "counter flow" chiller. Divide unfermented beer between 3 carboys with air locks (blow off tubes? Not this decade). Add 1/3 gallon yeast starter to each (1.040 OG starter) at 62F. Shake to aerate. Ferment in front of window AC. Krausen appears over night.

Cheers, Rick

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Sun, 22 Aug 1993 21:48:43 -0500  
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>  
Subject: Lactic Briess Extract

I've been asked to forward the following information from Briess Malting Co.

Mary Anne Gruber writes:

After seeing the article on the network about the bad DME from Briess, I contacted Mr. Roger Briess and this is his response. "We only recently became aware that there could be a problem with this particular lot of DME. I immediately began an investigation on how this lot received Quality Control approval and reviewed the production and quality control procedures to assure this doesn't happen again.

For 117 years Briess has strived for the highest quality and customer satisfaction. If everyone who has purchased Briess' CBW GOLD DRY lot #19CM3-D, in any size container, will mail the label showing this lot number to the following address, we will gladly replace. Please allow 3-4 weeks for replacement.

BRIESS MALTING COMPANY  
29 S. Columbia Street  
Chilton, WI 53014  
Attn: Mary Anne Gruber  
Director Brewing Services

We apologize for all those homebrewers who suffered any loss due to using this lot of DME."

As a personal note, I can add that none of this lot of gold dry extract was distributed by St. Patrick's of Texas, either retail or wholesale.

Lynne O'Connor  
St. Patrick's of Texas

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Date: Mon, 23 Aug 93 8:27 BST  
From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>  
Subject: Mashing in picnic cooler

On Saturday, I mashed for the first time in my new mash tun - an insulated picnic cooler with slotted pipe sparge manifold - and was impressed with how much easier it was than with my old Bruheat. I prewarmed the tun to 80C, then mixed 5.3 kg (11.6 lb) of pale malt with 13 litres (2.9 Imperial gallons) water at 76C. The resulting mash started at 66C and dropped to 65C over 90 min. I stirred occasionally to redistribute any cold spots near the walls. I sparged to 6 (UK) galls at a gravity of 69 at 20C. My calculations suggest that I had almost 100% theoretical yield!! My highest with the Bruheat had been about 85, and usually about 20% of this was unfermentable, probably due to hot spots near the heating element, killing off the beta-amylase.

The other advantage is that the Bruheat can now be used to heat the sparge water (no more sparging with pans from the stove), and the runnings from the mash tun can be sent straight to the Bruheat for boiling. Assuming that the resulting beer tastes OK, I'm completely sold on the new system.

Andy

-----

Date: Mon, 23 Aug 1993 17:12:54 +0930  
From: Murray Robinson <robinm@mrd.dsto.gov.au>  
Subject: Computer Controlled Mashing

Has anyone on the net undertaken the process of automating their mash by using a closed loop control system.

ie: temp sensor --> computer --> solenoid --> gas burner --> brew pot --  
    ^ |  
    | |  
-----

I have used the BruHeat Boiler (hope I can mention the name) for some time with good results but got a nice little tingle from it the other day so am no longer keen on electrical heating elements. Instead I now have a 3 ring gas burner beneath a 40Gal SS keg which enables me to do larger batches which come up to temperature quicker. What I would like to do with this system is use the inner ring (or possibly a seperate element) as a pilot flame with a computer controlled solenoid that would switch gas on/off to the other rings to maintain the appropriate mash temp.

Ofcourse there are much easier (and cheaper) ways of managing a temperature controlled mash but a computererised system (at a reasonable price) provides IMO a great way of documenting and reproducing recipes!

What do people think? Are there other problems with this sort of system such as exactly where in the mash should you measure the temperature or should the mash be constantly mixed, etc?

Any info would be appreciated.

Cheers,

Murray.

-----

Date: Mon, 23 Aug 1993 08:04:00 EST  
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill  
Ridgely/"@mr.cber.fda.gov  
Subject: Barley Water (Cont'd)

In the continuing "barley water" debate, Darryl writes:

> > The author went on to mention that there was no longer a barley  
>water tradition in the English-speaking world, but that a popular  
>version called "horchata" was still enjoyed in Spain and parts of  
>Latin America.

>I realize that Bill didn't say this but was quoting someone else.  
>However, horchata (pronounced without the leading h sound) is a common  
>drink from Mexico and is made from ground rice and cinnamon, and is  
>pretty sweet. In the LA area you can generally get this instead of,  
>say, a soft drink at a restaurant. It doesn't sound like it's got very  
>much in common with barley water, however, in either ingredients or  
>intended use.

I did a little more reading on the subject, and Darryl is correct.  
Modern-  
day horchata is rice-based. However, at one time, it apparently was  
barley-  
based. The term "horchata" comes from the Latin "hordeum", meaning  
"barley". It appears that rice supplanted barley as the grain of choice  
when the Moors introduced rice to Spain in the late middle ages.

There also appears to be another form of horchata, found mostly in  
Spain,  
made from chufa, or ground tiger nut - the underground tuber of a plant  
called "earth almond". One reference says this tuber was mentioned in  
the  
writings of Theophrastus as being harvested by the Egyptians and cooked  
in  
barley juice. Hence, the original "chufa horchata" appears to have  
derived  
from this ancient Egyptian tradition.

Bill Ridgely (Brewer, Patriot, Bicyclist) \_\_\_o  
ridgely@a1.cber.fda.gov- /<,  
ridgely@cber.cber.fda.gov...O/ O...

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Date: Mon, 23 Aug 93 08:32:31 EDT

From: <NASARC07@SIVM.SI.EDU>

Subject: Gaithersburg, MD Brewpub

\*\*\* Resending note of 08/20/93 10:37

To: EXTERNAL--CMSNAMES Entry Screen (non-

From: Allan Janus

Greetings, all - does anyone in the Washington DC area have any information on a new brewpub that's been a-building in Gaithersburg for a long, thirsty time? I recently moved nearby, and the sight of a brewpub gave me a very positive view of the local quality-of-life index. Now it's the middle of a mid-Atlantic August, my thirst is great, and the brewpub continues to hold its peace. Anyone know the brewer-founder, plans, opening date, etc?

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Date: Mon, 23 Aug 93 8:39:36 EDT  
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>  
Subject: preservatives??

Howdy,  
I have a question for those of you in the know concerning preservatives and their toxicity to yeast. Specifically, I recently bought some catawba and concord grape juice from one of the lake Erie wineries to use to make some pyment (grape mead). After purchasing however, I noticed that the juices are preserved with "benzoate of soda", which I presume means sodium benzoate. Questions, a) how persistent is this stuff; i.e. does it become non-toxic or un-reactive with time like sodium metabisulfite? and b) if it is persistent is there a threshold level below which my yeasty-beasties should be safe?

The juice is extremely sweet (not at all like Welch's) and I was thinking that I would use it at about 2.25L of juice and 6-8 lbs of honey per 3gal of finished pyment. One way of testing is to try a small (say 1gal) pilot batch, and I may do this regardless, but advance info would be helpful.

I have further interest in this subject because I would like to figure out another way to make hard cider and cyser this fall without the use of metabisulfite. Call me hypersensitive, but I still taste and smell the sulfur in the hard cider I made last year using campden tablets and then pitching Wyeast Irish Ale (1084?). The sulfur aroma is not real obvious, but I'd like to try to avoid it this year and still ferment with a yeast of known characteristics instead of leaving it up to the wild beasts.

TIA

Mark Fryling  
Dept. of Chemistry  
Ohio State Univ.  
<mfryling@magnus.acs.ohio-state.edu>

"Never let your sense of morality prevent you from doing what's right"  
I. Asimov

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Date: Mon, 23 Aug 1993 09:13:52 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: sweet gale seed source

It's getting to be time to start brewing those strong holiday beers.  
Does anyone have a source for sweet gale seeds? Has anyone tried  
brewing Rajotte's "Santa Claus Magic Potion" with them?

-----

Date: 23 Aug 1993 16:12:57 +0200  
From: netad@uds01.unix.st.it (NetAdvertiser)  
Subject: The Net ADvertiser

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\*\*\*\*\*

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\*\*\*\*\*

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Date: Mon, 23 Aug 1993 08:38:09 -0600  
From: Michael Howe <howe@gwl.com>  
Subject: SF area Breweries & Brewpubs

Hello HBD'ers,

I would like any/all information anyone might have about Breweries and Brewpubs in the San Francisco area. I know Anchor and Sierra Nevada are both out in that neck of the woods, but where? What about "Can't Miss" micros and brewpubs. I know the area is rich in drinking potential, thus I would like to maximize my opportunity.

Also, I would like to obtain the current brewpub list that was recently compiled. That could probably answer many of my questions. I would get it myself but I don't have FTP access. Could some kind soul forward that to me as well.

Feel free to mail to me directly to save precious HBD space...

Thanks in advance,

Michael Howe e-mail : howe@gwl.com

-----

Date: Mon, 23 Aug 1993 10:01:15 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Mash Out

>I know what the Mash Out does for the grain (stop enzyme activity)  
>but what does it do for the resultant beer?

Provides for repeatability, mostly. ie: enzyme activity is stopped  
after x minutes, period.

>Is there a difference between mashing out in the mash tun  
>and lautering with 170 deg water?

Yes. You won't have enough mass of sparge water at 170 degrees  
to raise the entire grain-bed (with its water at, say, 150 degrees)  
up to the enzyme-stopping temperature. And you shouldn't use water  
much hotter than 170, for fear of tannins and other off-flavors being  
carried into your beer. This is an argument for mashing in a kettle  
on the stove, or going to decoction (did I spell that right?) as opposed  
to the straight infusion method.

>Bottom line: What is being gained (or lost if we don't mash out)? TIA.

Gained: a little time

Lost: repeatability

yer welcome

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=====  
Tom Leith InterNet: trl@wuerl.WUstl.EDU  
4434 Dewey Ave. CompuServe: 70441,3536  
St. Louis, Missouri 63116  
"Tho' I could not caution all  
314/362-6965 - Office I still might warn a few:  
314/362-6971 - Office Fax Don't lend your hand  
314/481-2512 - Home + Infernal Machine to raise no flag  
atop no Ship of Fools"  
=====
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=====  
  
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Date: Mon, 23 Aug 1993 11:08:17 -0400 (EDT)  
From: okra@genesis.nred.ma.us (dean goulding)  
Subject: no subject (file transmission)

FWIW - 2 tips that have helped me...

1 - I make a temporary burner liner for my gas stove from two layers of aluminum foil. Cut an asterisk shape the size of your burner element in the center of the first and fold under the hole in the stovetop for the burner element.

Leave plenty of excess to cover the enamel stovetop. Do the same with the second sheet, perpendicular to the first. This helps with the stains from burnt wort and the enamel distress from 1.5 hours of high heat. It also helps to have the stove spotless to start with.

2 - I sparge using the grainbag-in-a-bucket system. I've found that using two sections of newspaper taped around the bucket w/ masking tape makes an effective/recyclable insulation. Cut an indentation if you use a tap at the base.

Pet peeve: Let's remember that some of us call long distance to download the HBD. I'd rather read valuable brewing info than cute tagline drawings or excessive quotes from the previous HBD.

Question: For my last 2 batches, I've used Wyeast Chico/Ballantine (1056) yeast. This appears to be a bottom fermenting ale yeast. Isn't that an oxymoron (ie.jumbo shrimp, military intelligence)? Aren't yeast segregated as either top/ale or bottom/lager? Dr. Fix?

Thanks! Dean Goulding (okra@genesis.nred.ma.us)

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Date: Mon, 23 Aug 93 08:28:57 PDT  
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)  
Subject: To blow-off or not to blow-off?

>>>> On Fri, 20 Aug 1993 12:48:42 -0700 (PDT), Domenick Venezia  
<venezia@zgi.com> said:

Domenick> I have noted a number of beginning brewers and all-grain  
Domenick> neophytes (like myself) in the HBD lately, and I have a  
Domenick> question that may be of general interest to this group.

Domenick> What is the feelings out there on whether to employ a  
Domenick> blow-off fermentaion or not? Just using a 7 gal carboy and  
Domenick> not worrying about boiling off enough to fit in a 5 gal  
Domenick> carboy seems like a lot less stress, but I've always used a  
Domenick> blow-off in my extract brews. And besides, all that brown  
Domenick> tar just worries me.

Domenick> Let's see public responses to this because I think it's of  
Domenick> general interest.

Domenick> Domenick Venezia  
Domenick> ZymoGenetics, Inc.  
Domenick> venezia@zgi.com

You may not see a public response to this, because I have never been  
able to successfully post to HBD. Maybe it will work this time, I  
will try.

Although I am not an all grain brewer yet (will be in a couple of  
weeks), it seems to me that once you have done your boil and have  
racked to a fermenter, it matters not at all how you got your wort.  
You will still have malt sugar, water, yeast and hops in a carboy. If  
you used a blowoff fermentation setup before and it worked and you  
liked it, keep using it. BTW, I use a blowoff hose and ferment in a  
SS soda keg. I get tons of krauesen and hop pellet residue in my air  
lock bucket. I really like the blowoff system.

dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucscd!megatek!hollen

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Date: Mon, 23 Aug 93 08:49:53 -0700  
From: pascal@netcom.com (Richard Childers)  
Subject: Stabilizing Cultures For Shipment

"Date: Sat, 21 Aug 1993 15:15:59 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: yeast cultural hysteria

"I have a second proposal that merges two suggestions brought up in the last couple of issues: sharing yeast cultures via the network ... This network offers a wonderful means by which to distribute the culture, rather than wait until who knows when for its release. Certainly, someone out there has an agar slant full of this stuff."

I like this idea, also, but it is not a new one. I was browsing through the bread FAQs I could find in gopherspace, over the past few days, and discovered that there is a very close parallel between bread yeast, and beer yeast, collectors. Bread yeast collectors also trade yeast samples ... sourdough is a fairly common variation, as it occurs, differently, all over the world.

Below is a method for preserving bread yeast and stabilizing them for mailing and long-term storage. I don't \*know\* that it will work for beer yeast, but I see no reason why not ... I don't think agar slants are a prerequisite to successful propagation of a genotype ... just a useful intermediate storage.

Here's another useful intermediate storage that may be much more stable.

The procedure, as described, lacks sanitary safeguards ... but I don't think this is an unsurmountable problem. A homemade glove box would do nicely. (-:

Aluminum foil might be preferred over wax paper, for sanitary reasons.

> How to dry and restart a culture  
>  
> #####  
> #####  
>  
>  
> from dadams@cray.com (David Adams)  
>  
> Drying:  
>  
> For long term culture storage, store your culture  
> in dried powder form. Ed Woods book doesn't tell  
> you how to do this right out, but I sort of discovered  
> it on my own. Actually I believe it is an old trick.  
>

> Spread a three foot long section of wax paper on the  
> Table WAX SIDE UP. Smear one tablespoon of fresh  
> culture around evenly and  
> thinly over the surface of the wax paper. Let it  
> dry overnight, and then scrape the dry flakes into  
> a bowl and crunch them (Mortal & pestle style) into  
> small pieces. Put the powder into a labeled zip lock  
> bag and press the air out.  
>  
> The culture forms spores when it starts to dry out.  
> The culture will store in a zip lock bag at normal  
> temperatures like this for 6 months. It will store  
> even longer in the freezer.  
>  
> I find that a zip-lock bag is very convenient way to  
> carry a culture when traveling or moving. Make sure  
> the bag is labeled and don't flaunt those little bags  
> of white powder!  
>  
> I find it convenient to do several sheets of wax paper  
> at once. Then when friends ask for a start I spoon  
> two teaspoons into a new bag, and carry it to work,  
> or where ever I will see them next.  
>  
> Another reason I find this convenient is that if you  
> own several different cultures, they don't all have  
> to occupy a bottle in the fridge at once.  
>  
> And it is fairly easy to include a small zip-lock  
> with a teaspoon or two of start in a letter. An  
> easy way to share starts.  
>  
> Restarting:  
>  
> Dr. Wood recommends the following steps for activating  
> dried sourdough cultures:  
>  
> Mix a couple of teaspoons of the dried powder with  
> 1/2 cup of water at 95 to 100 deg F. Mix briefly and  
> let stand for 15 min. Add 1/3 cup of white bread  
> flour, mix well and proof for 24 hours at 85 deg. F.  
> (My start needs 12 hours.) "The jar lid should  
> not be tightened. During the first 12 hours the  
> culture should be stirred once or twice as convenient.  
>  
> "At the end of 24 hours the culture should start to  
> bubble but the time varies depending on which culture  
> is to be activated. Regardless, add an additional  
> 1/2 cup of 85 deg. F. water and 1/2 cup of flour.  
> Then stir vigorously to whip some air into the mixture.  
> Return it to your warm place for 12 hours. When  
> the culture has a layer of foamy bubbles on the  
> surface, it is ready to use.  
>  
> Some of the cultures will fully activate in 24-48  
> hours, but some may require 3 to 5 days. During  
> this time, keep the culture at 85 deg. F., add  
> water and flour at about 12 hour intervals and stir  
> briskly." (Copied by permission from information  
> sheet sent with culture sample from Sourdoughs  
> International.)  
>  
> #####  
> #####

Anyone who'd like this or other bread-related FAQs, feel free to email me separately, I'll have them online for a few weeks, at least.

- -- richard

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| |  
| "A cloak is no longer a cloak if it does not keep one warm." |  
| richard childers pascal@netcom.com |
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Date: Mon, 23 Aug 1993 10:54:16 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast FAQ/AI Korz...

Sorry to waste bandwidth.

Al, I have not received any comment on the messages I sent you regarding your corrections to my Yeast FAQ. Please contact me to tell me if you got my messages. Has your address changed? Mine remains,

@@@

(o o)

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-----ooO---( )---Ooo-----|
|
| Patrick Weix      weix@swmed.edu      |
| UT Southwestern Medical Center tel: (214) 648-5050      |
| 5323 Harry Hines Blvd fax: (214) 648-5453      |
| Dallas, TX 75235      |
|-----|
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( ) ( )

Thanks to all.

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Date: Mon, 23 Aug 93 10:03:32 -0600  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Brewpots

I just had a 6.5 gallon stainless steel brew pot made for me. The materials for a 14 gauge stainless (this is probably thicker than "restaurant gauge") amounted to \$75. The real "cost" involved is the actual construction. Getting someone with stainless cutting/welding experience and the right equipment is the trick.

My father-in-law is a supervisor at a beef plant where they do all of their own stainless work. My pot has a fitted lid, stainless handles fabricated from 1/2" rod (with walnut grips) and a 3/8" stainless threading pipe at the base.

All it cost me was a batch of beer!!!

> Warehouse in Seattle, WA. The following was quoted:  
> 10 gal. stainless steel brew pot - \$149.00  
> brass/copper ball valve,nipple,fitting - \$ 86.00  
> cut to fit bottom screen to filter wort - \$ 60.00  
-----  
\$295.00

The prices for the screen/valve seem a bit high but the price for the pot itself is reasonable (assuming you get a lid).

John Adams

-----

Date: Mon, 23 Aug 93 12:04:51 EDT  
From: rgarvin@btg.com (Rick Garvin (703-761-6630))  
Subject: Chang over Chicha

Bill Ridgely writes in HBD #1208:

> Sorry the chicha arrived  
> late (shipping problems), but at least a fair amount finally got  
consumed.  
> Gak & Gerry were seen making a significant dent in the keg following  
the  
> banquet Thursday night.

I think that Wendy and Bill did a great job!

Gak & Gerry (serious knuckleheads, party with them if you get the chance)  
were seriously polluted by the time they went into Chicha mode. I wonder  
if there were any lasting ill effects from the chicha consumption?

Cheers, Rick (3 day Chang fan, give the chicha to Gak & Gerry)

Rick Garvin rgarvin@btg.com  
BTG, Inc. Navy Programs Division, Vienna, VA 703-761-6630

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Date: Mon, 23 Aug 93 11:37 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: WORT AERATION

>From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
>Subject: Aeration. What the pros say...

>The latest in Jack's continuing vigil against the accursed momilies of brewing focuses on aeration.

>I'm not sure what Jack's claims are here. But I'll point out several points of interest that may affect his "scientific" experiment.

I am not sure what Kinney's point in this lengthy response is but I have several reasons to suppose it is something other than objectivity.

First of all, puting the word scientific in quotes is a rather unprofessional way of trivializing the time and effort I put into this.

Secondly, if he misunderstood the conclusion and objective of the experiment before posting this same stuff on r.c.b., he certainly is aware now, that it has nothing to do with what I was trying to learn. We thrashed it out on r.c.b. for over a week and to restate the original objections and ad hominems without changing a single word, reeks of demagoguery.

For those who may still be confused, the conclusion follows...

.....

CONCLUSION...

The experiment seems to confirm the author's previous experience and points to the conclusion that the method of aeration used has no correlation with or effect on the time to onset of fermentation. Contrary to frequently stated anecdotal experience, the un-aerated control samples started fermenting as soon and with the same vigor as the variously aerated samples. This was true both in the case of cold temperature lager yeast and room temperature ale yeast.

This experiment was not intended to test any other aspects of the brewing process that may be affected by wort aeration. Much has been written on the subject and the present author's intent was only to study the effects of aeration on the onset of fermentation.

.....

I will be happy to discuss aeration as related to lag time but, flavor profiles, final gravities and other aspects are not part of the study nor is the overall need for adequate aeration under question.

For the record, the incoming mail is in very close agreement with my conclusion. I have yet to hear from a single person who reports that lag time has dropped after switching to an aquarium aerator from whatever they were doing before.

It may seem like nitpicking to prove that aeration does not improve lag time if it is necessary anyway for good beer but nit picking is what science is all about.

If someone makes a statement that lists 10 reasons for doing something but one of them is wrong, the entire statement becomes suspect.

If aquarium aerators do not improve (reduce) lag time, it is time to stop saying they do, no matter how important aeration is for other reasons.

If they do, someone else will have to prove it, I tried and could not.

>From: "CANNON\_TOM" <CANNON\_TOM@hq.navsea.navy.mil>  
>Subject: Mash Out

> Is there a difference between mashing out in the mash tun and lautering with 170 deg water? Bottom line: What is being gained (or lost if we don't mash out)? TIA.

Lautering with 170 deg water is not the same as mashing out in the kettle because the mash temp never gets anywhere near 170 degs while sparging.

Bringing the entire mash up to 170 before sparging has the effect of increasing the mash temperature during the sparge. This possibly results in a more effective sparge, less possibility of stuck sparges and some chemical aspects that I will leave to the experts.

js

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Date: Mon, 23 Aug 93 12:01:15 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: Cream Stout

This past weekend I devoted some time to my OTHER hobby (namely, drinking good commercial beers) and happened upon some Watney's Cream Stout. This was one of the best beers I have ever tasted, and I would like to brew one similar (as similar as I can get) and would hope for some pointers from fellow HBD'ers. Here are my (possibly erroneous) understandings:

1) Cream stouts have lactose added to sweeten them. In the boil? At bottling? In between?

2) Stouts are traditionally made with darker adjunct grains added such as roasted barley, chocolate malt, black patent. As an extract brewer I would steep the grains before bringing my water to a boil. Now that I am hoping to move on to partial and all grain recipes, when does one add these adjuncts?

3) The Watney's I sampled seemed much lighter in body than other stouts I hve tried. Does anyone have any idea of an OG and FG for the style? Is it the same as the sweet stout in Papazian's general guide lines?

Any helpful information will be appreciated. If you e-mail me direct, I will edit the responses and post a summary on Cream Stout to the HBD. If you post to the HBD, then I will not summarize in the interest of conserving bandwidth.

Thanks,  
Anthony Johnston  
anthony@chemsun.chem.umn.edu

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Date: Mon, 23 Aug 1993 10:19:00 -0700 (PDT)

From: Eric Wade <ericwade@CLASS.ORG>

**Subject: Source for pumps wanted**

I'd be interested any any sources and recommendations for pumps to move both wort and hot water. I'd like to be able to lift 175 df and above water to a hot liquor tank (HardSparger(tm), all in good fun Jack!) as well as run hot water and cleaning solutions through the pump and other parts of a system like a counter flow chiller. I am aware that the pump should pull (rather than push) the wort through the chiller to avoid HSA. It is difficult to tell (at least for this layman) which pumps can handle the high temperatures, are food grade quality, will deliver an appropriate throughput, will raise water the 6-8 feet (est), and are available for a reasonable price. I've got the Cole-Parmer catalog and think I've identified an appropriate pump. Still, I'd like the advice and recommendations of those who've gone this route already; is there something better, cheaper?. If you have a recommendation, please be as specific as you can regarding source, model number, catalog page number, price, etc. SF Bay Area sources also appreciated.

BTW, nice work on the yeast FAQ. It, and the followup comments are now part of my brewing library.

Cheers,

Eric <ericwade@class.org>

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Date: Mon, 23 Aug 93 14:52 CDT  
From: korz@iepubj.att.com  
Subject: Re: PU yeast

Jack writes:

>Two rumors I would like verified here....

>The first is the blending of (4) different beers from (4) different yeasts by

>PU. This was reported in an article I just read but do not recall where.

>Nothing of this sort was reported by Daryl Richman from his visit to the >brewery.

I will try to find my source for this and post, but from my memory, it's not anything to do with blending of four beer made from four yeasts, rather

PU was (or maybe still is) brewed with a mixed strain. Again, from memory,

someone, several years ago, got a hold of the PU production yeast and from

it they isolated four different yeasts, which they called A, B, C and D. I believe that they made test batches and the B and D strains were the most

Pilsner Urquell-like.

Al.

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Date: Mon, 23 Aug 93 12:28:43 PDT  
From: sc@vcc.com (Steve Casselman)  
Subject: Two Cents on Aeration.

So let me put in my two cents in on aeration. As far as I know there are two different kinds of fermentation, aerobic and anaerobic. During aerobic fermentation yeast take sugars and water and produce CO2 and water. Yeast can only reproduce during the aerobic growth stage. This means that a yeast cell produces another free roaming off spring. When the O2 runs out yeast go into anaerobic fermentation. During this time they consume sugars and water and produce CO2 and alcohols. At this time they stop reproducing and start budding which produces a long heavy chain of cells which start to drop due to their weight, this is called flocculation. The trick is to have enough yeast such that during anaerobic fermentation the yeast consume the sugars before they flocculate. This can be done by adding alot of single yeast cells or by having enough O2 in your wort for the yeast you add to reproduce to the right levels.

One of the experiments I have done in the past was to take pure water in a corney and force oxgenate it. I then added this to my chilled wort. While I never got levels right (the yeast didn't flocculate for a long time) my lag times went down dramatically.

Lately though I just try and ferment in a large plastic bucket with a loose fitting lid for the first week then rack to 15 Gal kegs. We resently made 30 gals of beer and put 20 gals into the "open" fermentor and ten in the keg. The keg had an air lock. After the primary fermentation we took a gravity reading the 20 gals came out at 1.012 while the keg fermentaion came in at 1.030.

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Date: Mon, 23 Aug 1993 15:21:16 -0500

From: rick@adc.com (Rick Larson)

Subject: Cleaning gas lines

How do you clean your keggings equipment gas lines?

I borrowed a keggings system from a friend and noticed the gas lines have \*a lot\* of beer stains. How should I clean these lines?

I have iodophor, chlorine, TSP, and boiling water. I think one of these should work.

rick

- - - -

rick@adc.com

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Date: Mon, 23 Aug 93 16:12 CDT  
From: korz@iepubj.att.com  
Subject: Pronunciation/Mashout

Sorry, but I've lost who asked for pronunciations of certain words, specifically, Maerzen and Saaz.

Alas, there is no FAQ on this, but perhaps someone would like to create one. I can contribute Maerzen and Saaz to it (note that if you have an a-umlaut, you can lose the "e" in Maerzen) oh, heck, I'll add a couple more:

Maerzen MARE-tzen

Saaz ZAATS

Kraeusen KROY-zen

Wort WERT

Trub TROOB

Gueuze GUE-ze (a tough one - Jackson says "rhymes with cursor" but remember that the English often understate their "r"s)

Willamette wil-LAM-met

Boone (Frank) BONE

Spaten SHPA-ten

Here's a new one on me:

I heard "lauter" pronounced "LOI-ter" at the AHA conference. Is this correct? Should it be spelled laeuter?

\*\*\*\*\*

Tom writes:

Is there a difference between mashing out in the mash tun and lautering with 170 deg water? Bottom line: What is being gained (or lost if we don't mash out)?

A more important reason for mashout (besides denaturing the enzymes as Tom mentioned) is to make the runoff more, well, runny (less viscous). Yes, 170F sparge water will raise the temperature eventually, but lautering will be slower than if you had gotten the whole mash up to 170F before trying to get the sugars away from the husks.

\*\*\*\*\*

Domenick writes:

What are the feelings out there on whether to employ a blow-off fermentation or not? Just using a 7 gal carboy and not worrying about boiling off enough to fit in a 5 gal carboy seems like a lot less stress, but I've always used a blow-off in my extract brews.

I did two blowoff/non-blowoff experiments using split batches, and the difference was very noticeable. The non-blowoff sub-batch was more bitter and astringent than the blowoff sub-batch. However, I have reason to believe (I've posted it in the past) that the blowoff method may reduce your head retention. I haven't done enough experiments to prove or disprove this, so it needs some more work. Has anyone else seen this

(blowoff - head retention) correlation?

A1.

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Date: Mon, 23 Aug 93 22:18:33 EDT  
From: boskoduck@aol.com  
Subject: Glatt Machining

Those of us who were fortunate enough to be at the AHA National in Portland this year got to see an impressive looking new malt mill made by the company named in the subject line. When I got home I immediately ordered one.

Well, that was the 3rd of August. Today, the 23rd, I got a telephone call from the owner of Glatt Machining. He called from Oregon - I live in New Hampshire - to tell me that he was behind in his orders and would have my mill out to me by the end of the week. He said that the response to his mill has been so good that he can't keep manufacturing fast enough.

He also asked me if I was on the internet. When I said that I had access to internet mail he asked me to tell "all those internet people" that he was running behind in filling orders, but would get them out as soon as he can. I figured that the internet people must be the HBD. Having done that, I've made good on my promise.

As far as the mill is concerned, it's an all metal construction, and has two grooved rollers. It's adjustable and the hopper holds about 2.5 lbs of grain. The real surprise is that it's only US\$80 per mill plus S&H. I was impressed.

Naturally, I have no commercial connection with Glatt Machining or anything like that, this is meant just as general info.

Nastrovia  
-julian zelazny

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End of HOMEBREW Digest #1210, 08/24/93

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Nastrovia  
-julian zelazny

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Date: Tue, 24 Aug 93 02:00:54 EDT  
From: mustbkept@aol.com  
Subject: Recipe-Honey Creek Summer Wheat

Honey Creek Summer Wheat

Source: Kerwin Manuel (KerwinM@aol.com)

Ingredients:

7.0 lbs Wheat Malt Extract (60/40)  
1/2 lb Crystal Malt  
1/8 lb Chocolate or Black Patent (your preference)  
1.0 lb Clover Honey (my preference)  
1/2 tsp Gypsum (adjust +/- for your water)  
1.0 oz Tettnanger for 60min  
1/2 oz Hallertau Hersbrucker for 30min  
1/2 tsp Irish Moss for 10min  
1/2 oz Tettnanger-Secondary Dry Hop  
1/2 oz Hallertau -Secondary Dry Hop  
1-2 pkg Ale Yeast (Wiezen Yeast if you prefer)

Procedure:

Steep crystal and chocolate malts for 30 minutes in 1.5 gals of 150 degree F water. Sparge into brew pot and add malt extract, honey, gypsum and enough water to bring volume to 3 gallons. Bring to a boil and add 1 oz Tettnanger, continue boil & 30 minutes later add 1/2 oz of Hallertau, still boiling 20 minutes later (50 minutes into the boil) add 1/2 tsp of Irish Moss for final 10 minutes. Total boiling time is 60 min. Pour wort into primary fermenter filled with 2 gallons of cold water (splashing hot wort into cold water to aerate). Pitch yeast when temperature is within range, 70-80 degrees F. 5-7 days in the primary and after fermentation has slowed, transfer to the secondary fermenter. Add dry hops (bagged or free floating) to secondary (I prefer to use a bag..easier to clean-up) and complete fermentation for 4 weeks. 3/4 to 7/8 cup of corn sugar for priming and bottle. Carbonation should be ready after at least 5 days (I was anxious to try this batch!)

Comments:

Very smooth, good mouth feel. Slightly estery. Banana or fruit aroma? I'll use a real wheat yeast next time. Clear, copper color. OK head retention and color. Very crisp, clean hop bouquet/aroma. Slightly sweet, smooth going down. Alcoholic taste, too much? Small, delicate bubbles. All disclaimers apply...after all, I'm judging my own creation ! Actually, several friends (and a couple of strangers) have told me they really like this one. I apologize if this recipe seems too explicit for some of you experienced types...but I remember what it was like just starting out... recipes or instructions with only partial information...phooey !



Specifics:

Original Gravity: Sorry..didn't take any readings

Final Gravity:

Primary Ferment: 5-7 days

Secondary Ferment: 4 weeks

Type of Fermenter: Plastic

Temp of Ferment: 70-76 degrees F

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Date: Tue, 24 Aug 93 08:00:55 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: re: Wort Aeration

"William A Kitch" <kitchwa@bongo.cc.utexas.edu> wrote:

> 3) 100% air saturation is about 20% oxygen saturation. (Lucky for  
> us--or maybe it's not luck! Could it be Devine intervention?)

In general, neglecting minor components, air is about  
79% Nitrogen and 21% Oxygen. No devine intervention here.

Tim

- ----

Timothy J. Dalton [daltontj@mit.edu](mailto:daltontj@mit.edu)  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Tue Aug 24 07:27:30 1993  
From: darrylri@microsoft.com  
Subject: PU yeast

korz@iepubj.att.com writes:

> Jack writes:  
> >Two rumors I would like verified here....  
>  
> >The first is the blending of (4) different beers from (4) different yeasts by  
> >PU. This was reported in an article I just read but do not recall where.  
> >Nothing of this sort was reported by Daryl Richman from his visit to the  
> >brewery.  
>  
> I will try to find my source for this and post, but from my memory, it's  
> not anything to do with blending of four beer made from four yeasts, rather  
> PU was (or maybe still is) brewed with a mixed strain. Again, from memory,  
> someone, several years ago, got a hold of the PU production yeast and from  
> it they isolated four different yeasts, which they called A, B, C and D.  
> I believe that they made test batches and the B and D strains were the most  
> Pilsner Urquell-like.

In my report on the Pilsner Urquell brewery, I noted that they were using three yeasts identified as D, H, and W. I believe that Miller has reported four strains in use and Jackson, 5.

I was explicitly told that the beer from each yeast is kept separate until the yeast is cropped, and then the beer is blended by taste.

I have speculated on this before; I believe that there is only one strain in use, but it has a tendency to mutate. In order to avoid problems, the PU brewery grows up a pitching slurry and labels it with a letter (for example, 'A'). They brew beer from this yeast and attempt to maintain it as if it were a separate strain in the brewery during successive repitchings.

At some fixed interval, they grow up another batch of yeast ('B') and begin brewing with it, also. The 'A' yeast eventually mutates, or it becomes infected, and the brewers are able to detect it while it isn't very severe. They can blend off the results (cutting the flavor contribution to well under the taste threshold, perhaps a third to a fifth of the level at which they were able to detect it) and dispose of that batch of yeast. As this happens somewhat unpredictably, the distribution of letters assigned to successive yeast batches, and the number of batches in use, varies.

--Darryl Richman

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Date: Tue, 24 Aug 1993 10:53:45 -0400 (EDT)  
From: Wayde Nie <u9106857@mcmail.cis.mcmaster.ca>  
Subject: RE:Source for pumps wanted

On Mon, 23 Aug 1993, Eric Wade Said:

>I'd be interested any any sources and recommendations for pumps to move both wort and hot water....

Well this isn't exactly a recommendation but maybe it could turn into a source...

Has anyone ever looked into using a dishwasher pump? (or maybe even a washing machine pump?) I would think that since it was designed to move hot water, soap, detergents and bleach (the washer anyways) around that it could probably handle wort/beer as well. A dishwasher pump has the added bonus of being meant for handling dishes someone will eat off of. (hopefully this means that it's not going to pass on nasties to our beer)

As far as availability, there are used appliance stores everywhere and most will sell salvaged parts.

///  
(o o)  
-----ooO--(\*)--Ooo-----  
-----

Wayde Nie, u9106857@McMail.CIS.McMaster.CA

Tact: The ability to tell someone to go straight to hell, and have them go merrily on their way.  
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Date: Tue, 24 Aug 93 11:01:12 EDT  
From: pgs@ai.mit.edu (Patrick Sobalvarro)  
Subject: Glatt Machining

Date: Mon, 23 Aug 93 22:18:33 EDT  
From: boskoduck@aol.com  
Subject: Glatt Machining

...Well, that was the 3rd of August. Today, the 23rd, I got a telephone call from the owner of Glatt Machining. He called from Oregon - I live in New Hampshire - to tell me that he was behind in his orders and would have my mill out to me by the end of the week. He said that the response to his mill has been so good that he can't keep manufacturing fast enough.

Just thought I'd mention that mine arrived this past Friday, so they certainly are being shipped, however slowly. I was not in Portland, so this was my first look at the mill, and it does seem quite well-made.

I am in the midst of moving, so most of what I own is in boxes and I can't brew. But the Boston Wort Processors will be informally evaluating the Glatt and several other mills in our upcoming Klasic Klub Krush-off in about two weeks. I say "informally" because we aren't prepared, for example, to run the crushed grain through screens of graduated fineness, but we will take a close look at the crush and the quality of construction and ease of use of the mills.

-P.

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Date: Tue, 24 Aug 1993 11:20:26 -0400 (EDT)  
From: jeff344@voodoo.lerc.nasa.gov (Jeff Berton)  
Subject: Re: Source for pumps wanted

For my recently operational RIMS, I'm using a March Manufacturing seal-less magnetic drive pump, model MDX-1/2. The magnetic drive allows seal-less construction and prevents the fluid from contacting the mechanical hardware and lubricants. The materials in contact with the fluid are food-safe plastics, ceramic, and stainless steel and can withstand a reported 190 F. It has 1/2 inch barbed ports for plastic tubing hookups. It operates on household current at 1/50 HP and can move 5.5 gpm at zero head, and has a maximum head of 7 feet. A speed controller built according to Rodney Morris' schematic in the Zymurgy Gadgets special issue works fine.

For information about retailers near you, call March at 708-729-7062. All retailers in my area were selling this pump for about \$95. C&H Sales Company, however, sells it for \$49.50 via mail order. C&H can be reached at 800-325-9465. Their catalog has many reasonably-priced items that may be used in a RIMS.

Disclaimer: No connection with March or C&H; just a satisfied customer and

a new RIMS brewer!

- - -

Jeff Berton, Aeropropulsion Analysis Office, NASA Lewis Research Center  
jeff344@voodoo.lerc.nasa.gov

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Date: Tue, 24 Aug 1993 12:16:39 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: Weihenstephan distribution

Richard Childers writes (>Date: Mon, 23 Aug 93 08:49:53 -0700,From:  
pascal@netcom.com (Richard Childers),Subject: Stabilizing Cultures For  
Shipment)

>I like this idea, also, but it is not a new one.  
>(I) discovered that there is a very close parallel between bread yeast,  
and  
>beer yeast, collectors. Bread yeast collectors also trade yeast samples  
...  
>sourdough is a fairly common variation...  
>  
>Below is a method for preserving bread yeast and stabilizing them for  
mailing  
>and long-term storage. I don't \*know\* that it will work for beer yeast,  
but  
>I see no reason why not ... I don't think agar slants are a prerequisite  
to  
>successful propagation of a genotype ... just a useful intermediate  
storage.  
>  
>> How to dry and restart a culture

It is interesting, but if we ever do get this distribution of  
Weihenstephan  
68 off the ground, please, please, please, don't attempt to use this as a  
distribution method. It may work for bread, but it will certainly prove  
counterproductive in the propagation of any beer yeast (bread risings are  
only a couple of hours and you don't care what's there, fermentations  
last  
days, and you do). In this case agar slants are a prerequisite to the  
propagation of a pure culture, helping to maintain the integrity of the  
culture, and, thus, its stability. There will be a lot of angry HB'ers  
out  
there who expecting a wonderful weizen, end up with something between a  
lambic and pond scum instead. The agar slants allow for the examination  
and picking of individual colonies. Many of the nasties that can spoil  
hopped wort (e.g. lactobacillus) frequently fail to grow on the surface  
of  
agar, whereas they can be carried quite well in a dried mass of yeast.  
You  
will end up with a really nice microfloral garden if you propagate this  
way. When somebody indicates that a culture is available, we can take  
some  
time to establish a protocol for propagation (one that must be adhered to  
at all cost). The worst thing would be to ship people contaminated  
cultures.  
Todd Gierman  
Dept. of Microbiology  
Duke University Medical Center

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Date: Tue, 24 Aug 93 11:17 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: AERATION

>From: sc@vcc.com (Steve Casselman)

> When the O2 runs out yeast go into anaerobic fermentation. During this time they consume sugars and water and produce CO2 and alcohols. At this time they stop reproducing and start budding which produces a long heavy chain of cells which start to drop due to their weight, this is called flocculation.

I won't argue with the overall thesis but you have the reproductive part a little confused. Budding, i.e. vegetative propagation, is the ONLY way that beer yeast reproduce in the normal fermentation environment. The parent cell forms a bud which drops off at the appropriate moment to grow up and do likewise. I doubt that reproduction ever stops completely until fermentation is over but in any case, budding has nothing to do with flocculation.

CORRECTION....

The following statement fogs my point in the comments I last made on the objective of the experiment. It was not, however part of the original CONCLUSION.

>It may seem like nitpicking to prove that aeration does not improve lag time  
>if it is necessary anyway for good beer but nit picking is what science is  
>all about.

The objective of the experiment was to test the air pump/airstone and not aeration in general. The fact that the "non-aerated" control started at the same time is interesting but can be explained by other mechanisms.

The statement would be more correct if... artificially enhanced aeration does not seem to improve lag time in small batches...

js

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Date: Tue, 24 Aug 93 12:51:41 -0400  
From: Rich Ryan <rich@sc2m044.swin.oasis.gtepsc.com>  
Subject: tannins

>Tom writes:  
>much hotter than 170, for fear of tannins and other off-flavors being  
>carried into your beer. This is an argument for mashing in a kettle  
>on the stove, or going to decoction (did I spell that right?) as opposed  
>to the straight infusion method.

Can someone please explain how tannins enter the beer making process?  
I've heard of wines with tannins and always thought that they had  
something to do with the grapes. Do the tannins originate from the  
malt?

Rich Ryan

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Date: Tue, 24 Aug 1993 13:20:50 -0400 (EDT)

From: drose@husc.harvard.edu

**Subject: Blueberry Beer Recipe Request**

Hey:

Well it is getting to be brewing season for me again and I am raring to go. I have come into possession of 12.5 lbs of blueberries and am interested in making a blueberry beer. I have searched the archives using WAIS and looked in Cat's Meow and haven't found what I am looking for. The most common problem is that people give the recipe and then say "This really didn't have any discernable blueberry flavor or color." I am looking for an all-grain recipe, maybe a wheat beer, with pronounced flavor and color. I picked these berries myself and I don't want to waste

all that work. Some things I am particularly concerned about are 1)when to add the blubes, 2) How much to add, 3)how long to ferment them, 4) How to prepare them (ie blanching, pureeing, etc.) 5) What sort of hop rates are appropriate (I understand that too much hops doesn't go well). Anyway, all information would be appreciated....

dave.

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Date: Tue, 24 Aug 93 13:23 CDT  
From: korz@iepubj.att.com  
Subject: Re: Cream Stout

Anthony writes:

>1) Cream stouts have lactose added to sweeten them. In the boil? At  
>bottling? In between?

I'm not sure if all cream stouts or all sweet stouts have lactose in them, but since I've recently done a semi-sweet (demi-sec?) stout that turned out quite nicely, I can offer a bit of advice. There are several things to keep in mind:

1. Lactose is unfermentable by conventional brewing yeast (it may be fermentable by other yeasts, but I don't know) but I strongly suspect that it is fermentable by Lactobacillus and/or Pediococcus bacterias, so be extra careful with sanitation or you'll get glass grenades.
2. You can add it in the boil or boil it in some water to sanitize and add it anytime up to bottling time, but I recommend adding it at bottling time because you can: add 4 ounces, taste, add 4 more ounces, taste again... You can adjust the sweetness to what you want it to be. Remember that the beer will taste a bit less sweet when it gains the acidity of carbonation.
3. Lactose is not very sweet. It appears that the larger the carbohydrate molecule, the less sweet it is. Lactose is a pretty big sugar and therefore not very sweet. You will need at least 8 ounces net weight in a 5 gallon batch to make a small difference.
4. How much? I had a relatively sweetish stout to begin with, having added a good 2# of various DeWolf-Cosyns crystal malts. I ended up adding 8 ounces (net weight) of Lactose to the 5 gallon batch and ended up with a not-too-sweet stout that was quite good. I wanted to avoid making a super-sweet stout since I had just returned from the Caribbean and down there they like their stouts so sweet (Dragon Stout, for example) you can pour them on pancakes!
5. Lactose sweetness is different from sweetness gained from malt. It is quite noticable and Brian North (a BJCP National judge) immediately pegged my beer as containing lactose. The obviousness of the lactose decreases as the beer ages.
6. Black and Brown malts give your beer quite a bit of acidity, so (unless

your water is high in Carbonates -- this is why Dublin is known for stouts and not known for it's pale ales) adding some Calcium Carbonate (a tablespoon or two for a 5 gallon batch) would help take away some of that dark grain sourness and help make the beer appear sweeter.

A1.

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Date: Tue, 24 Aug 1993 15:51:14 -0400 (EDT)  
From: bobml@msd.measurex.com (Bob LaGesse)  
Subject: Any Thimbleberry Ale/Mead Recipes?

I just got back from two wondrous weeks of vacation in the Upper Peninsula of Michigan (i.e the Keewenaw). One of the "fruits" of this vacation was that I was able to pick ~10 lbs of thimbleberries while there (only grows wild, somewhat similar to raspberries in color and flavor only richer and slightly tarter, IMHO). I would be greatly appreciative of any recipes that anyone would be willing to share with me.

Thanks!

- - -

Domain: bobml@msd.measurex.com      Bob LaGesse, Senior Engineer  
UUCP: ...!uunet!mxmsd!bobmlMeasurex/Management Systems Division  
Voice: (513) 825-3931 X303 1280 Kemper Meadow Drive  
Fax: (513) 825-5393 Cincinnati, Ohio 45240, USA

-----

Date: 24 Aug 1993 16:45:12 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: Job Posting

Pat Baker (of Crosby & Baker) has asked me to post the following:

\*\*\*\*\*

Crosby & Baker is currently looking for a person to manage the microbrewery & brewpub supply side of their business. Their current sales in this market segment are ~\$1 million/year.

They want someone with experience in marketing and distribution. Good people management skills are required. An MBA is desired, but not absolutely necessary.

The job location will be in Westport, MA, though travel will also be involved.

C&B has hired a consultant to review all submitted resumes. If you would like to be considered for the job or if you'd just like more information, contact Bob Sleeman, FAX # 508-994-9366.

Thank you.

\*\*\*\*\*

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Date: 24 Aug 93 16:14:35 CST  
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>  
Subject: CaCl2 source

>From Patrick Weix:

>To the gent looking for food-grade CaCl2: I doubt that you will find  
>any. Luckily, most lab grade products are more pure than food grade,  
>and you can get an analysis of any contaminant levels shipped with  
>your purchase. A good general source for chemicals is SIGMA.

Not for most of us. I called SIGMA and told them I was looking for  
pure stuff. For starters, they don't sell to individuals. Then I  
mentioned that this was to be used in brewing when asked if I wanted  
solid or solution.

\*\*The person I talked to about had a cow when she realized that this  
was a food-grade application.\*\*

She didn't have any idea where to get food-grade stuff. Maybe a  
pharmaceutical supply, but they wouldn't sell to individuals either.  
And she was really worked up about the food thing. Personally, I  
don't feel comfortable about non-food grade stuff. The 1% impurities  
could be a lot of heavy metals that don't purge themselves from  
your body and cause fun stuff like liver damage.

Anyway, I'm still looking for a source of FOOD-GRADE calcium  
chloride. There must be a commercial brewer's supply that carries the  
stuff, even if I have to buy a 20 lb sack (it doesn't go stale or  
anything!).

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: 24 Aug 93 16:19:37 CST  
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>  
Subject: The word "lauter"

The word "lauter" comes from "laeuter" in German which means "to purify." The "ae" combination is used when your character set has no umlauts. And you heard it right at the AHA, it should be pronounced "LOY-ter". I think that the word is a victim of the English habit of just dropping the umlauts instead of using the "e" after the vowel.

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>  
Homebrew, The Final Frontier.

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Date: Tue, 24 Aug 1993 15:55:19 -0700 (PDT)  
From: Jim Cave <CAVE@PSC.ORG>  
Subject: WORT AERATION

The dialogue concerning Jack Schmidling's wort aeration experiment continues on the digest. I have E-mailed Jack directly concerning his experiment. However I feel that misconceptions continue regarding the experiment so I feel compelled to bring my concerns up on the digest.

In his experiment, Jack's hypothesis (not actually stated) is that one or more of the treatments differ in fermentation characteristics from the control. We must then disprove that hypothesis, by testing the null hypothesis, i.e., there are no differences between treatments. Note you can never "prove" a hypothesis, only disprove it.

I feel that Mr. Cavasin's criticism remains valid since Jack fails to adequately address the alternate hypothesis for his results: that is, he can't be certain that oxygen did not enter the wort (in all treatments) by simple diffusion. Put another way, the experiment does not closely mimic the situation in the brewery. Simple diffusion into the wort in all treatments is certain, considering the long lag time (72 hours for duration of the experiment) and the small sample volumes involved. This indicates a high surface area to volume ratio. The yeast in all treatments, as well as the control, could simply be responding to levels of oxygen achieved as a result of the simple diffusion from the head space in the jars (rather than any similarity in aeration of the samples as a result of treatment procedure). This would account for the similar lag times that were found. Therefore comparisons between treatments remain uncertain. BTW, the alternate hypothesis is the simpler hypothesis.

There are two ways to alter this experiment The first and most obvious is to make four full-scale batches (5-10 gallons?). The valid assumption can then be made that the experiment mimics the situation in the (home) brewery. The second way is to prevent any additional "contamination" of the treatments with oxygen after they have been set up. Erlenmyre flasks, completely filled with wort with the proper treatment (possibly handled under inert gas such as nitrogen) and fitted with blow-off tubes would be one way to go. Before running either experiment, one should go through the possible alternate hypotheses to see if there might be a reasonable doubt about any experimental outcome.

The criticism that the experimental environment does not mimic the natural situation is a very common criticism of experiments. Jack can take comfort in the company he has with numerous PhD and MSc students in science!

Cheers!

Jim Cave, 604-684-8081 "I brew therefore I am"

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End of HOMEBREW Digest #1211, 08/25/93

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Date: Wed, 25 Aug 93 10:28:55 -0400  
From: dd853@cleveland.Freenet.Edu (David Hyde)  
Subject: Tun size and cheapness

HBD was a great source of help for keggin info a year or so ago, so I'm back with more questions. With the time I save by kegging instead of bottling, I figure I can go all-grain and still not spend much more time than I used to. I'm acquiring stuff bit by bit to start and have run into problems finding a suitable mash tun. I'd planned on using a cylindrical "picnic cooler", but haven't been able to find the larger ones. Not true...I did find a large (10 gal?) one at an "exclusive" outdoor shop, but I didn't have the kind of money they wanted. I've found 5 gal ones at plenty of places, but that's the largest around here.

So...three questions:

1. Would a 5 gal cooler make an adequate mash/lauter tun for 5 gal batches with an average amount of grain?
2. If not, is there a relatively cheap source for large coolers?
3. Can a rectangular cooler make a suitable tun? I like the idea of a smaller grain surface area, but could sacrifice that for economy.

Understand, I'm deep in Southern Maryland, far from civilization :), but close to DC and Baltimore for supplies. By the way, I'm currently using a propane hot water heater element as a burner. They're pretty popular around here as crab cookers, and will boil something like 100 gal of water in 15 sec. At least that's how hot they feel leaning over one on a summer day :) (That's a joke, but they do work well.) They're cheap and easy to find around here, and I expect they would be elsewhere.

Thanks in advance.  
Dave Hyde  
DD853.cleveland.freenet.edu

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Date: Wed, 25 Aug 93 11:07:42 EDT  
From: neilm@juliet.ll.mit.edu ( Neil Mager )  
Subject: WORT AERATION & Sierra Nevada

America Online has an online, live Brewing discussion the 2nd Thursday of every month. Participants include knowledgeable folks from Sierra Nevada. I believe in July, the discussion turned to Wort aeration. One of the participants from SN said they like to achieve as high an oxygen saturation as they can - 100% if possible. They use something called a fishtail which is basically a pipe with a flattened end which they use to spray the wort into the fermenters.

- -- Neil

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Neil M. Mager  
MIT Lincoln Laboratory Lexington, MA  
Weather Radar - Group 43

Voice (617) 981-4803 (W)  
Internetneilm@juliet.ll.mit.edu  
America On Line neilmm@aol.com

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Date: Wed, 25 Aug 93 10:37:51 EDT  
From: Lee=A.=Menegoni@necotech.com  
Subject: Liberty Ale Clone

I just got some fresh homegrown Cascade hops. Does any one have an all grain recipe for a Liberty Ale clone?

If yes please post or send to: my address gets mangled in a post

lmenegon@necis.ma.nec.com

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Date: Wed, 25 Aug 93 11:23 CDT  
From: arf@genesis.mcs.com (Jack Schmidling)  
Subject: PU, Honey, AERATION

>From: darrylri@microsoft.com  
>Subject: PU yeast

>In my report on the Pilsner Urquell brewery, I noted that they were using three yeasts identified as D, H, and W... I have speculated on this before; I believe that there is only one strain in use, but it has a tendency to mutate. In order to avoid problems, the PU brewery grows up a pitching slurry and labels it with a letter (for example, 'A'). They brew beer from this yeast and attempt to maintain it as if it were a separate strain in the brewery during successive repitchings.

I guess I missed this but if it was in the article, I probably mentally voided the information because it sort of cancels out in a practical sense. It would be futile for us to compare notes on "strains" considering that the brewery is pretty much throwing darts.

Thank you for clearing this up.

>From: korz@iepubj.att.com  
>Subject: Re: Cream Stout

>I'm not sure if all cream stouts or all sweet stouts have lactose in them, but since I've recently done a semi-sweet (demi-sec?) stout that turned out quite nicely, I can offer a bit of advice.

Having tasted this and several other sweet stouts at a CBS sponsored Stout Seminar, I rather liked the beer and made one up for a party.

However, not wanting to add another odd ingredient to my collection of never to use again stuff, I sweetened mine with honey and the result was just what I expected.

My thinking was that honey ferments very slowly in the first place and with ale yeast and in a cold fridge, it probably never will ferment out.

Prior to kegging the stout, I poured two cups of honey (boiled to sterilize) into the keg and filled and carbonated as usual.

If I were to do it again, I would only use one cup of honey as it is a bit too sweet for general consumption. The first few sips are a taste explosion



but a little goes a long way. It was made in May and I still have a couple gallons left and it is as sweet as the day I kegged it.

>From: Jim Cave <CAVE@PSC.ORG>  
>Subject: WORT AERATION

> The dialogue concerning Jack Schmidling's wort aeration experiment continues on the digest. I have E-mailed Jack directly concerning his experiment. However I feel that misconceptions continue regarding the experiment so I feel compelled to bring my concerns up on the digest.

My only concern is the misconception of the objective of the experiment but I did learn a great deal from the objective discussions both private and public and thank those who contributed.

I apologize for whatever share I may have had in the unpleasantness that developed but simply offer it as a warning of what happens when personal garbage is brought to a public forum. It is all too easy to attack the messenger and never get around to the message or so fog it that little else is accomplished.

>There are two ways to alter this experiment The first and most obvious is to make four full-scale batches (5-10 gallons?). The valid assumption can then be made that the experiment mimics the situation in the (home) brewery.

Considering the objective, viz., the wonders of the airstone, I guess I will fall back on anecdotal evidence. There are only two variables, airstone and whatever else one normally does to make good beer. Anyone who has been making good beer and tries the airstone, soon comes to a very practical resolution. If it improves things, he keeps doing it, if not he quits. The mail and posted comments indicate that most people quit. So much for science.

js

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Date: Wed, 25 Aug 93 10:28:57 MDT  
From: mlh@cygnus.ta52.lanl.gov (Michael L. Hall)  
Subject: Blueberry Beer

Dave (drose@husc.harvard.edu) asks for recommendations for blueberry beers.  
Since I made a blueberry beer recently, I thought I would respond. It had no blueberry color and very little blueberry flavor. My recommendations:

Make a *\*very light\** base beer. Mine was way too dark/heavy. A light wheat beer might be nice. Even then the color will probably not come through (but the flavor might). Blueberries tend to have a reddish color in solution, and I think that will be the best you can hope for.

Use lots of blueberries. I only used 5 lbs. of frozen blueberries in 5 gallons and it wasn't nearly enough. I would use about 2-3 lbs. per gallon.

Add fruit only to the secondary, so that flavors and aromas don't get scrubbed out by the vigorous fermentation. I did this, and it started a pretty good second fermentation due to the sugars in the blueberries.

Using hand-picked blueberries, I would pasteurize them first, by heating to 165 F for 20 minutes.

You may hate to do this, since you have nice fresh-picked blueberries and you would like the beer to have natural flavor, but you will probably be able to get a better blueberry flavor by using an extract. There are various ones on the market; some are probably better than others.

Actually, my final recommendation would be to use a different fruit. I don't think that blueberries have that strong of a flavor, and it gets swamped by all the beer flavors.

Making a good blueberry beer *\*can\** be done: I had a very good one put out by some microbrewery that I tried at a recent GABF (Great American Beer Festival). It had a straw color (not blue), but lots of blueberry flavor. My guess is that they used an extract.

Good luck, I hope it comes out well...

Mike Hall  
Los Alamos Atom Mashers

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Date: Wed, 25 Aug 1993 09:27:00 -0700 (PDT)  
From: Philip Atkinson 356-0269 <PATKINSON@galaxy.gov.bc.ca>  
**Subject: Victoria Microbrewers Festival**

- --Boundary (ID WGjX09Nv1BEbI5SJSFwkHQ)  
Content-type: TEXT/PLAIN; CHARSET=US-ASCII

- --Boundary (ID WGjX09Nv1BEbI5SJSFwkHQ)  
Content-type: MESSAGE/RFC822

Date: Mon, 12 Jul 1993 11:50:00 PDT  
From: "Philip Atkinson"@mr.gov.bc.ca  
**Subject: press rel**  
Content-type: TEXT/PLAIN; CHARSET=US-ASCII  
Posting-date: Wed, 25 Aug 1993 00:00:00 PDT  
Al-type: DOCUMENT

1993 Victoria Microbrewery Festival

Presented by the  
Campaign for Real Ale Society of British Columbia,  
Victoria Branch (CAMRA Victoria)

Victoria Conference Centre, Victoria, B.C.

12-8pm, October 23, 1993

Admission: \$5.00 per person, includes souvenir tasting glass  
and Festival programme.

Beer tickets: \$1.00 each, exchanged for a 4oz. taster.

Lots of different beers and ciders from registered breweries  
including:

Granville Island Brewing Horseshoe Bay Brewery  
Nelson Brewing Okanagan Spring Brewing  
Shaftebury Brewing Spinnakers Brewpub  
Swan's Brewpub Vancouver Island Brewing  
Whistler Brewing Big Rock Brewery  
Red Hook San Juan Brewing Co.  
Sleeman's Portland Brewing  
Merridale Cider Works Wyder's Cider

... and we're still working on it!

Prices are in Canadian funds. With the current exchange rate,  
it works out to a \$4.00 US admission fee and about 75 cents  
per taster. AHA home brew competition is on the morning of  
the Festival. Enquiries for both to:

Phil Atkinson, editor, What's Brewing, 1250 Denman St.,  
Victoria BC, V8T 1L8 (604)386-2818  
INTERNET ID: patkinson@galaxy.gov.bc.ca

- --Boundary (ID WGjX09Nv1BEbI5SJSFwkHQ)--

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Date: Wed, 25 Aug 1993 17:00:00 EST  
From: Gretchen Brannaman 250-8384 <BRANNAGJB@A1.GVLTEC.EDU>  
Subject: **Bottle labels?**

Hello all,  
Does anyone out there know of any clever ways that I can label my beer  
and  
mead bottles? I'd like to design them on my computer, but they need to be  
easy to remove (peel or soak) so I wont add more to the headache of  
preparing  
bottles for the next batch.

Thanks in advance,  
Gretchen Brannaman  
brannagjb@a1.gvltec.edu

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Date: Wed, 28 Jul 93 13:09:01 EDT  
From: frame@msys.com (Frame)  
**Subject: Please add me to mailing list!**

I look forward to hearing from you.

Kind regards,

Donald Terepka  
frame@msys.com

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Date: Wed, 25 Aug 93 11:01:59 PDT  
From: MRS1%CRPTech%D CPP@cts27.comp.pge.com  
Subject: pico-Brewery

As a neophyte brewer, I'm about to take the step to all grain brewing. Several friends and I are considering going in together on a 3 kettle system from pico-Brewing Systems, Inc. Since this involves a moderate investment of capitol I was hoping someone out there may have some knowledge of or experience with their products. Thanks for any input you may have.

Marty Sanders

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Date: Wed, 25 Aug 1993 11:34:11 -0700  
From: Bob Devine <devine@postgres.Berkeley.EDU>  
Subject: aeration

"William A Kitch" <kitchwa@bongo.cc.utexas.edu> wrote:  
> 3) 100% air saturation is about 20% oxygen saturation. (Lucky for  
us--or maybe it's not luck! Could it be Devine intervention?)

Timothy J. Dalton <dalton@mtl.mit.edu> replied in HBD 1211:  
| In general, neglecting minor components, air is about  
| 79% Nitrogen and 21% Oxygen. No devine intervention here.

While I do get around, I can honestly say that I haven't been  
changing the atmosphere lately (well, at least not on a global scale).  
I suspect you meant to write "divine intervention". :-)

Bob Devine

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Date: Wed, 25 Aug 1993 12:49:05 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Free software**

After all the talk about extraction efficiency, and the at times impolite ferver over pts\*gals/lb vs. pts/lb/gal, and the fact that I've just brewed my first all grain brew, I have written a simple program to calculate the extraction efficiency of a mash/sparge.

It is cleverly called EXTRACTF and is available free. I have executables for DOS, SGI Irix, and SunOS. There is a short document and an ASCII data file based on Bob Sweeney's post to HBD, sans Miller's entries. Sorry, no source.

Maybe someone who is really willing to try it can contact me, then tell the general HBD audience if it's worth the hassle of acquisition.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Wed, 25 Aug 1993 17:02:41 -0500 (CDT)  
From: ROB WILSON <WILSONRS@VAX2.Winona.MSUS.EDU>  
Subject: Warm Temp Aging?

I just finished bottling a batch of beer. I have it sitting in my basement primming. My question is can I leave it at this warm a temp (68-72) to age? What are some of the possible problems, and will it age at all at this temp ? It is in a dark place so light is no problem. Thanks in advance to all who help.

Rob Wilson  
wilsonrs@vax2.winona.msus.edu

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Date: Wed, 25 Aug 1993 18:18:44 -0400 (EDT)  
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>  
Subject: Blueberries/Calcium chloride

Mr. Rose asks how to make beer with those blueberries.

I'll tell you what I do with mine. Up here in the NC Mountains we have plenty of them and I pick them every year to make liqueur. Nothing better than a nice snifter of blueberry liqueur in the dead of winter! I've found liqueurs one of the best ways to preserve fresh fruit flavors, be they blackberries, strawberries, raspberries, whatever.

Dennis Lewis is looking for Calcium Chloride.

Isn't common Lite Salt made of Calcium Chloride? I've always thought of using it as a source but was never sure about proportions.

Anyone tried it?

Cheers!

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---  
Kinney Baughman | Beer is my business and  
baughmankr@conrad.appstate.edu | I'm late for work.  
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Date: Wed, 25 Aug 1993 19:07:58 -0400 (EDT)

From: CCAMDEN@delphi.com

Subject: Chlorine, Yeast and My Septic Tank

Hey Everyone;

While this is not a brewing question in the strictist sense, it is related. All the various discussions about sanitizing have got me wondering.

We just bought a house that has a septic tank, and that is a first for us.

We are sanitizing everything with a weak bleach solution. For most things,

I use 1 to 2 oz of bleach to 5 gallons of water. For a few things (cleaning

old bottles) the solution is stronger. Is all this bleach going down the drain going to harm whatever magic occurs in the septic tank? Could it be

offset by pouring the sediment from the first and secondary fermentations down the drain, too? (I think it was Heloise that had a hint once about putting yeast in your septic tank occasionally.) I have considered dumping

the bleach water in the washing machine as it is on a separate drain line from the septic tank. Do I need to (gasp) worry?

Thanks for any and all help. Answers by email or here in the HBD are appreciated.

Cary Camden, Huntsville, AL

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Date: Wed, 25 Aug 93 17:10:30 PDT  
From: b\_roach@emulex.com (Brad Roach)  
Subject: RE: Irvine Brewpubs

Irvine doesn't have any brew pubs, but in Huntington Beach there is one worth mentioning. The pub is called Huntington Beach Brewing and it is located on Main St. about 2 blocks from the pier. The best way to get to the pub is to drive into Newport Beach and take Pacific Coast Hwy north to Huntington Beach and make a right turn on Main St.

Cheers,

\_\_\_\_\_/ / QLogic Corporation  
/ / / / / Costa Mesa, Calif  
/\_\_\_/\_/ (\_(<(\_/ b\_roach@emulex.com

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Date: 25 Aug 93 00:29:37 MDT (Wed)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: carboy handles

Can anyone report an actual incident of a carboy handle causing a carboy to break? I know there are many cautions about using the carboy handles (the plastic-coated metal loop handles) to lift full carboys, and I can imagine that you could induce enough force, through careless use, to crack the neck of the carboy. But I've never heard of an actual failure, so I'm curious what the actual level of risk might be.

Note: I'm not interested in "might be" or "obviously one can see that..."

or stress analyses or whatever. Those are separate topics; I'm looking for (preferably) first-hand or (at worst) second-hand reports of actual failures, and any notable circumstances under which the failures occurred.

---  
Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
    ...Simpler is better.

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Date: Wed, 25 Aug 1993 22:32:16 -0500  
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)  
Subject: yeast

I like Darryl Richman's line of reasoning concerning the question of the number of strains used by the Pilsner Urquell Brewery. It seems in line with what one might expect for conducting "low tech", low cost passage of a brewing strain. In support of this notion, an article by C. Rainbow of Bass Charrington Ltd. (c. 1970) indicates that it is common practice, at least in England, for brewers to limit the number of pitches (of a yeast culture) to five. He indicates that this is to limit contamination, which is inevitable in the brewing environment, and to avoid what brewers apparently refer to as "yeast weakness" (loss of desired properties coinciding with an increase of mutants in the population. So, it would seem likely that the folks at PU hedge their bets a little to avoid costly down time.

A quick comment on this posting:

>Date: Tue, 24 Aug 93 11:17 CDT  
>From: arf@genesis.mcs.com (Jack Schmidling)  
>Subject: AERATION  
>  
>  
> >From: sc@vcc.com (Steve Casselman)  
>  
> > When the O2 runs out yeast go into anaerobic fermentation. During  
> this time they consume sugars and water and produce CO2 and alcohols.  
> At this time they stop reproducing and start budding which produces  
> a long heavy chain of cells which start to drop due to their weight,  
> this is called flocculation.

This seems logical. I also thought so until further investigation has shown me that this isn't so. Actually, the yeast don't go into respiration mode until the amount of assimilable sugars runs out. Yeast are constantly in fermentation mode and the presence of glucose actually inhibits respiration even when oxygen is present. Jack's comment on the reproduction mode is essentially correct. Some yeast do reproduce via fission, but you probably won't find this kind in your beer, maybe your cider though. Also, I don't think that this description of flocculation is correct. Anyway, I'm not sure why one really needs to aerate, though apparently one does (?) I think George Fix has said that it is required for some process other than metabolism.

One final note, let's take a quick market survey concerning those desiring Weihenstephan, before we push this thing further. Who wants it? Can you culture? and what would be your mailing address. I will compile the results so that they can be e-mailed to the people who would be culturing it. This would save some time and trouble and we could, presumably, by-pass HBD postings.

Todd Gierman  
Dept. of Microbiology  
Duke University Medical Center

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End of HOMEBREW Digest #1212, 08/26/93  
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Date: Thu, 26 Aug 93 10:02:31 MET DST  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: BrewCaps (tm?): how and why?

Hello all,  
Could someone enlighten me on the purpose and use of the brew cap?  
All I know (well, suspect) is that it is used on a carboy, which is  
then turned upside down.  
If this is a really obvious question please email me privately.  
By the way, I've never seen one either, so a description might be  
useful.

Isn't the quest for knowledge a terrible thing!

Rob Thomas.

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Date: Thu, 26 Aug 93 02:29:20 PDT  
From: DJM1%CRPTech%DCPP@cts27.comp.pge.com  
Subject: Tun size, Lables

Yes! Something I can answer:

Dave asks:

>From: dd853@cleveland.Freenet.Edu (David Hyde)  
>Subject: Tun size and cheepness

>3. Can a rectangular cooler make a suitable tun? I like  
>the idea of a smaller grain surface area, but could sacrifice  
>that for economy.

I use a coleman 48qt rectangular cooler with a slot-cut copper manifold,  
I think that I picked it up for <\$18 on sale....It works just fine for me.  
The  
drain spiggot is just the right size for 3/8" pipe.

Gretchen asks:

>From: Gretchen Brannaman 250-8384 <BRANNAGJB@A1.GVLTEC.EDU>  
>Subject: Bottle labels?

>Hello all,  
>Does anyone out there know of any clever ways that I can label my beer  
and  
>mead bottles? I'd like to design them on my computer, but they need to  
be  
>easy to remove (peel or soak) so I wont add more to the headache of  
preparing  
>bottles for the next batch.

Just use regular paper (Xerox or computer) and attach with a Glue Stick,  
the  
lable will stay on until you get it near any water.

Daniel Meaney

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Date: Thu, 26 Aug 93 07:18:44 -0400  
From: Timothy J. Dalton <dalton@mtl.mit.edu>  
Subject: Chlorine & Septic Systems

CCAMDEN@delphi.com wrote:

> Is all this bleach going down the  
> drain going to harm whatever magic occurs in the septic tank?

It might.

The bleach might be diluted enough in the septic system that it will not harm the bacteria churning away in there..then again, it might not get diluted.

> I have considered dumping the bleach water in the washing machine  
> as it is on a separate drain line from the septic tank.

We have a utility sink on the same drywell as the septic tank. That's where I try and put my bleach water, just to keep it out of the septic system...

Tim

- - - - -

Timothy J. Dalton [tdalton@mit.edu](mailto:tdalton@mit.edu)  
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab

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Date: Thu, 26 Aug 93 08:07:43 EDT  
From: tmr@fjtld.att.com  
Subject: Re: BOTTLE LABELS

Gretchen,

I use a very basic UNIX program called 'pic' to draw my beer labels. It combines lines, squares, rectangles, circles, ellipses and text to make a decent beer bottle label. There are many other graphics software packages out that will do a much more sophisticated job.

As far as attaching them to the bottles, I used to use undiluted Elmer's white glue. I would brush it on to the outside 1/4" edge of the paper and slap it onto the bottle. I make up a different front label for each batch along with the bottling date. I have a "generic" back label for all batches. Thanks to a suggestion from this list, I switched to using a white glue/paste stick (FaberCastle "uhu stic"). This works just as well and is much easier to apply.

Both glues and labels come off easily after an hour of soaking in water.

Tom Romalewski

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Date: Thu, 26 Aug 93 8:22 EDT  
From: Dennis\_Birch@vos.stratus.com  
Subject: septic systems

CCAMDEN@delphi.com (Cary Camden) asks about the dangers to his septic system from dumping his weak bleach sterilizing solution down the drain. I brewed quite steadily for two years at a house that was on a septic system (the house we're in now is on town water and sewer). I used about a tablespoon or two of bleach per 5 gallons to sanitize my carboys, and a stronger solution squirted into the bottles and rinsed before bottling. My thoughts were that the solution was so weak, and in such small quantity compared to the size of the holding tank that it should not make a difference. I had the tank pumped twice during those two years, and was told both times that there were no problems whatsoever with the system. The amount of clean water used in the brewing process for rinsing equipment off further dilutes this solution. I also washed my slurry down the drain after fermentation on the theory that the animals in it would be beneficial to the breakdown process. Not definitive proof, but a datapoint -- I was very comfortable with the ability of the septic system to handle these relatively small quantities of bleach.

Dennis Birch

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Date: Thu, 26 Aug 93 8:16:47 CDT  
From: emsieja@ems.b17d.ingr.com (Ed Sieja)  
Subject: 10 Gallon Picnic Coolers

David Hyde writes:

... stuff deleted...  
I'd planned on using a cylindrical "picnic cooler", but haven't been able to find the larger ones. Not true...I did find a large (10 gal?) one at an "exclusive" outdoor shop, but I didn't have the kind of money they wanted. I've found 5 gal ones at plenty of places, but that's the largest around here.

So...three questions:

1. Would a 5 gal cooler make an adequate mash/lauter tun for 5 gal batches with an average amount of grain?

Many people use them with great success, however an average batch will push the limits and give little room at the top. Some view the deeper grain bed as an advantage - but I like the extra room the 10gal cooler provides, plus it gives me room for brewing higher gravity ales at times.

2. If not, is there a relatively cheap source for large coolers?

I got mine at Wal Mart for around \$30-\$35. They actually had two sizes for the 10gal models. Both were made by Gott. One had a push-in top and the other had a screw-on top which could double as a stool. One modification I made was to remove the pushbutton spigot and drill the hole to fit a regulated spigot (available from most any homebrew supply).

With this setup I rarely loose more than one degree during a 90 minute mash period.

- --  
=====  
Ed Sieja  
Intergraph Corporation  
Huntsville, AL 35894-0001emsieja@ingr.com  
=====

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Date: Thu, 26 Aug 93 09:18:35 EDT  
From: poconnor@lager.tn.cornell.edu (Peter OConnor)  
Subject: Brewpubs in Amsterdam or Antwerp?

Hi there,

Does anyone know of a good brewery/brewpub in Antwerp, Belgium or Amsterdam, The Netherlands? If so, I would appreciate a response at "poconnor@lager.tn.cornell.edu" as I don't want to waste HBD bandwidth. -Pete OConnor

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Date: Thu, 26 Aug 93 09:24:43 -0400  
From: Daniel McMahon <dmcMahon@blanche.acq.osd.mil>  
**Subject: Brewpubs in Amsterdam or Antwerp?**  
From: dmcMahon  
Full-Name: Daniel McMahon@pr  
Subject: Ingredients Substitutions  
To: homebrew@hpfcmi.fc.hp.com

I was recently given a recipe for an "excellent Belgian Trippel", but my local homebrew supply store doesn't have all the exact ingredients called for.

The two ingredients in question are: (1) Klages malt and (2) Liberty hops.

Not finding any comparative reference to Klages or Liberty in Papazian's book, I've decided to substitute Pale malt and Willamette (5.3%) hops respectively.

What are the special characteristics of Klages malt?  
Ditto for Liberty hops.

I've followed the ongoing discourse concerning experimentation with recipes. I'm not concerned about deviating from a proven recipe, I am curious about the specific properties of the two ingredients I am substituting for.

Any comments/suggestions? Thanks!

Dan McMahon  
dmcMahon@acq.osd.mil

-----

Date: Thu, 26 Aug 1993 09:45:01 -0400 (EDT)

From: drose@husc.harvard.edu

Subject: Mailing Strains

Hello:

I came in late on this Weihenstephan discussion, so I don't really know what it is all about. However, I thought it worth mentioning that there is a cheaper alternative to agar slants for mailing strains, and it works just as well. We routinely send out laboratory strains on filter paper. Basically, you just put a drop of culture on a ~1 cm square piece of filter paper (probably any absorbent paper would do) and wrap the square in a piece of sterile foil. Then pop it into an envelope and send it off. When it gets to the other side, they drop the paper on a rich media plate, incubate for a day or so, and the yeast grow up. Then you streak for singles on another plate and you're set. I haven't rigorously determined the viability of cells dried on paper, but they are very stable. It works.

I can think of two possible disadvantages to this system. First, we use autoclaved paper and foil, and a surprising number of households STILL lack an autoclave. However, while commercial paper is probably not sterile, I imagine it is pretty close; the yeast are going to far outnumber anything else, and when you streak for singles you will get what you want. The foil you could always steam, but probably it would also be close enough to sterile for most peoples purposes. The second drawback is that this method requires that you are set up to culture, and to streak for singles in particular. However, while this isn't absolutely necessary in the case of slants, it is certainly advisable. Anyway, just thought I'd throw it out there.

Dave Rose  
Dept. of Cellular and Developmental Biology  
Harvard U.

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Date: Thu, 26 Aug 93 09:43:32 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Re: Tun size and cheepness

2. I found my 10gal "Gott" cooler at Buildre's Square for \$40. They've got them again this year (it's a summer item).

1. Depends on how much beer and how strong you want to make it. You could manage up to about 1.050, but not very far above that. As an extreme example, I was able to make only 3 gallons of a 1.090 Scotch Ale in a 7 gallon picnic cooler.

3. Yes. I did my first batch in such a cooler, using a slotted copper pipe manifold for sparging. Make sure you get one with a drain hole, though, as siphoning doesn't work very well (speaking from experience). I can send you a "plan" for the sparging manifold, if you are interested.

=S

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Date: Thu, 26 Aug 93 09:46:11 EDT  
From: dipalma@banshee.sw.stratus.com (James Dipalma)  
Subject: RE: Tun size

Hi All,

In HBD#1212 David Hyde asks:

>1. Would a 5 gal cooler make an adequate mash/lauter tun for  
>5 gal batches with an average amount of grain?

Sure, I've been able to fit ~12 pounds of grain in a 5 gallon tun. That much grain capacity is adequate for 5 gallon batches of all but very high gravity beers. If you want to brew a high gravity beer and 12 pounds of grain won't get you to the target gravity, you can always just sparge less and make a smaller batch. Last winter, I brewed a 4 gallon batch of bock, OG 1.076, in a 5 gallon tun by draining the tun, re-filling it, then sparged just 2 gallons.

>2. If not, is there a relatively cheap source for large  
>coolers?

I bought a 10 gallon Igloo at the local TruValue for \$29, the 5 gallon coolers were less expensive.

>3. Can a rectangular cooler make a suitable tun?

Yes, lots of people on this forum use rectangular picnic coolers. There are fairly comprehensive instructions in the HBD archives.

Cheers,  
Jim

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Date: Thu, 26 Aug 93 10:31:22 EDT  
From: steve@garnet.spawar.navy.mil (Steve Jacobs)  
Subject: Easily removed labels

>From BRANNAGJB@A1.GVLTEC.EDU

> Does anyone out there know of any clever ways that I can label my beer  
and  
> mead bottles? I'd like to design them on my computer, but they need to  
be  
> easy to remove (peel or soak) so I wont add more to the headache of  
preparing  
> bottles for the next batch.

I used to use sticky-back (peel off) paper for my labels, but they were  
really hard to remove.

There are a couple of methods you could use:

1) Get some gummed laser printer paper. A homebrew shop here in Northern  
Virginia sells gummed paper that will feed in most types of laser  
printers. It works well for me. Just wet the label with a little  
water and stick it on. Soaks off in warm water.

Brew America in Vienna, Virginia is the only place I've seen that  
carries  
the gummed paper. I think that they will do mail order. Their number  
is  
(703) 938-4805. I don't remember the price.

Standard disclaimer applies.

2) Use regular laser printer paper for your labels, wet the back with  
milk,  
and stick them to the bottle.

Sometimes the milk soaks into the paper too much and the label gets  
too  
wrinkly and the milk attached labels seem to take a little longer to  
soak  
off than the gummed labels.

There are a couple of companies listed in some of the beer-related  
magazines  
that specialize in multi-color labels, but they tend to be expensive.

For the artistically-impaired, gummed preprinted labels are available  
from  
most homebrew shops. Not a whole lot of variety though.

Steve Jacobs  
KSI Inc.

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Date: Thu, 26 Aug 93 10:46:34 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: pico-Brewery

Disclaimer: the owners of pico-Brewing Systems are friends of mine. I have no financial interest in the company or the system.

That said, I've used the system a few times, and it's a really nice system. There are still a few quirks, but it's one of the easiest breweries I've ever used. Last weekend, we made 15 gallons of Porter in a brewing demo at the Michigan Renaissance Festival, under slightly adverse conditions (only water supply is a garden hose, no sink, just a drain in the "floor" that kept backing up on us.) We arrived a little after 11am, and finished brewing about 3:30. (The clean-up then took another hour and a half because of the problems mentioned above.)

It was almost effortless -- We started by running some water into the hot water kettle and firing up the burner to heat it to mash-in temperature. Then we measured the (26 lbs) of grain into the mash kettle. After a little while, we pumped hot water into the mash tun, then heated the mash slightly to our mash temperature. Then we transferred the pump to the mash tun and started recirculating. This really helps maintain a constant/uniform mash temperature without stirring. Tasting the outflow, it appeared we had complete conversion after about 20 minutes, but we kept the mash going for a little over an hour (partly because we were explaining how brewing beer worked to all the people stopping by the booth, as well as telling them we couldn't sell or give them any samples).

Towards the end of the mash, we started heating more water for sparging. Moved the pump back to the hot water kettle, ran a hose from the outlet of the mash kettle to the boiling kettle, and opened the valve to start sparging. Because of the constant recirculation during mashing, the wort came out "clear" (I put this in quotes, because it was a pretty black Porter). We adjusted the valves on the mash kettle and the hot water kettle to the same flow rate, and sparged almost to the top of the boiling kettle (under which we turned on the heat after running a bit of wort in).

As the wort boiled down, we periodically sparged a little more from the mash tun into it. At the end of the boil, we put in the immersion cooler, hooked the pump to the boil kettle, started running water through the cooler, and recirculated wort past it to chill it. When it was cool (about 1/2 hour?) we pumped the wort from the kettle into our carboys with lots of splashing and foaming.

Cleaning up was pretty easy, as easy as it can be when you're wrestling 15 gallon containers, and trying to keep from overflowing the drain, which kept backing up (finally fixed this by wrapping a rubber glove around the hose and sticking it down the drain).

Good points:

- \* With the pump, and a good stand, you don't have to ever lift hot water or wort.
- \* Recirculation during mash and cooling means no stirring.
- \* Temperature wells in the pots make temperature control easy.
- \* Strainer screens in mash and boiling pot work very well.
- \* Easy to make 10 gallons, pretty easy to make 15, possible to make upwards of 20 (by also boiling in the hot water kettle).
- \* It's designed by home-brewers, for home-brewers. They're constantly refining and improving the design.

\* Good solid construction.

Problems:

- \* We had a slight problem with grain bed compaction during the mash recirculation. But we had 26 lbs of grain in there, too.
- \* Hop pellets can clog the pump if you stop it for a while. This only happened when I was rinsing the boiling kettle. Blowing through the hose from the outflow cleared it.
- \* There's a pretty large "dead" volume under the filter screens. This is probably most serious in the mash tun. I'd say it's more than a gallon.
- \* The price!

A note: one of my brewing companions, an experienced brewer, had never used the system before. He decided, based on that experience, that he wanted to buy one.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704  
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109  
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

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Date: Thu, 26 Aug 93 8:56:44 MDT  
From: npyle@n33.stortek.com  
Subject: Coolers / GABF/ etc.

Dave Hyde asks about rectangular cooler mash tuns. This is what I use, Dave, and am very happy with it. Its very easy to make a manifold for this thing (mine looks like a fork from the top). The larger surface area to depth ratio doesn't seem to be a problem, although I suppose it could cause marginally lower yields (as the liquid flows through, it passes by less pieces of grain and therefore pulls through less sugar). Anyway, you can get them in various sizes, from 24 quart to 48 quart, and cheap! Go for it.

The Great American Beer Festival is planned for October 8 and 9 this year in Denver. I think it is at Currigan Hall downtown. Is anyone involved in the planning of the GABF a participant in this forum? I'd like to know if there are any provisions for designated drivers? I don't recall any in the past, but logic tells me there must be some plan for this. It would be extremely irresponsible for them to plan an event which will undoubtedly produce a large number of intoxicated people, and not to have a way for them to get home safely. Anyone know? The reason I ask is that my DD from the last few years (my wife) will be out of town that weekend. I want to go to it, but not bad enough to risk my life.

(Bob Devine, I was waiting for your comment. Good show!)

Someone (sorry!) brought up the question of hot liquor pumps. I'm interested in this subject, too (I'm tired of lifting gallons of hot water). I don't need to pump my wort, only hot water for sparging, etc. so I'm not too concerned about sanitation. Any experience out there with dishwasher pumps or the like? As usual, I'm looking for something economical as well as useful.

Cheers,  
norm  
- - -

Norm Pyle, Staff Engineer & BrewerStorage Technology Corporation  
npyle@n33.stortek.com 2270 South 88th Street  
"Youth is of course, the problem, as any Louisville, CO 80028-0211  
mature man knows." -- Michael Jackson (303) 673-8884

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Date: Thu, 26 Aug 93 19:13:53 +0300  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
Subject: Homebrewing supplies in Germany?

Let me give this one another try. A friend of mine will be in Germany  
next week  
and I want to send him somewhere to get me brewing supplies. Anyone know  
where  
to???

Please answer directly to LCNAVOT@WEIZMANN.WEIZMANN.AC.IL  
Thanks, Nir.

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Date: Thu, 26 Aug 93 19:20:58 +0300  
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>  
Subject: Brazil WishList

Another friend of mine is going to Brazil for a month. Do you know of any special brews that I can ask her to bring me back (and would be worth the trouble)?

She told me of a low alcohol beer they have there by the name of Choppe.

Does

anyone know how it is made?

Nir

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Date: Thu, 26 Aug 93 12:21:00 edt  
From: "Hobson, Kevin" <HobsonK@magic.dcrct.nih.gov>  
Subject: Fridg conversion

HBDer's,  
Please comment on or point me to the FAQ on converting a fridge to use as  
a  
lagering appliance.

What I need is any set of info one of you good folks has put together. In  
particular the temperature gauge to retro fix to the box.

I cannot for the life of me remember the name of the product that is  
always  
recommended in this list! "Air Temp"? Manuf. and model # would be  
greatly  
appreciated.

Thanks ahead of time!  
a direct response would be great/fine.  
Kevin 8^)

Division of Computer Research and Technology  
National Institutes of Health  
hobsonk@magic.dcrct.nih.gov

"Hell, There are no rules here we're trying to accomplish something"  
T.A. Edison

~~~~~

Date: Thu, 26 Aug 93 11:31 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: AERATION

>From: neilm@juliet.ll.mit.edu (Neil Mager)
>Subject: WORT AERATION & Sierra Nevada

>One of the participants from SN said they like to achieve
as high an oxygen saturation as they can - 100% if possible.

This sounds like a rhetorical statement of wishfull thinking as it
apparently
is not possible without injecting pure oxygen.

>They use something called a fishtail which is basically a pipe
with a flattened end which they use to spray the wort into the
fermenters.

Great minds really do follow the same path. At the end of the hose
coming
from my wort pump is a short piece of 1/4" copper tubing, the end of
which is
flattened to spray the wort into the fermenter. However, I wasn't
clever
enough to call it a fishtail.

Mine is formed into a "U" shape so I can just hang it on the lip of the
fermenter (after sanitizing of course). It, like the airstone, creates
more
foam than there is room for so I occasionally un-hang it and use the
spray to
beat down the foam. This is far faster than waiting for it to collaps
by
itself.

>From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)
>Subject: yeast

> Jack's comment on the reproduction mode is essentially correct. Some
yeast
do reproduce via fission, but you probably won't find this kind in your
beer,
maybe your cider though.

I though fission was another name for budding which makes it equally
incorrect as an explanation for flocculation. The other reproductive
process
encountered in yeast (but not beer yeast) involves sporulation and
sexual
reproduction.

>One final note, let's take a quick market survey concerning those
desiring
Weihestephan....

Pray tell, what is Weihestephan? One of those thereads I never
bothered
reading.

js

Date: Thu, 26 Aug 93 08:59:58 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: RE: Bottle labels?

Gretchen Brannaman 250-8384 <BRANNAGJB@A1.GVLTEC.EDU> asks:

>Does anyone out there know of any clever ways that I can label my beer
>and
>mead bottles? I'd like to design them on my computer, but they need to
>be
>easy to remove (peel or soak) so I wont add more to the headache of
>preparing
>bottles for the next batch.

This is what I do (for whatever it's worth): I design my labels on the
computer, copy as many of them as will fit onto a single page, and print
that page out. So now I have a single sheet with 'n' copies of my label
on it. I then photocopy this page to make as many copies as I need. I
cut
out the labels (not too difficult if you place them on the page wisely)
and
affix them to the bottles with a glue stick (I believe it is the same
stuff
we all used as 'paste' to make those wonderful cardboard creations in 1st
grade). Anyway, the labels fall off with just a quick soak in water (1
minute,
maybe two).

Troy

Date: Thu, 26 Aug 93 01:29:59 -0400
From: bjr@po.CWRU.Edu (Brian John Roberts)
Subject: information sources

Anyone have any good pointers to any sources of information describing the design and construction of a home brewery? I tried to find a FAQ for this mailing list and even tried the listserv, but my mail bounced back (anyone know if the listserv still exists)?

Thanks in advance,
- -- Brian

- --
Brian John Robertse-mail: bjr@po.cwru.edu
Case Western Reserve University
Department of Mechanical and Aerospace Engineering
postal: 3658 Shields Road; Canfield, OH; 44406-9504 USA phone: (216)
792-9844

Date: Thu, 26 Aug 93 13:07:43 -0400
From: "Robert C. Santore" <rsantore@mailbox.syr.edu>
Subject: cylindrical coolers

In HBD 1212 David Hyde writes:

> 1. Would a 5 gal cooler make an adequate mash/lauter tun for
> 5 gal batches with an average amount of grain?

I use a 5 gal cylindrical cooler for 5 gal batches with good results. However, I only use it for decoction mashes. I use an enameled canning pot in the oven (5 gal) for infusion and temp. controlled. There are many equipment combinations that can be used and I'm sure you'll find your own odd ball favorite. I can mash 10 pounds of grain comfortably in the cooler, but obviously you can't use too thin a mash or too large a quantity of grain without exceeding its capacity. Basically, if I'm short of a strike temp. in the cooler, I can adjust the sizes of my decoctions, and in the pot just put it on the stove for a short period. If you intend to rely on boiling water infusions then you need to leave a little more headspace for temp. adjustments. Another use I have for the cylindrical cooler is to store my sparge water. Getting double duty out of equipment is a real advantage. I don't use it as a lauter tun, but I know people that do. Just be careful that you have an adequate false bottom or equivalent - the tap on my cooler plugs too easily for me to consider it.

> 2. If not, is there a relatively cheap source for large
> coolers?

The cheapest I've ever seen 10 gal cylindrical coolers new is \$38 which is close to but not quite cheap enough for me (it is more than I've paid for any other piece of equipment including an 8 gal brew pot or my grain mill). However, if I got seriously into high gravity beers or larger batch sizes I would get one in a second and make sure I could fit it out as a lauter tun (in other words, it's just a matter of time).

Date: Thu, 26 Aug 93 12:57:00 CST
From: "david p. atkins" <atkins@vms2.macc.wisc.edu>
Subject: Re: Bottle labels

>Hello all,
>Does anyone out there know of any clever ways that I can label my beer
>and
>mead bottles? I'd like to design them on my computer, but they need to
>be
>easy to remove (peel or soak) so I wont add more to the headache of
>preparing
>bottles for the next batch.
>
>Thanks in advance,
>Gretchen Brannaman
>brannagjb@al.gvltec.edu
>

A method I'm going to try is rubber cement. The labels should peel right
off and any excess cement on the bottle can be removed with a wee bit of
rubbing. Haven't tried it yet though...give it a whirl.

David Atkins

Date: Thu, 26 Aug 93 14:09:39 CDT
From: Gene Zimmerman <ezimmerm@hp.uwsuper.edu>
Subject: Cl in H2O ?

Salutations!

I've just moved to Laramie, WY from Duluth, MN (Right on the shore of the largest easliy accessable source of fresh water). Anyway, I got a hold of the local water engineer, I guess a real chemist is not needed in their estimation, and he told me they add 1.5 g Cl to 1 L of H2O and that the time the water reaches town, 20 miles, the level is about .3 g of Cl per l of H2O. He was telling me about half life and that the use of Cl in the water was minimal. I asked if there were micro-organisms and he also said no. He's sending me a fact sheet.

One and a half grams of Chlorine per Liter of water seems like a lot to me, what about others? The city uses two sources of water, river and underground. Does anyone have anything to say about this?

I asked about water at the first homebrewer club meeting I attended and was told the water was usually on the alkaline side, but that was it. Our Club's name is Snowy Range Foamers, by the way.

Gene in Laramie, WY

Date: Thu, 26 Aug 1993 15:46:32 -0400 (EDT)
From: Frank Tutzauer <COMFRANK@ubvmsb.cc.buffalo.edu>
Subject: regulator woes

I think my CO2 regulator is on the fritz. Where would I go to get it tested, and, possibly, serviced? Would it be cheaper to buy a new one?

Thanks
- --frank

Date: Thursday, 26 August 93 13:34:10 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: labels

Howdy--

In HBD #1212, Gretchen Brannaman wants suggestions for bottle lables.
Here's
my two cents.

I make small neck lables with a logo on them, instead of big labels that
go
on the body of the bottle (except for special "commemorative" batches).
The
advantages are:

- 1) Less paper. Instead of four labels from each sheet of paper, I can
get
around a dozen.
- 2) Easy identification. Since I have about five different kinds of
hombrew
in six-pack holders, I can easily indentify the beer by the neck
label
instead of lifting the bottles to see the labels on the body.
- 3) Less trash. Face it, they end up in the trash, & we need less of
that.

The ones I have now are rectangular. However, I plan to try curved ones,
about the shape of Celis' neck labels, the next time I make some. I have
a generic logo I use, & I ran off a master sheet. When I have a freshly
bottled batch, I make a copy of the master, write in the name of the
beer,
then xerox those. Next I just cut them out & use a "Uhu" glue stick to
stick
them on. The glue washes right off with the paper. Easy. The rectangle
shape
is easy to cut out, but fits on the neck funny. It depends on what you
want.

Enjoy,

Alan, Austin

Date: Thu, 26 Aug 1993 13:04:52 -0700 (PDT)
From: "David D. Hightower" <ddh3789@aw101.iasl.ca.boeing.com>
Subject: adios for now!

Hello and goodbye for a while! I have decided to follow my heart and not my checking account for a while as I give up my job, desk and terminal for a pair of rubber boots and a malt shovel. Keep up the good threads and flames and never forget that the people tasting your homebrew might just be interested in hiring you to make beer too!

Good Luck and Good Brewing.
Dave Hightower @ Maritime Pacific Brewing Co.
Seattle, WA
(unsubscribe sent separately, in plain brown wrapper)
- - -
Dave
ddh3789@aw108.fsl.ca.boeing.com

c3RyYWlucy4gVGhpcyBpbmZvcmlhdGlvbiBpcyBpbiBTZWNOaW9uIElJLiBTZWNO
aW9uIEkNCm9ldGxpbmVzIHRoZSBnZW5lcmFsIGNoYXJhY3RlcmlzdG1jcyBvZiBi
cmV3aW5nIHllYXN0IGFuZCB0cmllcyB0byBhbnN3ZXIgc29tZQ0Kb2YgdGhlIG1v
cmUgZnJlcXVlbnRseSBhc2t1ZCBxdWVzdGlvbnMgYWJvdXQgeWVhc3QgdGhhdCBz
ZWVtIHRvIGN5Y2x1IG9udG8gdGh1DQpIQkQuIFNlY3Rpb24gSULJIGV4cGxhaW5z
IGhvdyB0aGUgaG9tZWJyZXdlciBjYW4gY3VsdHVyZSBhbmQgbWFpbnRhaW4geWVh
c3QNCnN0cmFpbnMgaW4gdGh1IHNhZmV0eSBhbmQgY29tZm9ydCBvZiBoaXMvaGVy
IG93biBob211Lg0KDQo=

Date: Thu, 26 Aug 1993 16:24:10 -0500 (CDT)
From: WEIX@swmed.edu
Subject: yeast faq 3 of 8

SECTION II: YEAST PROFILES

PART 1: DRY ALE YEAST (*Saccharomyces cerevisiae*)

Coopers Ale Yeast

Good to very good reputation. The Coopers is quite fruity fermented at 65F. It's not phenolic at all and all the flavor is a very clean fruitiness.

Glenbrew Special Ale Yeast

Specially designed for use in "all malt" beers. Contains a special enzyme to obtain extremely low terminal gravities.

Doric Ale Yeast

Ok to very good reputation.

Edme Ale Yeast

Starts quick. Produces some fruity esters. Attenuative. Good reputation

Lallemand Nottingham Yeast

This yeast is remarkable for its high degree of flocculation. It settles out very quickly and firmly. Very good reputation. Quick fermentation at 62F. It's very clean and only very slightly fruity in the keg, but tastes/smells nutty in the bottled version. Nottingham appears to be relatively attenuative (more so than the Coopers).

Lallemand Windsor Yeast

Produces a beer which is clean and well balanced. This yeast produces an ale which is estery to both palate and nose with a slight fresh yeast flavor. Very good reputation. Not as quick as the Nottingham. Definite banana smell at racking.

Munton-Fison Ale Yeast

Starts quick. Produces some fruity esters. Attenuative. Fair to good reputation. It is reported that a phenolic taste is no longer a problem due to some strain changes.

Red Star Ale Yeast

This brand had a very bad reputation in the past, and for a while production was suspended. A different strain (AHY 43391) was selected by the company and is now being sold as Red Star Ale Yeast. The new strain is much improved! Reports from Dr. Fix, a brewer's yeast consultant, suggest that this is an excellent general purpose ale yeast with a clean taste. Apparent attenuation 76-78%.

Whitbread Ale Yeast

Fast starter. Distribution switched to Crosby and Baker with a change in the yeast. Very good reputation despite past quality problems.

PART 2: LIQUID ALE YEAST

BrewTek CL-10 American Microbrewery #1

A smooth, clean, strong fermenting ale yeast that works well down to 56F.

BrewTek CL-12 American Microbrewery #2

Produces an accentuated, rich and creamy malt profile with hints of diacetyl.

BrewTek CL-16 British Pale Ale #1

Produces a bold, woody and dry character which accentuates mineral and hop flavors.

BrewTek CL-18 British Pale Ale #2

A smooth, full flavored, well rounded ale yeast. Mildly estery, it is a strong fermenter.

BrewTek CL-26 British Draft Ale

Their (Brewteks) favorite Ale yeast, gives a full bodied, well rounded flavor with a buttery rich diacetyl.

BrewTek CL-28 Irish Dry Stout

A top fermenter, leaves a very recognizable character to Dry Stouts with roasted malts coming through well.

BrewTek CL-30 Belgian Ale #1

Produces a classic Belgian Ale flavor. Robust and estery with notes of clove and Plum.

BrewTek CL-32 Belgian Ale #2

Flanders style yeast. Makes a terrific strong brown and a good base brew for fruit flavored beers.

BrewTek CL-40 Old German Ale

For traditional Alt Biers, a strong fermenter which leaves a highly attenuated, mildly estery flavor.

Wyeast 1007 German Ale Yeast

Ferments dry and crisp leaving a complex yet mild flavor. Produces an extremely rocky head and ferments well down to 55 deg. F (12 deg. C). Flocculation is high and apparent attenuation is 73-77%. Optimum fermentation temperature: 62 deg. F (17 deg. C). A good balance of sweetness and tartness. A very pleasing yeast.

Wyeast 1024 Belgian Ale Yeast

Banana estery flavor. With both clove-like phenolics and alcohol spice, the Belgian will tell you right away that it's no ordinary yeast. Tartness often

develops over time. Ferment warm or with inadequate aeration and you're likely to get a bubblegum-like note. Intended for abbey beers, and works very well for that. And, depending on the wort composition, *lots* of banana notes.

Wyeast 1028 London Ale Yeast

Rich mineral profile, bold woody slight diacetyl production. Medium flocculation. Apparent attenuation 73-77%. Optimum fermentation temperature: 68 deg. F (20 deg. C). Complex, woody, tart, with strong mineral notes. It produces ales of marvelous complexity and sophistication. This yeast was used for the 1992 B.O.S.S. Challenge 1st place Barleywine, brewed by none other than Brian and Linda North.

Wyeast 1056 American/Chico Ale Yeast

Ferments dry, finishes soft, smooth and clean, and is very well balanced. Flocculation is low to medium. Apparent attenuation 73-77%. Optimum fermentation temperature: 68 deg. F (20 deg. C). The cleanest of the bunch, but mutation-prone. This is Sierra Nevada's yeast. Probably the best available all-around yeast, this strain can be used for anything, without embarrassment.

Wyeast 1084 Irish Ale Yeast

Slight residual diacetyl is great for stouts. It is clean smooth, soft and full bodied. Medium flocculation and apparent attenuation of 71-75%. Optimum fermentation temperature: 68 deg. F (20 deg. C). Soft, round, malty; the least attenuative of the Wyeast line. Very nice for any cold-weather ale, at its best in stouts and Scotch ales.

Wyeast 1098 British Ale Yeast

Ale yeast from Whitbread. Ferments dry and crisp, slightly tart and well balanced. Ferments well down to 55 deg. F (12 deg. C). Medium flocculation, apparent attenuation 73-75%. Optimum fermentation temperature: 70 deg. F (21 deg. C). Tart, crisp, clean. Great in pale ales and bitters, good in porters.

Wyeast 1338 European Ale Yeast

Ale yeast from Wissenschaftliche in Munich. A full bodied complex strain finishes very malty. Produces a dense rocky head during fermentation. High flocculation, apparent attenuation 67-71%. Optimum fermentation temperature: 70 deg. F (21 deg. C). It's clean and malty, especially well suited to Altbier.

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Yeast Culture Kit A01

From California. Vendor's suggested uses (VSU): Barley Wine, Brown Ale, Pale Ale, India Pale Ale, Cream Ale, Porter, Stout.

Yeast Culture Kit A04

From Oregon. VSU: Dusseldorf Altbier, Kolsch.

Yeast Culture Kit A06

From Oregon. VSU: Porter, Stout, Imperial Stout.

Yeast Culture Kit A08

From Dorchester, England. VSU: Barley Wine (high residual sweetness).

Yeast Culture Kit A13

From Ireland. VSU: Porter, Stout, Imperial Stout.

Yeast Culture Kit A15

From England. VSU: Brown Ale, Pale Ale, India Pale Ale, Cream Ale, Bitters and Milds.

Yeast Culture Kit A16

From Belgium. VSU: Trappist Ales (Abbeys, Doubles, Tripples).

Yeast Culture Kit A17

From London, England. VSU: Brown Ale, Pale Ale, India Pale Ale, Cream Ale, Bitters and Milds.

Yeast Culture Kit A34

From Edinburgh, Scotland. VSU: Barley Wines, Scotch Ale, Scottish Bitters, Strong Ale.

Yeast Culture Kit A35

From central Belgium. VSU: Belgian Whites.

Yeast Culture Kit A36

From Houffalize, Belgium. VSU: Belgian Ales.

Yeast Culture Kit A37

From Bavaria, Germany. VSU: Altbier, Kolsch.

Yeast Lab A01 Australian Ale Yeast

This all purpose strain produces a very complex woody and flavorful beer.

Australian origin. Medium attenuation, medium flocculation. Great for Brown Ales and Porters.

Yeast Lab A02 American Ale Yeast

This clean strain produces a very fruity aroma, with soft and smooth flavor

when fermented cool. Medium attenuation and low flocculation. This is an all

purpose ale yeast.

Yeast Lab A03 London Ale Yeast

Classic Pale Ale strain, very dry. A powdery yeast with a hint of diacetyl and rich mineral profile, crisp and clean. Medium attenuation and medium flocculation.

Yeast Lab A04 British Ale Yeast

This strain produces a great light bodied ale, excellent for Pale Ales and Brown Ales, with a complex estery flavor. Ferments dry with a sharp finish. Medium attenuation and medium flocculation.

Yeast Lab A05 Irish Ale Yeast

This top fermenting strain is ideal for Stouts and Porters. Slightly acidic, with a hint of butterscotch in the finish, soft and full bodied. Medium attenuation, high flocculation.

Yeast Lab A06 Dusseldorf Ale Yeast

German Altbier yeast strain finishes with full body, complex flavor and spicy sweetness. Medium attenuation, high flocculation.

Yeast Lab A07 Canadian Ale Yeast

This strain produces a light bodied, clean and flavorful beer, very fruity when fermented cool. High attenuation, medium flocculation. Good for light and cream ales.

Yeast Lab A08 Trappist Ale Yeast

This is a typical Trappist strain, producing a malty flavor with a balance of fruity, phenolic overtones when fermented warm. Alcohol tolerant, high attenuation and high flocculation.

PART 3: LAGER YEAST (SACCHAROMYCES UVARUM)

Dry Lager Yeast:(generally not recommended--tend to be inconsistent).

Liquid Lager Yeast: Much preferred over dry types!

BrewTek CL-60 Original Pilsner

Leaves a full bodied Lager with a sweet, underattenuated finish with a subdued diacetyl character.

BrewTek CL-62 American Megabrewery

A strong fermenter, leaves a light, crisp, almost dry finish to Lagers. Produces a good strong Lager.

BrewTek CL-64 Carlsbergensis

A Scandinavian Lager strain which leaves a full flavored, slightly sweet and malty profile.

BrewTek CL-66 N. German Lager

Exhibits a clean, crisp, traditional Lager character. A strong fermenting and forgiving Lager yeast.

BrewTek CL-68 East European Lager

Imparts a smooth, rich, almost creamy character, emphasizing a big malt flavor and clean finish.

BrewTek CL-86 California Esteem

Use to recreate "California common beers" leaves a slightly estery, well attenuated finish.

Wyeast 2007 Pilsen Lager Yeast

Our original Lager Yeast Strain. Specific for pilsner style beers. Ferments dry, crisp, clean and light. Medium flocculation. Apparent attenuation from 71-75%. Optimum fermentation temperature: 52 deg. F (11 deg. C). It is worth mentioning that this yeast strain is reportedly used quite a bit in St. Louis, if you know what I mean ;^).

Wyeast 2035 American Lager Yeast

Unlike American pilsner styles. It is bold, complex and woody. Produces slight diacetyl. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 50 deg. F (10 deg. C). This yeast allegedly is the one used by August Schell in New Ulm, MN.

Wyeast 2042 Danish Lager Yeast

Rich, yet crisp and dry. Soft, light profile which accentuates hop characteristics. Flocculation is low, apparent attenuation is 73-77%. Optimum fermentation temperature: 48 deg. F (9 deg. C).

Wyeast 2112 California Lager Yeast

Warm fermenting bottom cropping strain, ferments well to 62 deg. F (17 deg. C) while keeping lager characteristics. Malty profile, highly flocculant, clears brilliantly. Apparent attenuation 72-76%. Allegedly, the Anchor steam yeast.

Wyeast 2124 Bohemian Lager Yeast

Ferments clean and malty, rich residual maltiness in high gravity pilsners, medium flocculation, apparent attenuation 69-73%. Optimum fermentation temperature: 48 deg. F (9 deg. C). Allegedly, one of the four (?) Pilsner Urquell yeasts.

Wyeast 2206 Bavarian Lager Yeast

Lager yeast strain used by many German breweries. Rich flavor, full bodied, malty and clean. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 48 deg. F (9 deg. C).

Wyeast 2308 Munich Lager Yeast

Lager yeast from Wissenschaftliche in Munich #308. One of the first pure yeast available to American home brewers. Sometimes unstable, but smooth soft

well rounded and full bodied. Medium flocculation, apparent attenuation 73-77%.

Optimum fermentation temperature: 50 deg. F (10 deg. C). One report of an intense off aroma (like home perm solution) with this yeast fermented at 45-50F, but it miraculously disappeared after four months aging in the bottle at 40F.

Yeast Culture Kit L09

From Bavaria, Germany. VSU: American Dark Lager, American Lager, Bavarian Dark, Doppelbock, Dortmund/Export, Eisbock, German Bock, German Lagers, German Schwarzbier, Hellesbock, Munich Helles, Marzen/Octoberfest, Pilsner. (Must be some yeast! :-)

Yeast Culture Kit L17

From Pilsen, Czechoslovakia. VSU: American Lagers, Bohemian Pilsner.

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Yeast Lab L31 Pilsner Lager Yeast

This classic strain produces a light lager in both flavor and body, fermenting dry and clean. High attenuation and medium flocculation.

Yeast Lab L32 Bavarian Lager Yeast

Use this classic strain for medium bodied lagers and bocks, as well as Vienna and Marzen styles, rich in flavor with a clean, malty sweetness. Medium attenuation and medium flocculation.

Yeast Lab L33 Munich Lager Yeast

Wissenschaftliche strain for medium bodied lagers and bocks, subtle and complex flavors, smooth and soft, a hint of sulfur when fresh. Medium attenuation and medium flocculation.

Yeast Lab L34 St. Louis Lager Yeast

This strain produces a round, very crisp and clean fruity flavor, with medium body. High attenuation and medium flocculation. Good for American style lagers.

Yeast Lab L35 California Lager Yeast

A California common beer strain, malty with a sweet woody flavor and subtle fruitiness. Medium attenuation and high flocculation.

PART 4: WEISSEN, LAMBIC, MEAD, AND BARLEYWINE STYLES.

BrewTek CL-90 Belgian Wheat

A top fermenting yeast which produces a soft, bread like flavor and leaves a sweet, mildly estery finish.

BrewTek CL-92 German Wheat

A true, top fermenting Weizenbier yeast. Spicy, clovy and estery. Highly attenuative.

BrewTek CL-94 American Wheat

Offers a smooth, slightly sweet wheat beer, with a full, clean, underattenuated malt flavor.

BrewTek CL-100 Brettanomyces Lambicus

Use to create Belgian Lambic beers. Added after primary fermentation with a regular ale yeast.

Wyeast 3056 Bavarian Weissen Yeast

A 50/50 blend of *S. cerevisiae* and *delbrueckii* to produce a south German style wheat beer with cloving sweetness when the beer is fresh. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 56 deg. F (13 deg. C). Problematic to get the right flavor, often just produces

relatively unattenuated beer, without the clove-like aroma/flavor.
Perhaps it's
the freshness of the Wyeast #3056 that makes the difference in whether
you get
the clove-like aroma/flavor or not.

Yeast Culture Kit M01

From Bavaria, Germany. VSU: American Wheat, Dunkel Weizen, German
Weizen,
Weizenbock.

Yeast Lab W51 Bavarian Weizen

This strain produces a classic German style wheat beer, with
moderately high,
spicy phenolic overtones reminiscent of cloves. Medium attenuation,
moderately
flocculant. Evidently much more consistent than Wyeast at producing a
true
Weizen flavor.

Mead Yeast

Yeast Lab M61 Dry Mead

Very alcohol tolerant, ferments dry, fruity and clean, yet leaves
noticeable
honey flavor and aroma.

Yeast Lab M62 Sweet Mead

This strain has reduced alcohol tolerance, therefore produces a very
fruity,
sweet mead with tremendous honey aromas.

Wine Yeast

Lallemand Lalvin Wine Yeast S. Bayanus. Good reputation.

Red Star Pasteur Champagne Yeast

Very attenuative. Good for mead. Good reputation. Popular yeast for
Imperial
Stouts and Barleywines due to it's high tolerance for alcohol. Some use
it by
itself, others pitch Pasteur after their chosen beer yeast poops out.

Wyeast 3021 Prise de mousse Champagne Yeast

Institute Pasteur champagne yeast race bayanus. Crisp and dry, ideal
for
sparkling and still red, white and fruit wines. Also can be used for
Barley
wines. Optimum fermentation temperature: 58 deg. F (14 deg. C).

Wyeast 3028 Wine Yeast

French wine yeast ideally suited for red and white wines which mature
rapidly. Enhances the fruity characteristics of most wines. Optimum
fermentation
temperature: 72 deg. F (22 deg. C).

Wyeast 4007 Wine Yeast

Malo-lactic culture blend isolated from western Oregon wineries.
Includes
strains Ey2d and Erla. Excellent for high acid wines and low pH. Softens
wines
by converting harsh malic acid to milder lactic acid. Can be added to
juice any

time after the onset of yeast fermentation when sulfur dioxide is less than 15 ppm.

Yeast Culture Kit M06

From Montreal, Canada. VSU: Barley Wine (Champagne).

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SECTION III: YEAST MANAGEMENT

PART 1: HYDRATION PROCEDURE FOR DRY YEAST

a. Use 14 grams of dry yeast (usually 2 packets) per 5 gallons of brew. ***Rigorously*** sterilize everything used in the hydration procedure.

This

should include boiling and cooling the water for rehydration, so that chlorine is boiled off and the water is sanitized.

b. Add the dry yeast to 1/2 cup of water at 90F (32C). Leave for 15 mins.

c. Combine the hydrated yeast with 1-2 gallons of wort that is as close to the wort to be fermented as possible. You can take samples from the main wort at the end of the mash/sparge and rapidly boil and cool it.

d. Aerate the starter as much as possible under sanitary conditions.

e. Don't forget to properly oxygenate the main wort once it is *chilled*

(Shaking hot wort is dangerous, but even worse it can cause oxidation and give your beer funny flavors.)

f. Pitch the starter into the main wort once the latter has been chilled to the recommended fermentation temperature (65-68F or 18-20C). Yeast with good viability will result in minimal lags. (The longest experienced in test brews using the new Red Star Ale Yeast was 2 hrs.)

An alternative but slightly sub-optimal method is to cool the yeast-in-water mix from "b" to room temperature. Once the wort has been chilled and aerated (shaking the carboy works well), pitch the yeast. Stir or invert the carboy to disperse the yeast. Put in the blow-off tube or fermentation lock.

The two most essential things are to:

1. Sanitize everything in sight.
2. Aerate your wort to insure rapid initial yeast growth--your best defense against secondary infection.

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D. Preparation of New Slants

Two steps are needed in the preparation of new slants. The first consists of adding the proper media to test tubes or petri dishes. Once prepared the slants will store well for a very long time when refrigerated, so many can be prepared at one time. The second step consists of inoculating the slants with yeast.

For the homebrewer who cannot afford several refrigerators: Please be advised that your refrigerator is a haven for bacteria, mold, and wild yeast. Anyone

wishing to store sterile slants in their refrigerator is advised to

1. Wipe down the slants before storage with ethanol or your favorite sanitizing solution.
2. Seal the slants with parafilm or electrical tape.
3. Keep the slants in a ziplock bag.
4. Wipe down the bag with ethanol or your favorite sanitizing solution before opening.

Preparation of Media:

(i) The media consists of dry malt extract and agar. As a general rule 4 tablespoons of malt extract and 1 tablespoon of agar per cup of water will yield 16-18 slants.

(ii) Bring the water to a boil, and then stir in the malt extract. Boil for 10 mins.

(iii) Remove from heat, and then start stirring in the agar. This will take some effort, but this usually indicates that a good solidification will ultimately be achieved. If your slants "sweat" too much, increase the amount of agar you use. Although commercial/scientific agar will vary little, I cannot answer for "food grade" supplies. Gelatin is easier to dissolve, but it sometimes does not always give a proper solidification.

(iv) When the agar is dissolved, the malt/agar solution should be added to the test tubes, filling each to approximately a third of their volume. Add the screw cap, but do not fully tighten.

(v) Autoclave the tubes at 15 psi for 15-20 mins.

(vi) Allow the tubes to cool. They can be left overnight in the autoclave/

pressure-cooker. Tighten the caps on the tubes, and place them at a 30 degree angle. Allow them to solidify at room temperature. Solidification should become apparent within a few hours. Tubes which are not solid after 24 hrs. should be discarded.

(vii) Refrigerate until needed, heeding storage precautions above.

Note: Plastic petri dishes can not be autoclaved, and so alternate procedures are needed for them. You may use the above techniques with *pyrex* petri dishes if you so desire. A common practice is to autoclave the malt/ agar solution in small jars or flasks. The agar solution is then poured into the petri dishes. Let the agar cool until the jars are hot but touchable. If the agar is too hot it will warp the plates. Swirl it gently to mix but avoid bubbles. It is a good idea to leave petri dishes prepared in this way at 25-30 C for 1-2 weeks to make sure bacteria or molds are not present. Let the poured plates dry overnight in a clean quiet room. Wipe them down, seal them, and bag them, but leave them at room temperature for 1 week. The bad bugs, if they are there, will be visually apparent at the end of that period and the contaminated plates discarded. While Petri dishes are more trouble than test tubes, they do offer the distinct advantage of having more surface area and being easier to store. After the trial period the dishes should be refrigerated.

Inoculation of Slants:

(i) Collection a small portion of the yeast to be added to the slants. It goes without saying that one should strictly follow the standard sterilization procedures of all items used to collect this yeast.

(ii) With one hand sterilize the inoculation loop (flame or alcohol solution). With the other hand open the cap of a slant.

(iii) Dip the loop into the yeast solution, and remove a small amount.

(iv) Slowly insert the loop into the tube avoiding contact with either the sides or neck of the tube. Streak the yeast over the solid. Only a thin layer is wanted, and one should try to use as much of the surface area as possible.

(v) Slowly remove the loop avoiding contact with tube walls or neck. Add the screw cap back on the tube and tighten.

(vi) When finished store the tubes at 25 C for one week. Visually inspect all

tubes at this time both for yeast growth, and also for any irregularities. Discard those which are not satisfactory.

(vii) Store the remainder at 2-8 C. After 3-4 mos. of storage, unused tubes should either be discarded or recultured; i.e., propagated by the procedures in Section III.2.c and then put on fresh slants. The best idea is to put production yeast on slants on a regular basis so that reculturing is not necessary.

Note: The larger surface area afforded by Petri dishes can be used to advantage in the above procedure. In particular, it useful to streak out yeast in parallel lines which make angles with each other. This allows for a better examination of growth patterns. Petri dishes should be sealed after the 1 week trial period with electrician's tape and refrigerated.

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PART 3: YEAST WASHING FOR THE HOMEBREWER

Doug O'Brien forwarded the following to me. As it is a topic that pops up frequently on the HBD, I have included it in this FAQ.

Post follows:

The following notes were taken from a demonstration given to the Oregon Brew Crew by Dave Logsdon of WYeast Labs, on September 12th. According to Dave, it was important for healthy yeast to be washed free of trub and hop residue so that it could be stored for future use. Dave said that the problem with simply storing the mixed contents from a carboy after fermentation was that the unwanted particulates would suffocate the yeast over a period of time. Most breweries, Dave stressed, use an acid wash; the sterile water wash is much more practical for homebrewers.

Objective: To recover yeast from a finished batch of beer for repitching or storage for future brewing.

Materials: One primary fermenter after beer has been siphoned off or otherwise removed.

Three sanitized 1-quart Mason jars with lids, half full of sterile or boiled water. They should be cooled down, then chilled to refrigerator temperature (ca. 38°F).

Procedures:

- 1) Sanitize the opening of the carboy (flame or wipe with chlorine or alcohol)
- 2) Pour the water from one of the quart jars into the carboy. Swirl the water to agitate the yeast, hop residue and trub from the bottom.
- 3) Pour contents from the carboy back into the empty jar and replace the cover.
- 4) Agitate the jar to allow separation of the components. Continue to agitate periodically until obvious separation is noticeable.
- 5) While the viable yeast remains in suspension, pour off this portion into the second jar. Be careful to leave as much of the hops and trub behind as possible.
- 6) Agitate the second container to again get as much separation of yeast from particulate matter as possible. Allow contents to rest (about 1/2 hour to 1 hour) then pour off any excess water--and floating hop

particles--from the surface.

7) Pour off yeast fraction which suspends above the particulate into the third container.* Store this container up to 1 month refrigerated.

Pour
off liquid and add wort 2 days before brewing or repitch into a new
brew
straight away.

*It should be noted that in the actual demonstration, Dave eliminated the final step; the yeast in the second jar was essentially clean at this stage and seemingly fine for storage.

PART 4: PARALLEL YEAST CULTURES

Rick Cavasin sent me (PW) the following method of "parallel" culturing liquid yeasts. This should work with most packaged liquid yeasts, not just Wyeast. The advantages here for the beginner are that (in addition to saving money) it minimizes the problems of strain drift and contamination that can plague yeast ranchers. As for the savings, it makes liquid yeast almost as cheap as dry yeast!

Post follows:

Here's the (poor man's) method for stretching the Wyeast that I (Rick) have been using successfully. This method has worked for me with 4 different Wyeast ale strains (Whitbread, Irish, German, European). It's simple, and requires no special equipment. Also, it allows several brewers to swap yeasts with each brewer propagating one strain.

Briefly, my suggestion consists of converting the original Wyeast package into a number of 'copies' stored in beer bottles. ie. it is a parallel propagation rather than a serial propagation

Step 1: Prepare some starter wort (S.G. = 1.020), see Miller's book for recipe. Basically, you need about 1/2 gallon, but if you make more and can it in mason jars (using standard canning procedures), you will not have to prepare more at a later date. Note from PW--Most authorities now recommend using full strength (1.040), hopped wort for starters.

Step 2: Place 1/2 gallon or so of starter wort in a suitable container (1 gallon glass jug), pitch (inflated) Wyeast package at correct temp. and fit air lock. This is the 'master' starter.

Step 3: Allow to ferment to *completion*. When fermentation has ceased, agitate the 'beer' to suspend all sediment, and very carefully bottle it.

You will now have about 6 bottles of very thin beer with a good deal of viable yeast sediment in each bottle. Use each bottle as you would use a package of Wyeast - ie. prepare a starter culture a couple days before brewing. This is facilitated by canning wort when you prepare the master starter. All you need to in that case is pop open a mason jar of wort, dump it into a sanitized bottle/jug of appropriate size, pop open one of your bottle cultures, add it, agitate vigorously, and fit an air lock.

All yeast starters are of the same 'generation', ie. 'twice removed' from the original Wyeast package (as opposed to the usual 'once removed'). I've had the bottled cultures remain viable for more than 6 months.

Observe proper sanitation and wort aeration procedures throughout.

Equipment: 1 gallon jug (for 'master' starter)
1.5 litre wine bottle (for subsequent starters)
air lock
6 beer bottles, caps and capper

Optional equipment: mason jars and canning pot.

Cheers,
Rick C.

Date: Thu, 26 Aug 1993 16:42:23 -0500 (CDT)
From: WEIX@swmed.edu
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PART 2: PROPAGATION OF YEAST STRAINS

or

HOW TO HAVE YOUR VERY OWN YEAST RANCH!

A. General Comments

There is no single item as important as the selection of a yeast strain, or if appropriate strains, to be used in commercial brewing. The same applies to homebrewing. Sensory characteristics -- taste and smell -- will normally determine the type of yeast that is appropriate to any particular beer formulation. This section contains the necessary procedures for achieving self-sufficiency in pitching yeast. The part treated in this section is often called the Hansen pure culture system. The heart of this system is the so-called "yeast slant". It is a test tube containing a solidified media sloped at an angle. Often Petri dishes are used, but the media is level, and hence the term "slant" is not always appropriate. In any case, yeast cells are streaked on the surface of the solid media. When refrigerated, these slants will keep at least 3-4 months before they have to be recultured. Yeast are taken from the slants, and built up so there is enough to pitch a full batch. The system also contains procedures for doing the exact opposite, i.e., adding yeast to slants for storage and future use.

B. Equipment

The equipment needs for operating a pure culture system with slants are rather modest. The following are the major items.

1. Refrigerator. This is needed for slant and media storage.
2. Autoclave or pressure cooker. This will be needed to sterilize equipment and media for yeast work. A pressure cooker will do, but it should have a pressure gauge attached so that the conditions during sterilization can be controlled.
3. Media. The preferred media for slants is malt extract and agar. These can be obtained from any scientific outlet. Food grade agar is also available from some oriental markets. The flaked form is easier to work with.
4. Misc. A number of minor items will also be needed. These include inoculation loops, glassware, petri dishes, and test tubes.

C. Propagation of Yeast

This process consists of transferring some of the yeast on slants to a small flask or jar containing wort, then building this up until there is enough to pitch a full brew. the most delicate steps are the initial ones. Experience has shown that the best results are obtained by using full strength hopped wort for propagating yeast. The ideal situation is when the wort used in propagation is identical to the wort that will be used in brewing.

Practical experience has also shown that it is best to pitch yeast freshly harvested from slants at the maximum acceptable rate. Anticipating the results in the next section, this for lager yeast amounts to pitching 1 volume of yeast *SOLIDS* for each 250 volumes of wort. Thus, we need $5\text{gal}/250 = 0.02\text{gal} \cdot 128\text{oz}/\text{gal} = 2.5\text{oz}$ of yeast solids for a 5 gallon batch. Using the estimation that yeast solids are 1/10 the total volume of a yeast culture, that means that one needs about 25oz or a little more than 3 cups culture. For ale yeast all of these numbers are reduced by a factor of two, so (3/2) to 2 cups of an ale yeast culture would be sufficient.

In the procedure described below new wort is added just after the end of the period of high krauesen, and in particular after the foam starts to recede. The reason for this is to keep the yeast in the aerobic exponential growth mode. This will insure a steady buildup of yeast cells, and thereby minimize the number of wort charges that are required. The importance of taking great care when adding fresh wort can not be overemphasized. To avoid infections not only is it necessary to properly sanitize equipment, but it also important to sterilize necks of vessels and jars by flame or 200 proof alcohol solutions. The easiest way to flame a jar at home is with a lighter (esp. the ones for pipe-smokers!). Be extremely careful, and don't use both alcohol and a lighter.

The first four steps described below are done under the cleanest conditions possible using 1000 ml. starter jars. At the end of step (iv) there will invariably be more than enough yeast in each starter jar to pitch a 25 liter brew (about 6gal); i.e., there will be at least 1/10 liter of yeast solids as can be checked by visual inspection. These numbers are based on the requirements of lager yeast. As will be seen below there will be no harm in producing too much yeast in this procedure since at the end only the correct amount will be added to the fermenter.

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From: WEIX@swmed.edu

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(i) Preparations:

- a. Carefully inspect all the slants that are to be propagated. Those which have unusual growth patterns and/or discoloration should be discarded. The ideal is thin white yeast layer on top of the solid media.
- b. Autoclave the starter jars and the rubber stoppers for the airlocks for 5 mins. at 15 psi. Alternatively, use your favorite chemical sanitizing agent.
- c. Add 250 ml. (about 8 oz) of wort to each starter jar. Wipe their necks with a 200 proof alcohol solution. After this add the airlocks.
- d. Pasteurize the wort by adding the starter jars to a water bath at 60 C (140 F), and hold this temperature for 20 mins. Cool to 18 C (75 F).
- e. In a clean room with no air movement (turn off fans and air conditioning for at least 15 min to give the dust a chance to settle) and then place starter jars, yeast slants, inoculation loops, and a 200 proof alcohol solution in a clean, quiet spot (i.e. lock the door after first insuring that Fido, Fluffy, and Junior are on the other side of it :-)!).

(ii) Inoculation:

For each jar, start by sterilizing its neck. Then sterilize ("flame") the inoculation loop. Open a slant, quench the loop in clean agar ("sizzle") and use the loop to remove some yeast. Remove the airlock and then add the yeast to the starter jar. Replace the airlock, and then start work on the next jar.

(iii) Initial Buildup:

- a. Place the starter jars in a location where 68F (18C can be held). Aerate twice daily by vigorously shaking jars. 1L Erlenmeyer flasks are excellent for this purpose because they permit vigorous swirling without getting the wort up by the neck and opening. Also good are 1.5L ex-wine bottles.
- b. A widely used practice is to discard any starter that is not active within 48 hours. Certainly if some of the starters are active within this period, then the inactive ones should be discarded. In any case, any starter not active within 72

hours should definitely be discarded even if this means they are all discarded.

(iv) Second Wort Charge

a. When the foam has receded prepare 250ml. of fresh sterile and aerated wort for each starter.

b. The new wort is to be added to each starter, and this should be done as cleanly as possible.

c. Before pouring the wort into the starters, it is very important to swab the necks of the starter jar and the wort jar with a 200 proof alcohol solution to prevent contamination or flame them with a lighter.

d. It is also desirable to reduce the temperature to a point closer to the temperature that will be used in production if that is lower than 18 C. The temperature should be reduced *slowly*, e.g. few degrees a day. Large shifts in temperature (>10 deg F or >5 deg C) can cause marked slowing of yeast growth.

e. The starters should be aerated at the start and then again after 12 hours. New activity should be seen before 24 hrs. Those which are not active within 36-48 hours should be discarded.

f. Increase the volume of wort until you have sufficient volume to pitch.

(v) Pitching the Yeast

a. At this time you should have a jar with about 500ml (a little more than 2 cups) of yeast for a 5gal ale batch. I would suggest pitching *just after* the krausen (foam) dies down, the logic being that the yeast have amassed glycogen reserves and are at their healthiest. Some other sources recommend pitching at high krausen, reasoning that the yeast are in the exponential growth phase. Whatever you do, avoid overdilution (greater than 10 fold increase in wort volume) and keep accurate notes. The total volume will vary with batch size, yeast type, and your personal experience/whim. Remember to keep yeast notes along with your beer notes so that you can learn from experience!

b. Clean the outside of the jar with 200 proof alcohol or weak bleach and allow to dry.

c. Pour the yeast slurry carefully into the primary.

Date: Thu, 26 Aug 1993 17:07:56 -0500 (CDT)
From: WEIX@swmed.edu
Subject: yeast faq 2 of 8

SECTION I: YEAST CHARACTERISTICS

ACTIVITY

Some yeast strains are more active and vigorous than others. Lager strains in particular do not show as much activity on the surface as many of the ale strains. Most packages provide an adequate quantity of yeast to complete fermentation with varying amounts of lag time depending on strain, freshness, handling, and temperature. If you find it too slow, make a starter as recommended on the package or as listed in Section III.

TEMPERATURE

The slow onset of visible signs of fermentation can be improved by starting fermentation at 75 deg. F (24 deg. C) until activity is evident, then moving to your desired fermentation temperature. A few degrees does make a significant difference without adversely affecting flavor.

The normal temperatures for ale yeast range from 60-75 deg. F (16-24 deg. C). A few strains ferment well down to 55 deg. F (13 deg. C). 68 deg. F (20 deg. C) is a good average. Lager strains normally ferment from 32-75 deg. F (0-24 deg. C). 50-55 deg. F (10-12 deg. C) is customary for primary fermentation. A slow steady reduction to the desired temperature for secondary fermentation typically works well.

The fermentation rate is closely related to temperature. The lower the temperature, the slower fermentation commences. Fluctuations in temperature such as cooling and warming from night to day can adversely affect yeast performance.

ATTENUATION

Attenuation refers to the percentage of sugar converted to alcohol. Apparent attenuation of yeast normally ranges from 67-77%. The attenuation is determined by the composition of the wort or juice and the yeast strain used. Each yeast strain ferments different sugars to varying degrees, resulting in higher or lower final gravities. That will affect the residual sweetness and body.

Really, it's slightly more complex than that (isn't everything ?-). There's "apparent attenuation" and "real attenuation". The difference comes about because alcohol has a specific gravity less than 1 (about 0.8). Real attenuation is the percent of sugars converted to alcohol. So, if you had a 10% (by weight) sugar solution (about 1.040), and got 100% real attenuation, the resulting

specific gravity would be about 0.991 (corresponding to about 5% alcohol by weight). The apparent attenuation of this brew would be 122%! George Fix published a set of equations relating apparent and real attenuation and alcohol

content last year. For example, let

A = alcohol content of finished beer in % by wt and

RE = real extract of finished beer in deg. Plato.

Since A and RE are generally not known to us, additional approximations are

needed. The following are due to Balling, and have proven to be reasonable. Let

OE and be defined as follows:

OE = original extract (measured deg. Plato of wort)

AE = apparent extract (measured deg. Plato of finished beer).

Then,

$RE = 0.1808*OE + 0.8192*AE,$

and

$A = (OE-RE)/(2.0665-0.010665*OE).$

The "tricky part" here is the expression of the sugar content in degrees Plato. This is a fancy term for % sugar by weight, and corresponds *

roughly* to "degrees gravity" divided by 4. That is, a 1.040 wort has an extract of

10 degrees Plato. He goes on to calculate an example: To take a specific case,

first note that from Plato tables an OG of 1.045 is equivalent to OE =

11.25 deg. Plato, while a FG of 1.010 is equivalent to AE = 2.5 deg. Plato.

Therefore,

$RE = 0.1808*11.25 + 0.8192*2.5 = 4.08$ deg. Plato,

and

$A = (11.25 - 4.08)/(2.0665 - .010665*11.25) = 3.68$ % wt.

The apparent attenuation is 75% (from 1.040 to 1.010), the real attenuation is

$(11.25 - 4.08)/11.25 = 64\%$. N.B. Most attenuation figures are given in terms of

apparent attenuation. (Thanks to Chris Pencis quoting Stuart Thomas quoting

George Fix).

FLOCCULATION

Flocculation refers to the tendency of yeast to clump together and settle out

of suspension. The degree and type of flocculation varies for different yeast.

Some strains clump into very large flocculate. Some flocculate very little

giving a more granular consistency. Most yeast strains clump and flocculate to a

moderate degree. Flocculation simply refers to how well the yeast stick to one

another. A yeast that is more flocculant will fall out of suspension better, but

since it will be in the bottle at least a week before you drink it, it really

doesn't matter so much for clarity. How it does matter is that if the yeast

settle out too quickly, they may leave some chemical reactions unfinished.

Mostly these strains: 1) May not be as attenuative because of shorter contact

time with the sugars, 2) May not finish reducing all the diacetyls, leaving a butterscotch flavor.

pH RANGES

Typical pH range for yeast fermentations begins at about 5.1 and optimally 4.8. The pH of wort is usually about 5, depending on the starting pH of the water and the grains or extracts used. During the course of fermentation the pH reduces to typically 3.9- 4.1 and as low as 3.1 in some wines. pH may be checked using pH paper test strips, which are available at many homebrew shops. Typically there is little need to adjust the pH.

ALCOHOL TOLERANCES

The alcohol tolerance for most brewing yeast is as least to 8%. Barley wines to 12% can be produced by most ale strains. Pitching rates need to be increased proportionally to higher gravities. Alternately, Champagne and Wine yeast can be used for high gravities sometimes reaching alcohols to 18%. To get the characteristics of particular beer yeast strains in Barley Wines or Imperial Stouts, some brewers start with the desired beer strain, brew to 5-8%, and finish with a champagne or wine yeast.

SMELLS AND TASTES

Although the principle tastes present in a beer are the result of the malts and hops used, the strain of yeast used can also add important flavors, good and/or bad. Yeast that add little in the way of extra flavors are usually described as having a "clean" taste. These yeast are especially useful for beginners because they permit experimentation with different ingredients without worrying about yeast influence. Yeast produce three main classes of metabolic by-products that affect beer taste: phenols, esters, and diacetyl. Phenols can give a "spicy" or "clove-like" taste, but can also result in medicinal tastes, especially if they react with chlorine in the water to make chlorophenols. Esters can lend a "fruity" taste to beer. Diacetyls can give beer a "butterscotch" or sometimes a "woody" taste. The desirability of any one of these components depends largely on the style of beer being brewed. In addition, there are certain by-products in these families that are more noxious than the others. A lot depends on the individual palette and the effect you're aiming for.

A final note: some yeast, especially lager yeast during lagering, can produce a "rotten egg" smell. This is the result of hydrogen sulfite production. Although the scent of this bubbling out of the air-lock is enough to make the

strongest homebrewmeister blanch, fear not! The good news is that this will usually pass, leaving the beer unaffected. Relax, etc.

OBTAINING CULTURES AND MISCELLANY

Most of the dry strains are available by mail-order or at your local homebrew store. Wyeast are also widely available (by which I mean, of course, that *my* local store carries a wide selection). The BrewTek strains and the Yeast Culture Kit strains are significantly less available, so the company contact numbers are included as a public service.
BrewTek: (800) 8BRE-WTE
Yeast Culture Kit Company: (800) 742-2110.

Date: Fri, 27 Aug 93 06:03:58 -0700
From: ksegal%spf.dnet@gpo.nsc.com (KEN SEGAL EXT. 8920)
Subject: septic systems and bleach and yeast

In reply to the query on bleach doing in your septic system.
A good rule of thumb is no more than 1gal of bleach/month per 1000gal
septic tank.
As far as yeast goes...yeast eats starches which only amount to 7%-8%
of the solid matter in your tank. Bon appetit.

Date: Fri, 27 Aug 93 08:58:25 -0500
From: zentner@ecn.purdue.edu (Mike Zentner)
Subject: NOEL@????hp.com

I tried to reply to your message sending you wort chiller plans,
but your address is wrong. Please send me your address again if
you still want the plans.

Mike Zentner

Date: Fri, 27 Aug 1993 10:08:46 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Whats Weihenstephan??!

IN the last digest, Jack asks, Whats Weihenstephan??

Heres German brewing lesson #101:

Weihenstephan is the oldest continuously operating brewing center in the world. It is located north of Munich, in the fabulous town of Friesing. Weihenstephan has two breweries, a state run "industrial" brewery that makes some so so beers, and the small school brewery that is affiliated with the extremely anal and respected Weihenstephan brewing school/institute. They operate a yeast bank which is the source for many of the most popular strains of lager and weizen yeasts (Weih 66, and 34/70 for ex). A single strain of yeast on a cotton ball (dry!) costs about \$200! Think about that next time you buy the same yeast for \$2-3 from a yeast culture supplier. Weihenstephan is an extremely respected and difficult school to be accepted into. You must speak fluent German to enter, and a difficult test (oral & written) is given. As if this isnt enough, you must be an experienced brewer to attend. Often this means you do duty as a grunt worker in a brewry cleaning tanks to get the "experience" required. I believe you also need to do this apprenticeship under a Diplom Braumeister (a graduate of Weihenstephan). Usually , Diplom Braumeister's never actually brew after graduation, they often are employed as heads of the QC division of Bud or Miller. In germany, they are also fond of opening hausBraueries (brew pubs). A very anal & difficult school. Dr. Narziss has been the professor/god for quite some time and authored excellent papers on things such as rapid high temperature fermentation and aging of lager beers, "the Narziss" method of quick lagering as mentioned by Dr. Fix in BT issue #2.

BTW, Jack, nice Maltmill! It did get a bit pricy since I needed the upgraded gear and spacing option, but I now have it motorized with a 10" pulley on the mill and a 3" pulley on the motor. After mounting the mill on an extension of my workbench, I just pop the trash can under the mill, and start pouring 65 pounds of grain through the thing. Now if I can just engineer a ceiling mounted grain hopper, I'll be all set (with auger feed of course :-))!!

Good brewing,

Jim Busch

Date: Fri, 27 Aug 93 07:58:12 PDT
From: tima@wv.MENTORG.COM (Tim Anderson)
Subject: Labels and whining (mine)

The only labelling I have ever done is to write the batch number on the cap with a felt pen. I use a rather complex numbering algorithm:

Batch # = Previous Batch # plus 1

After much research I settled on "1" for my original batch number, Arabic numerals and base 10. For example, my latest has "24" written on each cap, whereas the previous batch had "23". It is important to use the same number on each bottle in the same batch. For easy reference, I keep a chart on the wall near where I keep my brewing supplies, with a list of all the numbers from "1" to "100". At bottling time, I just have to look at the number on the cap of a bottle from the previous batch, find a number on the chart that looks the same, and use the next number in the list. By the time I go to write the number on that first cap, my adrenaline is really pumping.

I'd be happy to provide more details via email.

tim

ps I think the Oregon Brewers Festival has gotten WAY too big. The best thing about it was that Samuel (tm) Adams (tm) wasn't invited.

Date: Fri, 27 Aug 93 09:57 CDT
From: korz@iepubj.att.com
Subject: Mark at Lotus

Mark-- I lost your email and USmail addresses. Please send again.
Sorry for the use of the bandwidth.
Al.

End of HOMEBREW Digest #1214, 08/30/93

Date: Fri, 27 Aug 93 11:58:37 EST
From: jdecarlo@homebrew.mitre.org
Subject: Wort Aeration

While I think it is a good idea to do experiments, one of the hardest parts is interpreting them. I have personally come across situations where people were using Wyeast cultures without making starters and observing 48 hour lag times.

While I normally advise making starters, I have twice helped people just really aerate the wort and see lag times reduce to half a day or so. So clearly the amount of aeration of the wort can have an incredibly dramatic effect on the time required for the onset of fermentation.

For the more gadget-oriented among our community, something like an airstone can make the process much easier (I know people who have gravity-fed metal pipes going from a stainless brewpot from a keg to a stainless fermenter, with no exposure to air along the way--something like this works well for them). For those of us with minimal equipment, it is obvious that there are easier ways to aerate the wort, at least to a sufficient level.

But there are so many variables involved. For instance, if you are making a barley wine using an ale yeast and want to ensure sufficient oxygen available to the yeast you might just shake up the fermenter every day for a week or so. Or you might find it easier to have some sort of pump do the work for you.

Unfortunately, some people tend to either overenthusiastically adopt or reject new approaches, which can make it more difficult for others to determine the usefulness for themselves.

IMHO, the bottom line is that most everyone I have brewed with, including myself, often underpitches the yeast and underoxygenates the wort. But whether you sit down and shake up the fermenter or use a small metal tube with holes drilled in it or a faucet aerator or an airstone with pump probably depends on your environment more than anything else.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Fri, 27 Aug 93 09:21 PDT
From: hbaum@uts.amdahl.com (Michael Hohnbaum)
Subject: doppelbock and fruit beers

Fermentating way in the "lagering chamber" is an OG 1085 doppelbock (baumerator?) Yeastlab Bavarian Lager is being used at 50 degrees F. I am assuming this yeast is going to poop out with a reasonable amount of sugars remaining due to the alcohol level. If this is correct, then how does one get carbonation when bottling a beer of this style? Will adding the typical priming sugar (1 cup dme) rejuvenate the yeast enough to get some carbonation or are the yeast going to be killed off by the alcohol level? I won't be bottling this batch until October and don't want to wait that long to find out if this will work or not. Any advice would be appreciated.

Fruit beers: I've always ignored posts relating to fruit beers with the attitude of why wreck perfectly good beer by adding fruit. Well, my wife and brother have convinced me to attempt a raspberry beer. What I would like to do is brew a large batch of wheat beer, then split off a few gallons to experiment with fruit. That way if I hate the fruit beer, at least I'll have a batch of decent wheat beer for my efforts. So now I'm looking for advice on adding raspberries to a wheat beer. From what little I've read, it appears that adding raspberries to the secondary is one method. If so, how much and how do I prepare them? Also, do I need to adjust the hopping of the beer when adding fruit? If so, less boiling, less finishing, or what? Thanks in advance.

BTW: I am experimenting with raspberries due to a ready supply in the backyard, fighting the hops for space. Anyone in the south bay area want to swap for some homegrown Cascades. I've got about half a pound more than I figure to use in the next year. email me if interested.

Michael Hohnbaum hbaum@uts.amdahl.com

amdahl has no opinions on this topic. These ramblings are mine and mine alone.

Date: Fri, 27 Aug 93 10:59:34 CDT
From: Mark S. Hart <hart@hvhp1.mdc.com>
Subject: Canadian U-brewns
Full-Name: Mark S. Hart

Salutations,

About 1 1/2 weeks ago I read this article in The Wall Street Journal by Larry M. Greenberg. The following is a condensation of that article. I left out a lot of the quotes from patrons, the explanation of the brewing process, etc. for brevity.

"It's another night at the U-brew. What laundromats are to clothes, Canada's U-brewns are to the thirsty and heavily taxed. Here, for about 90 Canadian dollars, would-be brewmasters legally can whip up a 13 gallon batch of potent suds.

In place of commercial breweries' big buildings, elaborate plumbing and computerized chillers, U-brewns offer storefront or warehouse space, huge metal pots, plastic tubs, lots of well used bottles, recipes and some know how.

Low tech perhaps, but low cost, too. U-brewns sidestep federal beer taxes and most provincial taxes. In a land where levies are huge (a six-pack of domestic brew goes for the equivalent of US \$5.35) dodging the taxman is a heady incentive for beer quaffers.

The first U-brew, started six years ago, in London, Ontario, with the idea that beer lovers would be happy to rent equipment, make a mess away from home and save money.

A culture has grown at the U-brewns, where friends gather, usually on week-nights. Most budding brewers say they start because of the savings - then enjoy the camaraderie.

There's something of a party atmosphere at the U-brewns as friends get together to batch up some brew. However, It's illegal to drink beer at a U-brew, a law perhaps honored as much in the breach as in the observance.

Employees at the U-brew will filter and carbonate the beer for customers before patrons return to cap it on the shop's bottling machine. Some U-brewns even have a microscope to analyze yeast. Some places are gussied up. Many are air-conditioned. Polished wooden floors, copper cooking pots instead of stainless steel, and even hanging plants are found in upscale establishments. Others are more rudimentary, with cracked concrete floors.

The phenomenon hasn't caught on in the U.S., where beer prices are far lower although Canadian investors recently opened one in Los Angeles, hoping that

aficionados may want to make exotic ales."

Has anyone out there in HBD land ever visited one of these places. It seems like a good idea, kind of like HBD put in person. It could really help the people who don't have the space or want to purchase equipment. I would be interested to hear the reviews of anyone who has visited/tried a U-brew.

Thanks,

Mark.

Date: Fri, 27 Aug 1993 10:21:07 -0600 (CST)
From: John Mare <cjohnm@ccit.arizona.edu>
Subject: RE: Brewcap

I too am puzzled by the brewcap (I have 2 but use them simply as carboy caps). Why would one want to invert the carboy? To drain the sedimented yeast and hop remnants perhaps? What prevents the weight of beer from popping the cap off when the carboy is inverted? Any advice on use of this item will be appreciated.
John M.

Date: Fri, 27 Aug 93 10:25:43 PDT
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Liberty Hops, Pale Malt

Daniel McMahon writes:

>I was recently given a recipe for an "excellent Belgian Trippel",
>but my local homebrew supply store doesn't have all the exact
>ingredients called for.

>The two ingredients in question are: (1) Klages malt and
>(2) Liberty hops.

>Not finding any comparative reference to Klages or Liberty
>in Papazian's book, I've decided to substitute Pale malt
>and Willamette (5.3%) hops respectively.

Pale malt is fine. In a recent conversation I had with Mary Ann Grueber from Breiss Malting, she said that Klages is virtually non-existent these days and has been largely replaced with Harrington, but there is not any discernable difference in brewing qualities. Klages and Harrington are both pale malts, BTW, so you most likely got Harrington.

Liberty, OTOH, is nothing at all like Willamette. Liberty was bred as a domestic replacement for Hallertau Mittelfruh (virtual umlaut over the u), the classic "noble" aroma hop from Germany. If you can't find Liberty (or real German Hallertau Mittelfruh or Hersbrucker), then good substitutes are either Mt. Hood or a new hop just released called "Crystal" Crystal used to be known in the trade as CFJ-Hallertau and like Liberty and Mt. Hood were bred as Hallertauer replacements. Also note the domestic "Hallertau" is not very close to the real thing: The three that I have mentioned are much, much better. And of course the real thing (Hallertau) is still the best, but more costly.

FYI, Willamette is very similar to Fuggles (from which it was bred) but has a slightly more spicy note than Fuggles. In general you can interchange the two.

Mark

Date: Fri, 27 Aug 93 17:45:00 +0000
From: ron_hall%80@hp6400.desk.hp.com
Subject: Cheap Corny Kegs

I recently posted a request for info about a source of cheap kegs, and I was swamped with mail asking me to share what I found out. Well, here it is.

I got several responses suggesting DeFalco's of Houston, Texas. They sell used pin-lock kegs for \$15 ea, or 3 for \$35, plus shipping. I also got several responses saying that The Beverage Co. of Anderson, California has used ball-lock kegs for \$22 each or pin-lock kegs for \$17 each, and that several people had gotten these with no problems. In both cases, the kegs come "as-is" from the soda distributor, still have pressure in them and therefore are assumed air-tight, and also have residual soda syrup in them.

Well, I ordered 3 from DeFalco's, which cost me \$35, + \$15 shipping, + \$6 for three new lid o-rings. They arrived in about a week via UPS, all shrink-wrapped together. They were in good shape, no dents or dings, but with some label scum and REEKING of Coke syrup. They all say

"PROPERTY OF THE COCA_COLA COMPANY", but I assume they were procured legally :). I have rinsed them several times and replaced the o-rings, and the smell is almost gone. Hopefully it will not show up in my first kegged brew.

I bought a regulator at Steinbart's in Portland for \$39, and all the connecting hardware for another \$30. I got a 5 lb. CO2 bottle at a local

welding supply shop for \$65 (permanent lease) and \$7.70 for the CO2. The interesting part came when I took it home and hooked it up. The gas bottle sputtered and coughed, lost pressure quickly, and smelled like putrid, skunky beer. I took it back to the welding shop, and they emptied

it and found a cup or two of skunky beer in it, and naturally said, "Gee, I've never seen that happen before". Apparently the the previous user had

run it dry, and beer had backstreamed into the gas bottle. Lesson of the day

is: (1) don't run your bottle dry and leave it connected, and (2) have check

valves in your gas lines. Got a new bottle and I'm ready to go.

The number for DeFalco's is (713) 523-8154. I don't have the number for the Beverage Co. handy, but it's in the Celebrator Beer News classifieds. Standard disclaimers apply.

Ron Hall
ron_hall@hp6400.desk.hp.com
Corvallis, Oregon

Date: Fri, 27 Aug 93 13:27 CDT
From: fjdobner@ihlpb.att.com
Subject: Dead Space

A simple question that I have regarding mash tun design.
If you use the single or multiple copper pipe manifold arrangement
for either a round or rectangular picninc cooler, don't you have a
lot of dead space (between and under the pipes)
for which a uniform mash temperature would not be possible
by stirring or otherwise?

Frank

ground tiger nut?.....ouch!

Date: Fri, 27 Aug 93 13:42 CDT
From: korz@iepubj.att.com
Subject: Re: Tun size/Klages/Liberty/Fridge Conversion

There have been a few questions regarding tun size and also a mention or two about grain depth. I've read (forget which book) that the ideal grain depth is 12 to 18 inches. Now, before everyone starts redesigning their laeuter tuns, I'm willing to bet that the ideal grain bed depth is highly dependent on the type of false bottom or slotted-pipe or easymasher pipe that you have in the bottom. In professional systems, there are debates raging about whether round holes or slots are better and the cross-sectional shape of the holes is debated also. So, I'm just relaying what I've read but if you record the depth of the grain bed on several batches of various size (which is what I'll be doing from now on) perhaps we can get enough data to make some general rules about grain depth versus efficiency, no?

Daniel writes:

>The two ingredients in question are: (1) Klages malt and
>(2) Liberty hops.

>

>Not finding any comparative reference to Klages or Liberty
>in Papazian's book, I've decided to substitute Pale malt
>and Willamette (5.3%) hops respectively.

>

>What are the special characteristics of Klages malt?
>Ditto for Liberty hops.

Klages is a 2-row barley strain that *used* to be grown in the U.S. It's replacement is called Harrington. Basically, what you wanted was a good 2-row Pale malt. Liberty is a U.S.-grown variety that was selected because it had qualities similar to Hallertauer Mittelfruh. If you can't get Liberty, Mt. Hood is a close cousin or you could use any number of German-, U.S.- or British Columbian-grown Hallertauer hops.

Kevin asks about fridge conversion:

>I cannot for the life of me remember the name of the product that is
always
>recommended in this list! "Air Temp"? Manuf. and model # would be
greatly
>appreciated.

Hunter AirStat (ask for a window air conditioner thermostat).

Al.

Date: Fri, 27 Aug 1993 14:16:07 -0500 (CDT)
From: WEIX@swmed.edu
Subject: resend of yeast faq 1 of 8 (keeping my fingers crossed)

Sorry about the first post of this section: sometimes our mailer acts up!

Hi to all fellow homebrewers. This is the updated, revised and expanded version of my recent Yeast FAQ. Almost all of this data was plagiarized from somewhere by me or others; however, I have not knowingly used any copyrighted stuff. (I was very careful *not* to check anything for a copyright ;-).) I have altered the focus of some documents to more accurately reflect what I feel to be the interests of the *home*brewer. Some of the information is very basic; some, more technical. I have tried to give a basic introduction to what yeast are, how they affect beer taste, and the proper handling of yeast. Some portions of the following were taken from the Wyeast information circular e-mailed to me by David Adams; the sections pertaining to yeast culturing are adapted from an upcoming book by Dr. Fix. Dr. Fix also provided the section on the proper method of yeast rehydration. Most of the information on the "reputations" of the many yeast strains was collected from the HBD over the years by Doug O'Brien. Many thanks to David Adams, Dr. George Fix, and Doug O'Brien. I would also like to thank Al Korzonas for his helpful suggestions on the characteristics of some yeast strains and for his comments and help in clarifying the sections on propagation and culturing. Thanks also to the many people who made small suggestions or requests for clarification. My name is Patrick Weix, and I am a graduate student in the Genetics and Development program at UT Southwestern at Dallas <weix@swmed.edu>. I hope you find this document useful.

N.B. This document is composed of rampant hearsay and rumor. Any attempts to pin anything on me or my co-conspirators will be resisted. If all else fails I will call your boss and ask him why you are reading the HBD at work instead of grinding out the Fitzsimmons contract. What do they pay you for anyway? Don't you have anything better to do?...

=====
=====

INTRODUCTION

Yeast are unicellular fungi. Most brewing yeast belong to the genus *Saccharomyces*. Ale yeast are *S. cerevisiae*, and lager yeast are *S. uvarum*

(formerly carlsbergerensis). Another type of yeast you may hear mentioned, usually in conjunction with weizens, is *S. delbrueckii*. You may ask, "If all ale or lager yeast are the same species, why all the fuss?" The fuss is over strain variation. All dogs are the same species, yet no one will ever mistake a Basset Hound for a Doberman (at least not twice :-). Using different strains can add fun and spice to brewing, especially if you have some idea of the differences. I originally put together this guide to catalogue the different affects of different strains. This information is in Section II. Section I outlines the general characteristics of brewing yeast and tries to answer some of the more frequently asked questions about yeast that seem to cycle onto the HBD. Section III explains how the homebrewer can culture and maintain yeast strains in the safety and comfort of his/her own home.

Date: Fri, 27 Aug 93 14:18:00 CST
From: Montgomery_John@lanmail.ncsc.navy.mil
Subject: degree of extract

Hi all,

This is my second post to this digest and I meant to include in my first posting a "Thank you all" for all the great information I've absorbed while watching from the sidelines...."Thank you all". :)
That said, on to the matter at hand.

In the May/June issue of Brewing Techniques, "Spreadsheet for Recipe Design" article, Mr. King shows a column in the spreadsheet labeled Deg of Extract. Below this are numbers corresponding to various grains and their respective extraction (rates?).

Eg:

DEG OF
EXTRACT

PALE MALT 27
WHEAT 25
etc... .
.
.

I checked my only two references (TCJoH,TCHoH) and didn't see anything that indicated where these numbers came from. Is this something I need to generate myself, ie. make 1 gallon batches with 1 pound of grain and check the gravity? Or are the numbers listed fairly standard and for use in calculations?

I always thought the degree of extraction was dependent on the quality of grain, quality of crush, mashing efficiency, etc. and would vary.

Can someone please clarify this? Thanks.

jbm
<montgomery_john@lanmail.ncsc.navy.mil>

Date: Fri, 27 Aug 1993 15:34:21 -0500
From: tmgierma@raphael.acpub.duke.edu (Todd Gierman)
Subject: yeast mailing/reproduction/flocculation

>Date: Thu, 26 Aug 1993 09:45:01 -0400 (EDT)
>From: drose@husc.harvard.edu
>Subject: Mailing Strains

>there is a cheaper alternative to agar slants for mailing strains, and
it
>works just as well. We routinely send out laboratory strains on filter
>paper. Basically, you just put a drop of culture on a ~1 cm square piece
>of filter paper (probably any absorbent paper would do) and wrap the
>square in a piece of sterile foil. Then pop it into an envelope and
send
>it off. When it gets to the other side, they drop the paper on a rich
>media plate, incubate for a day or so, and the yeast grow up.

Dave Rose
Dept. of Cellular and Developmental Biology
Harvard U.

I guess this is a viable alternative commonly employed by researchers. It
is mentioned in a section on *S.cervesiae* research techniques, co-
authored
by Richard Wobbe of Harvard Medical School, in Current Protocols in
Molecular Biology. It looks like a pretty easy and inexpensive way to
mail
strains, though as Dave points out, it has some drawbacks for the home
culturer. As long as the recipient has the means to revive the strain,
it
may be worth a try. My only concern is that this procedure may select
against certain strains present in a multistrain culture. This is a good
piece of information, though, and some people may be interested in trying
it out.

>Date: Thu, 26 Aug 93 11:31 CDT
>From: arf@genesis.mcs.com (Jack Schmidling)

>I though fission was another name for budding which makes it equally
> incorrect as an explanation for flocculation. The other reproductive
process
> encountered in yeast (but not beer yeast) involves sporulation and
sexual
> reproduction.

We're talking two forms of reproduction here: asexual, achieved by means
of
either fission or budding and sexual, involving a mating, of sorts,
resulting in an exchange of genetic material and the subsequent
reassortment of this genetic material to produce spores (more or less).
Fission and budding are two different means of achieving the same end:
production of two genetically identical cells, where previously there was
only one. I can't give you the mechanics of this at the moment, but both
processes are distinct from one another. Forgive the use of taxonomy,
but
Sacchomyces bud, whereas, for example, *Schizosacchomyces* undergo
fission.

Neither is an explanation of flocculation. To my understanding, the
ability to flocculate is incumbent upon the ability to reassociate (or

aggregate) once growth begins to slow. Perhaps Dave Rose can explain this more thoroughly. Whether beer yeasts can sporulate...well your guess is as good as mine: some lab strains of *S. cerevisiae* can.

Todd Gierman
Dept. of Microbiology
Duke University Medical Center

Date: Fri, 27 Aug 1993 13:21:50 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

Subject: EXTRACTF

For those who have or are about to be contacted me about EXTRACTF, I am trying to post it to sierra.stanford.edu, but getting permission to do so is not a trivial task to the uninitiated. If you can put the appropriate person (s) in touch with me I'd appreciate it. Thanks for the interest.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Fri, 27 Aug 1993 15:12:00 EST
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill
Ridgely/"@mr.cber.fda.gov
Subject: Announcing MASHOUT '93

ANNOUNCING ... MASHOUT '93

The Mid-Atlantic States Homebrewers
* * * * *
6th Annual Campout - To Be Held

September 10-12, 1993

in Rocky Gap (near Cumberland), MD

Fun for the Whole Family! - Including:

- Saturday dinner & Sunday breakfast,
courtesy of the BURP Homebrew Club
- Vienna/Oktoberfest Beer Competition
- Water sports at Rocky Gap Lake
- Hiking, biking, carousing, game playing,
finger pointing, eating, drinking, etc
- Lots of FREE BEER! (Donations of homebrew are
most welcome)

Directions: From Washington, DC, head west on I-270/I-70.
Just past Hancock, MD, bear left onto I-68 toward Cumberland.
Go past the town of Flintstone, up & over Martin Mountain.
Watch for signs for Rocky Gap Park and the Pleasant Valley/
Rocky Gap interchange. Rocky Gap Lake will be on the right.
At the interchange, go left over the bridge all the way to the
end (not far) and turn left - this should be the 2nd road. Head
back up the mountain and turn right at the 1st road, Breakneck
Road. Follow Breakneck until you're just past the mountaintop.
Turn right at the 2nd driveway past the mountaintop. A sign will
be posted to help you identify it. The camping area is right on
top of the mountain at the end of the driveway.

What to Bring: Food (for meals not provided by BURP), water
(there is none on the mountain top), homebrew, camping gear, musical
instruments, swimwear, bicycles, flying toys, all the other usual
stuff you'll need for a weekend of camping.

For further info, please e-mail to the address below. BURP would
appreciate a response from those interested so we can determine how
much food to buy (We promise a Special Treat for Saturday dinner).

See y'all there! Bill

Bill Ridgely (Brewer, Patriot, Bicyclist) ___o
ridgely@a1.cber.fda.gov- /<,
ridgely@cber.cber.fda.gov...O/ O...

Date: Fri, 27 Aug 93 16:17:24 EST
From: Ulick Stafford <ulick@beethoven.helios.nd.edu>
Subject: pronunciation of trub

In hbd 1210 Al Korz etc. lists the pronunciation of many brewing terms. I for one have never liked the pronunciation troob for trub. It is such a fruity word. Thankfully, it is also incorrect. While Websters unabridged dictionary lists the pronunciation as troob or the rugged trub, both are incorrect if one uses the German pronunciation. There is still doubt as Websters gave two spellings, trub and trueb as the German spelling for the word meaning dirt or haze or whatever. These would be pronounced approximately troop and trip.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Fri, 27 Aug 93 14:31:12 PDT
From: MRS1%CRPTech%DCPP@cts27.comp.pge.com
Subject:

list

Date: Sat, 28 Aug 1993 19:17:21 -0400 (EDT)

From: waltman@BIX.com

Subject: Nigerian Guinness

FYI, from the August 21, 1993 issue of The Economist (in a survey of Nigeria):

"Guinness, for example, has developed a stout brewed from malt extracted from millet and sorghum, because of the [Nigerian] government's import ban on barley malt. It looks the same, tastes different, and has been a smash, helping make Nigeria Guinness's third-biggest market, after Ireland and Britain."

I guess necessity is the mother of invention. Anybody ever tasted Nigerian Guinness or brewed with millet malt? Inquiring minds want to know!

Fred Waltman
Marina del Rey, CA
waltman@bix.com

Date: 28 Aug 93 20:56:24 MDT (Sat)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: green chile beer again (notes on Coopersmith's "Sigda's")

A late addition to the chile-in-beer discussion, but I got some recipe-like info. A couple of folks had already mentioned Coopersmith's in Ft Collins, CO, which makes "Sigda's Green Chili [sic] Beer".

I think Sigda's is an excellent beer. The chile and beer flavors blend nicely. It's got just the right amount of bite--not enough to hurt, nor to make it the sole province of chile aficionados, but definitely enough to leave no doubt that it's a chile beer. More importantly, it's got a real character of the chiles. Compared to Cave Creek, I'd take this any day.

The basic recipe is a pale ale, only light malt (no crystal, etc.), and lightly hopped. Ummm, lessee...they're using English malts. Mash is a single infusion; don't remember temperatures.

During fermentation, they add chopped green chiles of the sort folks commonly call "Anaheim". (They get them frozen in bulk.) They use 20 lb "mild" and 30 lb "hot" in an 8 bbl batch. Keep in mind that the "mild" and "hot" here are relative to Anaheims, which are all down toward the mild end of the scale. The chiles are in hop bags in the fermenter. Anyway, that's just for the fermentation...when they transfer to the aging/serving tank, they remove the Anaheims and add 2 lb of chopped serranos for the aging period. This beer is served in-house only, directly from the aging tanks. That is, none of it is bottled, although you can buy it by the jug to take home. It's rather cloudy; they don't make much of an attempt to clarify it. (They fine, but don't filter, their beers.)

Just for perspective--since the 8 bbl batch size is a bit awkward for home brewing:-): It's about equivalent to a pound of Anaheims and somewhat over half an ounce of serranos for a five-gallon batch. (Remember, the weights refer to prepared [peeled/seeded] chiles.)

It would be interesting to see whether a beer like Sigda's could be bottled and kept for a while. I have my doubts; I suspect that the chile taste would fade or mutate somehow. I'd also guess that if it could be success-fully fined or filtered, you'd lose a lot of the character.

[and while I'm at it, a plug: If you have occasion to pass through Ft Collins, Coopersmith's is well worth a visit. In addition to the chile beer (which seems to be regularly available) they'll have half a dozen others on tap, including some unusual ones: I caught the tail end of their raspberry ale today. There was a blueberry wheat beer in a fermenter so I suspect that will be available in another two or three weeks. They'll also give you a tour of the brewery by someone knowledgeable if you're there

on a Saturday afternoon.

I hate to admit it...Ft Collins and Boulder are similar-size towns with
four

breweries each, but Ft Collins brews easily win on variety and interest.

]

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Sun, 29 Aug 93 11:55:18 EDT
From: Pierre Jelenc <rcpj@panix.com>
Subject: molds on yeast plates: a solution

A while back, when I was away on vacation, there was a discussion of mold contamination of yeast plate cultures. Since there hasn't been a definitive solution yet (I'm not quite caught up though), let me suggest what we resort to for the protection of plates that must be kept open for long period in our lab:

>From 0.5 to 1% sodium propionate in the medium will suppress practically all molds, without affecting the growth or viability of yeasts. The propionate can be either added before autoclaving, in which case the medium will turn cloudy, or as a sterile solution just before pouring the plates, in which case the medium will stay clear. There is no growth difference in either case.

While not reinheitgebotmaessig, propionate is FDA-(or USDA-?)approved to prevent molds on foodstuffs.

Pierre

Pierre Jelenc
rcpj@panix.com

Date: 29 Aug 93 14:25:45 EDT
From: Harry Covert <73232.167@CompuServe.COM>
Subject: Malts for Vienna/Octoberfest/Marzen

I just read George and Laurie Fix's book 'Marzen/Oktoberfest/Vienna' and I recommend it to any other 'Fest beer fans out there. In the recipes, though, they call for "German Light Crystal Malt, German Dark Crystal Malt and English (20 and 120 degree) Caramel Malt". Our local club is making a large buy of De Wolf-Cosyns Belgian Malts and am wondering how their Cara-Vienne and Cara-Munich could substitute for the German light and dark crystal. Any other good and available malts that would make a good substitution? Also, how about using all Munich Malt as the base of a 'Fest? What hop(s) and how much are preferred for this style? Any other helpful comments on making a championship 'Fest? TIA

Date: Sun, 29 Aug 1993 14:39:13 -0400 (EDT)
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>
Subject: Attn: James Syniura

Sorry to use hbd bandwidth for a personal mailing but this appears to be my only mechanism to reach James.

James:

I've sent you CABA information twice but it keeps getting bounced back to me. Apparently your host is unreachable. Send me your snail-mail address and I'll mail off some stuff to you. Take care.

- Mike -

Date: Mon, 30 Aug 93 12:32:16 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: R. Morris rims artical.

Hello again brewers,
Without even waiting for an answer to my previous question about
brewcaps, I going to ask a second:
Does anyone out there have a copy of Rodney Morris' RIMS article
from the Maltose Falcon news letter? And if so, would they also
happen to have an "electronic" version they could send me?
I've read the rims summary from sierra.stanford.edu, but
unfortunately all the brewers who submitted their designs,
described the differences between their setups and Morris'.
Hence, I'm still in the dark as to the exact setup.

ALTERNATIVELY, is there a more internationally available source
of such a full description?

Happy brewing, Rob. Thomas.

Date: Mon, 30 Aug 93 08:39:22 -0400
From: jsqr@sgi37.wwb.noaa.gov (John Janowiak)
Subject: Info on the "Brew Cap"

Regarding the "Brew Cap"

>From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
>Subject: BrewCaps (tm?): how and why?

>Hello all,
>Could someone enlighten me on the purpose and use of the brew cap?
>All I know (well, suspect) is that it is used on a carboy, which is
>then turned upside down.
>If this is a really obvious question please email me privately.
>By the way, I've never seen one either, so a description might be
>useful.

>Isn't the quest for knowledge a terrible thing!

>Rob Thomas.

The 2-3 advantages (perhaps there are more) of this system are:

1. Since the carboy is placed upside down, you can drain off the trub as it settles in the neck of the carboy.
2. You can collect the spent yeast in the same manner. Thus, you can proceed with secondary fermentation in the same carboy & avoid having to rack to another (avoiding possible contamination & oxidation).
3. The collected yeast can be captured in a reasonably sanitary manner & repitched if you keep it clean & healthy.

The disadvantages that I'm aware of are:

1. Forget lagers unless you have a walk-in refer - since the carboy must be upside down, it must be mounted on a stand of some sort therefore the whole mess will be too tall to fit in a refer.
2. Since the cap is on the bottom, it seems difficult to dry hop or add finings (although I think the manufacturer gives some info on how to do this).
3. Although small (probably) there is a risk that if the blow-off tubes get clogged, since the cap can't pop off, the carboy may burst.

John Janowiak

Date: Mon, 30 Aug 93 09:00:24 EDT
From: gorman@aol.com
Subject: Philadelphia brew-pubs

Hello,

I'd appreciate any comments on the beer and food in the Philadelphia brew-pubs via private email.

TIA

Bill Gorman
America Online

Date: Mon, 30 Aug 93 08:01 CDT
From: fjdobner@ihlpb.att.com
Subject: Hordeum Vulgare

Since I do not have access the judgenet yet, I have a comment on the study guide that was issued and held on file in the archives and called beerjudgeguide.

A small point but in the first section under grains, Hordeum Vulgare is identified as 6-row barley. As I have researched under other material (including Jackson's New World Guide...) Hordeum Vulgare is in fact 2 row barley. N'est pas?

Frank Dobner

decoction?.....ouch again!

Date: Mon, 30 Aug 1993 15:13:15 +0200
From: "Nadi Findikli, Ericsson/GE RTP 919-990-7213"
Subject: the beauty of labels

visual presentation is a part of beer as it is of any other food. that is why we all get so excited when we hit the right shade of amber or just a tint of red, or whatever turns you on. labels are part of the presentation of beer. so what if it takes a bit longer to prepare bottles, it is part of the process. you'll feel better when you present a bottle that looks as nice as the beer in it tastes.

on a technical note, if you have registration problems with labels prepared on a word processor, use a drawing or publishing program. these pay much more attention to dimensions than word processors, which tend to stretch things to fit the text. publishers also make graphics, border text etc easier to manage.

i say don't be content with writing the name of your beer on the bottle. make something worth the pain of cleaning labels off bottles.

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=-  
| Nadi Findikli.. there is a pleasure sure |  
| Ericsson/GE, RTP in being mad, |  
| findikli@egertp.ericsson.se`--' which none but madmen know |  
| 919-990-7213 Dryden, The Spanish Friar, II,i |  
-----  
=-
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Date: Mon, 30 Aug 93 09:02 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Lagering Room

Although I like my new "lagering room" (chest freezer/Airstat) a lot and I probably will never make ale again, there was one problem that was bugging me.

The 40F low end temp should be adequate for fermenting and serving beer but it just never seemed quite cold enough without using pre-chilled glasses.

After doing a little judicious temp measuring, I learned that the air temperature varies from 5 to 10 degrees above the actual beer temp. To determine your own delta, put a thermometer in a glass containing a pint or more of water and watch it for a few days.

I dug up the article by Mike Kenny on modifying the Hunter for lower temps and decided to give it a try. Upon opening the unit, I "discovered" a cal pot but found this had only about a two degree range and it was already in the middle of that.

Mike explains how to calculate (Ohms Law) the exact resistance for any temp, along with adding a switch to disable the mod. I took the Schmidling way and simply soldered a 150K resistor across the sensor lead terminals and got lucky. When programmed for 40F, the temp in the pint of water is exactly 40F now. The air temp is about 35F but I just ignore that and the beer temp is just the way I like it.

It is a very simple mod and requires nothing more than removing two screws and soldering the resistor to very accessible terminals. Getting it back together takes a little "feel" because the battery terminals have to be fitted back into their connector but anyone with a little more finesse than a gorilla should be able to do it.

Thanks Mike. (mkenny@bcmlg01.attmail.com for details)

js

Date: Mon, 30 Aug 93 07:16:31 PDT
From: 30-Aug-1993 1013 -0400 <ferguson@zendia.enet.dec.com>
Subject: Price of pico-brewing system

>Date: Thu, 26 Aug 93 10:46:34 EDT
>From: Spencer.W.Thomas@med.umich.edu
>Subject: pico-Brewery

[...]

>* The price!

What is the price? Also, what kind of square footage do you need to set this system up? Is it all stainless steel?

thanks
JC FERGUSON

Date: Mon, 30 Aug 93 10:24:09 EDT
From: rnapholz@PICA.ARMY.MIL
Subject: campden tablets

hello all
I just purchased some capmden tablet
the label read 16 tablets per quart

can this be right??
any suggestions
do i add these to the boil, primary or secondary

thanks rob

Date: Mon, 30 Aug 1993 09:27:35 MDT
From: Kevin Schutz <kschutz@atmel.com>
Subject: Form of Spices for Holiday Brews?

Hello All!

With Fall just around the corner, thoughts have been turning toward brewing up some holiday brews. I wanted to check with all my fellow brewers to see if anyone has had any experiences with choosing the appropriate forms of spices to include in batches. For example, is it better to use whole cloves or ground cloves, anise seed or anise extract? I'm interested in using most of the easily available spices (Anise, Cardimon, Cinnamon, Clove, Ginger, & Nutmeg come immediately to mind).

I'd also be interested in suggested amounts of various spices to start with. I'll probably turn a quick 2.5 gal trial batch within the next week and then move up to 5 gals.

Thanks in advance for your help! If I get alot of responses, I'll catalog the responses and post them.

Kevin Schutz

Date: Mon, 30 Aug 1993 11:03:34 -0600 (CST)
From: RBSWEENEY@memstvx1.memst.edu
Subject: Brown Ale Bananas Foster recipe

Here's an interesting little recipe I tried recently with pretty good results:

Brown Ale Bananas Foster

3/4 lb British crystal malt - 20 Lovibond
6 lbs Pale 6-row
3 oz Southern Country New Orleans Bananas Foster mix*
1/4 lb Chocolate malt
1/2 cup Grandma's mild molasses

*- includes brown sugar, sugar, spice, natural and artificial flavoring:
(orange, lemon, banana, rum flavor, food starch modified and malto
dextrin)
caramel color, silicon dioxide

1 oz Kent Goldings plugs (4.7% alpha) - 60 min in boil
1 oz Kent Goldings plugs (4.7% alpha) - 5 min in boil

2 tablespoons Irish Moss - 15 min in boil

Wyeast #1007 (German Ale) - repitched 11 teaspoons slurry

Mashed all grains in 2.5 gal of 156 water for 90 min (w/ 1/2 tsp gypsum)

sparged with 4.5 gal of 170 water (w/ 1/2 tsp gypsum), added molasses and
Bananas Foster mix and boiled 75 min. (the brewpot smelled like rum and
fruit

while it was boiling, something like a fruitcake). Chilled wort with
immersion

chiller for 10-15 min., racked to carboy and pitched yeast. Left beer in
primary four days at around 70 degrees, then racked to secondary and
added 1/2

oz of gelatin finings and kegged three days later using forced
carbonation.

Original gravity - 1.042 (78.4% extraction efficiency; if yours is
generally

different adjust the recipe accordingly)

Final gravity - 1.009

Alcohol: 3.4% by weight, 4.2% by volume

Color Units/Gal - 25.6 (using calculation described by Dave Miller in
Brewing

the World's Great Beers)

I have made a few previous brown ales but this was absolutely the best.

My

experience with commercial brown ales is limited to Newcastle and I'm not
one

of its biggest fans--no flavor to speak of, IMO. This concoction on the
other

hand has flavor to spare plus a unique and to my mind wonderful aroma,
kind of

a caramel/toffee/rum combination. Its great even at room temp.

As always, brewer beware, your taste may vary.

Bob Sweeney

Department of Management Information Systems
Memphis State University

Date: 30 Aug 93 08:06:26 EST
From: "Anderso_A" <Anderso_A@hq.navsea.navy.mil>
Subject: GABF

Message Creation Date was at 30-AUG-1993 12:16:00

Greetings,
I'll be joining a few friends out in Denver this year to finally partake of the GABF. (I just want to see what Jim Koch will offer for my vote for "People's Choice".) Since I've not spent any time in the Denver area, nor have I been to a GABF before I wish to ask a couple questions:

1. Do I need to buy my tickets to the Beer Festival in advance? Do they ever sell out of tickets?
2. When I'm tired of the Beer Festival and want to go somewhere completely different (i.e. a pub), where should I go? I've read the "On Tap" books for places in Denver as well as Ft. Collins, but those books quickly get out of date. I look to the HBD world for guidance.

Cheers,

Andy A

Date: 30 Aug 93 15:09:00 EST
From: "TIMOTHY LABERGE" <LABERGET@gar.union.edu>
Subject: aged honey

I was talking with a friend the other about mead; he told me that some German bakers traditionally use honey that has been aged for periods of at least a year. The idea is that aged honey has a more intense flavor. Is there any precedent for the use of aged honey in the making of mead or mead ale?
Tim LaBerge
Union College

End of HOMEBREW Digest #1215, 08/31/93

Date: Mon, 30 Aug 1993 23:20:34 CDT
From: "Bret D. Wortman" <wortman@centurylub.com>
Subject: FZ on beer -- just for fun.

The following taken from "The Real Frank Zappa Book", by Frank Zappa with Peter Occhiogrosso, Poseidon Press, 1989. Emphasis removed in
may places due to the inability to reproduce italics, boldface, and all caps all at once. :-)

The remainder is quoted from the book:

I have a theory about beer: Consumption of it leads to pseudo-
military behavior. Think about it -- winos don't march. Whiskey guys don't march either (sometimes they write poetry, which is often more horrible, though).

Beer drinkers are into things that are sort of like marching -- like football.

Maybe there's a chemical in beer that stimulates the [male] brain to
do violence while moving in the same direction as other guys who smell like them [marching]--"We, as a group of MEN, will drink this
refreshing liquid, after which we will get together and beat the snot out of
that guy over there."

Beer seems to produce behavioral results which are psycho-chemically different from those produced by other alcoholic beverages.

Alcohol (the part that 'gets you drunk') is only one ingredient.
There are other things in beer, and those [herbal and/or biological] components could affect the [male] brain, creating this violent tendency.

Go ahead and laugh. One day you're going to read about some
scientist discovering that hops, in conjunction with certain strains of 'yeast creatures,' has a mysterious effect on some newly discovered region
of the brain, making people want to kill--but only in groups. (With whiskey, you might want to murder your girlfriend--but beer makes you want to do it with your buddies watching. It's a buddy beverage--
for buddy activities.)

Think about it: "Who IS this 'Mr. Coors'? What does HE do for a
'good time'--and why does a man who owns a beer company need a 'top-secret security clearance'?" Did you see him during the Iran-contra
hearings?
He has a top-secret security clearance. Do they guys at Anheuser-
Busch have the same clearance? And when you see a beer commercial, besides 'the buddy pitch,' don't they also throw in a little jingoistic, bunting-encrusted, flag-waving hoopla,--the all-American beer
syndrome?

Every major industrialized nation has A BEER (you can't be a Real Country unless you have A BEER and an airline--it helps if you have some kind of a football team, or some nuclear weapons, but at the very least you need A BEER).

I think the mutant behaviors exhibited by people 'under the influence' should be studied more closely. Gin drinkers, for example, are a breed apart.

People choose an allegiance to a certain beverage. Like bourbon guys--they're bourbon guys and that's it. And scotch drinkers? Forget it. They don't want to know from 'pink gin.'

In contrast to Mr. Beer Guy, picture a guy who is religiously devoted to Chateau Latour. Is he marching? He ain't marching.

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
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| Bret D. Wortman | "Stomach hairballs are nature's little way of
| wortman@centurylub.com | saying `Bad puddy cat! Stop licking
yourself!'"
| wortman@decus.org | --Berke Breathed, "Outland"
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
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Date: Tue, 31 Aug 1993 10:08:46 -0400 (EDT)
From: drose@husc.harvard.edu
Subject: mailing strains/flocculation/sporulation

Hello:

In response to a post regarding a simple method of preparing yeast strains for mailing, Todd Gierman noted that it might not be a good way of mailing multi-strain cultures, since one might be selecting against one of the strains. This is a good point, and I certainly wouldn't recommend shipping mixed cultures on paper. Using this method, the strain should be struck for singles on the receiving end, and this would reduce a multi-strain culture to only one of its components, unless the colony morphology of the various strains is very distinct, in which case each could be picked for re-combination later. I would think that the best way of maintaining multi-strain cultures would be to isolate the individual component strains and store those, where this is possible. Any mixed culture is going to change in terms of the relative prevalence of individual strains during propagation, and if you don't have the individuals stored you run the risk of losing one or another component. By maintaining separate cultures and then mixing them before each use, one should get more reproducible results.

Todd also asked whether I knew anything about flocculation. Not much. Basically, though, the flocculation characteristics of a strain are a function of the composition of the cell wall; some strains are "sticky", some aren't. "Stickiness" of a given strain can increase under certain circumstances, most notably when cells mate, since the ability of cells to stick to one another increases the probability that they will mate successfully. However, mating is just not something that happens with brewing strains under normal circumstances. Flocculence may also increase as cells run out of nutrients, but I don't have any information to support this idea. I always figured that cells were kept in suspension by CO₂ evolution, and that they settle out when CO₂ production ceased; in other words, the "stickiness" of the cells hasn't changed, but they settle because they aren't getting kicked around any more. But, again, I don't have any data to support this view.

Todd also mentions sporulation. Yes, at least some brewing strains are capable of sporulating. However, sporulation requires nutritional conditions (starvation for nitrogen and the presence of acetate as a carbon source) that don't occur in wort. So, the frequency of sporulation in beer is around zero.

Dave Rose.

Date: Tue, 31 Aug 93 09:21 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Currency, Aeration

As no one else seems to want to, I will take it upon myself to speak out on net protocol.

The yeast FAQ is a noble effort but I think some self-restraint is in order regarding eating up big chunks of the Digest.

I am not about to criticize anyone for what they post or how often but one must keep in mind the fact that what makes the Digest most useful is its near real-time currency. Getting an answer to a question the very next day is a powerful reason for participating. When the Digest is flooded with very long articles that could be just as easily serialized, the currency is lost.

Breaking long articles up into small pieces but sending them all out the same day only guarantees a bottleneck and deprives readers of the answers they are looking for.

I would like to suggest that users voluntarily limit articles to 200 lines in any given day. That is after all about 20% of a typical Digest and would still allow significant participation by others. That thousand liner the other day was just a bit much and I suspect more are on the way.

It is also obvious that much of the cleaning up of the FAQ could be done by email now that the experts have been identified.

>From: jdecarlo@homebrew.mitre.org
>Subject: Wort Aeration

I hate to nit pick over your otherwise rational look at the discussion but I think your advice on shaking a fermenting carboy of barleywine every few days to aerate it is wishful thinking. As there would be nothing but CO2 in the head space, no oxygenation could take place.

>From: korz@iepubj.att.com
>Subject: Re: Tun size/Klages/Liberty/Fridge Conversion

>There have been a few questions regarding tun size and also a mention or two about grain depth. I've read (forget which book) that the ideal grain depth is 12 to 18 inches. Now, before everyone starts redesigning their

laeuter tuns, I'm willing to bet that the ideal grain bed depth is highly dependent on the type of false bottom or slotted-pipe or easymasher pipe that you have in the bottom....

Just to open the discussion, I get the same yields in my half liter pilot system as I do in my 10 gallon easymasher. I recently made a 1 gallon version of the easymasher for slightly larger pilot batches and still get the same yield. Grain depth varies from 1 inch to about 10 inches in the three systems and I can achieve yields in the 30's with all three.

My guess is that there is an optimum grain depth for a given geometry of mash tuns of commercial sizes but in the small homebrew size, other factors become far more important.

js

Date: Tue, 31 Aug 93 10:26:35 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: re: carbonating doppelbock

> Question about carbonating a doppelbock with 1.085 OG.

Your yeast may or may not poop out. However, the best thing to do is to krauesen by making up a half-gallon of new starter (1.040), getting a vigorous fermentation going in it, and then pitching the whole thing. Of course, since this is a significant fraction of your total wort volume, you want it to be a high quality wort, similar to your original wort.

=S

Date: Tue, 31 Aug 93 9:56:09 CDT
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: frabjous day (Sept. 1st)

kaloo kalay o frabjous day he chortled in his joy!!!
Sept 1st 1993 - Brew Pubs legal in Texas....Here in Austin, according to the SouthWest Brewing News, there are plans for up to 8 to open between now and December. (Please correct or give me an update Joe!) I plan to do some in depth examinations of the local fare...any other Austinites interested in forays into the unknown? The field will hopefully thin out sometime soon and we will be left with some quality brew pubs (or they could all be great from the start - the eternal optimist!).

Happy brewing Texas!

Chris

|Chris Pencis|chips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |

Date: Tue, 31 Aug 93 10:57:13 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Pico-Brewery

Ok, ok. My mailbox is overflowing! Before you flame, keep one thing in mind: this is NOT an advertisement. I'm just responding to your requests.

For more info on the Pico-brewing setup(s), call 1-313-482-8565, and they will happily send you a brochure.

The most common question was "what is the price?" The answer is "it depends". If you buy a fully loaded 3-kettle system WITH a pump, it will set you back a cool \$900. There are less expensive options.

Another common question: what's it made of? The kettles are constructed from legally obtained 15.5 gallon stainless steel kegs that are no longer suitable as pressure vessels. A fair amount of machining, welding, etc. goes into making them suitable as a brewery.

How big is it? Imagine three 15-gal kegs sitting side-by-side, about a foot apart. That's how much space you need. It needs to be in a place where you can run the 200KBTU propane burners, too (or 100KBTU with natural gas).

=S

Date: Tue, 31 Aug 93 09:28:30 -0700
From: Drew Lynch <drew@chronologic.com>
Subject: Maintenance of Re: Cheap Corny Kegs

I recently started keggng my beer in pin lock kegs. I learned a couple of useful things.

- 1) Dissassemble the keg
 - a) remove the pin connectors (a 13/16" socket with notches filed in the appropriate places makes a nifty pin lock maintenance tool)
 - b) Press out the poppets with a nail punch or philips screwdriver.
 - c) lift out the long and short downtubes (The short one may be stuck in the pin lock fitting)
- 2) Inspect all parts for cracks, scum, etc.
- 3) SCRUB out the kegs with TSP solution. I use about a cup in 5 gallons of warm water.
- 4) Rinse everything with clear water
- 5) Replace the large o-ring, and the two small o-rings.
- 6) Reassemble the keg
- 7) Sanitize with iodophor solution
- 8) Fill with beer :-)
- 9) Empty :-)))

Drew Lynch
Chronologic Simulation, Los Altos, Ca.
(415)965-3312 x18
drew@chronologic.com

Date: Tue, 31 Aug 1993 12:55:49 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: lager yeasts, air, screens

IN the last digest:

From: jdecarlo@homebrew.mitre.org
Subject: Wort Aeration wrote:

<But there are so many variables involved. For instance, if you are making a barley wine using an ale yeast and want to ensure sufficient oxygen available to the yeast you might just shake up the fermenter every day for a week or so. Or you might find it easier to have some sort of pump do the work for you.

If you do this, you will *rouse* the yeast which can help to keep the fermentation going, but will in no way *add* oxygen to the fermentation. It is a CO2 environment anyway. Pumps will add oxygen but this inevitably force the yeast to throw Diacetyl which I do not care for. BTW, this is how the Peter Austin Breweries (Wild Goose, Red Feather, Ringwood) actually *promote* Diacetyl production in thier beers.

From: hbaum@uts.amdahl.com (Michael Hohnbaum)
Subject: doppelbock writes:

<Fermentating way in the "lagering chamber" is an OG 1085 doppelbock (baumerator?) Yeastlab Bavarian Lager is being used at 50 degrees F. I am assuming this yeast is going to poop out with a reasonable amount of sugars remaining due to the alcohol level.

Healthy lager yeasts *should* be able to ferment to at least 8% ABV. If you dont have luck, add krausen yeast (1 litre wort, plus yeast plus 12 hours or so). Even if you get adequate attenuation, krausen yeast will aid in bottle conditioning since the primary yeast may well be dead by then.

From: korz@iepubj.att.com
Subject: Re: Tun size/Klages/Liberty/Fridge Conversion

<There have been a few questions regarding tun size and also a mention or two about grain depth. I've read (forget which book) that the ideal grain depth is 12 to 18 inches.

I have had great success with this design , a shallow lauter tun. It is 2 feet wide by two feet high, and is never more than half full even with 65 lbs of malt. I have mashed/lauterred 90 lbs in it.

<In professional systems, there are debates raging about whether round holes or slots are better and the cross-sectional shape of the holes is debated also.

Not really debates, more a cost benefit issue. V wire slotted bottom is undoubtely the *best*, and most expensive. It is an inverted V, big end down. I have found perforated sheet to be more than adequate, even with

weizens of 70% wheat malt (and decoction mashing).

Good brewing,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Tue, 31 Aug 93 12:53:39 CST
From: "david p. atkins" <atkins@vms2.macc.wisc.edu>
Subject: Salvaging Flat Beer/Brown Ale Recipes

Hello all,

I have two cases of tasty yet discouragingly flat pale ale. My second batch--extract with 1/2 lb. specialty grains, WYeast English Ale Yeast, OG 1.046, FG 1.006 and primed with 1 1/4 c. dried malt extract.

I fear that the yeast was pooped out when bottled--had to keep the batch in the secondary carboy for several days longer than anticipated (the joys of breaking "inexpensive" cappers). After 3 weeks, I have a touch of fiz but nothing to get excited about.

Any tips on resurrecting this batch? Also if anyone would proffer some extract brewing recipes/experiences concerning brewing brown ales in general, with molasses for an Old Peculiar-esque ale in particular

Thanks,
David Atkins
atkins@macc.wisc.edu

Date: Tue, 31 Aug 1993 16:30:22 -0400 (EDT)
From: Nate Clark <NC6967@conrad.appstate.edu>
Subject: Re: BrewCaps and the questions about...

Attn: John Mare and John Janowiak

I am currently making my second batch of ale using a Brewcap, and I find it makes priming and bottling a whole lot easier. To answer John Mare's questions:

As John Janowiak wrote, the trub can be drained off the bottom, after allowing it to settle in a collection tube. If you wait about 12-24 hours between drainings, the collection tube is packed with yeast and no beer escapes. I have

noticed an increased yeild of about 2-4 bottles per batch. Not much?

Read

on...

The cap is held on by a re-closable plastic tie. I have had no trouble with it

popping off. The cap fits snugly around my carboy without the tie.

As for making things easier, the Brewcap eliminated my least favorite part of

brewing- the racking and siphoning. To prime, you place the boiled sugar (or

whatever you use to prime) on top of the inverted carboy and open the valve.

The priming sugar is sucked into the carboy. My bottle filler fits nicely onto

the end of the collection tube and I don't (generally) spill any brew.

Cleaning

is fairly simple. I recommend the brewcap, even to new brewers. It is an

inexpensive way to do, shall we call it "two-stage brewing?" (1 glass carboy and

one Brewcap.) The stand I made from two old pool chlorine buckets.

But do take into consideration John Janowiak's comments on lagers and hop cones

in the brewcap. I use hop pellets and have had no trouble.

(There is undoubtedly a little bias in my answer, as BrewCo is located only a few miles from my window.)

Nate Clark

Date: Tue, 31 Aug 93 17:05:01 EDT
From: Eric Soshea <technet!eas@uunet.UU.NET>
Subject: Micro's in Boulder/Ft.Collins?

Any suggestions for Micro's in the Boulder/Ft.Collins area? Email replies
to eas@technet.macom.com Thanks.

Date: Tue, 31 Aug 93 16:40:15 MDT
From: npyle@n33.stortek.com
Subject: Barley Wine Recipe Request

I would like to brew a barley wine as this years holiday beer, and I don't really have any place to start. This will give me a chance to really check out the machismo of my new recycled water heater boiler unit. I like Thomas Hardy and Old Foghorn and others but I don't have any problems with brewing a non-clone, either. I would like to see something that has actually been brewed and tasted, rather than a "I've never brewed one, but I'd do this:...". Sooo, any favorite barley wine/strong ale recipes out there? Thanks...

norm
- - -

Norm Pyle, Staff Engineer, Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
Organization
2270 South 88th Street 1045 Pale Ale Place
Louisville, CO 80028-0211 Longmont, CO 80503-2323
(303) 673-8884 npyle@n33.stortek.com

Date: Tue, 31 Aug 93 21:56:30 CDT
From: hopduvel!john@linac.fnal.gov (John Isenhour)
Subject: temperature control

Someone asked recently about controlling refer's with an outside thermostat. While I got a hunter airstat a while ago, and its not bad till that darn battery dies, I much prefer a White-Rodgers Refrigeration Temperature Control. Its a "hydraulic-action temperature control readily applicable for all types of commercial or industrial refrigeration applications". I got it from a large plumbing supply store for ~\$25.00. Its a nice unit with a long capillary bulb and hi/lo ranges set on a dial. The model of mine is 1609-101 style p-1.

ratings:
a.c. motor rating 120 V 240 V
locked rotor current 84 A 42 A
ampere rating 25 A 22 A
full load current 16 A 8 A

600 V.A.C. pilot duty - 125 volt amperes

I dont expect I'll burn this one out for a while:)

- - -

John Isenhour
renaissance scientist and AHA/HWBTA National Beer Judge
home: john@hopduvel.chi.il.us
work: isenhour@lambic.fnal.gov

Date: Tue, 31 Aug 1993 23:05:40 +22306512 (CDT)
From: afmccaul@rs6000.cmp.ilstu.edu (Tony McCauley)
Subject: Beer Hunting in Phoenix

I have the good fortune of travelling to Phoenix soon.

When I'm not at the office, I plan to do some beer hunting. I'm
looking
for suggestions for good bars, brewpubs and package stores.

Private mail responses are fine. Send 'em to

afmccaul@rs6000.cmp.ilstu.edu

Thanks for the help.

Tony McCauley

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End of HOMEBREW Digest #1216, 09/01/93

Date: Wed, 1 Sep 93 08:56:22 EDT
From: "Michael K. Lebar" <lebar@ctron.ctron.com>
Subject: Lager Fermentation Questions

I'm currently brewing a lager that has an OG of 1.055. I pitched Wyeast #2112 Calofornia liquid lager yeast without making a starter so fermentation took about 3 days to get going. The carboy is in a temperature controlled frig at 51 degress F. The brew has been fermenting at a moderate rate for 11 days. This is my first experience with a lager and I was hoping that the members of the HBD could answer a couple of questions. Is 11 days too long (I'm used to ales finishing in 5 to 7 days), if not, what is normal? When should I rack to the secondary and begin lagering?

Thanks in Advance,
kl

Date: Wed, 01 Sep 93 09:40:28 EST
From: "Patrick Paul" <paulp@cc.ims.disa.mil>
Subject: Peach Beer

Over the upcoming weekend I am planing to try and make a peach beer.

My current design is to make a wheat ale using premier wheat extract
(I have not make the leap to all grain yet, but soon). After the
initial ferment dies down (two to three days in this weather), I will pit,
skin and dice or puree about twelve pounds of peaches, freeze the
resultant pulp overnight, defrost it the next day and then pitch it into the
carboy with some pectinase. then bottle with about a cup of malt
extract when it calms down again.

My questions are:

- 1) Any advice on hopping rates and types?
- 2) Should I rack it before I add the pulp?
- 3) Should I add the pectinase with the pulp or wait a day or two?
- 4) Is twelve pounds too much for a five gallon batch?
(all the fruit beers that I have seen call for a lot of fruit)
- 5) Any thought on a good yeast for this?
- 6) Lambic brewers bake the hops first, would this help here?
- 7) I have seen no reference to a peach beer before, does everyone
else know something that I don't?

Thanks in advance for your help.

Patrick S. Paul

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* support People Eating Tasty Animals *  
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Date: Wed, 1 Sep 93 09:39:06 edt
From: Greg_Habel@DGC.ceo.dg.com
Subject: Making starters

Message:

When pouring a small starter into a larger container with more unfermented wort, should only the yeast from the bottom be transferred or the entire contents from the first starter?
Thanks much. Keep brewin. Greg.

Date: Wed, 1 Sep 93 11:02:52 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Barley Wine Recipe Request

Well, here's the first place barleywine recipe from the Michigan State Fair competition. It was brewed by Dave West, whose barleywine philosophy is "Use enough ingredients for 7 cases, but only make 2". It was a blond-gold color, with assertive hopping and a fairly dry (for a barleywine) finish. I think I gave it a 43 in the judging.

for 10 gallons

30# Briess 2-row
5# crystal
5# munich
mash all grains 60 min at 160F

90+min boil
4 oz Chinook (11%) 60+min
4 oz Kent Goldings (5.2%) 20 min
4 oz " " 2 min
4 oz " " dry hop

Wyeast 3036

O.G. 1.095
F.G. unknown

3 wks at 65F in glass
3 months at 34F in stainless

force carbonated

Date: Wed, 1 Sep 1993 10:04:22 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: vienna/fest beer recipe suggestions

In a recent HBD, someone raised a question on the use of Belgian malts in the making of an Ocktoberfest beer. Here are some alternate grain bills.

The aim is to produce a beer of starting gravity around 1055, and as your mileage may vary, you should adjust accordingly. The color should be around 10 - 12 Lovibond. For whatever reason, many homebrewers and brewpubs make a fairly dark amber Oktoberfest. Keep in mind that Bass Ale at 10L is a good color reference.

The following grain bill features Cara-Vienne:

9 pounds pilsner malt
1 pound cara-vienne (20L)
2 ounces Special B

Cara-vienne is a superb crystal malt, so the above grain bill tries to feature it. The Special B is in there for some added coloring, and if you don't have any, then substitute a dark crystal malt (120L).

George and Laurie Fix present a grain bill along the following lines:

9 pounds pilsner malt
6 ounces german light crystal malt (10L)
6 ounces german dark crystal malt (60L)
6 ounces (German or British) crystal malt (120L)

At the time they wrote their book, they felt that good quality pilsner and crystal malt were more readily available than was good quality Munich malt. Their recipes were tested in competition.

Dewolf-Cosyns has a good Munich malt, so why not feature it in a grain bill:

5 pounds pilsner malt
4 pounds munich malt
1 pound U.S. cara-pils
1/4 pound crystal malt 40L

I haven't tried an all-Munich recipe, but if I did, I'd use a good quality Munich. Also, 10 pounds of Munich would produce a too-dark beer by the above guidelines, so if you're concerned about the style parameters, consider a blend of Munich and pale malt.

For hops, use Hallertauer, Tettnang, Saaz, and Styrian Goldings separately or together. Aim for bitterness of 22 - 25 IBUs, or roughly 5 - 6 HBUs.

For yeast, use a good liquid lager yeast, and ferment at lager fermentation temperatures, say 48 - 50 degrees. If you don't have a lager fermentation setup, consider using Wyeast "European" ale yeast as it will produce a malt-accented clean-

tasting ale if used at conventional ale fermentation temperatures.

Date: Wed, 01 Sep 1993 12:36:24 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: peracetic acid/venturi suction

I know the peracetic acid thing was flogged to death (or at least ill health) a few months back. At the time I paid little attention, due to the price of H2O2. However, I can now get my grubby paws on the stuff cheap. The Lablaws/Superstore/President's Choice line now sells the stuff as a more environmental bleach alternative. It comes in 1 gallon jugs and sells for about the same price as bleach. I can get white vinegar cheap in large volumes at Price Club. So, my question is, can one make an effective sterilizing agent by simply mixing the two? And how does this stuff react with kegs? I am concerned about using iodophores since my wife is allergic to iodine, and I would like something a little less cumbersome than boiling water to sanitize my kegs.

On a completely separate note, I finally found a venturi suction doo-hicky (well, I mean I bought one and didn't have to glom one from the lab). I've got it on a quick connect along with my chiller and bottle washer. The thing is great! I run the hose from it to a two-hole bung, the other hole holds a racking cane. By creating a partial vacuum in the carboy I can siphon into it without pre-filling the siphon hose, or without sucking on it. I can even transfer beer up hill! No more lifting heavy carboys up and down off the counter! And the best part, the gadget cost me all of a whopping \$4.50 Canadian! I picked it up at Gordon's Cave a Vin in Montreal, for those remotely interested.

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----+
| Never trust a statement that begins: |
| "I'm not racist, but..." |
+-----+
Diversity in all things. Especially beer.

Date: Wed, 1 Sep 93 11:06:37 -0500
From: "Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu>
Subject: kegging systems

I am tired of bottles and I've only been homebrewing for 6 months. I am interested in purchasing a kegging system but don't know the first step to putting one together. My local brewing supply store has a new system, but it is prohibitively expensive. Any suggestions as to what types of equipment I should invest in? Are various systems user friendly enough to allow interchange of components (ie ball-lock, pin-lock)? How does one use a kegging system to simplify the bottling process for sediment free beer?

JEFF M. MICHALSKI

Date: Wed, 01 Sep 1993 09:29:52 -0700 (MST)
From: Cisco <FRANCISCO@osmo.ccit.arizona.edu>
Subject: Kegs becoming overcarbonated with time

I have posted a few articles on calculating dispensing pressure with different diameter/length tubing. If you drink 5 gallons of homebrew within 2 weeks everything works fine. However, if you only drink a pint of beer a day, like I do, your beer will eventually become overcarbonated because the nice cold temperature at which you dispense the beer also allows the beer to absorb more CO2 over time. My kegs, I have two on tap all the time, sit for 4 to 6 weeks and could absorb quite a bit of CO2. No amount of adjusting CO2 pressure will correct this to pour properly. You could disconnect the CO2 and bleed off some of it from the kegs and dispense but it's a real pain bleeding off dissolved CO2 - it takes time and patience.

The solution to this problem is to get your CO2 cylinder filled with Nitrogen/CO2 (30% / 70%) mixture. This is available at any fire equipment store that fills tanks. By running this mixture your beer will absorb CO2 alot slower. The only drawback is that Nitrogen is a very light gas and if you have any possible leaks it will escape, so check all your fittings with some soapy water when they're under pressure. This gas mixture is used alot for dispensing beer by most bars that have many different types of beers on tap.

Hope this is helpfull!!
May your beer give you great head!!
John
Francisco@lan.ccit.arizona.edu

Date: Wed, 1 Sep 1993 12:13:56 -0400 (EDT)
From: Jeffrey Muday <mudayja@ac.wfunet.wfu.edu>
Subject: Rootbeer question--how can I sweeten it up?

I brewed my grandfather's rootbeer recipe, which uses a small amount of yeast to impart bottle conditioning. I added too much yeast and needless to say started working and continued to ferment going on 3 weeks.

Originally, the recipe called for immediate bottling, but I was afraid that I would be making beer grenades. So, now I'm stuck with a 4-5% alcohol dry rootbeer.

This rootbeer doesn't have too bad a flavor, but I would like to impart the expected sweetness of traditional root beer. Is there any way I can add more sugar without creating beer grenades? Are there any un-fermentable sugars that I can safely add?

thanks for your help,
jeff (mudayja@ac.wfunet.wfu.edu)

Date: 1 Sep 93 15:31:25 GMT
From: GANDE@slims.attmail.com
Subject: Canadian U-Brew's

In HBD1215, Mark Hart asks about anyone's experience with the Canadian U-brew's. While I have never brewed beer for myself at one of these places, I have tried the beer and would rate it as "American Ale". That is, low hop and malt flavor and aroma and well carbonated. Typical commercial brew, but then again that's what 90% of the population drink anyway.

I've brewed for almost 6 years now, all grain, I culture yeast and grow hops, brew once a week, so I considered myself "experienced". What a cool idea it would be to get a job at one of these U-brew places and spread the word about "quality" beer, I thought. One day at lunch I ventured over to the U-brew, 2 minutes from my office, started talking to the proprietor and he hired me on the spot. I am now the evening and weekend brewmaster. They pay me to help people make beer. Can it get any better? (I feel like Tom Hanks in the movie "Big" where he gets the job at the toy store evaluating products)

The shop has 8 70 Liter gas fired copper kettles, glycol plate chillers, 6 counterpressure bottlers, warm and cool fermenting rooms, filtering rooms, etc, state of the art stuff. All brews are extract based, with some recipies calling for grain steeps. We do wine too, and I'm hoping to introduce Mead.

These U-brew places are popular, as the article Mark quoted states, it's a good "guys night out", no one gets sloshed and drives and everyone takes beer home. Every night is a brew-party and we quite often make 300-400 liters of beer.

The U-brew setup is an entire system, start to end, sold by a Canadian company (no advertising here), if anyone would like more information, please email the address below and I would be glad to supply it to you.

...GA

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+-----+
| Internet: gande@slims.attmail.com |
| Glenn Anderson |
| Manager, Telecom. Facilities |
| Sun Life of Canada |
+-----+
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Date: Wed, 01 Sep 1993 13:02:58 CST
From: "John L. Isenhour" <isenhour@lambic.fnal.gov>
Subject: Cornelius keg source?

I read in (tuesdays?) HBD a post from someone who found a good source for
cornelius kegs. I saved the digest and also snipped that post into a
seperate
file, planning on ordering. This morning I came in to find a dead disk!
The
last image backup that made it does not have this info. Could someone
please
send me the sources?

tnx!
john

- - -

John L. Isenhour internet: isenhour@lambic.fnal.gov
Library Systems, et al NASA/NSF/ES/HEP decnet: lambic::isenhour
Fermi National Accelerator Laboratory bitnet: isenhour@fnlib
home: john@hopduvel.chi.il.us
"When your work speaks for itself, don't interrupt" - Henry Kaiser

Date: Wed, 1 Sep 1993 11:13:50 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

Subject: Secondary Fermentation

I've had 4.5 gallons of beer in the secondary (glass) for 7 days with 2 oz of hop pellets and 2 tbsp Polyclar in hot water.

Although fermentation had ceased (no bubbles in ≥ 5 min) in the primary, the secondary began producing bubbles almost immediately at the rate of 4/min (after 7 days 2/min). I've heard Polyclar liberates dissolved CO₂ (is this true?), so is what I am seeing just that?

Some of the hops are floating, some laying on the bottom, but there is a recycling going on, where hops are sinking from the top and rising from the bottom continuously. We're not talking churning here, but an obvious low level of activity.

Also the beer does not seem to be clearing appreciably. Usually by this time there has been a clarity gradient in the carboy, clearest at top fading to cloudier at the bottom. Has something gone horribly wrong? Or I am just "worriedly pacing the waiting room"?

I had planned on a 7 day dry hop, but I expected clear beer too. How long should I wait for clarity, and how long can I dry hop?

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Wed, 1 Sep 93 12:58:45 MDT
From: scojam@scojam.Auto-trol.COM (Scott James.)
Subject: Briess Malt & Sparging Q's

Howdy brewers,

I have some questions about Briess malts:

- 1) Does the 2-row or 6-row need a protein rest? I'm told the 6-row doesn't.
when I bought the 6-row the guy told me it's highly modified.
- 2) Is the 6-row also known as Klages? is the 2-row?
I've had different homebrew shop owners tell me "it's pale malt" or "it's klages"...I'm confused.
- 3) Is one of these considered lager malt?
- 4) Does "pale malt" imply malt to be used in pale ales or the Lovibond of the malt in question?

About Sparging:

- 1) My last beer used 2-row pale malt (above) and had a chill haze when I never had it with the 6-row malt beers. Things I'm considering changing:

- * When heating and recirculating first runnings, don't heat first runnings.
the first runnings have starch and husk particles (doesn't run clear).
Currently, I've been heating all runnings. I typically heat 3 batches of 2 gallon runnings. I've been getting 1.031/lb/gal from the 6-row.

- * acidify sparge water (1/2 tsp. acid blend to get pH=5.2) sometimes I acidify the water, but many times forget. (like in the cloudy beer)

- * sparge water should be 165F, and not 170F or 180F like in the past. (but I usually never got the tannins, just very present malt character.)

- * maybe I should use finings (bentonite/polyclar)... I never had to in the past and hate to make things more complicated now.

Thanks for any ideas/opinions,

=====
Scott James scojam@Auto-Trol.COM
Ham (N0LHX) :-: GuitaristAuto-Trol Technology
HomeBrewer : Private Pilot (ASEL) Denver, Colorado USA

Date: Wed, 01 Sep 1993 12:32:27 -0700 (MST)
From: Cisco <FRANCISCO@osmo.ccit.arizona.edu>
Subject: Nitrogen/CO2 mix

I forgot to mention in my earlier post that the Nitrogen/CO2 mixture is known as a "Beer Mix" at most refill shops. So try asking for the Beer Mix and see if they understand.

John
Francisco@lan.ccit.arizona.edu

Date: Wed, 1 Sep 93 17:40:54 EDT
From: U-E68316-Scott Wisler <swisler@c0431.ae.ge.com>
Subject: Brewcaps

I'd like to thank John Janowiak and Nate Clark for their response to brewcap questions. I had a miserable bottling experience last Friday evening and was looking to change my process. After reading both postings (I've been behind reading the HBD), and pondering all through lunch,

I think this is for me.

>From what I now gather, the brewcap is a 'system' and is different from a carboy cap. I have an orange carboy cap which has 2 'stems', one for 3/8" and the other for 1/4" (?), and fits snugly over the carboy head. I currently use it for starting siphons by inserting my racking tube in the 3/8" stem and pressurizing the other. It would appear easy to engineer the rest of the system from what I have read here. I did notice the use of inverted brewcaps in the Tumbleweed report but was too busy at work to think or ask intelligent questions.

Now for a few questions:

I like the idea of primary, secondary, and bottling all in one container. It really cuts down on the possibility of oxygen contact in the various steps. (the fact that it appears to be less work doesn't hurt either) How well does it really work? I have noticed that trub and spent yeast pile up on the sides of the carboy (electrostatic attraction?) Can you actually drain off (almost) all the trub and spent yeast and get really clean bottling?

How, exactly, do you dry hop without un-inverting it?

Sucking the priming sugar water in is a neat trick. (I thought of using a 1/16" tubing run up through the blowoff tube to do this. of course you'd have to plug the main blowoff tube to get it to work) How well does the priming sugar mix into the beer? Any special techniques for mixing them together? Do you suck the unprimed beer (that you drain to suck up the primer) back into the carboy?

Do you use an airlock with this technique? Would someone describe the setup. I suppose you could just put the blowoff cane in a bucket of water.

The stuck blowoff issue bothers me because I really don't want a glass bomb going off in my basement. Maybe Kinney Baughman at Tumbleweed could pass on his experience? I have never had a plugged blowoff tube because I use a 1 1/4" vinyl tube press fit into the mouth of the carboy ala Papazian. The only thing I can think of is to use 3/8" SS tubing instead of a 3/8" OD, 1/4" ID racking cane to give the blowoff tube more internal area.

One additional advantage: Easy, no oxidation risk monitoring of final gravity.

Thanks

Scott Wisler (by the grace of God, still at)
GE Aircraft Engines
Cincinnati, OH

Monday, 30% of the engineers were laid off (again).

Question for the day: If we continue to do this (and it shows no signs of stopping), how long until only one person is left to turn out the lights?

Date: Wed, 1 Sep 93 17:20 CDT
From: korz@iepubj.att.com
Subject: Air versus beer temperatures

Jack writes:

> After doing a little judicious temp measuring, I learned that the air
> temperature varies from 5 to 10 degrees above the actual beer temp. To
> determine your own delta, put a thermometer in a glass containing a
pint or
> more of water and watch it for a few days.

There's another factor in the temperature of fermenting beer versus the ambient (air) temperature around the fermenter and that is that fermentation is exothermic, meaning that it generates heat. I think that this may have been something I did not take into consideration when I brewed a very high gravity Chimay-clone -- I think the ferment just got too hot. Anyway, the point that I wanted to make with this post is that if you have information about microbrewery X fermenting beer Y at temperature Z, it's probably the actual beer temperature they are quoting. On the other hand, if it's a homebrewer's recipe that says fermented 10 days at T degrees, then it's probably the ambient temperature and NOT the actual temperature of the fermenting beer.

So where does this lead us? Well, perhaps we should make it a point to specify what temperature we are measuring when we post a recipe, no?

i.e.:

OG 1078
FG 1013
Glass primary, 10 days @ 50F ambient
Glass 2ndary, 30 days @ 50F ambient
Glass 2ndary, 30 days @ 34F ambient

Another factor is wooden kitchen closet floor or cement basement floor!

Then again, having written this, I assume that perhaps the temperatures listed in some batch lagering operations may actually be the ambient temperatures, but jacketed fermenters are most certainly reporting the fermenting beer temperature.

I seem to have posted more issues than answers, no?

Comments?

Al.

Date: 01 Sep 93 17:33:54 -0700
From: mbarre@nomvs.lsumc.edu
Subject: blowout tube

- --Interpart.Boundary.19930901173357810
Content-Type: text/plain; charset=US-ASCII; x-DC370=header

Document name: MEMO 08/31/1993 18:19:17.599
Subject: blowout tube
Author: Barre, Michael
Class: MEMO
Document type: MESSAGE
Attached msg:

- --Interpart.Boundary.19930901173357810
Content-Type: text/plain; charset=US-ASCII; x-DC370=body

Someone asked a week or two ago whether or not they needed to use a blowoff tube on the primary. Mr. Papazian on TNCJOHB p. 136 says using a blowoff tube will result in beer with less "bite". On p. 69 says that if you use pelletized hops and a blowoff tube, you must filter out the hops with a stainless weave strainer. And, I remember reading that a blowout tube was suggested with pelletized hops, but can't find it in the book now.

- --Interpart.Boundary.19930901173357810

Date: Wed, 01 Sep 1993 21:08:38 -0500 (CDT)
From: Dave Smucker <TWF99@ISUVAX.IASTATE.EDU>
Subject: **BACK OFF JACK**

RE: Jack's BLAST on FAQ yeast

While it would have been nicer to post the FAQ on yeast over 2 or 3 days and maybe during mid week when the HBD has been running light lets not lose sight of the fact that this yeast information has been some of the best data posted to the digest. It was a lot of work to compile this information and it is very useful to many of us. This data on yeast, IMHO, made better use of this forum than your misinformation on wort aeration. You don't own this forum, none of us do, and it is hopefully for the reasonable use of and by all of us. Brew more Blast less.

Dave Smucker, Brewing Beer, Not making Jelly!!

Date: Thu, 2 Sep 93 02:25:00 +0300
From: ari.jarmala@mpoli.fi (Ari Jarmala)
Subject: Trub, trueb

Ulick Stafford <ulick@beethoven.helios.nd.edu> comments on the pronunciation of trub:

HO>is still doubt as Websters gave two spellings, trub and trueb as
HO>the German speelling for the word meaning dirt or haze or whatever.
HO>These would be pronounced approximately troop and trip.

Here, as usually, we see (hear?) the anglosaxons ignoring the German umlauts. The word should actually read trub _with umlauted u_ (u with two dots above it). It can be translitterated with English alphabet as trueb. The vowel ue in this case is also long.

The correct pronunciation is impossible for an english speaking person, because in English there is no such vowel as ue. Ue is a front vowel and it resembles e, but e is a back vowel. Start the training...

End of HOMEBREW Digest #1217, 09/02/93

Date: Thu, 2 Sep 93 04:32:40 CDT
From: hinz@picard.med.ge.com (David Hinz (hinz@picard.med.ge.com))
Subject: fermentation temp monitoring/cold room/bandwidth

>From hinz Thu Sep 2 04:24:25 1993
To: homebrew@hpfcmi.fc.hp.com
Subject: fermentation temp monitoring/cold room/bandwidth
Content-Length: 1672

Al K. brings up a good point about keeping an eye on the temperature of your beer as it ferments. It's easy to brew someone's recipe, use the same grains, and then come up with something totally different from what they did, just because your fermentation temperature was different.

What I did is bought some temperature-sensitive LCD type thingies ('thingies' is a technical term) that I stick to the side of my carboys, and this tells me what the temp of the glass, and therefore the beer, is. It is more accurate than air temp for all the reasons stated (concrete or wood floor, air circulation, etc. etc. etc.). There are so many variables involved, it just makes sense to monitor the actual product, rather than trying to predict the temp from other factors.

I think Sheaf & Vine brewing supplies (They're on the net, great service & prices, I don't work there, etc. etc. etc.) have these, they're a couple of bucks a piece.

- - - - -

I'm in the process of building "the cave", an insulated room in the bottom of my barn. Last winter, as an experiment, I put a bucket of water in that corner, and it only froze during the coldest week of last winter (below zero for a week).

I haven't quite figured out how to regulate the temp, but it'll probably be a temp probe stuck into a carboy full of water or something - that way I get the most accurate reading, and can run either the A/C or heater from there. Hopefully, it won't need much of either.

- - - - -

About the bandwidth thing & the yeast FAQ. Yes, the FAQ is fantastic. I do agree with the point, however, that it would have been easier on the bandwidth to have posted one part per day.

Date: Thu, 2 Sep 93 13:20:22 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: trub, acid 'washing' etc

Hello all,

I'd just like to add my two cents worth here:

Firstly, the pronunciation of trueb for us anglosaxons. The nearest sound to the ue in trueb is trying to say treeb while keeping your lips in an o shape. At least if you speak nearly Queens English: I have no idea what happens if you start with a Bronx accent!

If anyone has comments or flames about the above, could they be constructive about them, AND email me privately. I'll summarise if it's worth it.

On another matter, although it's a bit late for the yeast FAQ, (which I also found excellent IMHO) I read in the handbook of microbiology we have in our library that the predominant method of "acid washing" yeast is not washing as such. What they do is suspend the yeast in aqueous acid (sulphuric, phosphoric or tartaric) at pH 2-2.6, 5-10 degC for 2-4 hours and then add the WHOLE LOT to the wort. They say that the limits of temperature and time must be strictly adhered to, since some yeast deactivation occurs under these conditions. As a reference point, the Aldrich chemicals catalogue says that a 1 mol/dm³ aqueous solution of tartaric acid has a pH of 1-2 at 20degC. (for Aldrich above read Fluka). This acid is usually available as a powder in wine making shops. A 1 molar solution is 150 g/l.

Finally, could everyone who wishes to flame people do so directly to the person in question. If bandwidth is being abused by posting informative but huge articles, then it is certainly being abused by people publicly flaming the poster, and also people publicly flaming the public flamer: especially if they have nothing else to say. (OK, so my glass house is falling around my ears!)

That'll do.
Happy brewing,
Rob. T.

Date: Thu, 2 Sep 93 08:24:16 EDT
From: pacasey@lexmark.com (Patrick Casey)
Subject: Trub, trueb

ari.jarmala@mpoli.fi (Ari Jarmala) writes:

The correct pronunciation is impossible for an english speaking person, because in English there is no such vowel as ue. Ue is a front vowel and it resembles e, but e is a back vowel. Start the training...

So you're saying that an English speaking person can NEVER learn to pronounce the German ue sound?!? I beg to differ.

- Patrick

Patrick A. Casey pacasey@lexmark.com

Date: Thu, 2 Sep 93 9:22:12 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: Rootbeer question--how can I sweeten it up?

Lactose is not fermentable but does not add as much sweetness/lb as sucrose which can make it a fairly expensive alternative. The last time I made root beer, I bottled it in old plastic soda bottles (2 l. PET). I bottled immediately after pitching the yeast and put the bottles in the fridge after a week or so. Anyhow, we don't drink root beer that quickly and it did get to be pretty dry, opening a bottle would send a geyser of foam all over the sink but no bottles burst! I have had problems with glass bottles bursting when making root beer.

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Thu, 2 Sep 93 07:58:06 MDT
From: bacco@md.fsl.noaa.gov (Corby Bacco)
Subject: Beer ball keg...

Hello all,

I remember some time ago someone posting something about a kegging system (comercially avialable) made from Coors beers balls. One that didn't use CO2, but instead used some sort of bladder inside the ball. If anyone saved the post (or the original poster is still out there) if you could send the info it would be much appreciated.

TIA,
Corby

Date: Thu, 2 Sep 1993 10:14:19 -0500 (CDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Clarity/CO2 activity in a dry-hopped beer

Date: Wed, 1 Sep 1993 11:13:50 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

Subject: Secondary Fermentation

> I've had 4.5 gallons of beer in the secondary (glass) for 7 days
> with 2 oz of hop pellets and 2 tbsp Polyclar in hot water.
>
> Although fermentation had ceased (no bubbles in \geq 5min) in the
> primary, the secondary began producing bubbles almost immediately
> at the rate of 4/min (after 7 days 2/min). I've heard Polyclar
> liberates dissolved CO₂ (is this true?), so is what I am seeing just
> that?
>
> Some of the hops are floating, some laying on the bottom, but there
> is a recycling going on, where hops are sinking from the top and rising
> from the bottom continuously. We're not talking churning here, but an
> obvious low level of activity.
>
> Also the beer does not seem to be clearing appreciably. Usually by
this
> time there has been a clarity gradient in the carboy, clearest at top
> fading to cloudier at the bottom. Has something gone horribly wrong?
Or
> I am just "worriedly pacing the waiting room"?
>
> I had planned on a 7 day dry hop, but I expected clear beer too. How
> long should I wait for clarity, and how long can I dry hop?
>
>
> Domenick Venezia
> ZymoGenetics, Inc.
> venezia@zgi.com
>

In response to Domenick's question regarding the use of Polyclar in a
dry-hopped beer:

Adding Polyclar will liberate fairly large quantities of CO₂. If the
beer
was fermented at cooler temperatures, there will be more CO₂ in solution
and
you will experience more foaming. Keep in mind that Polyclar is an
adsorbant
that primarily attacks tannins. The clarity problem you mentioned may
due to
proteins or yeast in suspension. Bentonite or silica gel work well for
precipitating proteins. Isinglass finings should be used to precipitate
yeast, although time and patience will also work.

My experience with using pellets to dry hop beer is that some clarity
will
be sacrificed and invariably, some of the fine hop powder is carried to
the
bottle or keg unless filtration is employed.
This does not occur when dry hopping with flower hops; however, some hop
lupulin glands may survive the journey to your bottle or keg.

Rob Reed
Delco Electronics Corp.
rreed@icdc.delcoelect.com

Date: Thu, 2 Sep 93 9:13:41 MDT
From: npyle@n33.stortek.com
Subject: GABF DD, etc.

I wanted to clear up some misinformation that is floating around netland about the Great American Beer Festival. I've just talked to Marsha Shermer of The Shermer Group (don't know if the spelling is correct) who is involved in marketing the GABF. She can be reached at (303) 499-9646, which was listed as Lori Tullberg's number on rec.crafts.brewing. Lori markets for the Association of Brewer's and that is not her number (it's Marsha's). Anyway, the AAB contracts out a lot of the work to independent companies such as Marsha's. Now, what I originally was looking for: Designated Driver information. Marsha told me that there is a DD option, sold only at the door. The cost is \$8 for a DD (pretty steep IMHO for someone to walk around a bunch of drunks and then drive some of them home!). I believe the cost for Designated Drinkers is \$18.50 or so. Oh, one more piece of misinformation to correct: The GABF is at Currigan Hall, 14th and Champa in Denver. r.c.b had it in the Colorado Convention Center. Parking downtown is free after 6 pm. See you at the Fest!

- - -
Norm Pyle, Staff Engineer, Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
Organization
2270 South 88th Street 1045 Pale Ale Place
Louisville, CO 80028-0211 Longmont, CO 80503-2323
(303) 673-8884npyle@n33.stortek.com

Date: Thu, 2 Sep 93 08:22:26 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Kegging FAQ

I have become fairly proficient in the use of soda kegs for fermenting, conditioning and dispensing beer. In the process, I have acquired quite a lot of info on the subject. Also, I have noticed that both in r.c.b. and HBD, quite a few people have been asking a lot of kegging questions recently. While I am not an *expert* on the subject, I have a lot of info, and would be willing to be a collection point for other info and to publish a FAQ on kegging.

Do people think this is a worthwhile topic for a FAQ? If the consensus says "yes", then I will later solicit for people to send me info, post the FAQ and upload it to sierra.

dion

Date: Thu, 2 Sep 1993 13:07:51 -0400 (EDT)
From: roman@tix.timeplex.com (Daniel Roman)
Subject: Liberty Brewing Company

I'm not sure how many of you got a mailing offering investment opportunities for the Liberty Brewing Company which is to be located in Hoboken, NJ, but I got one and I suspect it was because of my AHA membership and possibly geographic location (near Hoboken). A few friends who'd love to open a brewpub figured this would be an interesting alternative. They've called the phone number a few times and left messages on an answering machine asking for information and have not received any response. Does anyone know anything about the legitimacy of this startup? The brochure is filled with grand plans and descriptions of how successful the brewpub concept is.

If anyone wants further details or has information please mail me direct.

- - -

Dan Roman Internet: roman@tix.timeplex.com (prefered address) //
ccMail: roman_d@timeplex.com GENie: D.ROMAN1@genie.geis.com /X/ Only
AMIGA!

Date: Thu, 2 Sep 93 09:25:57 PDT
From: JZABDER@BCSC02.GOV.BC.CA
Subject: Homebrew Digest #1217 (September 02, 1993)

To: HOMEBREW--INTERNET homebrew@hpfcmi.fc

*** Reply to note of 09/02/93 04:34
System Operations

Thanks for all the information and insight into homebrewing. Would you
please

for now remove me from the distribution list as I will be away for some
time

and my "A" disk is only so big.

Thanks again

G'day

Date: Thu, 2 Sep 93 09:17:05 -0700
From: pascal@netcom.com (Richard Childers)
Subject: Yeast FAQs, Bandwidth, et caet

"Date: Wed, 01 Sep 1993 21:08:38 -0500 (CDT)
From: Dave Smucker <TWF99@ISUVAX.IASTATE.EDU>
Subject: BACK OFF JACK

"While it would have been nicer to post the FAQ on yeast over 2 or 3 days and maybe during mid week when the HBD has been running light lets not lose sight of the fact that this yeast information has been some of the best data posted to the digest."

Nobody is disparaging the quality of the FAQ. Jack said as much.

But the sucker's huge - eight parts !! - and has been posted and reposted.

Perhaps instead of accruing every single posting on the topic of yeasts and calling it a FAQ, one might attempt first to identify what, exactly, are the Frequently Asked Questions with respect to yeast ... and then address, exclusively, that smaller set of concerns.

As it stands now, the Yeast FAQ came across as a book, not a FAQ.

"It was a lot of work to compile this information and it is very useful to many of us. This data on yeast, IMHO, made better use of this forum than your misinformation on wort aeration. You don't own this forum, none of us do, and it is hopefully for the reasonable use of and by all of us. Brew more Blast less."

Ahh, ahh ... no personal attacks, please. Jack's intelligent and reasonably well-informed (from a layperson's point of view) speculations hardly qualify as "misinformation".

"Dave Smucker, Brewing Beer, Not making Jelly!!"

- -- richard

Spontaneous human combustion really burns me up.

richard childers pascal@netcom.com

Date: Thu, 2 Sep 1993 10:53:36 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Gas and Jack (not all at once!)

> From: Cisco <FRANCISCO@osmo.ccit.arizona.edu>
> Subject: Kegs becoming overcarbonated with time
>
> I have posted a few articles on calculating dispensing pressure with
> different diameter/length tubing. If you drink 5 gallons of homebrew
> within 2 weeks everything works fine. However, if you only drink a
> pint of beer a day, like I do, your beer will eventually become
> overcarbonated because the nice cold temperature at which you dispense
> the beer also allows the beer to absorb more CO2 over time.
>
> The solution to this problem is to get your CO2 cylinder filled with
> Nitrogen/CO2 (30% / 70%) mixture.

An alternative solution, which is a teeny bit easier: TURN OFF THE GAS!
Over the last few months I've followed all this concern about tubing
lengths and dispensing pressures et al with an increasing amount of
amusement. According to all this data, my system doesn't work - but
then it's easy to prove a bumblebee can't fly either.

So when the CO2 level is correct, turn off the gas. When it begins to
fall off, give it a nudge with a little more gas and turn it off again.
The beer will not overcarbonate and your gas cylinder will probably last
longer. And you can go back to worrying over whether your beer is any
good, or whether you should have left out the cherry bark in your last
pseudo-lambic.

> From: Dave Smucker <TWF99@ISUVAX.IASTATE.EDU>
> Subject: BACK OFF JACK
>
> RE: Jack's BLAST on FAQ yeast
>

Sorry, I'm with Jack, although I seem to recall being blasted by him a
year or so ago when I suggested something he'd done (an offer for a free
MaltMill) had ruined the day-to-day utility of the HBD. Or maybe that
was a different Jack Schmidling?

I think that great big files -- even really interesting and useful ones,
are better off being summarized and then made available through FTP and
some other source, then posted directly to the Digest.

<<Omgod, is Frane agreeing with Schmidling? Head for the shelters!!>>

- --Jeff

Date: Thu, 2 Sep 93 13:15:47 PDT
From: rush@xanadu.llnl.gov (Alan Edwards)
Subject: FAQs

Jack Schmidling writes (in HBD #1216):

| As no one else seems to want to, I will take it upon myself to speak
out on
| net protocol.

| The yeast FAQ is a noble effort but I think some self-restraint is in
order
| regarding eating up big chunks of the Digest.

Are you an expert on net protocol? How many newsgroups/digests have you read where FAQ's (Frequently Asked Questions) are discouraged? In all the ones I've read, they are encouraged--and for the very reason you give to the contrary: space. In the long run, it saves space if there's a definitive place to look for info a given subject. It saves repeated questions; and it saves repeated answers, especially if the FAQ ends up in an archive somewhere. Then, if someone has a question about yeast, someone else would just send him email saying "Here's how to download the yeast FAQ".

If it takes a couple of passes to get the information corrected, then so be it--it is only a one-time deal. Once the FAQ is complete, it needn't be posted again; or it could be reposted at long intervals.

| I am not about to criticize anyone for what they post or how often
I am. What do you think you just did?

I think FAQs are a MUCH better use of space than, say, someone defending EVERY SINGLE position he's ever taken (right or wrong) with long, drawn out, and often-repeated arguments.

| but one must keep in mind the fact that what makes the Digest most
useful is its near real-time currency. Getting an answer to a question
the very next day is a powerful reason for participating. When the
Digest is flooded with very long articles that could be just as easily
serialized, the currency is lost.

I, for one, can handle a delay in even a whole day's digest, if it means I get a very good source of information such as the yeast FAQ. Take it easy--it's only a one-time deal (OK two, if you want to be picky and count the corrected version).

If you look at the dates (and I did), the yeast FAQ only delayed response by ONE day. There were articles that were sent on Friday 8-13 that would've been published in the following Monday's digest (the one with the FAQ in it), but were delayed until Tuesday. Big deal.

| I would like to suggest that users voluntarily limit articles to 200
lines in any given day. That is after all about 20% of a typical
Digest
| and would still allow significant participation by others. That
thousand
| liner the other day was just a bit much and I suspect more are on the
| way.

What if your article needs more than 200 lines to be complete? I don't

know about you, but I hate to see "(to be continued)" when something interesting is happening. The continuity is lost; the interest is lost; the argument is less effective.

I agree that fast turnaround IS an issue, but the problem is not caused by one guy posting a large FAQ; and it didn't just start recently. The problem is the limit on the digest. How many of us have experienced long delays between the time you post and the time you see your article published? And then you have to wait for the replies to make it to the digest. Last time I posted, a couple of months ago, the publishing delay was at about two days. When the delay is just two days, the time until you see a reply is probably six days, because the odds are that there will be a weekend in there somewhere. It looks like the queue must be small lately; but it does happen sometimes.

Instead of limiting articles even further, I would suggest allowing each digest to be larger, or not limiting traffic at all. That way, you WOULD see your article in the next digest--regardless. After all, everything we submit eventually gets posted when the queue catches up; so the total traffic would be the same, but not delayed. We may have large digests one day and small ones the next--that's fine with me. If there were a large article posted that you'd rather ignore, just skip it and go on to the next one.

If the current limitation is in place because some mailers may choke on large files (I suspect it is), and if this is a REAL problem and not just a superstitious holdover from earlier computing days, then I suggest that the digest be published TWICE a day, for an even faster turnaround.

Actually, I have suggested it to the moderator, but he has a lot of other things to do (I fully understand). But maybe if several of us make the suggestion, he would deem it more important.

| It is also obvious that much of the cleaning up of the FAQ could be done by
| email now that the experts have been identified.

I would suggest that only changes be published until it is finished. Then post the whole, corrected FAQ.

FAQs are the ULTIMATE in signal to noise ratio.

MORE FAQS, WE NEED MORE FAQS! Post away!

-Alan

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-----  
| Alan Edwards: rush@xanadu.llnl.gov | Huh huh...beer is cool!  
| or: Alan-Edwards@llnl.gov | Yeah...hm hm...it doesn't suck.  
|-----
```

Date: Thu, 2 Sep 93 15:38 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Overcarbonation

>From: Cisco <FRANCISCO@osmo.ccit.arizona.edu>
>Subject: Kegs becoming overcarbonated with time

>if you only drink a pint of beer a day, like I do, your beer will eventually become overcarbonated because the nice cold temperature at which you dispense the beer also allows the beer to absorb more CO2 over time. My kegs, I have two on tap all the time, sit for 4 to 6 weeks and could absorb quite a bit of CO2. No amount of adjusting CO2 pressure will correct this to pour properly.

AMEN!

I just posted my frustration on r.c.b. about the problems I am having with my 10 gallon keg which lasts (surprise-surprise) twice as long as the 5 gallon kegs. I even went down to a 1/8" i.d. tubing which barely trickled at 12 psi and only three feet long. I concluded that the beer is overcarbonated and nothing aside from adding a couple gallons of new, unconditioned beer would allow it to dispense properly.

I have run two 10 gallons batches through this keg and both of them became impossible to dispense after they got down to the last 3 or 4 gallons.

After reading your article, I replaced the hoses with the original 1/4" i.d. stuff and reduced the pressure. However, this has problems also because the seals on Cornelius kegs become unreliable below 10 psi.

I abandoned the nitrogen/CO2 mix because it didn't seem to contribute anything to the beer and it's real value seemed only useful in high volume commercial operations but my experience with 10 gallon kegs is forcing me to rethink it.

The problem with the mix is that you can not force carbonate with it so one needs to maintain two tanks, one for carbonating and one for dispensing. This is not the end of the world but is an additional expense and hassle.

Just for the record, I actually ran three batches through the ten gallon keg and had no problem with the first one but it was an ale and kept at basement temp. The problem started with the advent of my "lagering room".

I should also point out that I had the problem with a five gallon keg but thought that I might have overcarbonated it initially. Furthermore, I have had a keg of sweet stout for months in the "lagering room" and it still serves properly.

js

Date: Thu, 2 Sep 93 15:51 CDT
From: korz@iepubj.att.com
Subject: lagers/peaches/keg pressure/dry rootbeer/hazy beer/Briess/chill haze

Michael writes:

>I'm currently brewing a lager that has an OG of 1.055. I pitched Wyeast
>#2112 Calofornia liquid lager yeast without making a starter so
fermentation
<snip>
>the members of the HBD could answer a couple of questions. Is 11 days
too
>long (I'm used to ales finishing in 5 to 7 days), if not, what is
normal?
>When should I rack to the secondary and begin lagering?

No, 11 days is not too long. I fermented my last lager two weeks in the
primary at 50F and then racked to a secondary. Two weeks after that, the
temp was then dropped to 45F and the beer was bottled 4 or 5 weeks later
(don't have my notes here). It did take 4 months after bottling for an
off aroma to disappear, but after it did, the beer won a couple of awards.

Patrick writes:

6) Lambic brewers bake the hops first, would this help here?

Lambiek-style homebrewers bake their hops to artificially age the
bitterness
out of them. Real Lambiek brewers use aged hops (2-3 years old).

7) I have seen no reference to a peach beer before, does everyone
else
know something that I don't?

Brian and Linda North brewed a spectacular wheat beer with peaches. Alas,
I don't have any details on it.

I would just like to suggest that in general, if you sanitize fruit
before
you cut it up, you save yourself a lot of trouble. I theorize that any
wild yeast or bacteria will only be on the OUTSIDE of unblemished fruit.
That's why I choose unblemished fruit (as best I can) and sanitize by
freezing and then blanching (quick dip in near-boiling water).

Cisco writes:

>I have posted a few articles on calculating dispensing pressure with
>different diameter/length tubing. If you drink 5 gallons of homebrew
>within 2 weeks everything works fine. However, if you only drink a
>pint of beer a day, like I do, your beer will eventually become
>overcarbonated because the nice cold temperature at which you dispense
>the beer also allows the beer to absorb more CO2 over time. My kegs, I
>have two on tap all the time, sit for 4 to 6 weeks and could absorb
>quite a bit of CO2. No amount of adjusting CO2 pressure will correct
>this to pour properly. You could disconnect the CO2 and bleed off
>some of it from the kegs and dispense but it's a real pain bleeding
>off dissolved CO2 - it takes time and patience.

I'm sorry, but I must disagree. If you do the math first and then

choose your hose lengths/widths accordingly, you will not have overcarbonation. You just must first choose the temperature and the number of volumes you want in the beer and then choose the pressure, hose lengths, hose diameters based on the formulas give in HBD back issues and in Dave Millers' very good article in the 1992 AHA National Conference Proceedings. If your beer is overcarbonating, the pressure is too high or (as Jack pointed out) the temperature may be higher than you think.

Jeff asks how to safely sweeten dry rootbeer.

Well, an obvious answer is Lactose, but there are two things you must be careful of:

1. Lactose may not be fermentable by yeast, but I'm quite sure it's fermentable by lactobacillus/pediococcus. So, if you have any bacteria in your batch (which you may have considering how dry the rootbeer turned out) you will get glass grenades by adding lactose.

2. Lactose is not very sweet. To get the sweetness of a store-bought rootbeer, you will probably have to add at least a pound, maybe two, of lactose to 5 gallons of rootbeer.

Domenick writes:

>I've had 4.5 gallons of beer in the secondary (glass) for 7 days
>with 2 oz of hop pellets and 2 tbsp Polyclar in hot water.

<snip>

>Some of the hops are floating, some laying on the bottom, but there
>is a recycling going on, where hops are sinking from the top and rising
>from the bottom continuously. We're not talking churning here, but an
>obvious low level of activity.

This is why I use whole hops for dryhopping.

>Also the beer does not seem to be clearing appreciably. Usually by this
>time there has been a clarity gradient in the carboy, clearest at top
>fading to cloudier at the bottom. Has something gone horribly wrong? Or
>I am just "worriedly pacing the waiting room"?

Possible reasons for cloudiness:

1. bacterial infection
2. wild yeast that won't flocculate
3. starch haze
4. could be that the backpressure in the airlock was too high and too much CO2 was dissolved in the beer -- when you added the hops and Polyclar(tm), you gave the CO2 nucleation sites and it began to come out of solution (this is probably the least likely, since I couldn't imagine this happening for 7 days, or could it?)

Scott writes (asking about Briess malt):

>1) Does the 2-row or 6-row need a protein rest? I'm told the 6-row doesn't.
> when I bought the 6-row the guy told me it's highly modified.

Briess is quite a bit higher than most malts in Protein level, I, personally, would give it a protein rest.

>2) Is the 6-row also known as Klages? is the 2-row?

> I've had different homebrew shop owners tell me "it's pale malt" or
> "it's klages"...I'm confused.

Klages is no longer grown in the US. It's replacement is Harrington.

Briess

2-row is Harrington. I don't know what the current strain of 6-row is being

grown in the US. I would stick to 2-row if you can. Most have a high-enough

diastatic power for the amount of adjuncts we homebrewers use (almost none)

and the 2-row has a much lower percent weight of husk and higher percent weight of starch. (I think it may even generally have a lower protein percentage, but from what I recall of the Briess literature, it was the same for both their 2-row and 6-row.

>3) Is one of these considered lager malt?

Most US base malts are kilned so lightly that I would consider then a lager malt.

>4) Does "pale malt" imply malt to be used in pale ales or the Lovibond of

> the malt in question?

It implies slightly warmer kilning temps and thus more color and more caramelly flavors.

>About Sparging:

>

>1) My last beer used 2-row pale malt (above) and had a chill haze when I
> never had it with the 6-row malt beers. Things I'm considering changing:

>

> * When heating and recirculating first runnings, don't heat first runnings.

>the first runnings have starch and husk particles (doesn't run clear).

>Currently, I've been heating all runnings. I typically heat 3 batches
>of 2 gallon runnings. I've been getting 1.031/lb/gal from the 6-row.

Your extract efficiency is commendable, but I agree that maybe recirculating

the first runnings would decrease the husk material in the boil which would

reduce tannin extraction.

> * acidify sparge water (1/2 tsp. acid blend to get pH=5.2) sometimes
>I acidify the water, but many times forget. (like in the cloudy beer)

YES. Most definately do adjust your sparge water down to the 5.2-5.4 pH range in the RUNNINGS -- you want the runnings to be around 5.2, not necessarily the sparge water. High pH sparge water will, indeed, extract more tannins from your husks.

> * sparge water should be 165F, and not 170F or 180F like in the past.
>(but I usually never got the tannins, just very present malt character.
)

Agreed, but a minor point -- 170 is in the ballpark.

> * maybe I should use finings (bentonite/polyclar)... I never had to
>in the past and hate to make things more complicated now.

If you do the rest well, you probably won't have to resort to finings.

Al.

Date: Thu, 02 Sep 1993 20:31:07 -0400 (EDT)
From: Nate Clark <NC6967@conrad.appstate.edu>
Subject: Peach beer, Brew-Caps, and trub

In the last installment of HBD, Partick S. Paul asked about peach wheat beer:

- > 2.) Should I rack it before I add the pulp?

I have only recently tried a mead, using peaches for flavoring. I added diced peaches at the end of the boil right after I removed the "wort?" from the heat. I was trying to sterilize them without releasing the pectin into the mead. I let the peaches stay in the primary, but when I racked to the secondary (wasn't using a Brewcap) I removed all of the peaches. This seems to have worked fine. The mead is still in the secondary but it is crystal clear. The samples I've managed to steal have been excellent :)

- > 5.) Any thought on a good yeast for this?

Champagne? :)

On to Brewcaps and clean bottling (questions submitted by Scott Wisler):

Yeah, yeast does tend to cling to the sides of the carboy, but for the most part it drains off, leaving a translucent film around the neck. I haven't noticed too much getting into the bottle (after all, you do need some yeast in the bottle). Brew Co. recommends 'twisting' the carboy every so often to loosen the yeast. The yeast that insists on clinging to the neck usually stays there through the bottling process, requiring a carboy brush to remove.

Dry hopping is not recommended.

With a Brewcap and the carboy inverted, I empty the blowoff tube of sanitizer. It acts as an airlock, and I don't want it spilling everywhere. I take the other tube (the yeast collection tube) and hold the end of it above the level in the carboy and submerge it in the pot of boiled priming sugar. I open the valve and the sugar is sucked down into the primary. To mix, I right the carboy and use the blowoff tube to mix, then invert and bottle. It seems to mix evenly. I apologize for my sloppy use of blowoff tube and hose. The blowoff tube is a sturdy pipe that runs from the neck of the carboy, through the fermenting beer

to the air space between the beer and bottom of the carboy. The blowoff
hose
attaches to the blowoff tube. I don't know how often Kinney reads HBD,
but I'll
pass on your comments to him.

"troop?"

Around here, we say trub, it rhymes with tub. But you are correct, in
true
German, it closely resembles troop. Actually, I was taught to say it
like
trip, but while making the i sound, I round my lips and don't move them.
Also,
around here (that is, the South) we (me too) have a tendency to hold our
vowels
long, which is a no-no (nein-nein?) in German. Anyone could sound
halfway
official saying tryoop, like some people make the y sound in music or
coupon
(after all, english is a germanic language.)
I look like I'm kissing when I try to say it!
Also, this is from high school german experience, so I will except
criticism.

Nate

Date: Fri, 3 Sep 93 02:16:00 BST
From: r.mcglew3@genie.geis.com
Subject: **Scotch in Barrells**

Some months ago someone on the net mentioned that they had been given some barrells of scotch. I'm curious if that person ever got to taste the stuff, or what he plans on doing with it?

Who will be left to turn out the lights? No-one, they'll just burn out! Personally, if I was one of the 30% of the GEAE engineers that were laid off again, I'd quit! (I'm an "alumni" of another GE division).

Date: Thu, 02 Sep 1993 20:37:18 -0500 (CDT)
From: Dave Smucker <TWF99@ISUVAX.IASTATE.EDU>
Subject: Wyeat 2112 California

In HBD # 1217 Michael K. Lebar asks about Wyeast 2112 California yeast.

This is a yeast I use a lot for my standard "steam" beer. One major difference is that I ferment at ale temperatures i. e. the mid 60ies. I also ferment in 15 gallons batches in a stainless steel keg and this is not the most ideal fermenter geometry. Taking in to account these items I still consider Wyeast 2112 to be a slow fermenter compared to ale yeast. My typical time is 3 weeks and I pitch a large starter. (I start the Wyeast in 1/2 pint which I then pitch in a 5 pint large starter.) I normally don't go to a secondary because I'm a "Miller" fan and rack off the trub 12 to 24 hours after pitching.

When to begin lagering? When you get your final SP or at least very close.

Dave Smucker, Brewing Beer, Not making Jelly!!

Date: Thu, 2 Sep 1993 21:09:00 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: A miscellany of things...

In response to recent questions about blowoff. (oh god! here's something that EVERYBODY will have an opinion on...)

I have consistantly used bowoff for several years. I find that it gives a slightly smoother taste. I'm also very sensitive to higher alcohols and it's my impression that blowoff removes these. My mad friend, the Revernd Perry 10X Mills uses an open fermenter. We frequently share each other's beers and I can get a headache from his, but not from mine. Who knows, it may not have anything at all to do with blowoff, but I think it does...

As regards to exploding carboys, I do think that using the 1" id tube is a good idea. I had one batch that I added a couple of ounces of pellet hops to at the end of boil. I filled the carboy too full and the hops floated up into the neck and plugged it up. I was using a cork with a small blow-off tube and was concerned that there was no blowoff even though there was a lot of visible fermentation. So (you guessed it), I pulled the cork and poked a bamboo skewer into the compacted hops.

KA-blooley! Instant beer geyser! Beer all over the place and hops stuck to the ceiling. If I had the sense that Grid gave a goose, I would have taken it outside.... It was really spectacular. Surprised is hardly the word for my reaction.

If I had been using a large blow-off tube, I could have run a coat-hanger through the tube and kept it pointed into a bucket. I don't know how much pressure a carboy can stand, but there was a lot built up. A slight scratch or imperfection in the surface of glass can weaken it tremendously, as anybody who has cut glass will know. So my firm opinion is that the advice in TCJOHB to use a cork and small diameter blow-off tube should not be followed. It sure as heck got me into trouble. There is no drawback to using a larger tube and many advantages.

Charlie P. may sit at the right hand of Grid and be met by adulatory and worshipping masses everywhere he goes, but he is wrong on this one.

On a less controversial note, the last time I was in the farmer's Co-op I looked around for iodine for sanitizing. I found this stuff called "Povidone-Iodine Surgical Scrub 7.5% (titratable iodine 0.75%)." It looks just like BTF, but it doesn't foam as much when you shake the bottle. The iodine concentration seems about right for an idophor, but I don't know what this stuff is. The only active ingredient is the Povidone. The application seems to be a skin disinfectant for vets. Like when you have to reach into a cow with both arms up to the shoulder to correct a calf's presentation during birth. (Don't laugh, it's only funny from a distance...)

I couldn't find it listed in my ancient Merck Index, but I suspect

"Povidone" is a commercial name. Does anybody have a reference on this stuff? It's \$7/qt., so there is some incentive to find out if it's usable. Most of the dairy idophor has weird stuff in it like lanolin (it's used for a teat dip to prevent mastitis), so it probably shouldn't be used for brewing. Unless, of course, you suffer from chapped lips. :-)

Paul.

End of HOMEBREW Digest #1218, 09/03/93

Date: 2 Sep 93 16:06:20 GMT
From: GANDE@slims.attmail.com
Subject: Beer Mix...

John Francisco mentions "beer mix" - CO2 and nitrogen in HBD1217.
Alot of brew pubs use this stuff for a number of reasons (which are
not relevant to this post).

Homebrewers desiring the use of this gas should be aware that they
must use different regulators as the nitrogen is packed in under
higher pressure than CO2. CO2 is normally under 800LBS pressure and
CO2 gages normally top out somewhere around this. Nitrogen on the
other hand is usually under around 2100LBS and require the
appropriate regulator/gages.

To keep you from hooking up the low pressure CO2 regulator to the
beer mix and blowing your head off, the bottles come with a different
valve. It's female, part number is CGA580.

....GA

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
```

Date: Fri, 03 Sep 93 08:57:15 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Trub: you say potatoe...

Now, I'm all for understanding the origins of things, but just because a word is pronounced one way in Germany does not mean that it needs to be mimicked here. Ask anyone from Coeur d'Alene, ID or Havre de Grace, MD. I might also add that, in Belgium at least, they use the German word but pronounce it a lot like we do--"troob". Of course, they're not all that fond of the Germans....

Baudouin Albert Charles Leopold Axel Maria Gustave of Saxe-Coburg Gotha
(1930-1993)
Fifth King of Belgium, 1950-1993

Date: Fri, 3 Sep 1993 9:31:30 -0400 (EDT)
From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
Subject: keg overcarbonation

Jack, perhaps your problem with kegs getting overcarbonated is because the beer hasn't actually finished fermenting. The fact that it is happening with (mostly) lagers, which can take much longer than ales to ferment out, might be an indication.

WRT the yeast FAQ (and any other very large posts): I hate it when someone injects common sense into an argument, but as my great-grandmother used to say, "A post a day keeps the flames away". Post just one section per day. It allows for timely responses/corrections and it doesn't overload mailers.

Fwiw, I'd also like to see twice-a-day digests. (I suppose then you could post twice a day.....)

Russ Gelinias
esp/opal
unh

Date: Fri, 3 Sep 93 08:40:32 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Povidone cleansers

In HBD #1218, Paul dArmond asks:

>I couldn't find it listed in my ancient Merck Index, but I suspect
>"Povidone" is a commercial name. Does anybody have a reference on this
>stuff? It's \$7/qt., so there is some incentive to find out if it's
>usable.

Yes, Povidone is an iodiphor, and would work fine as a sterilant.
However, I believe most of these hand-scrub formulations contain a
great deal of detergent along with the Povidone, and thus would
probably not be good for your beer if you were using a "no-rinse"
method. I believe the sterilants used in brewing contain Povidone,
but an acid or some other non-detergent base.

>Like when you have
>to reach into a cow with both arms up to the shoulder to correct a
calf's
>presentation during birth.

Up to your shoulder, or the cow's?

Kelly

Date: Fri, 3 Sep 93 9:46:25 EDT
From: richer@desi.HQ.Ileaf.COM (Al Richer)
Subject: Kegging FAQ - Part 1

Thank you, Dion, for getting me off my butt...

I've had this file for a while, but never got around to putting it out in the real world. Finally, i thought I'd save Dion the typing...

Al Richer

Kegging Basics; or how to eliminate bottle-washing from your life.

- - -

I have seen the light, and it is made of stainless steel....

Greetings. After having asked several dozen stupid questions about kegging, I have decided that I should pull all of this information together into one article for the amusement and edification of the Digest.

I. Items needed for a kegging setup

Kegging is the process of packaging beer so it may be dispensed. To this end, you need a package. The normal container for the homebrewer is the Cornelius or Firestone stainless-steel premix soft-drink container. It is available from many sources, including restaurant auctions, scrapyards, cooperative soft-drink retailers, and other sources. Use your ingenuity, and you will seldom go wrong.

The other items to go with your keg are used for the dispensing process. They allow you to dispense the beer under gas pressure, and to connect and disconnect the equipment from your keg.

These items are:

A CO2 cylinder. Most hobbyists purchase a 5 Lb. one. If you have the space, though, a 20Lb. cylinder is a good bet. It only costs a few more dollars to fill and lasts much longer. I have both, the 20Lb. for the keg refrigerator, and the 5Lb. bottle for portable use.

a pressure regulator. This reduces the 800 PSI of gas pressure in the CO2 tank to a manageable dispensing pressure (usually 12 to 15 pounds).

Regulator check valve. This device attaches to the outlet of your regulator and prevents reverse pressure flow from your keg back into the regulator. This can prevent a considerable mess, and helps prevent contamination of your CO2 lines and fittings.

Hose with gas-in fitting. These items conduct the gas to the keg from the regulator, and allow you to connect the

gas line to the keg. The gas-in fittings come in either ball or pin lock. Buy whichever fits the keg you obtain, as one is as good as the other for the homebrewer.

Liquid-out fitting and beer faucet. This is the part that the beer actually comes out of. It has a fitting like the gas-in one, but keyed differently to prevent interchange. On the end of the hose from this fitting is a spigot to control the flow.

The liquid-out fitting requires a length of hose attached to provide restriction to the pressure in the keg, allowing the beer to be dispensed without excessive foaming. What I use (with information gleaned from the HBD) is a length of 3/16" PVC tubing between the liquid-out fitting and the beer faucet. One foot of 3/16" tubing will allow for a 3 PSI drop in the keg pressure.

For a standard keging rig at about 14-16 PSI (chilled keg with a light ale), you'd need about 6 feet of 3/16" tubing. Vary this as your equipment requires.

This can be calculated by use of a chart, which shows the pressure needed for different carbonation styles at any given temperature. These charts are available from the HBD or rec.crafts.brewing on the net, or in the homebrew archives.

When it comes to the pressure-regulating items and the gas bottle, don't scrimp, as cheap or defective fittings can be very dangerous. Gas at 800 PSI is not trivial to handle, and an accident could be fatal.

[Continued in Part II - went over 8K limit]

Alan J. Richer | Interleaf, Inc. | Waltham, Ma., U.S.A.
Mail: richer@hq.ileaf.com All Std. Disclaimers Apply
The Klingon Army knife. Don't leave home without it.
- Klueless the Scavenger

Date: Fri, 03 Sep 93 10:00 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Siphon pump

Hello readers,

Has anyone ever used or heard of using a manual siphon pump like that which is part of a gasoline siphoning system--several feet of hose which culminates in a cylindrical bulb pump. While the hose may be of a dubious quality, what of the pump?

Could be that special piece of hardware for Unleaded Lager or a nice Ethyl Lambic.

Happy pumping,

David Atkins
UW-Madison

Date: Fri, 3 Sep 93 11:16:09 -0400
From: rxh6@po.CWRU.Edu (Randall Holt)
Subject: Povodone-Iodine (i.e. Betadine (tm) as a disinfectant)

According to the PDR, povidone-iodine is a broad spectrum antibiotic capable of killing gram- and gram+ bacteria, mycobacteria, fungi/yeasts, viruses and protozoa, all in the space of 15-30 seconds of contact. But, it's recommended for external use only (even if it's the active ingredient in Massengill douches). Supposedly, it washes off skin and natural fabrics easily.

SO, based on recommendations by the manufacturers, I wouldn't want this stuff in my gastric system. On the other hand, and at your own risk, if you think you can wash it off of your brewing equipment, it will very effectively wipe out all bacteria/yeast/fungi present. From personal experience in the lab, it cleans off glassware very easily, and provided the contact time is relatively short (<30') will clean off of plastic tubs as well. If you do try this out on brewing equipment, I would hazard a guess that residual antiseptic will interfere with normal yeast activity - so rinse exhaustively.

- - -
Randall W. Holt rxh6@po.cwru.edu

Date: Fri, 3 Sep 93 12:12:43 EDT
From: richer@desi.HQ.Ileaf.COM (Al Richer)
Subject: Kegging FAQ - Part 2

[Continued from PArt 1] - ajr

II. Preparing to keg - How to get ready.

If you buy all of your equipment new, than you can skip this part. What I am going to go into here is the cleaning and overhaul of a standard pin-lock Firestone keg. Cornelius kegs are similar, but I have not worked with them and would not speak of them without personal experience.

With a keg that has been used for soft drinks, the rubber parts that are in contact with the drink become impregnated with the sugar syrups. These will then flavor any beer you might bring in contact with them, so they need to be replaced as part of the cleaning and preparation process. These are located in the bases of the gas-in and liquid-out fittings, and around the lid of the keg.

Remove the gas-in and liquid-out fittings, using a 13/16" open-end wrench inserted through the gaps in the handle surround. Once loosened, these should remove easily. Once unscrewed, set these aside, and remove the dip tubes from the fittings welded to the tank. The gas dip tube is rather short, and the liquid dip tube is the long one that extends to the bottom of the tank. Remove the o-rings from both of these and replace them with new ones from the hardware store. O-rings of the proper size are easily available in the plumbing area of most good hardware stores. Reinsert the dip tubes and reinstall the fittings, tightening them with the wrench. Do not overtighten, as it is unnecessary and will make it more difficult the next time.
NOTE: The gas-in fitting is the one with two lugs. The liquid-out fitting is the one with three lugs. I got them mixed up too...8*)

Replacement of the top gasket is easy. Just open the head by lifting the bail, then drop the head down into the keg and rotate it to remove the lid from the keg. The O-ring should come out with the lid. Simply remove it from the lid and replace it. New ones of these should be available at your homebrew supplier, or try a pool supplier for a pump O-ring of the proper size. Bring

the old one as a comparison sample.

Cleaning the keg is rather simple. I usually prepare a solution of washing soda and soak a new keg full of it for 24 hours, followed by purging the solution with CO2 through the fittings on the tank. This is followed by 2 gallons of boiling water, well-agitated in the tank to clear the residue, and purged thru the fittings with CO2. The boiling water rinse is also a good way to clean out a tank before use, along with a weak chlorine rinse for sanitizing.

III. Kegging - The process

Kegging is considerably simpler than bottling, but has a set of gotchas all its own.

The first step is sanitizing the keg. I personally do this with a rinse of hot water and B-Brite of a gallon or so, shaken in a sealed keg, then expelled through the keg plumbing with CO2. After this, I do the same thing with boiling water, again expelling through the plumbing, to clear the B-Brite residue. One pass is usually sufficient, though if I'm being paranoid, I'll do it twice. After this step, you must handle the keg in a manner to retain the sanitation. This means not taking out the lid and laying it down on the work-bench in the basement. Treat the keg as you would a sanitized bottle ready to fill.

Next, add the priming syrup to the keg. I usually use 1/2 cup of sugar to 1 qt. water, boiled for 10 minutes for sanitation. I cool this to blood temp, then add it to the keg. Next, with a sanitized siphon hose, siphon your finished beer into the keg, being careful not to splash, but swirling enough to get a good mix on the priming sugar. Once filled (keep the beer level below the CO2 inlet, otherwise don't worry), reinsert the lid and cinch it closed. Before doing this, I usually turn on the CO2 to the keg and purge the airspace above the beer to clear the residual air in the tank.

With the keg sealed, pressurize it to 15-16 PSI to seat the head. If it begins to leak, open and reseal it, which usually cures the problem. Make sure that the lid isn't angled, which is easy to do and can cause leaking.

Allow the beer to carbonate for 1-2 weeks before drinking. I usually discard the first 1/2 mug out of the keg, as it brings the yeast out with it. After that, it's home free.

I need a beer after all this typing...

ajr

Alan J. Richer Mail: richer@hq.ileaf.com
Interleaf, Inc. All std. disclaimers apply
9 Hillside Ave. Your mileage may vary
Waltham,MA. 02154
" It's a nitwit idea. Nitwit ideas are for emergencies.
The rest of the time you go by the Book, which is a
collection of nitwit ideas that worked at least once."
from "The Mote in God's Eye" , Niven and Pournelle

-- --

Date: Fri, 3 Sep 93 10:17:45 PDT
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Test Strip, Povidone

I'm wondering if anyone out there on the Digest knows what the methodology used to make "test strips" is: Specifically, how can I embed chemical A in a material that will stick to the strip (made of plastic), allow a color reaction when dipped in chemical B and retain the color on the strip? Replies by email to conserve bandwidth, please.

Paul dArmond writes:

>On a less controversial note, the last time I was in the farmer's Co-op
I
>looked around for idodine for sanitizing. I found this stuff called
>"Povidone-Iodine Surgical Scrub 7.5%

He also says that it is not in his ancient Merck Index. I believe it is in my new Merck Index, and if memory serves I just read about it the other day (of course the book is not where I am at the moment). But again, from memory I believe that Povidone is essentially the same stuff as Betadine, also a topical sterilant, used mainly by hospitals. I'm not sure if it's useful in brewing. This weekend I'll look it up and post anything interesting.

Mark

Date: Fri, 3 Sep 93 8:18:55 MDT
From: npyle@n33.stortek.com
Subject: Keg FAQ / Haze = Tannins???

I'm all for a keg FAQ as I would like to undertake this venture in the future.
In the meantime, I have to fly by all the kegging discussions (and believe me, the same questions come up again and again) as they don't apply now. The FAQ would give us a good reference point and probably cut down on some of the traffic.

Well, they say that it is better to keep your mouth shut and have everyone assume you're a fool, than to open it and remove all doubt. (mouth opening wide):

This conversation between Al and Scott has me confused. They talk about chill haze and tannins as being related. I thought tannins were to be avoided because of an astringent flavor component, rather than anything to do with haze. Are tannins protein based? I too have had a chill haze problem with a recent batch and was surprised to hear talk about acidifying sparge water as a cure. Well, have I removed all doubt???

Cheers,
norm
- - -

Norm Pyle, Staff Engineer Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
Organization
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Louisville, CO 80028-0211 Longmont, CO 80503-2323
(303) 673-8884npyle@n33.stortek.com

Date: Thu, 2 Sep 93 12:32:57 MDT
From: npyle@n33.stortek.com
Subject: Breckenridge Brewery Tour

I recently visited the Breckenridge Brewery in (where else?) Denver! The business started in Breckenridge as a brewpub, and then added the brewery uptown in a location just across the street from the under-construction Coors Field (this is a MLB baseball park, not a barley field!). Its not exactly the best part of town right now (lots of empty warehouses and run down buildings) but I'll guarantee in the spring of '94 (Coors Field opens for the Colorado Rockies) it'll be all glitz and glamour.

They claim that they are a brewery that serves food, not a restaurant that makes beer. This is indeed the case, from my observations. There is at least as much floor space devoted to the brewery as there is to the restaurant. The layout is a bit strange to me, though, as the brewery is spread out over 3 different areas in the building. The brewery was not in operation when I was there but most things are right out in the open so I did my own tour and showed off my experience to my father-in-law.

They have a monstrous, auger-fed grain mill (I couldn't see where the grain is kept). The grist is then augered over to the mash tun, which looks like it has no heater (i.e. they do a single-step infusion). The mash-tun apparently has a water inlet (from a gas fired hot liquor tank) which comes in from the bottom, so as grain falls from the top, it mixes with water from the bottom. The output of this is pumped over to the gas fired boiler. The output of the boiler goes through a small chiller (I'm guessing it is cooled with a refrigerant rather than just with water) before being pumped to the fermenters. I looked but couldn't spot a DE filter, I'm sure they use one. There are also large insulated cooling tanks all around. From these, the beer is pumped all the way across the restaurant to the bottling line (and presumably over to the bar!). The bottling line is an interesting setup, behind glass so I couldn't get too close. One interesting note about the bottling: the bottles are sanitized either with steam or a solution, they are turned upside down, and then pass across 6 or 8 feet of open air before being filled and capped. I don't suppose there is much risk of contamination but the bottling room didn't look particularly clean (at least the floors were quite grubby). They then go through the label machine and into cases. Interesting looking stuff (for this engineer) to say the least. I don't have any guesses as the size of the vessels in this place but they were at least 4 times larger than any I've seen in the typical brewpub. I don't know what kind of annual output they boast. All in all, a fun time: good beer, good

food, fun things to look at and dream about.

Oh, the beers: Avalanche- Nice malty smooth amber.

IPA - Good IPA, hoppy sharp, alcoholic

Mountain Wheat- More of a pale ale than a wheat, although they use something like 40% wheat malt. Not a lot of wheat characteristics but a very tasty brew.

Oatmeal Stout - A wonderful full bodied stout, good stuff.

They also had a guest beer from HC Berger Brewing in Fort Collins, which I appreciate. If you're in Denver, check out the BB!

norm

- - -

Norm Pyle, Staff Engineer, Head Brewer,
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Date: Fri, 3 Sep 93 11:45 CDT
From: akcs.rab@vpnet.chi.il.us (Alan Belke)
Subject: What is dark brown surgar?

In Dave Miller's "Brewing The World's Great Beers" several of his recipes (such as Brown and Scotch Ale) call for "1 lb. dark brown sugar". Is this the brown sugar you buy at the grocery store or is it something else? Thanks for your help.

Al

Date: Friday, 3 September 93 13:45:27 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: Talkin' German

Howdy,

I didn't want to do this (it's a bandwidth thing), but having a background in Sociolinguistics, I can't help myself any longer.

Ari Jarmala (HBD #1217) says English speakers can't pronounce the German umlaut "ue". Untrue. Ask the American I know who passes himself off as German all the time in Berlin. Also, his phonetic description of the vowels is a little off. "u" is a back vowel & "e" is a front vowel, but where he really trips is assuming that the representation "ue" in "trueb" has anything to do with that. It doesn't. This particular umlaut is referred to as a high front rounded vowel. Rob Thomas does a good job of describing it (HBD #1218).

But most important, I agree with Nate (HBD #1218). We are mostly Americans speaking English, so let's talk like Americans speaking English. If you really want to say "trueb" in an entirely authentic German manner, your average Joe Bob on the street is gonna look at you funny & say "Bless you". Also, we'd have to learn the phonology of about a dozen languages whose beer styles, as homebrewers, we emulate. That could get confusing. American English is a language that loves to borrow & adapt words from other languages (yak, skunk, tortilla, kangaroo, Mississippi, etc), & if we spent all of our time trying to say a word in the original language, we wouldn't understand each other half of the time. Also, by saying a word in the original phonology, we're ostracizing those who we should be convincing that there is more than one kind of beer. Make it friendly, not foreign. Use words that sound comfortable to their ears, not like some hacking sound. Be proud, say "troob", and brew more Oktoberfest!

Sorry for the use of the bandwidth for the linguistic lesson, but I just couldn't take it any longer.

Happy brewin',

Alan, Austin

Date: Fri, 3 Sep 1993 15:26:55 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Briess & protein rests

IN the last digest:

>
> <<Omgod, is Frane agreeing with Schmidling? Head for the shelters!!>
>
>
> - --Jeff

Yeah, and once a year I agree with Clinton!

>
> Date: Thu, 2 Sep 93 15:51 CDT
> From: korz@iepubj.att.com
> Subject: lagers/peaches/keg pressure/dry rootbeer/hazy beer/Briess/
chill haze
>
> *****
> Scott writes (asking about Briess malt):
>
> >1) Does the 2-row or 6-row need a protein rest? I'm told the 6-row
doesn't.
> > when I bought the 6-row the guy told me it's highly modified.
>
> Briess is quite a bit higher than most malts in Protein level, I,
personally,
> would give it a protein rest.

I used to do this with all of my beers, but now when I brew regular
American
or British ale, I do an infusion of 160F water, rest at 153 for an hour
and
mash off at 170. Works fine, and saves a chunk of time since it takes me
a
few minutes to raise 65Lbs of mash from 120 to 152.

>
> >About Sparging:
> >
> > * acidify sparge water (1/2 tsp. acid blend to get pH=5.2)
sometimes
> >I acidify the water, but many times forget. (like in the cloudy beer)
>
> YES. Most definately do adjust your sparge water down to the 5.2-5.4
pH
> range in the RUNNINGS -- you want the runnings to be around 5.2, not
> necessarily the sparge water. High pH sparge water will, indeed,
extract
> more tannins from your husks.

I have never ever done this. I agree with the theory, but like you
suggest,
the sweet wort pH is the part we care about, not the sparge per say (the
mash
will buffer the pH, depending on the mineral content of your mash/water)
.

Good brewing,
Jim Busch

DE HOPPELUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Fri, 3 Sep 1993 16:12:51 -0400
From: drromer@na2.dow.com (DUANE R ROMER)
Subject: First Impressions/Povidone/Peracetic Acid

I've only been on the HBD list for a week, just in time to catch the yeast FAQ & all the ensuing flack & counter flack. I have to say my initial impression is not very good. I joined this list because I thought it's purpose was to discuss homebrewing (which, in my opinion as a new reader the yeast FAQ was related to), not go into lengthy diatribes of net protocol. Maybe I was mistaken?

Paul dArmond asked about povidone. This is a topical disinfectant of Iodine absorbed into polyvinylprolidinone (I assume the surgical scrub is an aqueous emulsion of this). Thus the active bactericide is the iodine.

As regards to Ed Hitchcock's question of making peracetic acid: You can indeed make peracetic acid by simply mixing H2O2 & acetic acid (I'd be a little careful though & keep it cold while mixing with efficient stirring). However in my humble opinion why bother? The small amount of bleach that you use to sterilize your equipment is hardly environmentally significant. If you're really worried about it why not just use the peroxide solution? H2O2 itself is a pretty good disinfectant, although I don't know if it efficiently kills the organisms that your worried about in brewing.

Excuse me while I slip into my asbestos suit.

Duane Romer
drromer@dow.com

Date: Fri, 03 Sep 93 16:26:08 EDT

From: jayv379877@aol.com

Subject: A Hearty Thanks

I have only recently become a subscriber to HBD, and have benefitted greatly from all that I've read. The recent barbs thrown re:the yeast FAQ have not helped me very much though. I hope you guys can work this out quickly, because I'd much rather read what you have to say on various other subjects pertaining to brewing. Some of what is contributed is above my caliber, but I'm saving it all the same; and wish to say "thank you" for your contributions.

Now, I feel ready to try something more advanced. I wonder if anyone has a recipe that will yield something resembling Anchor Steam beer (If mentioning this brand name is against the rules, please forgive me, I'm new). Equipment, techniques, and ingredients are no boundary for me - I just want to try imitating this beer. Any help?

Jay Vanni

"I am your density" -- George McFly

Date: Fri, 3 Sep 93 12:03 CDT
From: korz@iepubj.att.com
Subject: Diacetyl \n Oxygen/v-wire bottoms

Jim writes:

>If you do this [shake the fermenters periodically], you will *rouse*
>the yeast which can help to keep the
>fermentation going, but will in no way *add* oxygen to the fermentation.
>It is a CO2 environment anyway. Pumps will add oxygen but this
inevitably
>force the yeast to throw Diacetyl which I do not care for. BTW, this is
>how the Peter Austin Breweries (Wild Goose, Red Feather, Ringwood)
actually
>*promote* Diacetyl production in thier beers.

I can offer another datapoint. At the Tadcaster Brewery (Samuel Smiths)
,
they use a very flocculent yeast which they force back into suspension
using some kind of sprayers (I've never seen them in person, I've just
read about them) which inevitably aerate the fermenting beer. I had
always thought that it was just their yeast's tendency to flocculate out
of suspension that caused so much diacetyl to remain in their beers, but
this additional datapoint ties in with Jim's comments.

Also Jim writes (quoting me):

><In professional systems, there are debates
>raging about whether round holes or slots are better and the cross-
sectional
>shape of the holes is debated also.
>
>Not really debates, more a cost benefit issue. V wire slotted bottom is
>undoubtely the *best*, and most expensive. It is an inverted V, big end
>down. I have found perforated sheet to be more than adequate, even with
>weizens of 70% wheat malt (and decoction mashing).

Not really raging either, but it looked good in print. Actually, one
specific
case I know of is the system at the Weinkeller Brewery in Westmont, IL.
Udo,
the owner told me that he had the standard screen (just round holes)
replaced
with "a custom-made screen of my own design." This screen had a cross-
sectional shape like this:

```
-----  
/ / / / / / / / / /side view  
//////////
```

where the wide part of the Vs was on top.

Another system I saw advertized (I was part of a group that was looking
into
building a brewpub and my portion was the equipment, so I got a lot of
sales
literature) had a cross-sectional shape like this:

```
-----  
| | | | | side view  
| | | | |  
-----
```

in other words, from the top, they looked like small holes, but from the bottom they looked like counter-sunk holes and these were round holes in an offset pattern:

```
  0  0  0  0  0
0  0  0  0  0  0  top view
  0  0  0  0  0
0  0  0  0  0
```

Every manufacturer said they had proof that their design was better than their competitors. So, what else is new.

Al.

Date: Fri, 3 Sep 93 15:05 CDT
From: korz@iepubj.att.com
Subject: HOMEBREW COMPETITION ANNOUNCEMENT

I'm forwarding this for a friend:

OCTOBER 3RD HOMEBREW COMPETITION

Plan now to enter Evanston First Liquors' Fourth Homebrew Challenge.

Entries are due in the store between September 20th and 27th.

Send entries to: EVANSTON FIRST LIQUORS' CHALLENGE
1019 W. Davis Street
Evanston, IL 60201

Judging and an Oktoberfest Gala, Jam-Packed with malty German beers on draft will be held on Sunday, October 3rd. (Judges and stewards get in to the gala free.)

AHA/HWBTA JUDGES AND STEWARDS ARE INVITED TO PARTICIPATE.

Wanna judge but aren't official? No problem!
New this year: Apprentice Judge Program
We will pair every interested steward with a qualified judge.

For entry forms and information call: Bill/Nick/Bob at 708-328-9651
or stop by the store.

Don't email me for info -- this is all I know -- Al.

Date: Fri, 3 Sep 93 18:36 CDT
From: akcs.wally@vpnet.chi.il.us (John Walaszek)
Subject: Older Chesr Freezers [D [D [D [D [D [D [D [D [D [D [D [D [D [C [C [C
[Ct [C [

I know that some people use a chest freezer with some type of external thermostat to control the temperature. Has anyone ever burned out the compressor of a chest freezer due to using it in a way that it was not intended to be used? Does anyone have any experience with older chest freezers say > 10 years old. I worry that an older freezer may not have much life left in it, but then again I think that it may also be built a whole lot better than the new ones. Another question, if the freezer is fairly full with 30-40 gallons of brew at 45-50 degrees, does the temperature stay fairly constant and require the compressor to not kick on that often or a better way to phrase that is Has anyone had their electric bill double or triple after setting up a chest freezer beer cooler?

Thanks -
Wally

Date: Sat, 04 Sep 93 00:03:15 EDT

From: barbm@aol.com

Subject: Brewing w/ fruit/juices

I'm looking for some help from some of you barleywine brewers out there. I'm a bit late in putting up this year's Christmas holiday brew and was thinking about a barleywine using fruit juice instead of whole fruit. I've got some basic questions that I hope you folks can help answer.

1 - Using fruit juice and adding it to the secondary, will all the fruit flavor/aroma ferment out? Would it be best to add at bottling time? If I add at bottling, how do I take into consideration the amount of added sugars?

2 - I've been told (by a local brew shop) that one will usually end up with off flavors if you add the fruit at the end of the boil, or in the primary. Yet, almost all the recipes I've found call for these methods. Any comments from those experienced with fruit brewing?

3 - Finally, would I be better off to just forget the fruit/juice and use extracts for the flavorings? If so, does anyone have any sources for quality extracts? I'm looking for cranberry and apple, currently.

TIA...Kerwin Manuel...KMANUEL@aol.com or
BMJK95A@prodigy.com

Date: Fri, 3 Sep 1993 13:31:44 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Carboy Brush

The last few batches I've done were in 6-1/2 gallon carboys. These are real nice, until time comes to clean `em. I bought a carboy brush from my friendly homebrew shop, shaped like so:

0
|
+====

I really don't like it very much. It just can't clean the sides very effectively, although it is a little better in the neck area. Its really bad trying to clean the yeast-ring left at the surface of the fermenting wort. When I think I'm through, very often I'll see little brush-marks form in the "steam" that condenses inside the carboy. This tells me that its not *really* clean, so I go back at it. I figure it should be so clean, the water just sheets right off, the way you clean your burette in the analytical chem. lab. A round brush, like a chimney-sweep uses seems like it would be much better. Does such a thing exist for cleaning carboys?? Or does someone have another idea?

And what's in Bottle Brite?

Thanks,
t

Date: 4 Sep 93 15:07:26 GMT+1100
From: Davin Slade <10692851@eng2.eng.monash.edu.au>
Subject: Aniseed taste in my beer.

Ive just finished my first brew.
I kept it bottled for two weeks and decided to try one last night.
It had a aniseed taste to it and i thought that was a bit strange.
ive just used an ordinary of the shelf draught beer.
Does anyone know what i did wrong.

Davin Slade, 4th Year Civil Engineering, Monash Uni, Oz
10692851@eng2.eng.monash.edu.au or
baldrick@yoyo.cc.monash.edu.au

"It was georgiousness and georgosity in the flesh"
Alexander de Large, A Clockwork Orange
Anthony Burgess, 1966, Stanley Kubrik, 1971

Date: Sat, 4 Sep 1993 00:12:28 -0600 (MDT)
From: J. Michael Diehl <mdiehl@triton.unm.edu>
Subject: Albuquerque Brewpub!!!

Some time ago, I was told that brewpubs were illegal in New Mexico. Well the law must have changed because we now have one. "Liquid Assets" is a brewpub which I will be trying soon. I post this because some time ago, someone on this list asked me if there were such beasts. I've since lost his address so I'm posting. Well that's all.

Lagers, Mike.

Date: Sat, 4 Sep 1993 00:16:48 -0600 (MDT)
From: J. Michael Diehl <mdiehl@triton.unm.edu>
Subject: re: Sour bier

Some time ago, I posted a question about my first batch of bier being sour, or tart. I said it tasted like apple cider. Well, that batch is long gone. It seems that age did a lot for it. Of all the people who tried my bier, not one complained about it, eventhough it was "potent." ;^) Perhaps I added too much sugar and that's what made it both strong and tart? Comments?

Anyway, this weekend I bottle my second batch. I split the wort into approx. 3 gal dark bier, and 2 gal dark CHILLI bier. Seems to have gone well. There was some discussion about chilli bier. If there is any interest, I coult ellaborate on how I made mine, as if I'm an expert. Well, gotta go.

Lagers, Mike.

Date: Sat, 4 Sep 93 07:00:00 BST
From: s.quarterman@genie.geis.com
Subject: Various Topics

Here is my two cents worth on the discussion of the long FAQ posting.

I found the information to be VERY informative. I do not find this objectionable in the least. More on various subjects would be very gladly accepted. I do not believe that I have access to the sierra system for downloading as I am on GENie and do not fully understand the internet link as of this time. I have only been on the inet for a short time and can not respond about the delay but if someone needs information on a subject they should not be posting a question and hoping for an answer for something being done within the next day or two.

RE: fruit beers

I recently made a Belgian Abbey style beer. In a fit of madness, I decided to make it raspberry. I purchased a bottle of Raspberry Natural Extract from The Beverage People (normal disclaimers) and added the 4 oz at bottling time. Let me just say that it was definitely RASBERRY. There are various flavors and if the peach is not available, it probably will be soon. I currently have the raspberry and a sour cherry. At the AHA conference I got a small sampler of blueberry. These can also be added to beer before it is dispensed. I like to add the flavors to the weizen that I brew. I like the weizen by itself but occasionally will add about 5-6 drops for flavoring.

Nice labeling system Tim. Sure ya couldn't make it any easier. I mean come on now, I have to add with your system (1+1=?)

[()] Steve QuartermanS.Quarterman@GENie.geis.com [()]
[()] Portland, Oregon [()]

To Brew or what To Brew - now that is the question

Date: Fri, 3 Sep 93 16:58:05 EST
From: boomer@sylsoft.com (Richard Akerboom)
Subject: Re: trueb and the Pink Panther

As a german speaker, I know how to pronounce "ue" or the u-umlaut in trueb, but there is no equivalent sound in English, so how to describe it to others? I suppose knowing the french equivalent would help some, but I don't speak French.

Today the answer came to me. Recall the Pink Panther movie with Peter Sellers where he is asking the clerk at a guesthouse for a room, but pronounces "room" sort of like "rheum"? That is the closest to the "ue" that I can come up with in most English speaking people's experience.

Hope this helps.

-
Richard Akerboom Domain: boomer@sylsoft.com or akerboom@dartmouth.edu
Sylvan Softwareuucp: dartvax!sylsoft!boomer
Mechanic St. Phone: 802-649-2231
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Date: Sat, 04 Sep 1993 15:06:42 -0400 (EDT)
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>
Subject: Hydrostatics/liqueur recipe/fruit beers

2 points about the recent BrewCap thread:

(1) Since I'm philosophically opposed to discussing one of my products in the open forum, I'd be happy to send info on the BrewCap to anyone who sends me private email. If anyone wants to summarize and post on the digest, that's up to them.

(2) But I must comment on John Mare's question below since it involves an interesting lesson in hydrostatics, something I've learned a lot about after playing with upside-down fermenters.

>What prevents the weight of beer from
>popping the cap off when the carboy is inverted? Any advice on use of
this
>item will be appreciated.

It was as surprising to me as it is to most people to discover that 5 gallons of beer which weighs close to 50 pounds does not generate 50 pounds of water pressure. Water pressure is a function of the height of the vertical column of water. In general, 3 feet of water generates 1 psi. Therefore 5 gallons of beer in an inverted carboy puts a little less than 1 pound of pressure on the cap at the bottom. That is, to say the least, a negligible amount of pressure.

That there is so little pressure on the cap also explains why one can siphon priming sugar into the bottom of the carboy with no problems. I didn't discover this trick until I had been brewing with the BrewCap for about a year.

Here's my procedure for making liqueurs from fruit:

My liqueur experiments are still experiments. My suggestions are to be taken as rough outlines of the procedure. The sugar content of various fruits varies considerably so there's no way to give precise measurements for sugar/sweetness levels. I'd appreciate email on any improvements to the process that anyone discovers.

For the blueberry liqueur I have going now, I buzzed the berries in a blender first and added an equal amount of vodka to the puree. So, for ex., if I've buzzed up 1 gallon of blueberry puree, I'd pour 1/2 gallon of the puree into two 1 gallon apple cider jugs and fill each one with vodka. After a couple of weeks, the puree will sink to the bottom of the jug. At this point, I presume it's extracted about as much of the blueberry flavor as it's going to extract.

Now you need to strain the puree from the vodka. You must do this in stages. First pour it through something relatively coarse like several layers of cheesecloth. The penultimate filter for me is a layer of ladies nylon hose. The final filter is a coffee filter. This yields a very clear liquid.

Whip up some simple sugar solution. 1 part water to 1 part cane sugar. Add to the vodka/blueberry extract until you like the level of sweetness. Sip and enjoy.

Someone asked recently about the best way to make a raspberry flavored beer. I know you have plenty of raspberries in your backyard but a small plug for the raspberry essence that Mark Garetz of Hoptech sells: We used it in a raspberry wheat we had on tap at Tumbleweed this summer and it sold like hotcakes! Mind you, this is a fruit beer in a town that had never heard of fruit beers! We added the essence at kegging and it imparted a wonderful raspberry fruit flavor to the beer that was true to the flavor of raspberries. No artificial flavors here. The best thing about it was that it was simple, simple, simple.

Cheers ya'll,

Kinney Baughman | Beer is my business and
baughmankr@conrad.appstate.edu | I'm late for work.

End of HOMEBREW Digest #1219, 09/06/93

Date: Sun, 5 Sep 1993 08:30:29 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Secondary, dry hopping

In the continuing saga of the novice brewer, I have some observations and questions about secondary fermentation and dry hopping.

I bottled the "churning" batch of beer that I spoke of in a recent HBD. It did not appear infected, and the SG sample had no off-flavors. It appears that the continuous activity was CO2 liberation by Polyclar, and simply secondary fermentation.

What is a typical reduction of specific gravity in a secondary? I had not expected as much as I got:

OSG to primary : 1.054
SG to secondary: 1.020
Final Gravity : 1.012

I used hop pellets for the dry hop. They were easy to add to the carboy, they washed out easily, and they were a pain in the butt to bottle with. Some of these tiny bits were floating on top, some were seemingly suspended, some had sunk, none ever compacted on the bottom but would kick up at the slightest provocation. They tended to clog the spring loaded bottling tube, but enough got through so there are little bits of hops in the bottles.

I dread the thought of trying to add 2 oz of whole hops to a carboy. I think they would wash out easily enough, but stuffing them through a 1" hole does not sound like fun. I could bag them, but stuffing a bag of hops and marbles through a 1" hole doesn't seem like fun either. Has anyone seen 1" tube bags? How about plugs? What do you veterans do?

The SG sample was good enough that I think I will try this batch again quite soon, but change the process to avoid standing barefoot in hot wort, avoid melting the kitchen floor, and avoid hop pellets somehow.

Thanks to all for your comments to my last posts about blow-off and the endless churning secondary ferment.

I love this stuff.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Sun, 5 Sep 1993 14:22:45 -0700

From: Don Put <dput@csulb.edu>

Subject: Secondary, dry hopping

Subject: Lager Sludge

I've got a problem with a lager that I brewed about three months ago. After bottling--BTW, this is an extract brew, my last one before going all-grain--the yeast, Wyeast Bohemian, settled out nicely. I then lowered the temp to about 35-38F for continued aging. Within a day or two a haze developed in the beer that really is distinctly different from the normal chill haze. It further developed until it looked like the flakes in one of those "Christmas balls" that you shake up and watch the "snow" settle. It has been about 5 weeks since I bottled and most of this stuff has settled out, forming a 1/4 inch layer that stirs up easy on top of the yeast. The beer has also developed a harsh back of the mouth bitterness and finish. The recipe was very close to Papazian's "Propensity Pilsner," with the addition of dry-hopping using Saaz plugs for about seven days.

So, a few questions:

- 1) Is this a characteristic of wild yeast contamination? There has been no gushers or over-carbonation.
- 2) Is it an undesirable side effect of dry-hopping with plugs? Maybe I should have dropped the entire batch to 35F while still in the secondary to allow this "stuff" to settle out.
- 3) The beer tasted very fine at bottling and at about 2 weeks after, then this strange taste developed. Will this go away with more aging or should I chalk this one up to experience and dump it? (It is fairly undrinkable at this point).

This is the first lager that I attempted having recently acquired a dedicated lager refrigerator. I followed Miller's guidelines for fermentation times and temps. Any thoughts or ideas from those of you more experienced in the brewing of lagers will be greatly appreciated. BTW, a friend in the local brew club, and a brewer for 8 years, tasted it and was stumped. However, he drank the whole bottle I poured him. He says it starts nicely, then deteriorates into a "lingering back of the mouth bitterness." He'd never seen this type of sediment before.

TIA,

don
dput@csulb.edu

Date: Mon, 6 Sep 93 15:43:21 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: Tadcaster brewery/spraying

hello all,

Al Korz brought up the Tadcaster brewery, their highly flocculant yeast and spraying in HBD1219. Well, working on the assumption that since Tadcaster is in Yorkshire (UK), and the system sounds like the "Stone Square" system (aka Yorkshire Stone Square System) that I just read about in Hough, Briggs, Stevens and Young Malting and Brewing Science, I thought I'd comment:

the Yorkshire Stone Squares were originally vessels made of stone and later slate (now often steel). They have a lower compartment separated from an upper one by a deck. In this deck is a manhole with a raised flange

and tubes leading to the bottom of the lower compartment.

During fermentation, the yeast/beer is forced up to the upper compartment through the manhole. From here the beer returns to the bottom via

the pipes and the yeast remains on top. Because of the high flocculence of the yeast used, the beer is also pumped up from the bottom to the top and literally sprayed through a fish tail head (like on a watering can)

The only comment made in the book about flavours associated with this system is "it is claimed to give a characteristic type of beer". Under the heading Diacetyl and 2,3-pentane dione however, they say that oxidizing agents (not necessarily O₂, could be Cu, Al or Fe ions)

are necessary. Increasing temperature, or exposing beer containing yeast to air increases diacetyl formation. It is also increased by conditions leading to rapid yeast growth (eg aeration!). The diacetyl flavour can also be caused by lactic acid bacteria, when the problem is called Sarcina Sickness.

Well, that's about all I can remember for the minute,
Happy brewing,
Rob T.

Date: Mon, 06 Sep 1993 12:21:14 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: chill haze/peracetic acid/anchor steam

Norm Pyle writes:

>This conversation between Al and Scott has me confused. They talk about chill haze and tannins as being related. I thought tannins were to be avoided because of an astringent flavor component, rather than anything to do with haze. Are tannins protein based? I too have had a chill haze problem with a recent batch and was surprised to hear talk about acidifying sparge water as a cure. Well, have I removed all doubt???

Tannins are phenols. Chill haze can be caused by starch, but usually is due to phenol-protein compounds. According to George Fix, the best way to reduce chill haze is to get the wort of the break material, which removes half of the haze forming material.

Duane Romer writes:

>You can indeed make peracetic acid by simply mixing H2O2 & acetic acid (I'd be a little careful though & keep it cold while mixing with efficient stirring). However in my humble opinion why bother? The small amount of bleach that you use to sterilize your equipment is hardly environmentally significant. If you're really worried about it why not just use the peroxide solution? H2O2 itself is a pretty good disinfectant, although I don't know if it efficiently kills the organisms that your worried about in brewing.

Excuse me while I slip into my asbestos suit.

Leave the suit behind. My concern was partly due to the current Net wisdom that bleach is bad for stainless kegs. However, I just looked up the reaction index at the back of the Cole Parmer catalogue, and both Acetic acid and peroxide are bad, while bleach is listed as "No effect". Can anyone elaborate?

Jay Vanni writes:

> Now, I feel ready to try something more advanced. I wonder if anyone has a recipe that will yield something resembling Anchor Steam beer (If mentioning this brand name is against the rules, please forgive me, I'm new). Equipment, techniques, and ingredients are no boundary for me - I just want to try imitating this beer. Any help?

2 row pale malt, a hefty dose of crstal, bitter with Perle, finish with Cascade. Use Wyeast California Lager yeast, fermented at 62 F. Lots of hop is the key. There are a few Anchor Steam recipes in Cat's Meow you can look up. Last time I tried Anchor, I noticed a distinct similarity to

Young's Special London Ale, with a rich maltiness, though I didn't do a side-by-side.

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |
| "I'm not racist, but..." |

+-----+

Diversity in all things. Especially beer.

Date: Mon, 6 Sep 93 13:26:17 -0400

From: Ron Natalie <ron@bds.com>

Subject: fermentation temp monitoring/cold room/bandwidth

What I did is bought some temperature-sensitive LCD type thingies ('thingies'

is a technical term) that I stick to the side of my carboys,

I think Sheaf & Vine brewing supplies (They're on the net, great service &

prices, I don't work there, etc. etc. etc.) have these,

My local brewing store has them, but since I have similar things on my fish

tanks (as a matter of fact, before I saw them being sold for brewing I attempted to peel one off my fish tank and stick it to the fermenter). You might try your local pet store.

-Ron

Date: Mon, 06 Sep 93 14:56:10 EDT

From: jayv379877@aol.com

Subject: Pressure Regulators

I'll soon try my hand at brewing some draft beer. Here's a question re: the use of a pressure regulator. (Thanks for the posting Al)

I have what I think is a pressure regulator. I obtained it from my last job a couple of years ago from a pile of stuff to be thrown out, thinking I may need it someday (deja brew?). Physically it is a 2 1/2" dia brass body with 5 evenly spaced pipe threads tapped around the perimeter. Into each are screwed the following: a 0-4000 psi gauge, a 0-30 psi gauge, a relief valve (stamped as such), a large fitting, and a small fitting. A "T" handle sticks out the front. A label on it says, "NITROGEN AND INERT GASSES." It's made by the Victor Equipment Company, and looks to be part no. SR 250 A. Is this what I want? If so, should I have it tested for reliability or accuracy? Should it be cleaned? Anything else?

Jay Vanni

Date: Mon, 6 Sep 93 15:33:42 CDT
From: philb@pro-storm.metronet.com (Phil Brushaber)
Subject: Lagering Time In Secondary Fermenter

It used to be when I would brew Lagers I would primary in glass for a couple of weeks at 50 degrees, then transfer to a Cornelius Keg for secondary at 40 degrees.

With summer's heat my brewing slowed down. As a result my "primary" refrigerator became a secondary refrigerator. This time I did my secondary in glass where I could monitor the progress. After a two week primary, then a four week secondary I could still see a few bubbles rising in the glass.

I thought my secondary was finished, but when I boosted the temperature from 50 to 60 degrees (to execute a diacytal rest) the fermenting took off again. So much so that the bubbles proceeded to fill up my airlock!

Two questions fellow "Lagermeisters"...

1. All the sources I read said that secondary should take place at 50 degrees. My experience would lead me to believe this is too low.

2. How long should one typically expect a secondary to take? When is it safe to bottle or keg?

- - - - -
Internet: philb@pro-storm.metronet.com
UUCP: metronet.com!pro-storm!philb
Bitnet: philb%pro-storm.metronet.com@nosc.mil

Date: Mon, 6 Sep 93 19:16 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: TRUE-BAY, BIG BUCKS

>From: "Phillip Seitz" <p00644@psilink.com>
>Subject: Trub: you say potatoe...

>Now, I'm all for understanding the origins of things, but just because a word is pronounced one way in Germany does not mean that it needs to be mimicked here.

Thought I would add a little confusion here. On saturday I attended a lawn party at which my wife and I were the only ones who could not speak German and many attendees could speak no English. I figured this was a good place to settle the issue and as I needed a conversations starter, I surveyed them on the word "trub", spelling it every way I have seen it.

The concensus was..... true-bay, just like it looks but with the 'r' rolled accent on the first syllable..

The root or the word was agreed to have something to do with clouds.

>From: R_GELINAS@UNHH.UNH.EDU (Russ Gelinias)
>Subject: keg overcarbonation

>Jack, perhaps your problem with kegs getting overcarbonated is because the beer hasn't actually finished fermenting. The fact that it is happening with (mostly) lagers, which can take much longer than ales to ferment out, might be an indication.

This is possible but I would think by the time I keg them, there aint much left. Furthermore, if I just left it sit, unattended for weeks, I could agree but as I monitor the pressure regularly on all kegs and adjust as needed, I wouldn't think it would make any difference whether the CO2 came from fermentation or the tank. But I will keep it in mind. For the time being, I am reducing my dispensing pressure to around five lbs and using 1/4" tubing till I see which way the wind blows.

>From: akcs.wally@vpnet.chi.il.us (John Walaszek)
>Subject: Older Chest Freezers

> Another question, if the freezer is fairly full with 30-40 gallons of brew at 45-50 degrees, does the temperature stay fairly constant and require the compressor to not kick on that often

Keep in mind that it was designed to keep several hundred pounds of meat at temperatures near zero. It is loafing when used for beer and will probably last forever.

>Has anyone had their electric bill double or triple after
setting up a chest freezer beer cooler?

In the hottest weather, mine runs about 5 hrs per day, set at 40F. It
draws
about 4 amps which works out to about 2.2 KWH or about 30 cents per day
at
Chicago rates.

.....

I have nothing further to add on the netequette front other than passing
on
the data that the mail is running 10:1 in favor of serializing long
articles
and debugging FAQs via email.

js

Date: Mon, 6 Sep 93 17:23 CDT
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: PIZZA AND BEER FAQ PART 1

BEER AND PIZZA FAQ (Part 1 of 29)

Q0001: Which pizza goes best with an Imperial Stout?

A0001: Don't be a twit. Anybody who knows anything about beer will tell you that drinking an Imperial Stout leaves you little room for anything else.

=====

Q0002: My wife says that all this pizza and beer is making me fat. Is this a bad thing?

A0001: All homebrewers reach this "crossroad" at some point in their lives. The real question you have to ask yourself is: do I want to stay slim and get laid or do I want to enjoy life?

=====

Q0003: Does Sierra Nevada Pale Ale compliment a pineapple and Canadian bacon pizza?

A0003: Of course.

=====

Q0004: I find that a Pils Urquel is too delicate for a pizza with the works (including anchovies). Is there a beer that can stand up to such a gastronomic deluge?

A0004: Yes. Weizens are a good choice as are smoked beers. The added benefit is that those late-night belches are exquisite.

=====

Q0005: I saw Kathy Ireland on the cover of an old issue of Zymurgy. Do you think she and Chuck, you know, did it?

A0005: Many have speculated that since Charlie Papazian has remained slim then he must have made the wrong choice at the Homebrewer's Crossroad of Life.

=====

Q0006: I recently relocated to the Pacific Northwest. Having been born and raised in Chicago I find these new beers way too bitter. What's the deal?

A0006: Indigenous populants of the Pacific Northwest (IPPN) have a misplaced sense of hopping rates. Get used to it. Furthermore, never confront them about it as they tend to be overly sensitive.

Date: Tue, 07 Sep 1993 01:10:09 -0400 (EDT)
From: KONSTANTINE@delphi.com
Subject:

Howdy all,

I'm new to the digest and I love all the info that's available. I'm looking for a recipe for Heather Ale and I was wondering if anyone knows where I can find one. Thanks again.

B*B,
Konstantine.

konstantine@delphi.com

End of HOMEBREW Digest #1220, 09/07/93

Date: Tue, 7 Sep 93 09:14:49 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: trub,trueb,treber and all that.

Hello all,
now that we can all approximate the u umlaut (ue) sound, and incorporate it in the word trub, I ought to point out something that I discovered last night while reading a german book on brewing (by Narziss, aka Gott). The german word that means the same as the English word trub is TRUB. There is NO umlaut!
There is a word Trueb or Trueber which means cloudy, but that isn't the word used by brewers. There is also Treber, which translates as draff (ie the grains after sparging).
Hence, the pronunciation is trub, with a germanic t and u, if anyone really wants to speak English with a German accent (after all, we call Muenchen Munich, so why should we call trub trub?).
I hope this clarifies things for you all, I've certainly given up.
Rob T.

Date: Mon, 6 Sep 93 15:07:00 -0500
From: matthew.whiting@channell.com (Matthew Whiting)
Subject: **cancell subscription**

Please cancell my subscription to HBD. My e-mail address on internet is matthew.whiting@channell.com. I have have been receiving HBD on rec.crafts.brewing and wish to eliminate duplication. Thank you.

- ---

~ DeLuxe] 1.25 #12626 ~ Let no man thirst for the lack of real ale.

Date: Tue, 7 Sep 93 11:12:33 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: legality of homebrewing in germany

Hello all again,

Here's just a quick question that hopefully someone can answer:

Is homebrewing generally allowed in Germany?

I had heard that selling books on how to brew were illegal,
but that brewing (home) wasn't. I'm getting more interested in
this problem since it's not beyond the realms of possibility that
I'll be moving there in 4 or 5 years time.

Any german subscribers out there?

Rob. T.

p.s. things are slowly improving in Switzerland: you can now
buy those BrewKing brew bags in some supermarkets. A long way to
go I know, but they're getting there. (I speak as someone who gets
maximum three types of malt straight from Huerlimann [that umlaut again]
)

Date: Tue, 7 Sep 93 09:46:03 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Dry hopping induces new fermentation???

I have been reading an old book on brewing: Brewing, A. Chaston Chapman (President of the Institute of Brewing, Fellow of the Institute of Chemistry of Great Britain and Ireland, Fellow of the Chemical Society), Cambridge University Press, 1912.

In it, the author states "It had long been known that the addition of a small quantity of fresh hops to beer in cask was usually followed by an outburst of fermentation, a fact which did not receive an adequate explanation until Brown and Morris showed that like most plants they contain diastase, which, of course, converts some of the malto-dextrin present into readily fermentable maltose." (p. 54)

=S

Date: Tue, 7 Sep 93 10:07:43 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: fermentation temp monitoring

The fish tank ones don't have a wide enough range. I found some reptile thermometer strips that go from about 50 to 100 (F), which is fine for ales. I've also seen ones apparently designed for brewing with an even better range; maybe this is what Sheaf & Vine is selling?

=S

Date: Tue, 7 Sep 93 08:12:32 MDT
From: bacco@md.fsl.noaa.gov (Corby Bacco)
Subject: Treating glass carboys...

Hello,

I have a friend who can get glass carboys from where he works. The catch is that they get them in full of Sulfuric acid. After they've used the acid he can take the carboy home. Question: how should I treat the carboy before using it for brewing? It's been suggested to use baking soda to neutralize the acid. Will that work? TIA

-Corby (Happy to be out of Utah) Bacco

Date: Tue, 7 Sep 93 10:15:57 EDT

From: Ron Natalie <ron@bds.com>

Subject: Re: fermentation temp monitoring

> The fish tank ones don't have a wide enough range. I found some
> reptile thermometer strips that go from about 50 to 100 (F), which is
> fine for ales. I've also seen ones apparently designed for brewing
> with an even better range; maybe this is what Sheaf & Vine is selling?
>

Actually, the beer one (I haven't checked who makes it) that I picked
up to replace the one that was unsuccessfully peeled from the aquarium
doesn't have much more of a range than the fishtank ones. I can't
remember if the low end goes down to the 50's but the high end is
not above 85 I'm sure.

-Ron

Date: Tue, 7 Sep 93 10:25:13 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: H(ot) S(ide) A(eration)?

As I mentioned in an earlier note, I've been reading Brewing, published in 1912. The author is President of the Institute of Brewing, etc., etc., so I presume he's good for the current (1912) understanding of brewing processes.

In the discussion of cooling (p. 66) he talks about "coolers", or long shallow pans in which the wort cools by exposure to ambient air, and (the relatively new-fangled) "refrigerators", which actively chill the wort by running it over or around tubes filled with a cold liquid. He then says (emphasis mine) "Certain of the constituents of the wort have the property of absorbing oxygen from the air at tolerably high temperatures, and this `hot aeration' as it is called, to distinguish it from the cold aeration or absorption of oxygen by the cold wort while passing over the refrigerator, is *very generally regarded as beneficial*. It is true that some authorities have questioned its importance, but I think there is a general consensus of opinion that these more or less obscure oxidation changes are *desirable* and that they do exert an appreciable effect on the brightening capacity of the finished beer."

Now, clearly brewing science has advanced since 1912, and it seems to be now generally accepted that HSA is bad for the flavor. But it's interesting to see how accepted practice changes...

=S

Date: Tue, 7 Sep 93 10:38:13 CDT
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: Beer Hunter

Beer Hunter (not the game - the Michael Jackson series mentioned in a thread a while ago (mid 1100's I think)) is available on a 3 video set from the Wireless Catalog (Public Radio). It is priced about \$50. The number for the catalog is 800-669-9999. Before you flame advertizing and all that - proceeds support Public Radio (a little preemptive strike there :)). Hope this info helps those who were looking for copies of the videos...I also hope that there are copies left when I order mine!

Good luck and good beer,

Chris

=====
|Chris Pencischips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |
=====

Date: Tue, 7 Sep 1993 09:05:14 -0700 (PDT)
From: Mark Stewart <mstewart@unssun.scs.unr.edu>
Subject: seasonal ales: dryhopping with spices

I'm hopping (hoping) to get some feedback on the following:
Am considering a Thanksgiving-type ale that would involve the addition of
some pumpkin pie spice (allspice, cinnamon, nutmeg, etc.). My question
(s)
is, has anyone tried this before, (i.e., dryhopping with this stuff)?
Should I do this after initial fermentation has terminated? Should I do
this in conjunction with some aromatic hops? If so, what kind and how
much? About how much of this pumpkin pie spice should be added for 5
gals? I'm really just after the aroma of pumpkin pie and am not
interested in altering the flavor toooo much. Hope there's someone out
there that's played with this kind of thing before. I would appreciate
any and all feedback on this and can be e-mailed directly at
mstewart@unssun.unr.edu. Thanks much,

Mark
(p.s., am considering using a brown ale recipe that I've made in the past
and the pumpkin pie spice I saw was Schilling brand).

Date: Tue, 7 Sep 93 10:01:06 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Kegging FAQ is a go!!!

>From all the responses I have gotten, a kegging FAQ is an overwhelming YES. I now officially volunteer to be the keeper of the FAQ. Please send me every bit of information about kegging you know not only including techniques, but also suppliers of kegs and parts. I have gathered much of this already, but I will need your help to make it complete.

I expect that the next 3+ weeks will be for collection. Then I go on vacation for 2 weeks and will work on the compilation of results when I return. Expect to see it uploaded to sierra.stanford.edu and announced the middle of October.

dion

Date: 7 Sep 1993 10:35:25 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: Stainless Steel and Chlorine

In the recent post by Ed Hitchcock, he mentioned the current HBD wisdom of not using Bleach (chlorine) in Stainless Steel kegs and the current interest in iodine. While I would like to know exactly what the Cole Parmer catalog was referring to with NO EFFECT, it may not pertain to what I am relating here.

Being a metallurgist, (i have a feeling that most of us are college grads of one form or another, using the convenient computer systems at work,[:o) I checked out the Metals Handbook Vol. 13- Corrosion, on Chlorine and Stainless and here is what I found.

Chlorine (aqueous) is highly corrosive to austenitic stainless steels, which includes the 304 alloy most commonly used for Food Grade containers. The mechanism of corrosion homebrewers mostly have to be concerned with is Pitting Corrosion. This is caused by localized concentration of chlorine ions. Those ions become concentrated by evaporation of water containing chlorine. The corrosion is manifested as tiny pits which, due to increased relative concentration of the chlorine in the pit to the surrounding environment, quickly put pinholes in your tanks.

To prevent this type of corrosion, the key is good rinsing of the bleach water from the steel. First off, let me say that the 1+ tablespoon bleach per gallon (4ml/liter) is not much in the context of the industrial corrosion that the Metals Handbook is written to. Most of what I read dealt with continuous flow through pipes, etc. Anyway, If you rinse with warm boiled water until you don't really smell it, and then prevent water droplets on the sides by either filling the keg with beer or drying them out with a towel, you will not have the localized concentration necessary to induce pitting.

One other thing that can be done with Stainless Steel is passivation. A 20% by volume solution of (HNO3) Nitric Acid will ensure a uniform oxide film which will prevent the localized concentration/activity difference which initiates this form of galvanic corrosion. But I don't think this should be necessary.

While I am discussing stainless steel, I have a word of caution for those of you get stainless steel tanks welded with fittings. There is a

time@temperature range (800-1600F) for austenitic stainless that results in Sensitization. This term is used to describe a precipitation of chromium carbides away from the grain boundaries which results in intergranular corrosion and brittleness. You can practically snap it with your hands. This is a common problem in welding of 304 stainless where the weld zone should be cooled below 1100F within five minutes or the precipitation will start to occur. This also means that heat between 1100-1600F for more than five minutes should be avoided ie weld time. If any of you are noticing leaking or cracking around your fittings, this is what has happened. The only way to fix it is to anneal the whole thing at roughly 1950F for 5min/.1inch section size followed by fairly rapid cooling to avoid Sensitizing it all over again. By the way, 304L (L for less carbon) does not usually have this problem, nor does 316L or 321.

Hope this wasn't too longwinded.
John Palmer
MDA-SSD M&P

Date: Tue, 7 Sep 93 13:12:22 edt
From: Greg_Habel@DGC.ceo.dg.com
Subject: My first all grain batch - a screw up.

Message:

Well, I attempted my first all grain batch this past weekend. Using a rectangular picnic cooler with a copper t'd manifold for mashing and sparging. Picnic cooler is a 10 gallon. Mashed 6lbs highly modified pale malt and 8 oz crystal with 6 quarts of 168F water for 1 hour. Did the iodine test. The color was blackish but it turned to clear when I stirred it up a bit. Here's the part I think I screw'd up. When sparging with 3 gallons of 170F water, I had a very difficult time of not disturbing the grain bed. Most of the time it was very turbulent. Anyways, the OG ended up being 1.024!!!! I quickly went to the fridge and pounded a couple of homebrews, yeast and all! Here's my question... how important is it that the grain bed is kept relatively undisturbed while sparging? Also, will the liquid turn colorless near the end of the sparge. Mine didn't. How do you add 3 gallons of 170F sparge water without disturbing the grain bed? Could it be that my cooler is too large, ie the grain bed is not deep enough? I decided to ferment it anyways. I'd love to give this another shot this weekend. Greg.

Date: Tue, 07 Sep 93 12:22 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Re: Root beer

I recall discussions concerning how to condition root beer without fermenting away the sugar. Since I just skimmed those postings, I did not catch whether or not pasteurizing was mentioned as a possible method. While I have never pasteurized anything except fruit preserves and can hypothesize on pro's and con', does anyone have any knowledgeable experiences to share with the list?

Thanks,
David

Date: Tue, 7 Sep 93 13:01 CDT
From: hplabs!mcdcup!tellabs.com!don (Don Leonard)
Subject: (SNPA) Clone. Was re:SN Stout Request

I'm having trouble posting to rec.crafts.brewing so hopefully this will satisfy most of the recent email requests for this recipe.

- -- Included File --

OK - I know, I know... the response I posted was for Sierra Nevada Pale Ale NOT the Stout!!! But someone used SNPA - that means PALE ALE... well anyway... I got lots of request for the recipe so here it is:

6.6# light malt extract
.5# Laaglander DME
12oz Belgian Cara-Vienna 22L
8oz Belgian Cara-Pils 7L
1oz Perle pellet 7.1AA 60min
.5oz Cascade pellet 5.5AA 30min
.5oz Cascade pellet 5.5AA 15min
1oz Cascade whole 5.7AA dry hop
1tsp Irish Moss 15min
Wyeast 1056 American Ale

OG = 1050
FG = 1013

Brewing Notes:

Do a full boil (60 min).

Hop rates are based on a 5 gallon boil so if you boil less then increase the hop rate to compensate.

Crush then steep the grains until ~170 deg, then remove.

Wort was chilled to 68deg before pitching.

Once the grains are removed, shut off the heat and add all of the extracts. This will avoid scorching the extracts and darkening the wort. Stir well then add heat and bring to a boil.

Add the dry hops in the secondary for around 5 days. When you rack the beer to the bottling bucket, tie a sanitized hop bag to the end of the hose or racking cane that goes into the bucket. This will catch any stray hop bits that might get sucked into the racking cane. In practice you won't get much if you use whole hops so you can omit the bag if you'd like. If you haven't tried dry hopping I encourage you to do so. The hop nose is fantastic and adds so much to the character to the brew. I don't feel you will be able to match it with normal finishing hops.

I have not had the chance to compare this to a real SNPA but people tell me it's very close. The OG is a bit shy of the true mark which is 1057 so I would increase the DME by maybe 1/2# to compensate. The mouth feel is a bit heavy from what I remember so you may wish to reduce the specialty grains somewhat. If you're not sure then just go with it the way it is. You won't be disappointed.

enjoy!!

Would you believe, someone flamed me for not paying closer attention to the title of the post I responded to then - asked me for my SNPA recipe???? Sheesh... some people :-)

don

-- End Of Included Message --

Date: Tue, 07 Sep 1993 14:04:06 -0500 (CDT)
From: WEIX@swmed.edu
Subject: Re: Yeast FAQ Ruckus

Hi All,

Well, I feel that since my post was the cause of all the wasted bandwidth (either for the FAQ itself if you agree with JS or for the flame-fanning in response if you don't), that I should speak my piece. To JS's credit, he originally sent me the piece he went on to post about netiquette by e-mail a few days before it appeared in the HBD. At the time, I thought it was just a personal response, so I wrote him back explaining my reasons. I did not save my exact message, because I did not expect it to make its way into the public forum, but I will repeat the main points here. The main reason that I feel compelled to "answer the charges" as it were is that I dislike the implication that I did not know what I was doing and furthermore didn't care. I reposted the whole mess because:

1. It had undergone extensive revision. I change the intro, reformatted some of the general info sections and expanded others, updated the dry ale yeast data, expanded and changed the liquid ale yeast, expanded and changed the liquid lager yeast, updated some of the weizens, clarified some points in the rehydration section, cleaned up the section on culturing, and added two whole new sections. Just posting the changes would have meant a lot of work for me in separating them out, and tons of work for anyone who would try to make sense of the new info ((cut and paste)^3).
2. I did not serialize it over several days because:
 - a) the variable length of the queue makes it difficult to predict when something will come out, and
 - b) the sections did not fit easily into 8k chunks, making it difficult to find good stopping points.
3. As to fine-tuning it by e-mail, I had already been through many rounds of revisions and updates with every yeast expert who reacted/responded to the first message as well as many yeast novices who requested clarifications, simplifications, or expansions of key points.
4. Given that I had changed it so much and desiring to avoid the infamous group think phenomenon, I decided RELUCTANTLY to submit the mess to the collective wisdom of the HBD for another rehashing/trashing.

The deciding point for me was the realization that at the end of one week, the digest would be at the same place whether I serialized or not. Even with all the debacle, I am glad that I reposted because I have had several good responses to info in the updated version. Those hardy souls and I have communicated by e-mail, and I hope to have the mess ready for sierra by this weekend. Fear not, I shall not repost the beast again!

Finally, as for the results of his 10 to 1 poll, I would suggest that irritated people are 10 times more likely to respond than those who are satisfied, and that his was the only negative comment that I have received

from anyone regarding either the value of the FAQ or the size. (That is not an invitation!!) I hope that no one else is discouraged from doing FAQs or information resources or whatever. It is a great way to learn about a subject and contribute to the art of homebrewing by computer all at once. I do apologize for any inconvenience. If anyone needs to reach me, I am

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Patrick Weix    weix@swmed.edu    |
UT Southwestern Medical Center tel: (214) 648-5050    |
5323 Harry Hines Blvd fax: (214) 648-5453    |
Dallas, TX 75235 Hopfs und Malz, Gott erhalt's    |
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You know, when I get home tonight, I am going to relax and have * several* homebrews!

Date: Tue, 7 Sep 93 13:04:03 CST
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: All-grain questions

I went all grain several months ago and will never turn back. However, I've got some new problems. I'm sure you experienced all-grainers can help me solve them.

1) I've had haze problems since I started mashing my own grains. Not chill haze, rather the beer never clarifies properly. I know the most likely source is unconverted starches. However, my mashes all passed the iodine test (sample taken from top of mash tun). Is there a better conversion test? Is there another possible source for this haze?

2) Sparging questions:

a) How much recirculation. "Recirculate until runoff is clear". Sounds great in print. However, for amber or darker beers this is not as obvious as it sounds. In last batch I recirculated the first 5 qts. Is this excessive?

b) When to stop sparging. "Don't over sparge". I like this about as much as "cook until done". The three techniques I know of are 1) sparge until running reach certain gravity (1.010?), 2) Sparge until pH is too high (> 5.5?), 3) Sparge until boiler is full. Both Miller and Papazian give mash & sparge water quantities, but the last time I used these my final runnings were 1.020, seemed wasteful.

3) Separating break material & spent hops from wort. When I syphon my cooled wort from the boiler into the fermenter, my syphon tube clogs leaving 1/2 to 1 gallon of wort/trub in the boiler. I usually pour the last of this glog into mason jars, allow the trub to settle and decant the wort for use as starters. One quart of glog doesn't bother me but for my last triple I was left with nearly a gallon. Again seems wasteful. Techniques? Equipment? (I know, Jack, I should drill a hole in the bottom of my boiler and install a SS screen w/tubing etc. I'm seriously considering this but would like to hear other alternatives.)

TIA, WAK

Date: Tue, 7 Sep 93 13:22:42 PDT
From: TAN1%SysEng%DCCP@cts27.comp.pge.com
Subject: Light struck beer

Cheers to Chris Campanelli and his Pizza and Beer FAQ. I for one am looking forward to parts 2 through 29! Nothing like poking some fun at various flames that have been going on lately. On to business. I have been relegated to brewing outdoors since several years back I had a glass carboy explode in my bedroom closet (The saddest day of my life - superbowl stout exploded, taking out the carpet and most of the clothes in the closet). Now I have recently gone back to glass fermenters, 6.5 gallon vice 5 gallon. I was wondering when light struck beer begins to be a problem. My recollection is that hop acid, when exposed to light, will impart a "Skunky" smell. If so then even while fermenting you are capable of light damaging your beer. Could anyone expound on this for me. Do I need to keep my primary fermenter in a box (remember the closet is out!)

.
TIA.

Tom Nelson

Date: Tue, 7 Sep 1993 14:17:54 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Lager Brewing

In response to questions from Phil Brushaber regarding lager fermentation: I have been brewing lager beers for many years and my experience has been better lagers are brewed at cooler temperatures: I conduct primary fermentation at 48F and secondary fermentation at 42F. There is no question that fermentation at these temperatures takes several months. Once secondary fermentation is completed, I typically lager my beers at 32F-35F for three to four weeks. An important point to be made is that during cold fermentation, a substantial amount of CO2 dissolves into your beer. An excellent reference on this topic is "Brewing Lager Beers" by Greg Noonan

> Two questions fellow "Lagermeisters"...

- > 1. All the sources I read said that secondary
> should take place at 50 degrees. My experience would lead me
> to believe this is too low.
- > 2. How long should one typically expect a secondary
> to take? When is it safe to bottle or keg?

>
>
>

- - -

**** Rob Reed ****
*** IC Design Center***
*** Delco Electronics Corporation ***
**** Internet: rhreed@icdc.delcoelect.com****

Date: Tue, 7 Sep 1993 17:07:17 -0400 (EDT)
From: Jason C Gerry <jcg@kepler.unh.edu>
Subject: Books on Brewing

I am curious if there are any good books on home brewing...
I would also like to hear of any important do's and do nots that I should know about and how much time I need to invest in producing a small amount of brew.

I would also like to hear from any people who have tried to market their beer, their successes, failures, etc. (personally e-mail me if you can)

Jason Gerry
University of New Hampshire
jcg@kepler.unh.edu

Date: Tue, 07 Sep 1993 17:25:05 -0400 (EDT)
From: Nate Clark <NC6967@conrad.appstate.edu>
Subject: Re: True-bay

Although I thought the issue of trub pronunciation had died down, Jack stirred up an overwhelming sense of curiosity inside me. So much, in fact, I just have to ask one more question... Where were these german speakers from? It's possible that they said 'True-bay,' as german has different dialects just as english does. However, the word they are saying is clearly spelled 'truebe.' It is an adjective form of our brewing word, trub, a noun (trueb in german), meaning dreary. It is quite possible that if these germans were unfamiliar with brewing, they could have related 'dreary' with the weather, thus the German phrase 'das truebe Wetter,' the dreary weather. Hence the clouds. My arguement is simple. In english it's trub (noun). We have been trying to discover the pronunciation of the german word Trueb (noun). Your german friends appearantly were saying truebe (an adjective). Under nearly every case using the noun, it would be spelled Trueb in German. Therefore, I submit to you that the correct pronunciation of trueb as we use it in brewing would be closely approximated in english as "troop," if one remembers to keep the "oo" short. Of course if you say trube (rhyming with tube), most american brewers will understand you.

Nate Clark

Date: Tue, 07 Sep 1993 15:08:53 -0600 (CST)
From: John Mare <cjohnm@ccit.arizona.edu>
Subject: RE: Old freezer chest

Wally,

I have been using a 18 cubic foot chest freezer which was old when I bought it for \$40 23 years ago. I used it as a freezer until I purchased a "William's" temperature controller 3 years ago. Now it is my brewchest. In contrast to when it was a freezer, the motor is now off much of the time since it only has to maintain 40 - 65!F instead of freezer temperature. I monitor temperature with a dairy thermometer in a bottle of dilute chlorine, and find my temperature fluctuations to be minimal. The chest probably varies by 3 - 4 !F, but the mass of the beer fluctuates hardly at all. There is no brand name on the chest, but I know it precedes the "frost-free" era of freezers and refrigerators, and therefore does not possess the more complicated temperature controls needed for the defrosting process. I think you're probably right in assuming that and old (preferably \$40) freezer is the best bet.
John Mar!, John's Alehouse, Tucson, Arizona.

Date: Tue, 7 Sep 93 15:58:48 PDT
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)
Subject: regulator question

While we're on the subject of kegging...

Most of the kegging setups I've seen at shops have regulators on the CO2 bottles with two "dials". What do the two dials read? Are two necessary? I don't want to skimp on the regulator, but I don't want to buy something unnecessary.

- Bryan

Date: Tue, 07 Sep 93 18:49:20 EDT
From: brewerbob@aol.com
Subject: Re: Older Chest Freezers

To: akcs.wally
Subj: Older Chest freezers
From: BrewerBob@aol.com

Wally, I have a chest freezer with a Honeywell temperature controller that works just great. It turns the power to the freezer on or off. I set the freezer control to coldest setting. I have used the freezer as high as 63 deg for fermentation and as low as 40 deg for lagering. Much of the time it is set at about 50 deg for serving, I have two taps on the lid!

As far as the electric bill is concerned, I really don't know what it costs me but I would think it would have to be less than it would be if I used the freezer as a freezer since it is not keeping it as cold and I don't open it often. My controller keeps the temperature within plus or minus 1.5 degrees of where it is set for unless I leave the lid open for a long period of time.

BrewerBob

Date: Tue, 07 Sep 93 18:41:52 EDT
From: brewerbob@aol.com
Subject: Brewing Competition

To: All Home Brewers
From: BrewerBob@aol.com (Bob Davis)
Subj: Brewing competition - Stout and Pale Ale

Press Release:

The Northeast Florida Society of Brewers, co-sponsored by The Hogtown Brewer of Gainesville, FL and The Home Brewery of Brooksville, FL, announce the 1st annual First Coast Brewer's Challenge, an AHA sanctioned homebrew competition to be held the first week in November, 1993. Competition is open to all home brewers. Entry deadline is October 29, 1993 with the final judging taking place on November 7, 1993. Beer styles for this competition are limited to Stout (all types) and Pale Ale (all types). Fee is \$6.00 per entry with three bottles of beer required for each entry. Prizes include merchandise with at least \$50.00 worth for first and \$20.00 for second place.

For information, contest rules and entry forms, contact Bob Gammie (904) 241-8879 (RobertG211@aol.com on Internet), Chuck Cummins (904) 292-2166 or Joe Bryant (904) 399-3367 (BPNS42A on Prodigy) or write to: Brewer's Challenge, 354 Magnolia Street, Atlantic Beach, FL 32233.

End of release...

- - Folks, here's your chance to see how good that beer you make really is!
Join in the fun and win a prize! At the very least, your beer will be critiqued by an AHA certified judge and you will be able to see how your beer rates and will have a basis for bragging to your friends. I will be entering my oatmeal stout and I expect it to do well! Can you beat me?

BrewerBob@aol.com Bob Davis

Date: Tue, 07 Sep 1993 17:04:23 -0600 (CST)
From: John Mare <cjohnm@ccit.arizona.edu>
Subject: RE: Dry hopping; secondary fermentation.

Domenick asks about dry hopping. I use only whole hops for dry hopping in the secondary (glass carboy). Hops pour in easily with paper funnel, float near the top, and do not clog my siphon at bottling. There really is no answer to the question about "typical reduction" in SG in the secondary since this is a function of when you rack. With ale I rack on day 3 or 4 when the final SG has almost been reached. If I racked earlier, obviously the SG would still be higher. With lagers brewed at lower temperatures (50!F) I rack on day 5 or 6 and usually the SG will drop a few more points in the 3 weeks before I bottle. I hope this helps.
John Mar!, John's Alehouse, Tucson, AZ.

Date: Tue, 07 Sep 1993 20:52:00 -0400 (EDT)
From: CCAMDEN@delphi.com
Subject: Old Recipes

Sorry to waste the bandwidth (although I have seen sillier things) but since subscribing to the HBD for the past three weeks, I have been going through the archives. I have downloaded about one and one half years worth, and every so often I see something that makes me write to the original writer. But in this case, the email bounced. Here is the post from last December.

>Date: Fri, 4 Dec 92 10:24:18 -0600
>From: hpfcla.fc.hp.com!melkor!rick (Rick Larson)
>Subject: 1992 Minnesota Brew Fest winning recipes

>
>I have compiled the 14 winning recipes (including Best of Show) from the 1992 Minnesota Brew Fest. If anyone wants them, let me know via private email. Please specify either PostScript or ASCII (default will be ASCII). The recipes will be distributed to the local homebrew stores (Minneapolis MN) so you too can brew the winning beer.
>
>rick rick@adc.com

My question is, does anyone have these recipes? If you do have them, could you email me the ascii version?

I have my second batch in the secondary, and my third in the primary and I am trying to line up my next batches.

Thanks in advance.

Cary Camden, Huntsville, AL

End of HOMEBREW Digest #1221, 09/08/93

Date: Wed, 8 Sep 93 07:02:27 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: seasonal ales: dryhopping with spices

Randy Mosher of Chicago, an admitted spice-beer addict recommends using spice "infusions" -- soak the spices in vodka for a week or two, then add a measured amount to your beer before bottling. The nice thing about this approach is that you can test the spicing level in a glass of beer before "ruining" your whole batch. Add drops with a medicine dropper (one with calibrations), then you can scale up from the volume of the glass (8 oz?) to the whole batch (5*128 oz).

=S

Date: Wed, 8 Sep 93 05:33:43 PDT
From: JZABDER@BCSC02.GOV.BC.CA
Subject: Homebrew Digest #1221 (September 08, 1993)

To: HOMEBREW--INTERNET homebrew@hpfcmi.fc

*** Reply to note of 09/08/93 00:47
System Operations
Thanks

Would you please remove me from the distribution list...Thanks

G'day

Date: Wed, 8 Sep 1993 08:39:01 -0500
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>
Subject: iodophor

Sometime ago there was a rather spirited discussion about iodophors. I didn't have time to add some info at that time but it seems iodophor is again topical so I'll pass along a little bit of stuff now. Specifically, it seems clear from Kelly Jones post earlier this week that there is still confusion regarding acid and detergents in iodophor.

I spoke with Dr. Landum of National Chemical which is the producer of BTF iodophor. Dr. Landum is, like me, a Ph.D. chemist. This may be more than anyone wants to ever know about iodophor but it might help clear up some of the confusion.

There have been several types of iodophor produced over the years and the general idea behind all of them is the same: complexed molecular iodine in some material that will dissolve in water and then release the iodine to kill a bacterium or virus or yeast cell. An organic material is required to form the complex with iodine, but the organic material needs to be also soluble in water. This is characteristic of a surfactant and that's why all iodophors contain surfactants. The one in BTF is essentially a large alcohol. The surfactant in the iodophor currently under discussion is a little different according to another post on Monday's digest.

Iodophors can be generally broken down into two classes on the basis of the production process. The production process dictates in part which surfactant(s) is used, which in turn dictates other features such as the presence of acid. A "hot" process was developed in the 30's or 40's and a "cold" process was developed in the 50's. Iodophor produced by the older "hot" process does not release the iodine into water very efficiently at neutral pH but will at lower pH. Thus the need to add acid to these iodophors. Phosphoric acid has been mentioned here but several other acids have been used over the years. The newer process resulted in iodophors which did not need acid to release the iodine. BTF and BEST are examples of these.

Both types are meant to be used in industrial applications. Both have roughly the same level of iodine. The differences have to do with the surfactants and acid. The ones containing acid have particular utility to dairies because of the effect of the acid in dissolving residual milk stone from the equipment. This of course is not a consideration for breweries. This is not to say that breweries can't use the one with acid, but breweries use other cleaning procedures. The disadvantage of the iodophors which contain acid is that they lather or foam when agitated, at least more so than the newer iodophors, and this is a concern for brewery use.

don

Date: Wed, 8 Sep 93 08:55:10 CST
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: re: light struck beer

in HBD #1221 Tom Nelson writes:

[snip]

>I was wondering when light struck beer begins to be a
>problem. My recollection is that hop acid, when exposed to light, will
>impart a "Skunky" smell. If so then even while fermenting you are
capable
>of light damaging your beer. Could anyone expound on this for me. Do I
>need to keep my primary fermenter in a box (remember the closet is out!
)

YES YES YES cover your fermenter with a box, brown paper bag or something
else to block light. As an experiment a few months ago I bottles some
pale ale in a clear bottle. I placed the bottle in direct sunlight for
30 minutes and the skunk smell was overwhelming! I find some of the
descriptions of off-smells and flavor a bit arcane, but this one is right
on SKUNK.

WAK

Date: Wed, 8 Sep 1993 10:03:05 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: lager time & hot liquor tanks/O2

IN the last digest:

<In response to questions from Phil Brushaber regarding lager fermentation: I have been brewing lager beers for many years and my experience has been better lagers are brewed at cooler temperatures: I conduct primary fermentation at 48F and secondary fermentation at 42F. There is no question that fermentation at these temperatures takes several months.

Well.....It only takes 5-7 days at the Old Dominion Brewing Company. My 1.080 Maibock fermented in 10 days.....

The real issue here is a big one in homebrewing: Enough healthy yeast (most homebrewers underpitch), enough dissolved oxygen (most homebrewers under oxygenate) and a healthy pool of fermentables in the bitter wort (usually not an issue, but the breakdown of the composition of the fermentables vs nonfermentables will invariably dictate the degree of attenuation in the finished product).

I guess the question is :how long does your *fermentation* take? ie, how long until the SG has dropped by 75%? No doubt that some continual activity/lagering will occur but when everything is done perfectly, a lager ferment in between 7-10 days.

Well, I installed a Hot liquor tank (propane water heater) and much to my delight, it works perfectly! The way to sparge with it is to barely open the hot out faucet. This makes the hot water trickle onto the grains around 163F (hottest setting on the heater). Cold city water flows in to the bottom of the heater, where the thermostat quickly fires up the burner. Within 15 minutes, the outlet temp is up to 170F! No modifications required. This even surpasses my expectations.

I also hooked up a O2 injector with a silica airstone. I bubbled at ~1 psi for 1.5-2 hours. The ferment kicked in within 4 hours, and by morning, it was as beautiful as any I have seen. The taste test will have to wait two weeks.

Good brewing,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Wed, 8 Sep 1993 09:56:00 EST
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill
Ridgely/"@mr.cber.fda.gov
Subject: Heather Ale

KONSTANTINE@delphi.com writes:

>I'm new to the digest and I love all the info that's available. I'm
>looking for a recipe for Heather Ale and I was wondering if anyone
>knows where I can find one. Thanks again.

Well, here's another opportunity to root through my dusty tomes. The following excerpt is from a book called "The Scots Cellar". I only have xeroxed pages from this book (I don't even have the author's name right offhand). I'll check with the Library of Congress and try to get a complete citation. At any rate, here is a cottage recipe, supposedly from the Isle of Orkney, for heather ale:

"Crop the heather when it is in full bloom - a good large quantity. Put the croppings into a large-sized pot, fill up with water, set to boil. Boil for one hour. Then strain into a clean tub. Add one ounce of ground ginger, half an ounce of hops, and a pound of golden syrup for every dozen bottles. Set to boil again and boil for twenty minutes. Strain into a clean cask. Let it stand until milkwarm, then add a teacupful of good barm (brewer's yeast). Cover with a coarse cloth till next day. Skim the barm from the top and pour gently into a tub so that the barm may be left in the bottom. Bottle and cork tight. It will be ready for use in two or three days. This makes a very refreshing and wholesome drink as there is a good deal of spirit in heather."

The author suggests substituting heather honey for the "golden syrup" (which I believe is simply corn syrup). He also suggests using less ginger than the recipe specifies, as ginger tends to overpower the subtle flavor of the heather. No indication is given as to what comprises a "good large quantity" of heather, but the author suggests cropping the heather blossoms with as little stalk as possible, as the stalk tends to impart a great deal of bitterness.

I believe there is also a heather ale recipe in the book "The Curiosities of Ale & Beer" by John Bickerdyke, but my copy is on loan at the moment. If I remember correctly, Bickerdyke's recipe simply calls for adding the crushed heather blossoms to a standard beer wort before fermenting.

If anyone attempts to recreate this ancient brew (I've given some thought to it but haven't as yet), please post the results.

"From the bonny bells o' heather
They brewed a drink langsyne,
Was sweeter far than honey,
Was stronger far than wine."

Robert Louis Stevenson, "Heather Ale"

Bill Ridgely (Brewer, Patriot, Bicyclist) __o
ridgely@al.cber.fda.gov- /<,
ridgely@cber.cber.fda.gov...0/ 0...

Date: Wed, 08 Sep 1993 10:34:52 -0400 (EDT)
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
Subject: various

I will be traveing to San Francisco next weekend and would appreciate it if anyone would recommend brew pubs or microbreweries to visit. I've already been to Anchor. E-mail responses would be fine to save bandwidth. (I do not have access to list servers or archives that I can readily download!)

In response to Greg_Habel concern about his low O.G. My guess is that he did a very limited sparge, using only 3 gallons. I usually sparge with about 5 gallons of water and recirculate the first 2 gallons until it clears.

In regards to the Weix-FAQ. He did an immeasurable service to many brewers. For years I have been wanting a handy reference to yeast strains and the band-width he used was well worth it. I can't see how people complain when almost as much bandwidth was taken up on a humorous but almost worthless topic of how to pronounce "trub." Get real!

Andy Kligerman
e-mail address: kligerman%am%herlvx@mr.rtpnc.epa.gov

Date: Tue, 7 Sep 1993 16:04:05 -0800
From: pbrooks@rig.rain.com (P Brooks)
Subject: Thanks from a couple of lurkers

This is just a quick note of thanks to all the contributors to the HBD over the last several months. After reading HBD (and rec.craft.brewing) for a couple months while making our own, my partner and I decided that all grain really didn't look all that hard.

So - after digging thru the archived HBD's that I had, and reading everything that related to mash/lauter tun's, easymashers (tm), conversion, gott coolers, and a few other threads - we bought a seven gallon gott, fabricated something like the ascii picture I saw of the easymasher (tm), bought the grain, hops, et. al. and brewed. Even though we knew it was supposed to happen - conversion was just sort of amazing (I mean it really did turn sweet), and the way the wort cleared after filtering through the grain bed for a minute or so went just like it was supposed to.

To make a **long** afternoon short - there's a couple things we'd do different the next time (yes there will be a next time), and with practice it should go smoother, but most importantly, there's a carboy of beer-to-be bubbling merrily away in the basement. Thanks again for all the indirect help.

ciao,
pb

- - - -
pbrooks@rig.rain.com
Renaissance Information Group

Date: Wed, 8 Sep 1993 12:46:40 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Grain Brewing Questions

In response to Greg's Grain Brewing problems:

> Date: Tue, 7 Sep 93 13:12:22 edt
> From: Greg_Habel@DGC.ceo.dg.com
> Subject: My first all grain batch - a screw up.

> Well, I attempted my first all grain batch this past weekend. Using
> a rectangular picnic cooler with a copper t'd manifold for mashing
> and sparging. Picnic cooler is a 10 gallon. Mashed 6lbs highly
> modified pale malt and 8 oz crystal with 6 quarts of 168F water for 1
> hour. Did the iodine test. The color was blackish but it turned to
> clear when I stirred it up a bit. Here's the part I think I screw'd
> up. When sparging with 3 gallons of 170F water, I had a very
> difficult time of not disturbing the grain bed. Most of the time it
> was very turbulent. Anyways, the OG ended up being 1.024!!!!

A 10 gallon mash/lauter tun is too big for such a small amount of grain. IMHO, you need a grain bed a minimum of six to eight inches deep. I have found that you will have to add sparge water very gingerly to a grain bed less than 10 or 12 inches deep. Many homebrew authors have their own opinions on this subject, but I feel the deeper the grain bed, the better. A 5 gallon vertical drink cooler would be more appropriate for the small mash you described.

A suggestion to avoid disturbing your grain bed is to use something to slow down or diffuse the water going into your mash-tun: I use a large plastic bowl with several 1/8" holes placed in the top of my converted 5 gal drink cooler mash/lauter tun. Commercial brewers typically use a sprayer head to diffuse the sparge water as it enters the lauter tun.

> Here's my question... how important is it that the grain
> bed is kept relatively undisturbed while sparging? Also, will the
> liquid turn colorless near the end of the sparge. Mine didn't.

It is very important to keep your grainbed undisturbed during the sparge, otherwise you can wash a lot of draff into your boiler. This can lead to off flavors like astringency and/or clarity problems. There should be very little sugar in your mash at the conclusion of sparging; however, if you sparge until the runoff is colorless, you may be oversparging. There are many ways to endpoint your sparging operation. I use George Fix's rule of thumb, that is use 1.25qt water/# grain for the mash and use the same amount of sparge water/# grain for sparging. This implies limiting your runoff to 2.5qts sweet wort/# grain. Another way to endpoint your sparge is to taste the wort periodically. If the runoff is no longer sweet or has an astringent flavor (like iced tea), you should terminate the runoff. I believe you are better off undersparging by a slight amount, rather than risk tannin extraction as a result of oversparging.

**** Rob Reed ****
*** IC Design Center***
*** Delco Electronics Corporation ***
**** Internet: rhreed@icdc.delcoelect.com****

Date: Wed, 8 Sep 93 12:11:08 -0500
From: "Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu>
Subject: dry hopping question

I have a few questions regarding dry hopping.

I've brewed a dark, rich, all grain Christmas ale to which I plan to add 3-4 oz of Willamette pellets. I've never dry hopped with pellets and the talk over the net has begun to worry me. I planned to rack my beer to a clean carboy after secondary fermentation (to get it off the yeast sediment to avoid autolysis) then add the hops and dry hop for 4-6 weeks at 40 - 45 degrees F. This was recommended by a homebrewer who has since left town (ie I cannot ask him for advice regarding any pitfalls). The beer I am making is dark ale with an original gravity of 1.073 to which I want to impart a strong hop aroma.

Is this off base or can I do this without ruining 5 gallons of a good tasting ale?

JEFF M. MICHALSKI

Date: 8 Sep 1993 10:23:02 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: My opinion on Trub

My Fellow HBDers,
Since this issue is so dear to our hearts, I felt you were entitled to my opinion. I first read the word in Miller's book, and with my command of the Michigan dialect of American Standard English, pronounced it TRUB with a short U. As in: Rub a dub dub, a whole lot of Trub. I LIKE this pronunciation, it SOUNDS like the crap at the bottom of the barrel. I motion that HBD adopts this version and we get on with it. Next time I'm in Frankenmuth, I'll raise a

stein with my friends and we'll all sing a polka, but until then, its Trub.

John Palmer
Formerly of Michigan Tech, now stuck in Southern California.
I want get back to the real world.

Date: Wed, 8 Sep 93 10:49:01 PST
From: Richard B Foehringer <Richard_B_Foehringer@ccm.hf.intel.com>
Subject: RED TAIL ALE RECIPE CLONE WANTED

HELLO ALL,
DOES ANYONE OUT THERE HAVE A TRIED AND PROVEN RECIPE CLONE FOR "RED TAIL
ALE"??
EITHER EXTRACT OR FULL GRAIN IS OK.....THANKS IN ADVANCE!!
DICK FOEHRINGER

Date: Wed, 8 Sep 93 14:03 CDT

From: korz@iepubj.att.com

Subject: Addtn to kegging FAQ/liquid-crystal thermometers/T-giving (spiced) ale

Al Richer did a good job summarizing the basics of kegging. I would like to add a bit more info. In addition to the big o-ring and the two under the dip tubes, there are also o-rings on the poppets INSIDE the connectors

(the part of the connector that is screwed onto the keg, over the diptube -- not the part of the connector that is at the end of the hose). I suggest changing these two poppets (I've yet to find poppets with replacable

o-rings). Also, there are orings on the outside of the connectors (again the part of the connectors that screw onto the keg). The gas-side oring has never been in contact with syrup, but a leak here would be a big waste

of CO2, so I suggest replacing both. Finally, there is a gasket, usually a

flat disk in the pressure relief valve. I've found some keg styles that have

a removable gasket, but have yet to find a replacement, so I just replace the

whole relief valve if possible (some styles of lids don't have a removable

relief valve). That gives a grand total of eight o-rings/gaskets. Sure, were talking about something like \$10 in parts, but it beats the heck out of

5 gallons of unintentional, rootbeer-flavored Pilsener. I've been getting

all my keg parts from Foxx Equipment Company, but I've heard recently they

are not selling retail anymore... I've just called them and they said that

they do still sell retail, but prefer to refer homebrewers to local or mailorder HB supply shops. Their Kansas City location number is 800-821-2254.

Spencer writes:

>The fish tank ones don't have a wide enough range. I found some
>reptile thermometer strips that go from about 50 to 100 (F), which is
>fine for ales. I've also seen ones apparently designed for brewing
>with an even better range; maybe this is what Sheaf & Vine is selling?

The ones sold by Sheaf & Vine have a range of 40F to 80F. I think that this range should be made a bit lower for lagers and a bit higher for ales. If your ambient is 75F, then I could easily see the fermentation driving the temperature above 80F.

Mark writes:

>Am considering a Thanksgiving-type ale that would involve the addition
of
>some pumpkin pie spice (allspice, cinnamon, nutmeg, etc.). My question
(s)
>is, has anyone tried this before, (i.e., dryhopping with this stuff)?
>Should I do this after initial fermentation has terminated? Should I do
>this in conjunction with some aromatic hops? If so, what kind and how
>much? About how much of this pumpkin pie spice should be added for 5

If you add the spices directly to the brew, you will have to deal with

the particles which won't dissolve. What I did was to soak the spices in vodka for two days and then strain the liquid through a coffee filter. I added this at bottling so I could adjust to taste. I don't have my records handy, so I can't say how much I used, but it was a lot more than I initially anticipated. Maybe if I had soaked the spices in the vodka longer, more flavor would have come out of them. I suggest making up a bunch of your own extracts and then adding them to an already carbonated beer of a similar recipe that you intend to use. Once you know how much you will need, you can go ahead and brew the batch and then either add the spice extracts on a per-bottle basis or on a batch basis.

Al.

Date: Wed, 8 Sep 93 14:08 CDT

From: korz@iepubj.att.com

Subject: Re: hazy beer/sparging/separating wort from hops/2-gauge regulators

Bill writes:

1) I've had haze problems since I started mashing my own grains. Not chill haze, rather the beer never clarifies properly. I know the most likely source is unconverted starches. However, my mashes all passed the iodine test (sample taken from top of mash tun). Is there a better conversion test? Is there another possible source for this haze?

It could be starch haze from too hot a sparge water -- unconverted starch can be liberated from the husks if the sparge water is a lot higher than 168F. This reminds me of an interesting point I read in Beer & Brewing Volume 8, from Dave Miller's talk. We all kind of know this, but then again we don't think about it this way usually. There are three stages in conversion: 1)gelatinization, 2)liquifaction and 3)saccharification. All three are occurring at the same time... some starch is being gelatinized, which is then liquified by the Alpha-amylase and then saccharified by the Beta-amylase. Miller pointed out the danger of relying strictly on the iodine test because there could still be quite a bit of ungelatinized starch in the mash which would not be available to the iodine test. This is a common reason for low yield, in that a brewer will see a negative iodine test and mash out, leaving a lot of ungelatinized starch.

2) Sparging questions:

a) How much recirculation. "Recirculate until runoff is clear". Sounds great in print. However, for amber or darker beers this is not as obvious as it sounds. In last batch I recirculated the first 5 qts. Is this excessive?

Miller will say you can't recirculate too much (almost) but it depends on your setup. If you have a large underlet (dead space under the screen) you will have to recirculate more to set the filter bed. Some users of particular setups have reported an established filter bed after about a cup. For dark beers try a smaller vessel (like a test tube) for assessing clarity.

b) When to stop sparging. "Don't over sparge". I like this about as much as "cook until done". The three techniques I know of are 1) sparge until runoff reach certain gravity (1.010?), 2) Sparge until pH is too high (> 5.5?), 3) Sparge until boiler is full. Both Miller and Papazian give mash & sparge water quantities, but the last time I used these my final runnings were 1.020, seemed wasteful.

It was wasteful. Actually 3 can be your limiting factor, but you can always boil down some of the wort and then add more runoff. 1 is the one I use, but if your water is alkaline, you can extract a lot of tannins as the pH rises. If you do have alkaline water, you should acidify your sparge water to make sure the pH does not get too high. Actually, you need less acidification when

you start your sparge (because the grain lowers the pH of the mash) and more as later in the sparge (as the low pH wort runs out of the lauter tun).

3) Separating break material & spent hops from wort. When I siphon my cooled wort from the boiler into the fermenter, my siphon tube clogs leaving 1/2 to 1 gallon of wort/trub in the boiler. I usually pour the
<snip>

I use a hop bag for my boiling hops (whole AND pellet) and it reduces the amount of material at the bottom of the kettle significantly. I must note that I add 10% to Jackie Rager's formulas to compensate for the lower utilization I get when I use the hop bag.

Tom writes:

>closet). Now I have recently gone back to glass fermenters, 6.5 gallon >vice 5 gallon. I was wondering when light struck beer begins to be a >problem. <snip>

You should keep the fermenter in the dark too -- your beer can be light-struck while in the fermenter.

Bryan writes:

>Most of the kegging setups I've seen at shops have regulators on >the CO2 bottles with two "dials". What do the two dials read? Are >two necessary? I don't want to skimp on the regulator, but I don't >want to buy something unnecessary.

I feel that a two-gauge regulator is unnecessary -- the low-pressure gauge shows you the pressure after the regulator (the keg side) and the high-pressure regulator shows you the high-pressure side (the tank side). However, the pressure in the tank is going to be pretty much 800psi until all the liquid CO2 has turned to gas -- then it will drop like a rock. No, the only way to know how much CO2 you have left is to weigh the tank. A 20# tank means that it will hold 20 pounds of CO2. Weigh the tank with the regulator and hoses when it is empty -- write this down (the tank will be stamped with it's empty weight, but taking off the regulator periodically is not a good idea -- mess with the fittings as little as you can). When you get it back from the filler, it should weigh 20# more (or 5# if it is a 5# tank, 10#, etc.).

Al.

Date: Wed, 8 Sep 93 9:13:40 MDT
From: npyle@n33.stortek.com
Subject: acid bottles / CF chiller cleaning / ???

Corby asks how to treat his acid bottles before using them to brew. It reminds me of an old rhyme (the origin I do not know): The solution to pollution is dilution. The way I would treat the bottles: just add water. There should be no acid left "in the glass" when the bottle is emptied and rinsed. I might store the thing full of water for a day, empty, fill, and store for another day, to really rinse it well. Other than that I wouldn't worry.

I found out something (that I already knew!) this past weekend. Dishwashing liquid (detergent?) is very corrosive to basic metals. I knew this because a few years ago I plumbed some iron gas pipe and did the standard "bubble" test on the threaded joints. These threads rusted within a day, although not enough to cause any problems. Well, I'm here to say that it works on copper even better!

I wanted to do a great cleaning on my counterflow wort chiller before coiling it (just to make sure there was no machine oil or anything in it). I laid it out flat and snaked a wire into it. It only made it about halfway but I remembered someone on the net recommending using dishwashing liquid to lube it. The advantage, it was said, was that it was good for taking any oils out with it when it was rinsed.

So I poured a good amount in the end of the copper tubing and was able to snake the wire all the way through the tubing. I then got distracted for a couple of hours and when I came back to pull some twine through, there was a large amount of corrosion of the copper tubing already happening. I ended up pulling the twine through (with cotton balls and disposable cleaning rags) many many times before getting the tubing really clean. The bulk of this work was getting that green sludge (some sort of copper oxide?) out of the tubing. I checked it by cutting off a couple of inches of the tubing and cutting it lengthwise. The tubing is now clean but I would do things differently next time. If I was to use dishwashing liquid, I'd make sure that I rinsed it out within the hour. Or, use something else. Another lesson learned...

Patrick Weix and Chris Campanelli: Thanks for the FAQ's!

Cheers,
norm

- - -

Norm Pyle, Staff Engineer Head Brewer,
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(303) 673-8884 npyle@n33.stortek.com

Date: Wed, 8 Sep 93 13:00 CDT
From: hplabs!mcdcup!tellabs.com!don (Don Leonard)
Subject: Re: Freezers

>I know that some people use a chest freezer with some type of
>external thermostat to control the temperature. Has anyone
>ever burned out the compressor of a chest freezer due to using
>it in a way that it was not intended to be used?
I'm not sure about your particular freezer but mine just has a
normal refridg. compressor in it. As long as your temp. regulation
device "short cycle" protection for the compressor, I don't think
you are straining the hardware much more than normal use. A short
cycle protection is nothing more than a timer that prevents the
compressor from turning on until it has sat for a while. The time
length is usually at least 4 min. but could be more. The reason you
need to do this is to allow the high and low pressure sides to
balance before starting the compressor. Not allowing the high side
pressure to equalize puts excessive strain on the motor inside the
compressor.

>Does anyone
>have any experience with older chest freezers say > 10 years
>old. I worry that an older freezer may not have much life
>left in it, but then again I think that it may also be built a
>whole lot better than the new ones.
Yep, I've got one thats at least 15 years old and it works great.
The only problem with old fridges are that they are not really as
energy efficient as the newer ones.

> Another question, if the freezer
>is fairly full with 30-40 gallons of brew at 45-50 degrees, does
>the temperature stay fairly constant and require the compressor
>to not kick on that often or a better way to phrase that is
>Has anyone had their electric bill double or triple after
>setting up a chest freezer beer cooler?

>
>Thanks -
>Wally

Well, I have noticed an increase in my electric bill but not the
doubling that you refer to. Currently I have a lagering/serving
fridge and a fermentation freezer. They are both at least 12 years
old.

don

Date: Wed, 8 Sep 93 17:07:12 -0400
From: <geotex@engin.umich.edu>
Subject: Primary Fermetor question

I just started using a blowoff tube on a glass carboy for my primary. It works great! I have a 1" diameter tube for the blowoff and my current batch blew out about 1 pint of liquid.

My only question is: what should I do when I rack to the secondary? More specifically, now that the liquid level is lower than the neck, should I top it off when I rack?

I want to minimize the air exposure, right? But I am NOT convinced that adding a pint of water at this stage would have not effect.

Please respond by e-mail, I need to rack soon.

Thanks
Alex

Date: Wed, 8 Sep 1993 17:35:08 -0400 (EDT)
From: Kieran O'Connor <koconnor@mailbox.syr.edu>
Subject: Fridge Costs

Some folks have been wondering about fridge costs. Here's a neat way to figure that out.

Most power companies offer free devices (you borrow, but can't keep) which will measure power consumption. The one I got is for educators (I'm a teacher) and they mail it to you and you mail it back when done. They have other stuff too--all sorts of science related gizmos. The power company here that does it is NY State Electric and Gas (a public utility), but they sent it to me where I work which is not even in their service area.

You put in the cost of your electricity/KW hour, then plug the fridge into it. It runs like a meter, but only when power is drawn through it, so it's accurate for our usage.

I used it once when it was set to 60--and I think it was like 3\$/month--at \$.11/KW/hour cost.

Good luck.

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu
Syracuse, N.Y. USA

Date: Wed, 08 Sep 93 16:05:33 -0700
From: Drew Lynch <drew@chronologic.com>
Subject: Re: regulator question

The dial closest to the CO2 tank measures tank pressure, the other measures dispensing pressure. I have yet to empty my first 20lb cyinder, but I understand that for CO2, the first gauge moves very little if at all, until the tank is empty, then it drops like a stone. The best way to determine the remaining CO2 is to weigh the tank, and then subtract the tare (sp?) weight stamped into the metal near the neck of the tank. Only the dispensing gauge is necessary.

Drew Lynch
Chronologic Simulation, Los Altos, Ca.
(415)965-3312 x18
drew@chronologic.com

Date: Wed, 8 Sep 1993 16:28:26 -0400

From: Bill Flowers <waflowe@qnx.com>

Subject: Re: Hard, high pH water treatment for new masher (HBD #1205)

Almost a month ago I posted the original message requesting help. This is a long overdue "thank you" to all those who responded. Armed with your advice and a detailed lab report I was finally able to make sense of what Miller was saying. Unfortunately I haven't had an opportunity to apply what I've learned yet (too busy delivering on a contract), but over the next week I'll make up for it with 3 batches of beer I plan to start. :-)

Once again, thanks to all.

- - - -

W.A. (Bill) Flowers email: waflowe@qnx.com

QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)

(613) 591-0931 (voice) mail: 175 Terrence Matthews

(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

Date: Wed, 8 Sep 1993 18:25:19 -0600 (CDT)
From: jim@n5ial.mythical.com (Jim Graham)
Subject: questions on making mead / suggestion re: exploding carboy

First, a couple of questions regarding making mead. Then, a suggestion for the guy who had the carboy explode in the closet.

After reading Papazian's comments on how good the stuff is, I'd like to try it out. Is brewing mead any different from brewing beer in a single-stage fermenter (I don't even own a carboy)? Is it basically going to be the normal approximately 7 days in the fermenter and then 15 days (minimum) aging in bottles? If not, how long should I expect it to take to ferment/age out?

Also, how much is it likely to cost to brew? Is Sam's Wholesale Club most likely to be the best (i.e., cheapest) source for the honey? Or is there a less-expensive source?

Is mead one of those things that, like champagne, is typically only for certain occasions? Or is it something that most people would just sit down and enjoy as they would any other homebrew? Does this matter? Do I care? Who knows.....

I'm thinking about using the first mead recipe in TNCJOHB, which he calls ``Antipodal Mead (Traditional)``. Does anyone have any suggestions for a mead that might be a better one to start with? Or is this a good start?

Btw, adding fruit isn't really much of an option right now, mainly for cost reasons (I'd have to buy the carboy as a secondary fermenter, plus buy the fresh fruit at a fruit stand or farmer's market somewhere, etc.). However, I'm certainly open for suggestions along this line, too---if nothing else, for future reference.

> From: TAN1%SysEng%D CPP@cts27.comp.pge.com
> Subject: Light struck beer (TAN1)

> I have
> been relagated to brewing outdoors since several years back I had a glass
> carboy explode in my bedroom closet (The saddest day of my life - superbowl
> stout exploded, taking out the carpet and most of the clothes in the
> closet).

Just a suggestion---why not wrap the carboy (whether it's outside or in your closet) in a blanket or something similar? When it's inside, it would at least keep the beer limited to making a mess on the floor, as opposed to trashing the floor, clothes, ceiling, etc.... When it's outside, it would

help prevent the problem of exposure to light. Whether it's inside or outside, it would make it far less likely for someone to be hurt (or worse) by shrapnel.....

I had a beer bottle explode once, and from that day on, I keep all beer bottles in either a case-box, in a cabinet, or under some sort of towel, blanket, etc., from the day the bottle is capped until it goes in the fridge. If another one explodes, I don't plan on cleaning up glass from all over the apartment (the one that blew sent glass *EVERYWHERE*---I'm just glad I wasn't home).

Anyways, that's it for today (or probably next week, by the time this gets posted to the digest). Later,
--jim

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- - -
#include <std_disclaimer.h>      73 DE N5IAL (/4)
- -----< Running Linux 0.99 PL9 >-----
-----
INTERNET: jim@n5ial.mythical.com | j.graham@ieee.orgICBM: 30.23N 86.
32W
AMATEUR RADIO: (packet station temporarily offline)  AMTOR SELCAL: NIAL
- -----
-----
E-mail me for information about KAMterm (host mode for Kantronics TNCs).
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End of HOMEBREW Digest #1222, 09/09/93
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Date: Thu, 9 Sep 93 06:08:40 PDT
From: JZABDER@BCSC02.GOV.BC.CA
Subject: distribution

To: HOMEBR2 --INTERNET homebrew@hpfcmi.fc

System Operations

Please remove me from homebrew digest redistribution list. Thanks for
all
the info.

G'day

Date: Thu, 9 Sep 93 9:19:17 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: mini-keg question

Here is a question for all you who have used the mini-kegs that are becoming available: Is it easy (or even possible) to purge the kegs with CO2 when you are kegging? Can you put the dispenser in the keg, give it a gentle blast (talk about oxymorons) of CO2, and then fill?

Thanks in advance for your help!

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Thu, 9 Sep 93 7:24:24 MDT
From: npyle@n33.stortek.com
Subject: Gel/Liq/Sacc

Al Korz raises a good point about mashing. One of the first books I read about all-grain was from Dave Line, who is (was) admittedly one of the more relaxed brewing authors around. He did say more than once (I believe it was in "The Big Book of Brewing") that once you hit a negative starch test you are not done. I guess he explained it a bit although I can't recall what his explanation was. Miller's explanation via Al seems right on the money: ungelatinized starch which is undetected by the iodine test. Maybe this is why many professional brewers rely more on the mash time rather than a conversion test.

cheers,
norm
- - -

Norm Pyle, Staff Engineer Head Brewer,
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Date: Thu, 9 Sep 1993 07:41:09 -0700
From: Richard Buckberg <buck@well.sf.ca.us>
Subject: What is Malt Liquor?

Does anyone have a definition of malt liquor? What makes some brews malt liquor, and does anyone have any recipes?

Date: Thu, 9 Sep 93 10:11:20 CST
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Beer & Brewing Bibliography

I was reading Bill Ridgely's post on Heather Ale in HBD #1222 and was facinated by the description of this ale. Anyway, It got me thinking about books on beer and brewing, new and old. Most of us are familiar with the recent books for homebrewers, Miller, Papazian, etc. However, there are obviously a lot of other books out there. I'm wondering about putting together some sort of annotated, bibliography. Any interest? Send me you comments and citations.

WAK

Date: Thu, 9 Sep 93 11:32:43 EDT
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: All-grain

Hi All,

In HBD#1221 Greg Habel writes:

>Well, I attempted my first all grain batch this past weekend. Using
>a rectangular picnic cooler with a copper t'd manifold for mashing
>and sparging. Picnic cooler is a 10 gallon. Mashed 6lbs highly
>modified pale malt and 8 oz crystal with 6 quarts of 168F water for 1
>hour. ^^^^

Was 168F your strike temperature, or the temperature of the mash?
168F is a little high for saccharification rest, you want a mash
temperature of roughly 150F-158F, depending on how much body is desired
in the finished beer.

>Here's the part I think I screw'd
>up. When sparging with 3 gallons of 170F water, I had a very
>difficult time of not disturbing the grain bed. Most of the time it
>was very turbulent. Anyways, the OG ended up being 1.024!!!! I
>quickly went to the fridge and pounded a couple of homebrews, yeast
>and all! Here's my question... how important is it that the grain
>bed is kept relatively undisturbed while sparging?

It's fairly important that the grain bed be disturbed as little as
possible once recirculation of the initial runoff is complete and a
filter bed established. If the grain bed is disturbed, the chances of
particulate matter such as small pieces of grain or husk getting into
the brewpot are increased.

>How do you add 3 gallons of 170F sparge water without disturbing the
>grain bed? Could it be that my cooler is too large, ie the grain bed
>is not deep enough? I decided to ferment it anyways.

Try using something to diffuse the sparge water as you add it. I mash
and sparge in a cylindrical cooler with a colander mounted on top.
You might try setting a bowl or plate upside down on the grain bed, and
pouring the water slowly onto the bottom of the plate.

>Also, will the
>liquid turn colorless near the end of the sparge. Mine didn't.

The runoff will get lighter in color as the sparge progresses, but
it should not get colorless unless you oversparge.

>I'd love to give this another shot this weekend. Greg

Please do, and let us know how things worked out.

Also in HBD#1221, Bill Kitch writes:

>I went all grain several months ago and will never turn back. However,
>I've got some new problems. I'm sure you experienced all-grainers can
>help
>me solve them.

> 1) I've had haze problems since I started mashing my own
> grains. Not chill haze, rather the beer never clarifies properly.
> I know the most likely source is unconverted starches. However, my
> mashes all passed the iodine test (sample taken from top of mash tun).
> Is there a better conversion test? Is there another possible source
for
> this haze?

Hmmm, just a hunch, but the fact that the iodine test passed after mashing yet haze appears in the runoff leads me to believe that unconverted starch is indeed the culprit, and that you have a filtration or sparging problem.

Check your grind, specifically the condition of the grain husks, they should be intact or nearly so. The more intact the grain husk, the better filtration you will get in the lauter tun. If the husks are excessively torn or in small pieces, you need to grind a little coarser. Your extraction may suffer a little bit, but this is by far the lesser of the two evils, IMHO.

Another thing to check is the temperature of the grain bed itself. I read somewhere, in one of Miller's books I believe, that granules of unconverted starch will burst when exposed to temperatures approaching 190F. This releases very fine particles of unconverted starch into the wort, which are all but impossible to filter out in the tun. Measure the temperature of the grain bed, not the sparge water or water on top of the bed, and keep it around 160F or so.

> 2) Sparging questions:
> a) How much recirculation. "Recirculate until runoff is clear".
> Sounds great in print. However, for amber or darker beers this is
> not as obvious as it sounds. In last batch I recirculated the first
> 5 qts. Is this excessive?

Different lautering setups will require different amounts of recirculation, so it's difficult to say whether a given amount of recirculation is excessive or not. I recirculate until the runoff is free of particulate matter, usually 2 to 3 quarts. The runoff is not crystal clear at this point, but it begins to run clear shortly afterwards.

I think the purpose of recirculation is to set up the filtration by the grain bed, not to increase yields. When the runoff is free of small chunks of grain, you're there. Of course, this is more difficult to determine with dark beers. When in doubt, I'll collect the runoff in a small glass, and hold it up to the light. This works for all but the darkest stouts.

> b) When to stop sparging. "Don't over sparge". I like this about as
> much as "cook until done". The three techniques I know of are 1)
> sparge until running reach certain gravity (1.010?), 2) Sparge until
> pH is too high (> 5.5?), 3) Sparge until boiler is full.

I use a combination of the hydrometer reading and my palate to determine when to stop. From experience, when I've collected 5 gallons of wort, I start taking frequent gravity readings of the runoff. When the gravity of the runoff approaches 1.020, I start tasting the sample. As soon as I detect a taste like hot tea, I stop sparging. With my equipment and procedures,

I'll have ~6.5 gallons collected at this point, and the gravity is ~1.010.

Your mileage may vary.

The problem with oversparging is excessive tannin extraction from the grain husks. This is why I use my palate to determine when to stop.

IMHO,

numbers like gravity and pH will vary according to water supply, amount and type of grain used, etc., so it's risky to rely solely on these measurements.

> 3) Separating break material & spent hops from wort. When I syphon my
> cooled wort from the boiler into the fermenter, my syphon tube clogs
> leaving 1/2 to 1 gallon of wort/trub in the boiler. I usually pore
the
> last of this glog into mason jars, allow the trub to settle and
decant
> the wort for use as starters. One quart of glog doesn't bother me but
> for my last triple I was left with nearly a gallon. Again seems
> wasteful. Techniques? Equipment? (I know, Jack, I should drill a
> hole in the bottom of my boiler and install a SS screen w/tubing etc.
> I'm seriously considering this but would like to hear other
> alternatives.)

Someone else posted this idea a while ago, I can't remember who, try attaching a copper scouring pad to the end of your racking tube. These things are called "Chore Boys" in these parts, they have no soap in them, are easily sanitized by a brief boil, and cool off enough to handle a few seconds after removal from boiling water. I set the end of the racking tube directly on the surface of the break material, they do a superb job of filtering hops and trub, I get every drop of wort and have never had one clog.

Apologies for the lengthy post, I hope it helps.

Cheers,
Jim

Date: Thu, 9 Sep 93 9:43:19 MDT
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Foaming when adding priming sugar

I've noticed, at bottling time, when I add my priming sugar to the beer it tends to foam a bit. Anyone else notice this or have a theory why?

My guess would be that it is an indication of how much CO2 is dissolved in the beer -- the sugar somehow causes it to be released. So indirectly, it's an indication of how active the yeast in your beer still are, and perhaps an indication of how well your beer will carbonate.

BTW, I usually prime with 2/3 cup corn sugar dissolved in a few ounces of hot water.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Thu, 9 Sep 1993 11:50:42 -0400

From: esonn1@cc.swarthmore.edu

Subject: Something new

Greetings,

I am an extract brewer with about 10 batches under my belt. Mainly because of time constraints, I don't think I'll be trying all-grain brewing for quite some time, but I would like to expand my brewing horizons. Other than brewing particular beers I haven't done before, are there any techniques ingredients etc. that you more experienced brewers would suggest I try? The only half-way unusual ingredient I've added yet was some milk sugar to a stout which is now fermenting. This request may seem out of left field, but

I thank you in advance for humoring me and for any suggestions.

Please respond by e-mail to :esonn1@cc.swarthmore.edu

Cheers,

Eugene

Date: Thu, 9 Sep 93 09:10:50 PDT
From: 09-Sep-1993 1208 -0400 <ferguson@zendia.enet.dec.com>
Subject: 2-dial regulator vs. 1 dial

>Date: Tue, 7 Sep 93 15:58:48 PDT
>From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)
>Subject: regulator question

>
>While we're on the subject of kegging...

>
>Most of the kegging setups I've seen at shops have regulators on
>the CO2 bottles with two "dials". What do the two dials read? Are

2-dial systems usually have 1 low pressure dial (0-70 PSI or so) and
one high-pressure dial (0-2000 PSI). The high-pressure dial is the
pressure in your CO2 tank. The low-pressure dial is the pressure
maintained in your keg. I guess the only reason for having the high-
pressure dial is to help determine when your tank is nearly spent.

JC Ferguson

Date: 9 Sep 93 10:04:40 MST
From: "Cisco" <FRANCISCO@osmo.CCIT.Arizona.EDU>
Subject: REGULATORS

Glenn Anderson writes:
Homebrewers desiring the use of this gas should be aware that they must use different regulators as the nitrogen is packed in under higher pressure than CO2. CO2 is normally under 800LBS pressure and CO2 gages normally top out somewhere around this. Nitrogen on the other hand is usually under around 2100LBS and require the appropriate regulator/gages.

To keep you from hooking up the low pressure CO2 regulator to the beer mix and blowing your head off, the bottles come with a different valve. It's female, part number is CGA580.

This is correct ONLY if you're filling your tank with 100% nitrogen and that definitely doesn't work for dispensing beer(you will eventually end up with flat beer because the CO2 in suspension will leave the beer under a blanket of nitrogen). The nitrogen/CO2 mixture is under 1800 lbs pressure and beer dispensing regulators are rated to be safe up to 2400 lbs(I called several regulator distributors to be sure). Also no special valve is needed for the special Beer Mix of nitrogen/CO2.

John Francisco

Date: 9 Sep 93 10:26:37 MST
From: "Cisco" <FRANCISCO@osmo.CCIT.Arizona.EDU>
Subject: BEER MIX REPLY

From: korz@iepubj.att.com

Cisco writes:

>I have posted a few articles on calculating dispensing pressure with
>different diameter/length tubing. If you drink 5 gallons of homebrew
>within 2 weeks everything works fine. However, if you only drink a
>pint of beer a day, like I do, your beer will eventually become
>overcarbonated because the nice cold temperature at which you dispense
>the beer also allows the beer to absorb more CO2 over time. My kegs, I
>have two on tap all the time, sit for 4 to 6 weeks and could absorb
>quite a bit of CO2. No amount of adjusting CO2 pressure will correct
>this to pour properly. You could disconnect the CO2 and bleed off
>some of it from the kegs and dispense but it's a real pain bleeding
>off dissolved CO2 - it takes time and patience.

I'm sorry, but I must disagree. If you do the math first and then
choose your hose lengths/widths accordingly, you will not have
overcarbonation.

You just must first choose the temperature and the number of volumes you
want in the beer and then choose the pressure, hose lengths, hose
diameters

based on the formulas give in HBD back issues and in Dave Millers' very
good article in the 1992 AHA National Conference Proceedings. If your
beer is overcarbonating, the pressure is too high or (as Jack pointed
out)

the temperature may be higher than you think.

I'm sorry but I disagree. You obviously have not had any kegs on tap
for any extended length of time to notice the gradual effect of CO2
absorbtion at cold temperatures (if you don't believe this can happen
then you don't believe in the concept of forced carbonation either).
I've been kegging for ten years now and I definitely talk from
experience. Also I was the one that gave formulas in HBD back issues
on calculating pressure, hose lengths/diameters. The calculations
work great if you drink you keg within a few weeks but if you have a
stout on tap that you only drink occasionally it will over time
absorb more CO2. The alternative is the nitrogen/CO2 gas mixture
which slows down the inevitable absorbtion considerably. Someone else
mentioned that all you had to do is turn off your CO2 tank and only
turn it on when the pressure got too low. This will work if you drink
the beer within a few weeks but it will still continue to absorb the
CO2 but at a slower rate than if the gas pressure were left on. I'm
lazy, I don't want to keep turning the gas on & off so I prefer the
nitrogen/CO2 mixture for dispensing. I could also solve this problem
by drinking alot more beer(this is tough with two kegs always on tap!)
but then I drink for quality flavor enjoyment not for quantity.
John

Date: Thu, 9 Sep 93 12:54:15 CDT
From: jay marshall <marshall@pat.mdc.com>
Subject: used brewpub equipment

Fellow HBD'rs,

A buddy of mine is looking at putting together a brewpub here in Texas now that they are legal. He would like to find out if anyone knows of points of contact for locating used brewing equipment, and what the general availability of used systems is. He is interested in getting prices and general installation costs for 2 - 10 bbl systems.

Please respond via private email to save HBD bandwidth.

thanks,

- - -

Jay
marshall@pat.mdc.com

Date: Thu, 9 Sep 93 11:01:44 PDT
From: 09-Sep-1993 1353 -0400 <ferguson@zendia.enet.dec.com>
Subject: replacing keg gaskets, etc.

I don't think it is totally necessary to replace all of the gaskets in a soda keg. I have one soda keg that I've used 3 or so times and the only gaskets I replaced was the lid o-ring and the poppet o-rings, for a total cost of less than \$1.00. Never had the taste of soda in any brews dispensed from the keg.

The only time I'd suggest replacing more gaskets is if they are leaking or you are extremely worried about soda flavor in your brew. In other words, Relax...

When you get a dirty keg, wash it out really well. Put boiling hot H2O with soap and shake it; let it sit over night. Rinse. Repeat, hook up the CO2 and dispense, etc. One thing nice about stainless is it cleans well.

As for a place to buy parts, I've done business w/ Foxx and BCI. I like BCI better 'cuz I can call 'em on Monday and have stuff at my house by Friday. Although on a couple of occasions, they have screwed up my order...

BCI: 800-284-9410.

Last I remember, lid o-rings were \$0.52, poppet o-rings around \$0.12, etc. Buy yourself a bunch and you don't have to sweat it for a while.

JC FERGUSON

"Kegs 'R' Us" :-)
Littleton MA USA

Date: Wed, 4 Aug 93 20:32:48 GMT
From: Martin Wilde <martin@gamma.intel.com>
Subject: Yeast Washing

When I wash yeast I have a hard time separating the cold break (trub) from the yeast. I know that there is a color difference (white for trub - offwhite for yeast), but I think I end up with some trub in the process. Is the whole idea behind the wash to just remove the fermented wort from the yeast/trub and thats all???

thanks
martin

Date: Thu, 9 Sep 93 14:06 CDT
From: korz@iepubj.att.com
Subject: Colorless runoff/low extraction/dryhopping

Rob writes, quoting Greg:

>> Here's my question... how important is it that the grain
>> bed is kept relatively undisturbed while sparging? Also, will the
>> liquid turn colorless near the end of the sparge. Mine didn't.
>

<edited>

>conclusion of sparging; however, if you sparge until the runoff
>is colorless, you may be oversparging. There are many ways to
>endpoint your sparging operation. I use George Fix's rule
>of thumb, that is use 1.25qt water/# grain for the mash and
>use the same amount of sparge water/# grain for sparging. This
>implies limiting your runoff to 2.5qts sweet wort/# grain. Another
>way to endpoint your sparge is to taste the wort periodically.
>If the runoff is no longer sweet or has an astringent flavor
>(like iced tea), you should terminate the runoff. I
>believe you are better off undersparging by a slight amount,
>rather than risk tannin extraction as a result of oversparging.

I was just reading Beer and Brewing Volume 8 yesterday and ran across something in Dave Miller's talk. I believe he said that at the end of his sparge, he once tasted the runnings and they tasted like tea (and looked like tea). On his next batch, he acidified his sparge water to 5.7pH with 88% Lactic acid (he said it didn't take much) and on his following batch, the end of the sparge was nearly colorless.

Regarding Greg's low extraction (5 gal of 1024 from 10# of grain), Miller said in the same talk that the iodine test is unreliable and that because of it, some people mash out too early -- see my hazy beer post in HBD 1222.

Jeff writes he plans to dryhop his Christmas ale with 3-4oz of Willamette pellets for 4-6 weeks.

I feel that you should save the pellets for boiling and get some whole Willamette hops for dryhopping. Whole hops will float and thus it will be much easier to rack out from under them than with pellets. Also, 3-4 ounces is quite intense for a 5 gallon batch. I usually use 1/2 to 2 ounces. Finally, I feel that 4-6 weeks is too long, even at 40-45F. At 65-70F, I recommend 7 to 10 days and about two to 2.5 weeks for lagering temperatures. After a while, I feel that more hop aromatics are escaping from the beer to the air than are entering the beer from the hops. This, of course, is unless you are planning to do this in a sealed container. You should probably purge any air that you introduce during dryhopping as oxygen kills hop aroma.

Al.

Date: 09 Sep 93 14:22:20 -0700
From: mbarre@nomvs.lsumc.edu
Subject: (none)

Jon Palmer iz riet. Liek Galager, Ie doen't think wee need tue ad
ennee mor wirdz with simpl spelings but funkee proenunceeashunz tue
the English languej. Let's uez trub.

Miekel frum Nue Orlins

Date: 9 Sep 93 12:34:00 -0700
From: CAIN_WILLIAM@Tandem.COM
Subject: When should I pick my hops?

I planted some cascade and nugget hops this spring and the Cascade's are doing great. While the nuggets have just started to form cones, the Cascades have cones that are between 1/2" and 3" long. I've picked a couple and squeezed them, and they do produce a pleasant scent. I'm thinking that it's time to pick them, but how can I know for sure? Also, what is the best way to dry and store them? I have been off of the digest for a couple of months so any suggestions or compilations of previous posts would be greatly appreciated.

Bill Cain

Date: Thu, 9 Sep 1993 13:51:56 -0700 (PDT)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: CF chiller cleaning, cooler mashing, Glatt mill, etc.

COUNTER FLOW CHILLER CLEANING

I'd like a reasonable cleaning and sanitizing procedure for CF chillers. I'm considering building one but feel that merely hot water and idophor probably isn't going to keep it clean over time. On the other hand, I don't quite feel like going through the clean-in-place process outlined in the recent BT issue. What do the rest of you do?

COOLER MASHING

I've been having some trouble reaching my desired mash temp of 154F by infusing at a ratio of 1.25 qt H2O @ 175F per pound of grist. I've also tried using a ratio of 1/1 and adjusting with boiling water. When this didn't work I drew off a fraction of the liquid, boiled and returned to the mash. I used this method on a porter that came out highly phenolic. I thought this was my first experience with an infected batch but a recent post (sorry forgot who or when) suggested a link between tannins and phenols. Could boiling the dark grains cause a phenolic taste in my brew?

I don't notice other taste/mouthfeel components I associate with tannins. Also, I'm thinking of starting with hotter water and adjusting with cold water or ice if necessary. Any potential problems with starting with a too hot mash? I understand that the enzymes are not detrimentally affected by short time periods over their active temperature range, correct?

GLATT MILL

I'd like to hear from anyone who has had a chance to use the Glatt mill, both those who are pleased as well as those who are not. I think I'll ask Santa for a mill for Christmas and would like to know which one to ask for.

PUMP SOURCES

I repeat my request for sources for wort pumps. Thank you to Jeff Burton for the lead on the March Manu. pump from C & H. I got the C & H catalog but the pump isn't listed, haven't called them yet. Where did the rest of you RIMS and other pump using brewers get your pumps? Is this a secret society sort of thing; you can't be part of the club until you find a pump all by yourself?

Please post the pump sources to the Digest, I received several requests for forwards after my last post on this. Also, at the risk of a flame war, I'd like a public discussion on CF cleaning so we get the pros and cons of the various methods before I choose one. E-mail is fine for other info.

Sorry to be so long winded, its been a while. TIA.

Eric Wade
<ericwade@class.org>

Date: Thu, 9 Sep 1993 17:44:30 -0400
From: Bill Flowers <wflowers@qnx.com>
Subject: Hoptech's fruit extracts

In HBD #1219 (I'm almost caught up with my reading, 30 HBD's in 3 days), Kinney Baughman (BAUGHMANKR@conrad.appstate.edu) wrote:

>Someone asked recently about the best way to make a raspberry flavored
>beer. I know you have plenty of raspberries in your backyard but a
>small plug for the raspberry essence that Mark Garetz of Hoptech
>sells: We used it in a raspberry wheat we had on tap at Tumbleweed
>this summer and it sold like hotcakes! Mind you, this is a fruit beer
>in a town that had never heard of fruit beers! We added the essence
>at kegging and it imparted a wonderful raspberry fruit flavor to the
>beer that was true to the flavor of raspberries. No artificial
>flavors here. The best thing about it was that it was simple, simple,
>simple.

I have to second this. I added a carefully measured quantity of the raspberry to a bottle of really good cyser and did the same using the cherry in another bottle (I had lots, so I could spare a few bottles). It was excellent, absolutely outstanding! Now I can offer the "original" cyser as well as delicious apple-raspberry and apple-cherry melomels. :-)

Also, I'm looking forward to finally making (after a long busy spell with no brewing) a blueberry-wheat beer using the blueberry extract. Some time in the future I'll report on this. The extract sure smells good!

Mark, thanks for offering these excellent products (along with your wonderful hops) to the homebrew community.

I have no connection with Mark Garetz or Hoptech other than being a very hoppy ;-) and satisfied customer.

- - - -
W.A. (Bill) Flowers email: wflowers@qnx.com
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)
(613) 591-0931 (voice) mail: 175 Terrence Matthews
(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

Date: Thu, 9 Sep 93 17:03 CDT
From: othon@ial7.jsc.nasa.gov (Bill Othon.LinCom)
Subject: Scotland/Wales/Ireland

I plan to visit the Celtic lands of Scotland, Wales, and Ireland. Any suggestions about breweries or brew pubs in these areas would be greatly appreciated. Also, I remember reading about a compilation of pub locations somewhere on the network; please repost the location of this toothsome database.

Thanks

-Bill

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 //      |__|      //  
===== / / --- | | --- / /  
Bill Othon <othon@ial7.jsc.nasa.gov> / / --- | | --- / /  
Tetherologist / /  
LinCom Corporation - Houston Division / /// /// /  
(713) 483-1858// / / //  
//
```

Date: Thu, 9 Sep 1993 15:41:18 -0700
From: Ken Michael Johnson <kmj@leland.Stanford.EDU>
Subject: homebrew stores near Palo Alto?

Does anyone know of a good homebrew store near Palo Alto. I've been to Fermentation Frenzy, and I was not impressed. I'd like some place with open bins of all grains and a good mill for the optional grinds. A good selection of hops would be nice too.

please e-mail me directly

thanks

kj

Date: Thu, 09 Sep 1993 22:05:41 ADT
From: PAUL MACDONALD <PMD_VS@ac.nsac.ns.ca>
Subject: New Brewer.

I would like to know the best book for a beginning brewer. Thank-you!

Date: Thu, 9 Sep 93 23:28:07 CDT
From: hinz@tidalwave.med.ge.com (David Hinz (hinz@picard.med.ge.com))
Subject: Radlett, England pubs? / OLD bottle cleaning

Greetings!

I may be travelling for several months to Radlett, England, on business in the near future. The tasting opportunities are overwhelming, and I would really appreciate any hints, tips, or suggestions as to places to go while in the area (like Belgium, for instance ;-), and so on. Brand names would be great.

Also, what are the laws regarding hand-carrying ale&beer through UK & US customs? How much, if at all, can I bring?

- - - - -

I recently found about a dozen old clear, green, and brown beer bottles mouldering around in a barn floor. There's green stuff growing inside at least the clear ones, and I assume the rest as well. I soaked them for a couple of days in soapy water, and am planning to put them in a 5-gallon pail of bleach water for a few weeks/months. Anything besides this to try? I'd hate to use my nice bottle brush on this scuzzy stuff.

The clear bottles will be nice! Someone here (thanks, someone) posted that they use one clear bottle per batch, and use that as their last bottle - kind of a ceremonial type of thing. Well, I've got 5 or 6 of them now, so that might hold me for a while, thanks for the great idea!

Dave Hinz

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End of HOMEBREW Digest #1223, 09/10/93

- - - - -

Date: Fri, 10 Sep 93 11:11:19 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Iodine or chlorine?

Could someone help me get this right? Which sanitizer is good and which one is bad for copper and ss, and which one should I use for ss pots with copper/brass fittings in them.
Thanks, Nir

Date: Fri, 10 Sep 93 08:35:16 -0400
From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)
Subject: Equipment

Greetings All--

I just kegged my last batch and wanted to report to all about the changes I

made in my brewing set up that made life an absolute pleasure.

I have been brewing in a 40 Quart SS stock pot for a couple of years and after fighting with configurations mash vessels etc I have hit on what I think is an excellent combination. I was given a SS keg about

a year ago and kept meaning to cut the top off or use it in some way for

brewing. I finally got it on line for this brew session. Having two large pots on line has to be the best improvement in my brewing since I started. Now I can mash in one vessel while my sparge water is heating in the other one and can begin boiling wort before the sparge

is complete. The time savings is great! Additionally, I tried something

a little different this time. Since I now have the space for large grain

bins, I mashed 17 pounds of grain and went to 10 gallon batches instead of

5 (actually this one was about 7 with a SG of 1.072). The additional work for the larger batch was 0.

I use a copper manifold in my mash kettle and after modifying slightly this time it worked better than I had expected. I designed the manifold so that I can use the standpipe as a racking cane.

I switched to a copper chore-boy this time instead of using a hop bag tied to the end of the racking cane and that also was a positive change. This was the first time I had to slow down my sparge rate to get proper cooling into my chiller instead of waiting 3-4 hours for the wort to siphon through the it. All in all the easiest brew session ever.

To all of you considering buying/making equipment I would recommend getting the biggest set up you can afford and upgrade when you can. The flexibility the larger set up gives you more than makes up for the additional expense. Also keep your eyes and ears open you can often get good equipment for little money if you try hard. I got all of my kegs(about 7 of them) free from a restaurant that was going out of business and get this 15 gallon keg from a salws rep for one of the local breweries. Keep looking it's out there.

I didn't think this was going to be this long. Sorry for the rambling
Keep brewing-

--S
^

ENJOY LIFE--THIS IS NOT A REHEARSAL

Date: Fri, 10 Sep 1993 14:19:50 +0100 (BST)
From: D S Draper <D.S.Draper@bristol.ac.uk>
Subject: Using pectin enzyme?

Hi all, I am looking for some advice on the timing of using pectin enzyme in a fruit beer. Specifics of my recipe are: basic pale ale from malt extract, 5 UK gallons, low to moderate hop rates; 1 lb frozen raspberries added to wort just after boiling and left to sit a couple hours before being strained into fermenter and pitching yeast (a pale-ale yeast cultured from Hanseatic IPA bottle-conditioned beer). I've made this before, and really liked the subtleness of the fruit flavor from this amount of raspberry, but the beer was very hazy in spite of using isinglass during secondary fermentation. For this next attempt, I want to try pectin enzyme, but I'm uncertain about when to add the enzyme: in the primary during fermentation, in the primary after fermentation, in the secondary before finings, in the secondary after finings, or what. Also, is a couple of teaspoons to a tablespoon enough for a 5-gal brew? If you wish to send email, please do so to D.S.DRAPER@BRISTOL.AC.UK because "Reply-Mail" doesn't seem to get through to me.

Many thanks, Dave

Date: Fri, 10 Sep 1993 09:45:58 -0400 (EDT)
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
Subject: thanks

I wanted to thank everyone who responded by e-mail to my request for info on brewpubs in the SF area. Compared to N.C., the S.F. area appears to offer a plethora of opportunity!! Thanks again.
Andy Kligerman

Date: 10 Sep 1993 09:07:52 U
From: "Westemeier*, Ed" <westemeier@pharos-tech.com>
Subject: RE: When should I pick my hops

Bill Cain writes:

> I planted some cascade and nugget hops this spring and the
> Cascade's are doing great. While the nuggets have just started to form
> cones, the Cascades have cones that are between 1/2" and 3" long.
> I've picked a couple and squeezed them, and they do produce a
> pleasant scent. I'm thinking that it's time to pick them, but
> how can I know for sure? Also, what is the best way to dry and
> store them?

There is a lot of information about this in old digests, but the short
answer
is this:

When the cones start to feel "papery" rather than "spongy" it's time to
pick
them. That means that if you squeeze a cone gently and the petals seem
to be
dried out so they don't spring back to shape like they did a week
earlier, then
they are ready.

Other clues:

1. When a few of the oldest cones (the ones that came out first) begin
to turn
slightly brown at the edges.
2. When you can easily look up a cone and see the bright yellow lupulin
glands
at the base of the petals.

Hint: Wear long sleeves and light cotton gloves when harvesting hops.
The
combination of rough bines and hop oils can be extremely irritating to
the
skin.

On the subject of drying, a first year's harvest won't give you enough to
worry
about (probably not more than will fit in the cardboard box that holds a
case
of beer). So just pick them and toss them gently in a cardboard box or
two,
preferably not more than about 6 inches deep, and put them in the driest
room
of your house, protected from bright light, for a week or two until they
are
dry. It's really that simple. The fully dried weight will be about 1/8
of the
weight when they were picked.

As to storage, a good practice is to separate them into piles of about
one
ounce (dried weight) and squeeze them down to compress them, then wrap
tightly
in aluminum foil (making as good a seal as possible) and store in your
freezer
until ready to use.

You don't really know the alpha acid percentage of home grown hops, but then you don't really have to care. Buy your bittering hops from a dealer, and you will be told the percentage down to a tenth of a percent. Use your own hops as finishing hops for flavor and aroma -- the alpha acid percentage isn't very important at that point.

Ed Westemeier
Cincinnati, Ohio (where I harvested my hops last week)
westemeier@delphi.com

Date: Fri, 10 Sep 1993 07:13:25 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Hop picking time....

It's been a late wet, cold summer out here in the PNW. Anyone who went to Portland may remember the light misty rain on that Thursday. Well, here it is well past the end of August and my hops still aren't ready to pick...

It's been a rough summer for them, two freak windstorms with heavy rain snapped six of my twenty poles (Sob! whimper...), but I only completely lost four plants.

Everybody who grows hops gets excited towards picking time. Most of the books and articles advise to pick when the cones get "papery". This can be hard to judge, particularly if one is really antsy to get on with the harvest. I have taken to cutting a cone down the middle. This lets you see the size and placement of the seeds, as well as the lupulin color and amount. The surest sign of all is when some of the cones start to turn brown at the tips, but then it's too late....

Patience,

Paul.

Date: Fri, 10 Sep 93 8:46:37 MDT
From: npyle@n33.stortek.com
Subject: dry-hopping

Al sez:

>Jeff writes he plans to dryhop his Christmas ale with 3-4oz of
>Willamette pellets for 4-6 weeks.
>
>I feel that you should save the pellets for boiling and get some
>whole Willamette hops for dryhopping. Whole hops will float and
>thus it will be much easier to rack out from under them than with
>pellets. Also, 3-4 ounces is quite intense for a 5 gallon batch.
>I usually use 1/2 to 2 ounces. Finally, I feel tat 4-6 weeks is
>too long, even at 40-45F. At 65-70F, I recommend 7 to 10 days
>and about two to 2.5 weeks for lagering temperatures. After a
>while, I feel that more hop aromatics are escaping from the beer
>to the air than are entering the beer from the hops. This, of
>course, is unless you are planning to do this in a sealed container.
>You should probably purge any air that you introduce during dryhopping
>as oxygen kills hop aroma.

I agree with you Al, on virtually every point, and I've dry hopped a lot
of beers. The part about purging air is not an issue if you properly
time
the infusion of the dry hops. After primary fermentation has died down
but
there is still some activity, I rack into my secondary (I guess that
fermentation is about 80-90% complete). Some CO2 is still be driven off
but in very small quantities. This is when I add my dry hops (I just
throw
them into the secondary loose). The reasoning is this: there is not
enough
CO2 production to drive off a considerable amount of hop aromatics, but
there is enough to blanket the beer in a short amount of time. The
oxygen
can't hurt the hop aroma because of the CO2 blanket. This point is a
good
time to rack in general because the oxygen has little time to do its
damage
and the trub hasn't had time either (typically around 3-5 days for me).

Thankz fir thu addveisse, Miekel.

Eric mentions the clean-in-place process outlined in the recent BT for
counter-flow chillers. Could you summarize this process for the digest,
Eric?

I plan to clean my chiller "in-place", i.e. still attached to my boiler,
what
could be easier? I would like to see how other clean their CF
chillers.

Happy hopping,
norm
- - -

Norm Pyle, Staff Engineer Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
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(303) 673-8884npyle@n33.stortek.com

Date: Fri, 10 Sep 93 11:14:00 CDT
From: Paul Sovcik <U18183%UICVM@UIC.EDU>
Subject: Using undried and unsanitized hops

I have a batch of ale that I would like to dry hop with homegrown Fuggles hops.

The problem is, as of now the hops are still on the vine, and I really dont hav

e a good way of drying them. Can I just plop a few handfuls in the fermenter no

w, or do I need to dry them out?

Also, what about the potential for contaminating the beer? Should I microwave t

hem or something, or wear gloves when picking and pitching?

Thanks in advance!

-Paul

Pharmacist and Homebrewer

Date: Fri, 10 Sep 93 09:19:24 -0700
From: Drew Lynch <drew@chronologic.com>
Subject: Re: homebrew stores near Palo Alto?

> Does anyone know of a good homebrew store near Palo Alto. I've been
> to Fermentation Frenzy, and I was not impressed. I'd like some place
> with open bins of all grains and a good mill for the optional grinds.
A
> good selection of hops would be nice too.

Brian at FF is waiting for the new harvest to come in before he buys more hops. He decided he would rather be in short supply for a while than have to sell old hops to customers once the new supply comes in. He also has a true roller mill in the back, and he will gladly grind any grains for you. He also has a JS MaltMill for customer use. Open bins of grain strike me as a terrible idea as they will absorb water from the air.

Other options are Fermentation Settlement on Deanza Blvd in San Jose, and another shop whose name escapes me on N4th in San Jose

Drew

Date: Fri, 10 Sep 93 09:47:17 PDT
From: mri10@mfg.amdahl.com (Michael Inglis)
Subject: Recommendations

I am a new homebrewer, having just bottled my first batch, and I have a couple of questions regarding my efforts. After taking my last Specific Gravity reading, I drank the beer that I had drawn for the reading. It tasted surprisingly mellow for the smell but overall I was very happy with it. My first question is: Will the taste come out more strongly when the bottles have carbonated? (I know I should just wait and find out first hand but I am an impatient first-timer) My second question is specifically about my next batch. Last weekend I was in Santa Cruz and visited the Seabright Brewery where I drank an excellent ale with a very strong, hoppy taste to it. I would like to make my next batch have more of a hopped finish as this first batch did not. Can anyone recommend an ale extract recipe that will give a strong hopped finish? Thanks and I've appreciated all of the discussion that goes on here. It's very inspiring to someone new to the craft.

Mike Inglis
mri10@sim.mfg.amdahl.com

Date: Fri, 10 Sep 93 13:52:50 EDT
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 10-Sep-1993 1346
<macneal@pate.enet.dec.com>

Subject: Malt Liquor, Scotland brewpub, & washing old bottles

In the United States, the definition of Malt Liquor varies from state to state and is based on alcohol content. Generally high alcohol content beers are labelled as malt liquors. Texas has several "Malt Liquors" which are not considered high enough alcohol content to be labelled as such in other states.

I have been to one brewpub in Scotland -- the Rose Street Brewery in downtown Edinburgh. I highly recommend it.

To wash bottles, I simply soak them in a mixture of water, bleach, and TSP (trisodium phosphate -- available anywhere painting supplies are sold). I use 1 oz. of bleach/gallon water and follow the recommendations on the back of the box of TSP for heavy cleaning. I haven't cleaned anything that had been sitting around for years, but I have cleaned some moldy, smelly bottles simply by soaking them in this solution for a day or so (it also does a great job at removing labels), and rinsing them on the bottle washer attached to my kitchen faucet. I've cleaned 6 or 7 cases of bottles using this method and have never had to use a bottle brush.

Keith A. MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Fri, 10 Sep 1993 12:01:52 -0600 (CST)
From: John Mare <cjohnm@ccit.arizona.edu>
Subject: RE: The Celtic Lands and their ales

Bill asks about breweries and brewpubs worth visiting in Scotland, Ireland and Wales. Ireland was in my experience a barren land with no variety available in comparison with Scotland. Drink their fine stouts (Beamish, Murpheys, Guinness) and get out of there! Wales I don't really know, but Scotland holds a few precious gems. The "real ale" revolution is in full swing and all the better pubs in Edinburgh and Glasgow carry guest real ales from Scotland and England. Because of this brewpubs as we know them are rare. We only have them because real live cask (as opposed to keg) ale is impossible to find! Pubs I would highly recommend in Edinburgh (where I used to live) are Leslie's, The Malt Shovel, The Navaar (Tuesday nights especially), The Sportsmen's, and the Guildford Arms. A special treat in Edinburgh is a visit to the Caledonian Brewery, described by Michel Jackson as "a living brewery museum". Call ahead and arrange a brewery tour of this delightful gem, and enjoy the outstanding ales. My favourite is Deucher's IPA! The McEwan's Fountain Brewery is worth avoiding! They make outstanding ales, charge a hefty fee for the tour, and then show you how computers make fine beer!

If you have a car available, a drive into the countryside to Peebles will take you to the beautiful Traquair House microbrewery (supposedly the oldest house in Scotland, Bonny Prince Charlie slept there!). Another drive of about 40 miles east along the river will take you to the Belhaven brewery also well worth visiting.

Glasgow has some excellent pubs in the University area. My favourite is The Brewery Tap on Sauchiehall Street, but there are several in the area.

Use the buses wherever possible for your own safety!

One final note. If you are heading west from Glasgow to Oban and the islands by train, you will pass through a little defunct station about 20 minutes before reaching Oban. Hop off and take the next train through because the station itself is a delightful little brewpub (West Highland Brewers), and it will be well worth your while to stop and meet the proprietor, brewer, barman (all one person), and spend about three hours chatting with the locals! The ales are good, the porter abominable (but probably a bad batch!). Upon arrival in Oban you will find a number of so-so

pubs, my favourite the Oban Inn, more for its ambience than for the beer (it is a McEwans tied house). Enjoy, I envy you!
John Mare, John's Alehouse, Tucson.

Date: Fri, 10 Sep 93 15:44 CDT
From: korz@iepubj.att.com
Subject: Malt liquor/Horizons/CO2 dsgrmnt/keg gaskets/Cooler mash/beginner book

Richard writes:
>Subject: What is Malt Liquor?

Malt Liquor is a name dreamed up by some neo-prohibitionist lawmaker to allegedly warn unsuspecting beer drinkers that a particular beer has an alcohol level above a certain number the lawmaker made up. It has no real meaning to brewers or homebrewers because as we know, beers should be classified by style and not by alcohol level. Some states require "Malt Liquor" others don't. There are even stupider misuses of names (such as the misuse of the word "ale" in Texas), but despite the fact that in some states Mickey's and Salvator both have "Malt Liquor" on the label, they are no more related in flavor than milk and orange juice.

Eugene writes:

>I am an extract brewer with about 10 batches under my belt. Mainly because
>of time constraints, I don't think I'll be trying all-grain brewing for
>quite some time, but I would like to expand my brewing horizons. Other than
>brewing particular beers I haven't done before, are there any techniques
>ingredients etc. that you more experienced brewers would suggest I try?
The

You should try adding crystal malts and dark grains to your beers. There are a lot of extract+specialty grain recipes in Charlie's book and in the Cat's Meow, available from the archives.

John Franscisco and I seem to have differing experiences with kegging and overcarbonation. You'll all be happy to read that we will be working out our differences off-line and one of us will post the resolution.

On the subject of whether or not to replace all your gaskets on a used soda keg or not, I would like to mention that there's a chance that the keg you got has not had that much use on it's gaskets (i.e. they were replaced not too long before you got it). Also, everyone's senses are different -- perhaps you are not as sensitive to the soda flavors as I am. Also, a stout is less likely to gain an off-flavor/aroma than a cream ale.

There was a disagreement a year or two ago on the HBD in which one poster insisted that NO gaskets needed replacing and that the flavor and aroma of the beer would not be affected. They went as far as sending counter-pressure filled bottles from their keg to me as well as a couple of other HBD subscribers. The person insisted that they could not detect any soda flavors in the beer they sent me. I took the beer to a Chicago Beer Society meeting and had it judged as a light ale by a handful of high-ranking BJCP-certified judges, who were not warned of the situation. Without any discussion, all noted an unusual flavor. Three of the judges, identified the off-flavor as "a mixture of soda-pop flavors," one even writing "change the gaskets on your keg."

Eric writes:

>COOLER MASHING

>I've been having some trouble reaching my desired mash temp of 154F by
>infusing at a ratio of 1.25 qt H2O @ 175F per pound of grist. I've also
>tried using a ratio of 1/1 and adjusting with boiling water. When this
>didn't work I drew off a fraction of the liquid, boiled and returned to
the

>mash. I used this method on a porter that came out highly phenolic. I

Polyphenols are indeed what's leached from husk material and then usually
thrown into the general category called "tannins." Smoked malt, wheat
malt

and old, poorly-stored malt often lend phenolic flavors to beer.

A suggestion as to why you cannot reach the proper temperature is that
too

much of your strike water is used in heating up your mash tun. Pre-heat
the mash tun and I'll bet you'll hit your 154F. I don't suggest using
boiling water to do this as it could warp the plastic of the cooler --
perhaps use 160F water, maybe while you are crushing your malt. I've
seen

some pretty distorted cooler interiors -- be careful.

PAUL writes:

>I would like to know the best book for a beginning brewer. Thank-you!

I suggest Charlie Papazian's "The Complete Joy of Homebrewing" as a good
first book. Avoid, at all cost, any book or pamphlet by Leigh P. Beadle.
Also, older books (since there have been many recent refinements in
technique

and supplies) and books from the UK (since there is a bit of a language
difference as well as references to many supplies that are not readily
available in the US) don't make good *FIRST* books. A lot can be learned
from them, but it's best left for later.

Al.

Date: Fri, 10 Sep 93 14:04:07 -0400
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Slow sparge problems

I've recently joined the exciting world of all-grain brewing. My two full mashes have been successful, but I've been frustrated by the how slow my sparging has been. Here is my set-up: 5 gal Gott water cooler as mash/lauter tun, Phil's phalse bottom, and Phil's Mill. Both batches have used 9 or 10 lbs of grain (mostly British pale ale malt), with mash at 1 or 1.25 quarts/lb. I've been sparging with 5 gals of 170 F water while keeping the water level above the grain bed (I skip the mash-out). Both of my sparges have taken 2 hours with the valve on the cooler full open. I would like to get this down to about an hour.

Any suggestions? Perhaps I'm crushing the grain too fine-- I've been adjusting the crush to the point where all of the grains are at least partially crushed. I've been getting about 31 ppg.

Is the depth of a 10 lb grain bed in a 5 gallon cooler too large for a more rapid sparge? I don't think this is the problem, as I believe others on the digest have rapid sparges with the same set-up.

Thanks for any help.

Steve Zabarnick

Date: Fri, 10 Sep 93 10:25:10 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: pump sources

>>>> On Thu, 9 Sep 1993 13:51:56 -0700 (PDT), Eric Wade
>>>> <ericwade@CLASS.ORG> said:

Eric> PUMP SOURCES

Eric> I repeat my request for sources for wort pumps. Thank you to
Eric> Jeff Burton for the lead on the March Manu. pump from C & H. I
Eric> got the C & H catalog but the pump isn't listed, haven't called
Eric> them yet. Where did the rest of you RIMS and other pump using
Eric> brewers get your pumps? Is this a secret society sort of thing;
Eric> you can't be part of the club until you find a pump all by
Eric> yourself?

As the Morris article in Zymurgy states, pumps are available from W.W.
Grainger and McMaster-Carr. Sorry to not have the addresses or phones
with me, but my catalogs are at home and I do news from work.

McMaster-Carr is in Santa Fe Springs, CA., call information for phone
number.

Grainger is harder. There is no central place for which you can call
and request a catalog. Catalogs come from your local office. How do
you get the number of the local office? First, look in the phone
book. If they are not listed, Email me and I will look it up in the
catalog. Give me the nearest major city to your location.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucscd!megatek!hollen

Date: Fri, 10 Sep 93 15:30:44 CDT
From: caa@com2serv.c2s.mn.org (Charles Anderson)
Subject: Cleaning bottles

> I recently found about a dozen old clear, green, and brown beer bottles
> mouldering around in a barn floor. There's green stuff growing inside
> at least the clear ones, and I assume the rest as well. I soaked them
> for
> a couple of days in soapy water, and am planning to put them in a 5-
> gallon
> pail of bleach water for a few weeks/months. Anything besides this to
> try?
> I'd hate to use my nice bottle brush on this scuzzy stuff.

Get a jet wash. They work great, and after a good soak they can really
get
the gunk out of your bottles. It's a little brass device that hooks up
to a faucet and sprays out a high pressure stream. I can't imagine
cleaning
bottles without one.

-Charlie (No connection to the makers of the jet wash, just a staisfied
customer.)

- - -

/-Charles-Anderson-/ /-----/ Vidi Vici Veni - I Saw, 3607 I Conquered, I Came	 	caa@c2s.mn.org TIP#068 Com Squared Systems,voice (612) 452-9522 1285 Corporate Center Drive fax (612) 452- Suite 170 Eagan, MN 55121 (I speak for myself)
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Date: Fri, 10 Sep 1993 22:02:16 -0500 (CDT)
From: Dave Smucker <TWF99@ISUVAX.IASTATE.EDU>
Subject: KEG FERMENTERS PART 1

Recently, Dmitry Vosky, ask, via email how I used Stainless Steel kegs as a fermenter. He thought my reply would be of interest to some of you on the net so here is what works for me:

I use the 1/2 barrel (15.5 gallon) Sanke type keg for a fermenter. I had the good fortune to purchase some used kegs from a used restaurant supply company. They got the kegs in some used beer coolers and were willing to sell them for \$ 20 each. I know this is more than the \$ 15 deposit that is typical but at least I have a bill of sale. In the end this may give me no legal protection from Bud or Miller but at least I have some paper.

To use this type of keg you must remove the valve and down tube assembly. THIS CAN BE VERY DANGEROUS SO PROCEED WITH GREAT CARE. IF YOU DO THIS YOU DO SO AT YOUR OWN RISK.

The danger is that the keg very likely contains pressure and even a small amount of pressure can cause you serious injury from the valve part flying out and into your face.

THE KEY IS TO MAKE VERY SURE ALL OF THE PRESSURE IS RELEASED. The way I do this is to use a large screwdriver to push down on the ball in the center of the valve assembly. When you do this you may get covered with old beer! To prevent this I wrap the screwdriver in a towel as I press down on the ball check valve.

Make damn sure you have all of the PRESSURE OUT OF THE KEG BY DOING THIS RELEASE THING SEVERAL TIMES.

If you don't detect any pressure you are doing something wrong. I have never seen a keg that doesn't have at least a little pressure and sometimes it is quite high.

Now to remove the valve and down tube you need some other tools. I use an ice pick, a small screwdriver and some needle nose pliers. What you have to do is pick the end of the spiral type snap ring and then grip it with the pliers. Once you have the end of it and pull it towards the center and up and it should come right out.

Now make sure one more time THAT YOU HAVE RELEASED ALL OF THE PRESSURE. It is now very likely that you will have to rotate the valve assembly so that its key lines up with the notch in the keg, (this is a female keyway in the rim of the keg's exit port.) To rotate the valve assembly you may need to tap it lightly with a screwdriver.

Now that you have this lined up you can lift the valve assembly out, you may need to pry it a little with your screwdriver to get it started. KEEP YOUR FACE OUT OF THE LINE OF FIRE AS YOU DO THIS.

IF YOU DON'T UNDERSTAND THE ABOVE DON'T TAKE ON A SANKE KEG. FIND SOMEONE THAT DOES!!

Dave Smucker, Brewing beer, not making jelly!!

Date: Fri, 10 Sep 1993 22:21:22 -0500 (CDT)
From: Dave Smucker <TWF99@ISUVAX.IASTATE.EDU>
Subject: KEG FERMENTERS PART 2

Assuming you have read and followed part 1 of this post or already have a 15.5 gallon Sanke keg here is how I use them as a fermenter.

First you need to clean it and you will need to clean it after each fermentation use. Here it helps to be able to see inside of the keg. To do this I use a auto turn signal/parking light bulb. I soldered a set of leads to the bulb and I have a small 12 volt power supply. I think a 9 volt supply would work also, the bulb will just not be as bright. Lowering this inspection light into you kegs lets you see how clean you have gotten them. To see the inside of the top of the keg I use a small inspection mirror. You should be able to purchase one for a few dollars at a auto supply store. They are bigger than what the dentist uses but fit easily into the keg.

I used to use brushes etc. to get the keg clean but I have now gone to 100 % chemical cleaning. I use B - BRITE. Just added it to the keg, fill with water and put a # 11 stopper in the bung hole and invert it and let it sit for 24 hours. I invert it because the part that is hard to clean is the inside of the top. I then rinse several times and use iodophor sanitizer. I use only about 2 gallons of sanitizer but roll the keg around for about 4 or 5 minutes. I then rinse with about 2 gallons of very hot, (boiling) water because it is next to impossible to drain the last few drops out of the keg.

You now have clean kegs. I now use them just like they were a giant 15 1/2 carboy. Use a # 11 stopper with a hole for you blow off tube. I use a stopper with a 1/2 inch short copper tube in the stopper and 1/2 ID plastic tube for the blow off. I put this in a 1 gallon jug with about 1 qt. of water in it to act as an air lock. I set this jug on a small board set on the top rim of the keg.

Now for the only real problem with using a keg. They weigh a lot when full! About 150 pounds. This is not a problem for sliding or rolling around a concert floor but it is very difficult to lift the keg on to a stand or table for racking to another keg or to your 5 gallon cornelius kegs for storage or lagering. I solve this problem in my case by using a hoist to lift the full keg and then move a stand under it. Since I brew in my work shop I have some hoist points set up on my ceiling beams. For a hoist I use a 3/4 ton comealong, but many other hoists would also work.

I am currently looking for the right size used chest type freezer that I could mount on wheels, slide under my hoisted keg. I would then lower the keg and use the freezer for temperature control.

I hope this answers some of questions keg fermenters. Let me know if you have any questions.

Dave Smucker, Brewing beer, not making jelly!!

Date: Fri, 10 Sep 93 16:23:17 MDT
From: npyle@n33.stortek.com
Subject: Hops FAQ?

I would like to submit a request for a hops FAQ, in the style of the yeast FAQ. My reason for this goes back to recipe formulation. I have had a pretty cavalier attitude about recipe formulation in the past but I have to admit, the two best beers I've made were attempts at copying a certain beer, armed with OG's, maybe some malt info, and the variety of hops used. I could make some guesses as to the IBU's etc., and hit it pretty well with Rager's formulae.

The problem comes along when ingredients aren't available, and substitutes must be made. For me, the most obvious flavor component of a beer is the hop profile (due, in large part to the hop-head slant I put in my brews). So, the type of thing I'd like to see:

Cascade - grown in GNW USA. Has a flowery, grapefruit profile. Most often used as a finishing hop. Classic American Pale Ale hop (reference SNPA, Liberty Ale) Alpha acid range 4.5 - 5.5. Good substitute = XXX hop.

It could go into much more detail but this is the type of thing I would hope for. This could go a long way toward giving people the confidence to create more varieties in their homebrewing. Of course, I would expect IBU calculations to be part of the FAQ. I'm sure there are other things that could be added; I just can't come up with them now.

Any takers? Does the hops special edition (which I still don't have) contain all this information? Even if so, I would guess we could do a better job. I would be willing to help out on this project but I don't have the experience of some of the other HBD contributors. I also don't know my way around Internet so archiving should be left to someone else as well.

- - -

Norm Pyle, Staff Engineer Head Brewer,
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Date: Fri, 10 Sep 93 12:11:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: Light-struck beer

Tom writes:

>closet). Now I have recently gone back to glass
>fermenters, 6.5 gallon >vice 5 gallon. I was wondering when
>light struck beer begins to be a problem.

Al replies:

> You should keep the fermenter in the dark too -- your beer can
> be light-struck while in the fermenter.

I had my wife buy some quilted material and sew it into a cylinder
a little larger than my carboys, and about four inches taller. The
top seam was sewn over to allow insertion of parachute cord for a
drawstring. This not only protects the fermenting wort from light,
it also helps even out temperature fluctuations caused by my setback
thermostat.

Chuck

* RM 1.2 00946 *

Date: Sat, 11 Sep 1993 02:16:18 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Yeast FAQ is at sierra!

Hi All,

Just want to spread the word that a plain text version of the updated FAQ is now at sierra.stanford.edu/pub/homebrew/docs/Yeast.faq.Z. To all novices, note that this is a **binary** file, so type "bin" on the line before you type "get" :-) ! And .Z is for unix compress, not zip.

A postscript version is being prepared, with a few added embellishments.

Thanks to all who sent support and/or information!

Hope you find it useful.

Patrick <weix@swmed.edu>

Date: Sat, 11 Sep 93 14:26:47 PDT
From: steve@caticsfresno.CSUFresno.EDU (Steve Mitchell)
Subject: Madden's #1 -- A Famous Prohibition Beer?

I'm wondering if anybody out there knows anything about a "famous" beer during prohibition called Madden's (sp?) #1.

I hear that a Homebrewer turned "pro" during Prohibition and marketed this beer. It appeared darker than modern commercial beer and was supposed to be popular on the East Coast. Can anybody tell me anything about this beer. A recipe would be really nice..

Thanks.

- --steve

Date: Sat, 11 Sep 93 18:34:17 PDT
From: Ken Miller <KCMILLER%SJSUVM1.BITNET@cmsa.Berkeley.EDU>
Subject: Heather beer

As Bill Ridgely pointed out, Bickerdyke does indeed include a brief section on heather beer in The Curiosities of Ale and Beer (1889). Selections below:

<begin quoted text>

There is a tradition lingering in the northern parts of this island, that the Picts possessed the secret of making an ale from heather. Sir David Smith...mentions a large trough cut in solid rock at Kutchester, near the Roman wall. "The old peasants," he says, "have a tradition that the Romans made a beverage somewhat like beer, of the bells of heather, and that this trough was used in the process of making it."

<interesting but somewhat lengthy legend concerning Pictish heather beer deleted>

True or false, this is the legend as related in the north, and certain it is that a heather beer was made until quite recently in some parts of Scotland and Ireland. The heather, however, is used as a flavoring rather than as the actual basis for making the drink. The blossoms of the heather are carefully gathered and cleansed, and are then placed in the bottom of vessels; wort of the ordinary kind is allowed to drain through the blossoms, and gains in its passage a peculiar and agreeable flavour, which is well known to all who are familiar with heather honey.

Pennant, in his Voyage to the Hebrides, mentions heather ale, and says that the proportions were two-thirds of the plant to one of hops (hops being sometimes added); and Mr. Weld, in his Two Months in the Highlands, says that "although the art of brewing Pictish ale is lost, old grouse shooters have tasted a beverage prepared by shepherds, on the moors, principally from heather flowers, though honey or sugar, to produce fermentation, was added. In some parts of Ireland there is a tradition that the Danes possessed the knowledge of making an intoxicating liquor from heather bells....It is possible that there is some connection between this heather ale and the ale formerly made by the Swedes and flavoured with the Myrica gale....In Yorkshire...a beer is still made called "gale beer," and is flavoured with the blossoms of a species of heather found growing on the moors in that part of the country.

<end quoted text>

There you have it. Recipes for Pictish heather beer died with the last of the Pictish brewers, but late 19th century Celts apparently used heather as a flavoring for both beer and mead. The second paragraph above seems to imply using the heather blossoms in a manner similar to aroma hops (i.e., brief contact with the hot wort); but the last sentence above is open almost any interpretation. (BTW, can any botanists out there tell us the common name for Myrica gale?)

Anyway, have a happy, hoppy, and (perhaps) heathery brewing...

Ken Miller
kcmiller@sjsuvm1.sjsu.edu

End of HOMEBREW Digest #1224, 09/13/93

Date: Sun, 12 Sep 93 10:30 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Mashing, Bashing

>From: Greg_Habel@DGC.ceo.dg.com
<Subject: My first all grain batch - a screw up.

> Mashed 6lbs highly modified pale malt and 8 oz crystal with 6 quarts
of
168F water for 1 hour.

Life is much easier if you use more water, like double that amount.

> Did the iodine test. The color was blackish but it turned to
clear when I stirred it up a bit.

If it cleared upon stirring, you were cheating and just spreading it
around.

>When sparging with 3 gallons of 170F water, I had a very
difficult time of not disturbing the grain bed.

Place a small bowl on top of the grain to disburse the water.

> Here's my question... how important is it that the grain
bed is kept relatively undisturbed while sparging?

Absolutely essential for the grain near the strainer. If the bed is
disturbed, it can not function as a filter.

> Also, will the liquid turn colorless near the end of the sparge.

Only if the filter bed is undisturbed.

> Could it be that my cooler is too large, ie the grain bed
is not deep enough?

You didn't tell us enough to determine either of the above but in my
experience the answer is no. With my equipment and process I get the
same
yields with one inch in a mini easymasher as I get on 10 gallon batches.
My
yields are consistantly over 30 and I am using the same equipment I used
on
my first batch with a yield in the low 20's. Technique has a lot more
to do
with yield than equipment.

>From: WEIX@swmed.edu
>Subject: Re: Yeast FAQ Ruckus

>Well, I feel that since my post was the cause of all the wasted
bandwidth
(either for the FAQ itself if you agree with JS or for the flame-
fanning in
response if you don't), that I should speak my piece. To JS's credit...
.

Thanks for the credit but if you are going to personalize comments,
please

get the facts straight. You have fallen into the same trap as the rest of the gang that flamed my suggestions.

NOWHERE did I criticise "the FAQ itself" or any other FAQ or FAQ's in general. They are a great contribution to the database and those who create them and contribute to them deserve much credit.

I simply made a proposal that non-time critical articles be limited to 200 lines per day to make sure that those that are time critical do not get swamped.

I also suggested that once the FAQ is proposed and interested parties identified, it should be debugged as much as possible by email.

Both of these suggestions got lost in the public discussion because it is so much fun to flame that even when none is apparent, some excuse will be found.

> Finally, as for the results of his 10 to 1 poll, I would suggest that irritated people are 10 times more likely to respond than those who are satisfied.....

But that wasn't the point. I don't know of anyone who was irritated by the FAQ. The 10 to 1 mail was simply people agreeing with my two suggestions. Furthermore, the public comments went the other way as most of them criticized me (not my suggestions) just me.

>From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
>Subject: All-grain questions

> 2) Sparging questions:
a) How much recirculation. "Recirculate until runoff is clear". Sounds great in print. However, for amber or darker beers this is not as obvious as it sounds. In last batch I recirculated the first 5 qts. Is this excessive?

It depends on you mash tun. If you have a false bottom, you must at least drain away all the liquid under it and this could be gallons. With an easymasher, it's a cup or two. Your first runoff will of course be much darker than the finished beer but in a proper tun, it will run nearly as clear. I think the key word is "recirculate" and it is a bad word. It sounds like it is part of the process to clear the wort. What you are really doing is rejecting the turbid wort but instead of throwing it away you pour it back in.

> b) When to stop sparging. "Don't over sparge". I like this about as much as "cook until done"....

This one is a well spring of expert opinion and words like tanins, pH, tea, sweet .008 lurk like evil spirits ready to destroy your prize winning beer.

The bottom line is the point of deminishing returns. It become economically impracticle to boil down a gallon of wort much below 1.010 to add its contribution to to the batch. So all those other things, be damned, it is a waste of time and money to use watery wort unless you need it to lower the gravity or increase the boil time. It is also a waste of raw material to throw away runoff over 1.010.

If you planned things properly, you should have enough wort by the time you get that low. If you need a little more, the evil stuff in it will be so diluted that it won't affect the beer anyway. If it tastes ok but is not sweet, what harm can it do? If it makes you mouth pucker (most unlikely), you probably don't want to put much in your beer.

> 3) Seperating break material & spent hops from wort. When I syphon my cooled wort from the boiler into the fermenter, my syphon tube clogs leaving 1/2 to 1 gallon of wort/trub in the boiler. I usually pore the last of this glog into mason jars, allow the trub to settle and decant the wort for use as starters. One quart of glog doen't bother me but for my last triple I was left with nearly a gallon.

You can throw it away or let it settle as you did. That is just good tecnique. If you don't need it for starter, just bring it to a boil to sterilize it and add it to the fermenting beer and nothing is lost.

> (I know, Jack, I should drill a hole in the bottom of my boiler and install a SS screen w/tubing etc. I'm seriously considering this but would like to hear other alternatives.)

Instead of you plastic siphon, get a piece of copper tubing of the same diameter, and bend it into an "L" at the bottom. Put the tubular screen over the end and attach your siphon hose to the top and you have a portable easymasher... no hole.. no hassle but you still have to suck on the end.

>From: Jim Busch <busch@daacdev1.stx.com>
>Subject: lager time & hot liquor tanks/O2

>I guess the question is :how long does your *fermentation* take? ie, how long until the SG has dropped by 75%? No doubt that some continual activity/lagering will occur but when everything is done perfectly, a lager ferment in between 7-10 days.

I don't see how that statement can be made without specifying the temperature.

>From: korz@iepubj.att.com
>Subject: Addtn to kegging FAQ

>Al Richer did a good job summarizing the basics of kegging. I would like to add a bit more info. In addition to the big o-ring and the two under the dip tubes, there are also o-rings on the poppets

And now for the other side of the story. I have four 5 gallon kegs and two 10 gallon ones. I have never replaced a single "o" ring in any of them.

Admittedly, the ones with Coke in them smelled pretty bad for awhile and I even had the first batch in one come out with a detectable Coke taste but that was long ago and never happened since. I just soaked the lid rings in bleach for a few days. The ones with lemon/lime stuff lose all odor with a simple rinse.

It's good to know the parts are available but like so many things, if it aint broken, don't fix it.

>The ones sold by Sheaf & Vine have a range of 40F to 80F. I think that this range should be made a bit lower for lagers and a bit higher for ales.

Nifty gadget but I destroyed mine removing it. My problem is I ferment in the same kettles I mash and boil in so they must be removed between uses and these things can take that sort of abuse.

js

Date: Sun, 12 Sep 1993 15:50:51 -0400 (EDT)
From: CCAMDEN@delphi.com
Subject: Cake mixes, and other half-baked ideas

I have several questions/comments and I will get right to them.

The first is a "cake mix" question. I recently received a catalog from The Home Brewery. They have a liquid malt extract that they call Yellow Dog(tm). It is 87% 2-row Klages, 12% malted wheat and 1% chocolate malt. I find myself intrigued by this product. Has anyone in HBD-land ever used Yellow Dog and if so, what are your comments?

On to another topic. All my reading of the HBD has made me think about doing a, if not all-grain batch, then at least a partial grain batch. My question is, if I have a recipe that calls for, oh, say 5 lbs of DME, and I want to try substituting 3 lbs of grain, how much DME should I then use. Now, I realize that some will say "why not go all-grain?", but I just don't have the equipment (brewpot). I can throw together a few things to experiment with small amounts of grain, but I will still need to use DME. (OK, let's see; will now I be a "cake-mix-brewer" who only uses part of the cake-mix and adds his own flour??)

No question this time, just a comment. My wife and I just got back from living in Nuernberg (umlaut-less German spelling), Germany for 3 years. I didn't brew there, there wasn't a need to; here in Huntsville, AL there is a great need. One of our favorite places to go was Cheimsee (large alpine lake about 40 miles east of Munich). Just south of Ingolstadt, we would enter a large hops growing region. We got into the habit of stopping at the same autobahn rest-stop through the summer and walking to a nearby hops field (?), where we would shoot some video. We got some great footage of the hops as they grew all summer long. So, what's the point of all this? A check of the map tells me that this was smack-dab-in-the-middle of the Hallertau region. It was a neat experience then, and learning more about these hops now, makes the memories even better.

Email replies to my questions are encouraged, unless you think that everyone would be interested in the brewing characteristics of Yellow Dog amber malt extract.

```
////////////////////////////////////  
/ Cary Camden /  
/ Husband, father, soldier, parrot head... /  
/ "...not a lawyer, a thief or a banker."/ /  
/ J. Buffett /  
////////////////////////////////////
```

Date: Sun, 12 Sep 93 17:38:06 EDT

From: donnalynn@aol.com

Subject: Fermentation Frenzy

Hi

This is directed to Ken Johnson who was not happy with our store. You mentioned that we do not have open bins of grains. Well you are correct.

The main reason for this is that open bins are one of the best ways to invite

a pest contamination (especially during the summer months). Having worked

as a food microbiologist and plant inspector for 5 years I know that an open

bin of a food product is not wise. If you would like a specific amount that

is not already on the shelves just ask and we will be happy to get it for you.

As for our hop selection we carry just about every hop type grown.

Sometimes

towards the end of the hop season (just before the next years hops are picked) certain hop varieties are of poor quality and we don't buy them and

resell poor quality hops. But if you really want a particular variety regardless of quality will order it for you.

I am sorry you were not impressed with our shop as we are here for our customers and what to make you impressed

Take Care and I hope you will give us another try,

Donna Lynn

Fermentation Frenzy

Date: Sun, 12 Sep 93 21:10:24 EDT
From: blazo@aol.com
Subject: FAQ's Politics and Protocols

At the risk of rendering horse flesh into micro-burger I would like to submit the following:

When someone goes to the trouble of assembling, sometimes with painstaking detail, the answers to many of the most FAQ's in a given subject, they might be best served, prior to posting their compilation on our HBD, by querying the HBD "population" as to their propriety in posting their data. In this way, the anticipation of the receipt of the "education" might whet the appetites of the "cogniscenti", and therefore silence the erstwhile loose cannons, disparagers or flame-throwers, as the case might be.

It is amazing, when someone goes to the trouble to compile massive amounts of information to distribute to the "masses", that certain of those masses, you know who you are, act as iconoclasts, ad nauseum, without even ctitiqueing the post. Bandwidth, bandwidth, bandwidth. What's the big deal? OUR TAXES PAY (gentle thanks to HP) FOR THE BANDWIDTH! Lighten up! Isn't education worth the BANDWIDTH?

I will not offer up any quasi-pardoning postures for using THE BANDWIDTH to make this statement, but hope that all of those diligent, hardworking & concientious people keep on making their posts re: FAQ's.

-blazo

Date: Mon, 13 Sep 93 7:08:16 EDT
From: "Peter J. Burke" (FSAC-PMD) <pburke@PICA.ARMY.MIL>
Subject: Sweden

Greetings,
I am travelling to Sweden on 15 Sept, and will be in:
Stockholm, Linkoping, Kalskoga, and Gothenburg.
I do not know if Sweden is the mecca of brewing that
other European countries surely are, but would like
to obviously sample their wares.
Does anybody out there have good bars, breweries, restaurant, etc...
info ? I know this is short notice, but would appreciate the
help. Please respond directly to me:
pburke@pica.army.mil
thank you.

SKOAL !!!
(Cheers in Swedish)

Date: Mon, 13 Sep 1993 09:31:01 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: sweet gale synonyms/request for collaboration

Here is the little I know about sweet gale.

First, the following terms are synonymous:

myrica gale
sweet gale
bog myrtle
moor myrtle

I have looked at a number of herb/wildflower catalogs, and one in particular carried a number of myrtles, but none with the above names. One myrtle, the name of which I don't recall now, was described as having seeds that produce an anise-like flavor.

Spencer Thomas kindly sent to me an old hbd posting from James Spence that mentioned a source:

old post excerpt begins here
Desjardins Herboriste
3303 Ste. Catherine St. E.
Montreal, Quebec H1W2C5
telephone: (514)-523-4860

Pierre (Rajotte) says 250 gms is \$3.56 plus shipping.
old post ends here

I phoned Desjardins Herboriste, and they were unwilling to ship outside of Canada.

Now, what I am hoping for is that some Canadian reader of this post will order the sweet gale and send it to me. Any takers? Please e-mail privately. Thanks.

Date:13 Sep 93 10:53:43

From: "Rafael Busto" <SUPERVISOR@bnk1.bnkst.edu>

Subject: Strange overcarbonation

I just wanted to report something that has ruined my last three batches (2 ales and 1 lager) Everything looks fine during the whole process untill you open the first bottle after 2 weeks of bottleing. As soon as you open it a very thick foam starts to grow on the bottle itself. In a second look you can tell that this foam is created from a lot of bubbles that come from the yeast sediment.

When you pour it to the glass the foam keeps growing and stays for few minutes untill it becomes liquid.

The flavor of the beer is cidery.

Any clue?

I tried to make my beer as clean as I can. The only things I can think are:

- I need a new hose (it has been used over 7 batches)
- The fermentation was not totally completed (but 3 times in a row?)

Please let me know of similar experiences or solutions.

Thanks a lot

>rapid sparge?

No, this is not the problem, I've used 10+ pounds of grain in a 5 gallon lauter tun many times, the runoff came out as fast as I allowed it. On one occasion, I was brewing a weizen using 10 pounds of grain, half of which was wheat malt. I got distracted by something on the radio, bumped the spigot on my lauter tun to a wide open position without noticing. I had just started sparging, there was just over a gallon of wort in the boiler. When I did notice a couple of minutes later, there was over 3 gallons in the boiler, and the runoff was still flowing strong. Despite the high percentage of wheat and the extremely fast runoff rate, the sparge still did not stick. The geometry of your tun is not the problem.

Another thought, there was a thread on HBD last year from someone using a Phil's phalse bottom who was also getting slow sparges. If memory serves, (always a dangerous assumption :-)), there was something about a hose kinking and trapping air. I've never seen this device, maybe someone who has used one can comment.

I also have a question. A friend of mine who loves to tinker with gadgets built a RIMS system recently, and has run a couple of pilot brews through it. He carefully plotted the time/temperature curve while stepping from protein rest to sugar rest temperatures, it takes about 30 minutes to step up roughly 32 degrees, from 122F to 154F. The problem is that as soon as the sugar rest is achieved, the mash is already converted!

Our concern is the length of time spent in the 140F-150F range, and it's impact on the dextrin pool. I'm a BJCP judge, a taste test on both brews confirmed our fears, they were both very thin bodied, bordering on watery. Yesterday, through the judicious use of insulation, we managed to cut this time from 30 minutes to just over 15, without changing the heating element or slowing the recirculation rate.

My question: is there an optimal rate of stepping from protein rest to sugar rest temperatures? 2F per minute or some such? I can't find this information in my brewing library anywhere.

Cheers,
Jim

Date: Mon, 13 Sep 1993 13:24:33 -0500
From: Chris McDermott <mcdermott@draper.com>
Subject: Re: Slow sparge problems

RE> Slow sparge problems
>Date: Fri, 10 Sep 93 14:04:07 -0400
>From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
>Subject: Slow sparge problems
>
>I've recently joined the exciting world of all-grain brewing. My two
full
>mashes have been successful, but I've been frustrated by the how slow my
>sparging has been. Here is my set-up: 5 gal Gott water cooler as
>mash/lauter tun, Phil's phalse bottom, and Phil's Mill. Both batches
have
>used 9 or 10 lbs of grain (mostly British pale ale malt), with mash at 1
or
>1.25 quarts/lb. I've been sparging with 5 gals of 170 F water while
keeping
>the water level above the grain bed (I skip the mash-out). Both of my
>sparges have taken 2 hours with the valve on the cooler full open. I
would
>like to get this down to about an hour.
>
>Any suggestions? Perhaps I'm crushing the grain too fine-- I've been
>adjusting the crush to the point where all of the grains are at least
>partially crushed. I've been getting about 31 ppg.
>
>Is the depth of a 10 lb grain bed in a 5 gallon cooler too large for a
more
>rapid sparge? I don't think this is the problem, as I believe others on
the
>digest have rapid sparges with the same set-up.
>
>Thanks for any help.
>
>Steve Zabarnick
>
>
>-----

One gotcha to watch out for with Phil's False Bottom is the weight of the
grain
bed crushing the outlet tube. This is especially true if you are using
the
clear vinyl type tubing, because it becomes very soft at sparge water
temperatures. If this is indeed the case, try switching to the opaque
type
tubing. It is much stiffer even at boiling temperatures.

FYI, I use the PFB in a 10 gal Gott cooler with an opaque vinyl outlet
tube and
I can complete a sparge in well under thirty minutes if I so choose.

Date: Mon, 13 Sep 93 13:26 EDT
From: jmarra@rip.att.com
Subject: Freezers

I've read a number of posts mentioning a chest freezer used for fermentation and lagering. Is there an advantage to this type of freezer over an upright freezer, or refrigerator?

I have several soda kegs I plan to ferment in. Will I be able to fit more in a large chest freezer vs. upright?

Thanks in advance for any info,

John Marra
jmarra@rip.att.com

Date: Sun, 12 Sep 93 17:38:06 EDT

From: donnalynn@aol.com

Subject: Fermentation Frenzy

Hi

This is directed to Ken Johnson who was not happy with our store. You mentioned that we do not have open bins of grains. Well you are correct.

The main reason for this is that open bins are one of the best ways to invite

a pest contamination (especially during the summer months). Having worked

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I am sorry you were not impressed with our shop as we are here for our customers and what to make you impressed

Take Care and I hope you will give us another try,

Donna Lynn

Fermentation Frenzy

Date: Mon, 13 Sep 93 14:38:20 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Tarnished Wort Chiller

I made an immersion wort chiller (17 ft. of 1/4 in. copper tubing).
The wort chiller was used for the first time about a month ago.
In that time the tubing had become tarnished.

I used the wort chiller for a batch that was made this weekend.
I put the chiller in the wort during the last 15 minutes of
the boil to ensure sanitization of the chiller. Cold water was
then passed through the wort chiller for it to cool the wort.

Afterwards, I noticed that the wort chiller was only tarnished in
the places that were not immersed in the wort.

QUESTIONS:

- 1) Did the de-tarnishing that took place affect the wort?
Will it noticeably affect the flavor of the beer?
- 2) Should I de-tarnish the wort chiller prior to its next use?
- 3) How does one go about de-tarnishing a copper wort chiller?

Thanks in advance for your responses.

- - - -

email: sxupjd@fnma.com (NeXT Mail Okay)
Philip DiFalco, Senior SomethingOrOther, Advanced Technology
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

Date: 13 Sep 1993 11:29:10 U
From: "Daniels Lab 2" <Daniels_Lab_2.CEMAIL@cemailgate.ce.utexas.edu>
Subject: More Mead Questions

Subject: Time:11:13 AM
OFFICE MEMOMore Mead QuestionsDate:9/13/93
I have a few questions to add to Jim's mead questions in #1222.

I've brewed a gingered honey mead and am hoping for some suggestions on what/when to add some additional ingredients. The recipe I used (Papazian's) calls for fresh fruit to be added at the end of the boil. I have a cherry extract for winemaking that I want to use. Should I add this during fermentation or at bottling?

I would also like to add some spices to the mead when I bottle. I had planned to make a tea and add to part of the batch while bottling so I could split the batch. My question is, what spices work well (with or without the cherry) and how strong a tea should I try? Yeah, I know it's all personal taste and the amounts always vary depending on potency, process, etc., but a ballpark would be appreciated from those who already have a little (or more) experience with this.

Thanks. Tristan

Date: Mon, 13 Sep 93 14:28:24 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Decoction: The Thinnest 1/3

The recent discussion on wort clarity due to starch problems from too hot a sparge has caused me to revisit getting to mashout with a decoction mash.

In previous brews I would remove the thinnest 40% or so. Though quite thin it would contain a significant fraction of grain. I would boil this and add it to the mash vessel and let it mash out at 170-175 for 15 minutes. These beers would never get crystal clear. I suspect that I gelatinized some starch in the final decoction that did not get converted while the enzymes were getting deactivated in the mashout.

In future brews I will ensure that there is NO GRAIN in the final decoction even if I have add water to get the correct volume of water.

RE: Light Struck beer in fermentor. I cover my 6.5 gallon carboys with a black plastic trash bag. I have a small slit in the top for the airlock to go thru.

Lee Menegoni@nectech.com

Date: Mon, 13 Sep 1993 11:18:06 -0600 (MDT)

From: EZIMMERM@UWYO.EDU

Subject: Lautering

Salutations!

First, sorry 'bout the poor subject headding on my last post. I'm still getting used to this VAX os...

When I toured Summit Brewery in St. Paul I was told they lauter by recirculating the wort untill it is clear [transparent, i.e. no cloudyness] and what it sounds like most all grainers here is doing is to just run the water through once. Is it ok to recirculate the wort? I would think so as Summit won Gold for their Great Northern Porter...

Wait, a porter could stand the bitterness that might result from the possible transfer of tannins fromt he husks to the wort... Well, they also make a great Pale Ale... Any comments on this?

Gene in Laramie

Date: Mon, 13 Sep 93 14:14:55 EST
From: Ulick Stafford <ulick@bizet.helios.nd.edu>
Subject: Sparge and .Z

In 1224 Stave Zabarnick complains of slow sparges. Assuming a holey bottom the like of a Phil's can work OK (I hated my homemade holey bucket a la Miller), which I doubt, it helps with any sparging system to restrict the flow from the get go to a trickle. There is less to recirculate before run off is clear, and the lack of compaction of the bed allows the sparge to continue steadily. I never sparge longer than 45 minutes even for 75% wheat mashes with my copper manifold 7 gallon

Gott. Try restricting the flow next time ans see if it helps.

Patrick Weix of yeast.faq fame gives a very complicated method for ftping .Z files from stanford. When I get my copy of hbd each day (my mail subscription is still not fixed after a month - Oh well), I just type get 1224, and lo and behold it uncompresses 1224.Z prior to transfer saving me the need to set up bin or uncompress it in my own directory.

So I guess gettin yeast.faq from homebrew/docs could be as trouble free.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.

 Pabst Blue Ribbon!' | Notre Dame IN 46556
 | ulick@darwin.cc.nd.edu

Date: Mon, 13 Sep 93 16:56:06 EDT
From: U-E68316-Scott Wisler <swisler@c0431.ae.ge.com>
Subject: Mash cooler discoloration & choreboys

This past weekend I wanted to brew 2 consecutive batches and was looking into how to compress the time involved. One of the most obvious ways is to be mashing the second batch while the first is boiling. The problem is that I mash and boil in the same pot, with my sparge water held in a styrofoam cooler. I have a plastic picnic cooler that I seriously thought of using but I didn't want permently mash colored. (Besides, my wife would throttle me) So the question to all you cooler mashers is : What color did your coolers end up?

Also, the choreboy seems to be working well for many people. I haven't found one yet, but I just got my counter-flow chiller working and used whole hops for the first time. Clog! (seems like a bad B movie senerio)

I was wondering how people attached the choreboy to the drain. I guess I'd just like to know if there was a way that DIDN'T work, so I can avoid clog problems.

Thanks,

Scott

Date: Fri, 6 Aug 93 16:08:02 GMT
From: Martin Wilde <martin@gamma.intel.com>
Subject: Yeast Washing

I have on occasion washed some yeast. The question I have is how do you tell the difference from the trub and the yeast? The yeast is usually an off-white and the trub white, do I just not worry???

thanks
martin@gamma.intel.com

Date: Mon, 13 Sep 93 17:30:15 EDT
From: robertg211@aol.com
Subject: Re: Brewpubs in the Boston area

My wife and I are going to be in the Boston area for 10days in October
and
would like to know of any Brewpubs, Microbreweries or Pubs that are worth
visiting. Thanks in advance!
Either post here or E-mail me at: RobertG211@aol.com
Bob Gammie
Northeast FL Society of
Brewers

End of HOMEBREW Digest #1225, 09/14/93

Date: Tue, 14 Sep 93 07:39:22 CDT
From: nfarrell@ppco.com (Norman Farrell)
Subject: Posting

I recently made a batch of steam beer and found myself with a mas temp that I thought was 4 to 5 degrees F lower than I wanted. I did not want to add more water and dilute the enzyme concentration. I removed 2 quarts of the mash in a glass measuring cup and heated in the microwave for 7 minutes. This was long enough to reach boiling. I returned the "decoction" to the main mash stirred in and removed another 2 quarts and heated.

It took 3 "decoctions" to get the bulk temperature where I wanted. 7 minutes in the microwave was required to boil each time. The resulting beer was wonderful particularly full bodied/satisfying mouthfeel. It was better in this regard than other beers I have made with infusion or step mashing.

Was the amount and heating time I used sufficient to account for the good results? Has anyone else tried this? If it is more likely that everything in the process just came together to yield a great beer (ie. my decoctions were probably of little effect), how long would I have to heat (and what % of the mash) to do some good? BTW the brew length was 5 gal. and the OG was about 1.050. Thanks for any hints/opinions.

Norman (nfarrell@ppco.com)

Date: Tue, 14 Sep 1993 08:16:02 -0600 (MDT)

From: EZIMMERM@UWYO.EDU

Subject: Pumpkin Brown Ale Request

Salutations!

I'm going to brew a Brown Ale with some pumpkin flavor and because I can't find a source of fresh pumpkins I will be using canned. Yes, I am using pure canned pumpkin (no xtra water, salt, chemicals, etc.). What I need is an idea of how much canned pumpkin would be nice for a Brown Ale of aoubt 1.04 to 1.06 OG and if anyone can reccomend some hops for this. I was thinking finnishing with Fuggles... Any ideas?
Gene in Laramie

Date: 14 Sep 1993 10:40:05 -0500
From: "Stephen Schember" <stephen_schember@terc.edu>
Subject: Beer in Boston

Subject:
Time:10:16 AM
OFFICE MEMOBeer in Boston
Date:9/14/93

The Boston metro area now boasts four brewpubs. The original is the Commonwealth Brewery on Portland St. by the Boston Garden (bitter and barley wine best choices here imho, but everthing pretty dang good). The Boston Beer Works is on Brookline Ave. just across from Fenway park (IPA and Hercules strong recommended). The Cambridge Brewing Company is in Kendall Square, Cambridge (great pale ale and if you're lucky a sublime high octane version of the same, Big Man's Triple). Rounding out the list is John Harvard's on Dunster St.,. Harvard Square, Cambridge (good Stout esp. if on "Cask"). The Sam Adams Brewery tour is allways worth the trip to Jamaica Plain (a borough of Boston). While you are in J.P. stop at Doyles Cafe on Washington St., for more Sam Adams limited runs (Dunklewiezen, Cranberry "Lambic", etc.), a healthy selction of taps, and ancient Boston bar atmosphere. Other recommended watering holes: Cornwall's in Kenmore Sq., The Sunset G+T(71 Taps!) on Brighton Ave. in Brighton.

Date: Tue, 14 Sep 1993 08:41:17 -0600 (MDT)
From: EZIMMERM@UWYO.EDU
Subject: Reader/Indexer for Yeast and Hop FAQ

Salutations!

I was thinking of writing an indexer or data base manager for the Yeast and upcoming Hop FAQs. I would provide the C source code as well as a compiled x86 IBM version for those of us more in the brewing than computing circles. Before I start work on this, however, I want to know if anyone else is going to do the same thing as I'm a buisy student and

would hate to waste my time solving a problem someone else is solving.

So, anyone else doing something like this or shall I have a go at it?

Gene in Laramie

Date: Tue, 14 Sep 93 9:23:37 MDT
From: npyle@n33.stortek.com
Subject: Lautering / Discoloration

Gene asks about lautering wrt recirculation. He assumes most all-grainers just sparge without recirculation. It is my perception that most all-grainers do recirculate the wort. FWIW, I recirculate the wort until it runs relatively clear, but I don't go to a lot of trouble. I seem to recall Micah Millspaw advocating no recirculation at all; something about giving the proteins and other hot break material a nucleation point. Contrary to the popular beliefs, he claimed clearer beer than with recirculation. Anyone tasted Micah's beer?
Is Bob Jones still on the digest?

Scott asks about discoloring his wife's cooler with wort. I haven't really worried about it since I bought the cooler especially for brewing, but I haven't noticed any real discoloration problems. I suspect one batch wouldn't do it any harm, but I would be careful to keep the temperature below about 170F. Warping of the plastic would probably bug her more than the color.

Now that lager season is here on the front range in Colorado (yesterday was first snow!), I'm thinking again about a dopplebock. Anyone with a good all-grain DB recipe? Of course, if it was to taste like Salvator I wouldn't mind ;-).

Cheers,
norm
- - -

Norm Pyle, Staff Engineer Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
Organization
2270 South 88th Street 1500 Elmhurst Drive
Louisville, CO 80028-0211 Longmont, CO 80503-2323
(303) 673-8884npyle@n33.stortek.com

Date: Tue, 14 Sep 93 08:43:19 PDT
From: tima@wv.MENTORG.COM (Tim Anderson)
Subject: Instant carbonation

I recently had an experience that I thought was worth sharing.

I made a pretty ordinary pale ale from DME and adjunct grains. The process was the same as all my batches. I pitched a large quantity (2 liters) of actively chugging starter (Wyeast London Ale) and aerated with wild abandon. But then I always do.

Fermentation started within a few hours, which, of course, had nothing to do with my method of aeration. After 9 days, the bubbling in the air lock was getting slow, and since I had a window of opportunity to bottle, and wouldn't again for at least another week, I went ahead and did it. I primed with corn sugar. I always prime with corn sugar. I'm proud of priming with corn sugar.

Now here's the good part. The beer was fully carbonated and fairly tasty in 2 days (!). My first reaction was, "Oh shit." I braced for glass grenades. But they never came. It's been 6 weeks since bottling, and the beer is just fine. Not over-carbonated, no gushers, no off flavors. Pretty boring stuff.

I am curious why what usually takes a couple of weeks would occur in 2 days without ill-effect. My hypothesis is that I caught the yeast at just the right moment when it was effectively done with the food at hand, was sitting back with its feet up, enjoying a good cigar and snifter of brandy, but had not yet gone dormant. What's this, dessert? Corn sugar, my favorite! If so, I suppose the timing was lucky and had I bottled just a bit sooner, my closet would look like a war zone.

By the way, this is a basement closet that maintains a constant 62F.

tim

Date: Tue, 14 Sep 93 11:09:43 CDT
From: inline@vnet.IBM.COM
Subject: GABF info

Can anyone tell me what one of these festivals is like ? With the airline price wars starting up it might be worth a trip to Denver to check this out.

Are there cheap hotels within walking distance of the festival ? I'm not sure

I would want to be driving around (in the snow even!) if I'd been tasting all

day. Email answers are fine.

Thanks !

Chris Williams
inline@vnet.ibm.com

Date: Tue, 14 Sep 93 9:21:47 PDT
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Heineken Paranoid of Micros?

Has anyone else heard Heineken's "swipe" at Microbeers in their latest radio ad? They have really taken a good one at our friend Jim Koch:

Guy to bartender: "Hey Tom! What's this Benedict Arnold Pittsburgh Lager?"

Mark

Date: Tue, 14 Sep 93 11:48:56 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Brown Porter / Commercial examples?

What commercially available brews are examples of the "Brown Porter" style as defined by the AHA?

Brown Porter: Medium to dark brown. No roast barley or strong burnt malt character. Light to medium body. Low to medium malt sweetness. Medium hop bitterness. Hop flavor and aroma; none to medium. Fruitiness/esters OK. Low diacetyl OK. OG 1.040-50, % Alc/Vol 4.6-6%, IBU 20-30, Color SRM 20-35

Lee Menegoni lmenegoni@nectech.com

Date: Tue, 14 Sep 93 13:26:43 EDT
From: hhoppe@motown.ge.com
Subject: help

help

hhoppe@motown.ge.com

Date: Tue, 14 Sep 93 12:21:58 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: Malt Liquor

Al writes:

>There are even stupider misuses of names (such as the misuse of the word
>"ale" in Texas) <snip>

Hey! Don't leave us all in suspense, out with the ugly truth. Enquiring
minds want to know. What exactly did the Texas legislature do with
"ale"?

Troy

Date: Tue, 14 Sep 93 16:19 CDT
From: korz@iepubj.att.com
Subject: Klages or not to Klages

Well, I guess it's time to eat crow... the latest issue of Brewer's Digest (Aug `93) completely contradicts my previous assertion that Klages is no longer grown in the US. It apparently is being grown in 1993 along with 12 other varieties of malting barley. The seven 6-row varieties of malting barley being grown in the US in 1993 are: Azure, B1602, B2601, Excel, Morex, Robust and Russell. The six 2-row varieties are: B1202, Crest, Crystal, Harrington, Klages and Moravian III.

Klages appears to be grown in the following states this year: Washington, Oregon, California, Idaho, Montana, Wyoming and Colorado. From the map in the article, it appears that there is little overlap between barley strains grown in the Western States (those mentioned above) and the Midwestern States (N & S Dakota, Minnesota, Wisconsin and Michigan). Excel and Morex appear to be the only ones grown in both the W and MW. Strangely, there are no 2-row varieties grown in the MW this year!

Sorry about the misinformation. I had heard from various sources, for two years in a row now, that Klages was discontinued in 1990. Unless it has just rebounded in popularity, I was given incorrect info.

Al.

Date: Wed, 15 Sep 93 03:04:00 BST
From: mike.keller@genie.geis.com
Subject: Homebrew Digest #1225

>From HBD 1225:

```
|| From: CCAMDEN@delphi.com ||  
|| Subject: Cake mixes, and other half-baked ideas||
```

```
|| The first is a "cake mix" question. I recently received a ||  
|| catalog from The Home Brewery. They have a liquid malt ||  
|| extract that they call Yellow Dog(tm). It is 87% 2-row ||  
|| Klages, 12% malted wheat and 1% chocolate malt. I find ||  
|| myself intrigued by this product. Has anyone in HBD-land ||  
|| ever used Yellow Dog and if so, what are your comments? ||
```

On GENie, we used Yellow Dog as the main ingredient in the extract version of two recipes we designed online, an ale and a porter. We made up an extract version and an all-grain version, and we used the Yellow Dog for the extract version because the Home Brewery listed the ingredients, so we knew the make up.

After we each brewed our own batches, we then swapped via UPS a few samples of our efforts, and compared them. The result? The Yellow Dog is just fine, everyone's beer was good, but in the end you get so much variation in technique that the "cake mix" you use is less important than how you brew it.

I thought the Yellow Dog was fine extract, and if I had to mail order I would consider it, but I now have two local homebrew stores, and I'd rather support them. I can add my own wheat and chocolate, and I often do!

mike.keller

Date: Tue, 14 Sep 1993 22:14:46 -0500
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>
Subject: oring challenge results

For nearly a year now I have avoided posting the results of the oring challenge even when it seemed appropriate such as the time George Fix referred to "O'Connor's oring beer." Quite honestly I didn't want to hear another damn word about orings.

The oring challenge was never what I said. I said that the beer had been in a used keg with a used oring. I further said the keg had once held either coke or Dr. Pepper or root beer. I asked them to tell me which. In reality, the beer had never been in a keg. I spiked each 12 ounce bottle with 9 ml of Diet Coke. That's an incredible 1.35 cans of diet coke per 5 gallon batch. I simply poured from bottle to bottle to make it look as if it came from a keg, sediment free. The beer was tasted by 5 certified judges and several others. NOT A SINGLE PERSON TASTED COKE. The reason I did this was to offer a concrete example that the threshold for coke was too high to believe an oring could soak up enough syrup to be the culprit.

However, the really remarkable results came from the group of 4 certified judges in Chicago. They not only did not taste coke, they IMAGINED TASTING "GRAPE or GINGER ALE" which they surmised came from the oring. They surmised the keg had once held grape or ginger ale.

So what did the oring challenge prove?

Were these judges incompetent? Far from it. Quite impressively, the judge in N. Carolina actually picked up a sweetness that was not like malt sweetness. Another judge in the Chicago area tasted 2 bottles a month or two apart and noticed a big difference because the beer was very oxidized by the time he drank the second. Two others, not judges, noticed the rather odd dark color of the spiked beer.

All I can say with absolute certainty is that

1. 5 certified judges and several others did not taste 1.35 cans of Diet Coke in 5 gallons of pale beer even when they were looking for it.

2. 4 certified judges did IMAGINE tasting grape or ginger ale from an old oring that never existed.

People can quibble around the edges, but these two facts are indisputable.

Before you run out to change the poppet valve, I would simply ask HOW DO YOU GET MORE THAN 1.35 CANS OF DIET COKE INTO THE POPPET VALVE ORING?

Finally, I agree with Al Korzonis that some people have more flavor sensitivity than others. I would only add that some people have more imagination than others. Both are essential to the full enjoyment of beer. The trick is to have some idea where one ends and the other begins.

Date: Tue, 14 Sep 93 20:30:25 -0700
From: pascal@netcom.com (The Ghost In The Machine)
Subject: Yeast Washing

martin@gamma.intel.com notes :

"I have on occasion washed some yeast. The question I have is how do you tell the difference from the trub and the yeast? The yeast is usually an off-white and the trub white, do I just not worry???"

I believe the trub is heaviest, and therefore on the bottom, as what is called, in chemistry, the "precipitate". As it contains a hodge-podge of materials, it is rarely of a pure color, and tends to be darker in shade.

The yeast - the living yeast cells, not the dead cells, which are amongst the rest of the "precipitated" materials on the bottom - are in suspension, and therefore rest in the layer above the precipitate.

The fluid medium in which they both exist provides the third, top layer, and it is clear, totally transparent, and usually only lightly tinted.

The trick to separating the three is in a two-fold approach.

- (1) Add sufficient fluid to allow the three to separate.
- (2) Adjust the geometry (shape) of the container to help expedite separating the layers - IE, use tall, thin containers to separate very small amounts.

It also helps to use something like a baster (large vacumm-bulb gadget used to suck up fluid under cooking meat and recirculate it over roasts, usually used only once or twice a year, but has many other uses ... ;-) with which to carefully remove specific layers, in order or not.

- -- richard

Truth : the most deadly weapon known to civilization. Possession forbidden by employers, governments, and authorities, across the known universe. Violation of this regulation punishable by death.

richard childers pascal@netcom.com

Date: Tue, 14 Sep 93 12:42:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: slow sparges

In HBD 1224 Steve Zabarnick wrote:
SZ) Subject: Slow sparge problems

SZ> two full mashes have been successful, but I've been frustrated
> by the how slow my sparging has been. Here is my set-up: 5 gal

SZ> been sparging with 5 gals of 170 F water while keeping the water
> level above the grain bed (I skip the mash-out). Both of my
> sparges have taken 2 hours with the valve on the cooler full
> open. I would like to get this down to about an hour.

Steve,
Have you been "floating" the grain on several inches of sparge water
above the false bottom as Charlie P. recommends? I was having slow
sparges (but nowhere near 2 hours), but found that the combination
of first, filling the lauter tun with sparge water about two inches
above the level of the false bottom, and second, maintaining the
sparge water level above the grain level until the sparge is
finished, dramatically decreased sparge time.

Chuck Wettergreen
* RM 1.2 00946 * Nothing is so simple that it can't get screwed up.

Date: Wed, 15 Sep 93 08:47:02 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: thin part boiling in decoction

Hello all,

I've just been catching up on the last two hbds.

Lee in hbd 1225 mentioned that he boils the THINNEST third during his decoction mashes, and he attributes unclear beer to boiling some grains as well.

He goes on to suggest that boiling the grains gelatinised their starches, and hence led the haze

Well, yes and no!

The accepted "industrial" procedure for decoction involves taking out the THICKEST third (ie mostly grain), heating it to conversion temperatures and then to boiling, when, indeed, the starch gelatinises, the inner structure of the grains is disrupted, and generally the starch is made more accessible to enzymes.

This boiling mixture is then returned to the main mash.

Why is the thick part boiled? Firstly because of the changes it brings about in the grains that were boiled, and secondly because most of the (heat sensitive) enzymes have dissolved in the liquor (that is the thin bit), so that if the thin bit is taken out and boiled, the enzymes are destroyed and no conversion takes place. This then leads to low yields AND starch hazes!

Therefore, in conclusion, I'd say that Lee's unclear beer was caused by NOT BOILING ENOUGH GRAINS and BOILING TOO MUCH LIQUID.

Using the above procedure I've got excellent yields of clear and NOT astringent beer.

(There are other features of the decoction system that I won't go into, but in passing, by keeping the boiled part as thick as possible no tannins are extracted during the boil either.)

Rob. Thomas

End of HOMEBREW Digest #1226, 09/15/93

Date: Wed, 15 Sep 93 08:01:53 EDT
From: dstotler@cygnus.PPPL.GOV (Daren Stotler)
Subject: Dormant Yeast / Stuck Fermentation

I'm trying to brew the Bock kit sold by the Home Brewery. This is my first attempt at brewing in my fridge/freezer; I guess I've more to learn. Here goes:

I had two liquid yeast starters fail (Yeast Labs Bavarian Lager) for unknown reasons; so I decided to brew with the dry yeast (14 gm) that came with the kit. It said "European Lager" on the package; I wasn't familiar with the brand. I rehydrated the yeast (this was clearly successful) and pitched into the wort @ 65 F. Off it went into the freezer. After 12 hrs., I set the thermostat to 62 F. The next morning (24 hrs), a vigorous fermentation was evident. Over the next 12 hrs, I gradually reduced the thermostat to 52 F. This was apparently too much, as the yeast clearly pooped out and went to sleep.

In an effort to bring the yeast back, I first raised the temperature to 58 F. After a few days with no results, I raised it to 62 F and then stirred the wort up as best I could. Last night there were a few bubbles coming out of the airlock, but I suspect that they were just CO2 coming out of solution since there was no activity when I peeked in this morning.

Does anyone have suggestions for what to try next? More stirring? Yeast nutrient? Please E-mail me at dstotler@pppl.gov.

Thanks,
Daren Stotler
Princeton Plasma Physics Lab

Date: Wed, 15 Sep 93 08:29:32 EDT
From: tmr@fjtld.att.com
Subject: Re: Pumpkin Brown Ale Request

Gene,

You say you are going to use "pure canned pumpkin" for your pumpkin brown ale. Most canned "pumpkin" I have seen in food stores is really SQUASH!

!

It even has a picture of a pumpkin on the label, but if you read the ingredients, the contents are really squash or pumpkin squash. This is what most people use to make pumpkin pie anyway and it tastes like pumpkin, but it is not the real thing.

I am long overdue to make a batch of homebrew and I eagerly await a recipe for some Halloween Pumpkin brew.

Tom Romalewski

Date: Wed, 15 Sep 93 08:34:54 CDT
From: tobias@wugrav.wustl.edu (Malcolm Tobias)
Subject: stuck fermentation?

I recently made a lager, and to keep things cool, I put the carboy in some water and threw in some ice (never enough that I had an ice-water solution, just enough to cool things down a little). After 14 days in the secondary, I went to bottle, but before I could start racking I noticed the beer was fermenting like crazy. After a couple of days, activity has subsided, but I'm puzzled as to what happened. Is it possible I lowered the temperature past some critical point that caused the fermentation to become stuck? What is this temperature for lagers? For ales?

malcolm tobias
tobias@wugrav.wustl.edu

Date: Wed, 15 Sep 93 06:38:27 PDT
From: RDG3%QA%D CPP@cts27.comp.pge.com
Subject: Wanted Scotch Ale Recipe

Hello out there out there there,

I am in the process of trying to emulate the flavor of Ye Ole McEwans
Scotch
Ale. I am an extract brewer that uses added grains. If there is anyone
out
there that has had any success I would be very appreciative if you would
share
your recipe with me.

Thank you,
Bob - RDG3@pge.com

"All you touch and all you see is all your life will ever be." - Pink
Floyd

Date: Wed, 15 Sep 1993 10:14:04 -0400 (EDT)
From: "GARY J. INGRAM" <GJINGRAM@delphi.com>
Subject: Local brew shop?

Hi,

I have recently rediscovered my interest in homebrewing, and have found a local liquor store which sells homebrew kits. (One of which is currently bubbling in my basement!) But, they don't stock any other supplies.

I live in north/central new jersey, in between Morristown and Somerville; does anyone know of a shop that stocks homebrew supplies near this area, or is mail order my best bet?

Thanks,

Gary.

gjingham@delphi.com

Date: Wed, 15 Sep 93 08:56:31 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Decoction procedure

Rob Thomas missed the point of my previous post on decoction mashing which dealt only with the final decoction required to get to mash out. I made no mention of the decoctions leading to mash temp since they are well understood

with regards to process and purpose. What I did attempt to do was better describe what Noonan's "thinnest 1/3" and its impact on the mash process.

Regardless of the number of prior "thick" decoctions one still needs to raise the temp from mash range 150sF to mash out 170F. If grain is in the final "thin" decoction it will liberate starch during boil. Since the purpose of this decoction is to raise the mash temp to deactivate enzyme activity it is quite possible for the final decoction to introduce more starch than can be converted by the remaining enzymes in the 10 minutes or so it takes for them to become deactivated.

My revised decoction procedure is:

Put 5 dead CDs in player, start.
Heat 1 quart water per lb grain to 135F.
Add grain to mash tun.
Check temp for protein rest adjust as needed.
Let mash sit for 10 minutes at protein rest temp.
Check/adjust ph in mash tun.
Kettle mash 40-50% of grain at 155 for 30 minutes, mash is very thick.
Add 1/3- 1/2 quart of water per lb grain in kettle mash, prevents scorching.
Check/adjust ph of kettle mash. (if too high boil will extract tannins)
Boil kettle mashed grain for 10 minutes.
Add slowly add half the boiled grains to mash tun, stir constantly.
Check temp of mash.
Add 1 pint of boiled grain to mash until desired temp reached.
Check/adjust mash ph.
Let remainder of boiled grains cool add to mash when temp is low enough.
Mash until complete conversion.
Remove as much liquid as possible, take NO GRAIN.
Add water to get liquid to 1/2 - 3/4 quart per lb grain.
Boil liquid.
Add boiling liquid to mash tun and stir.
Check temp of mashout, don't over shoot 170 by much, may liberate starch.
Mash out for 15 minutes.

Lee Menegoni Lmenegoni@nectech.com

Date: Wed, 15 Sep 93 17:27:36 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: more on decoction

Hello again all,

Firstly, thanks to Lee Menegoni for sending his post (in this digest?) to me as well, as it allows me to reply promptly, and get the matter settled quickly.

As he said above (?), I did misunderstand about his thin part description.

Therefore, let me ask another question, did you do a starch test on the beer or sweet wort to prove the cloudiness was starch?

In retrospect your conclusion about the last boil containing small amounts of grain and therefore liberating starch seems reasonable, but only if your yields are usually lowish (otherwise there wouldn't be any starch left to gelatinise). I haven't had this problem in the 8 or 9 batches I've done, even though I often (usually?) have upto a cup of solids in ca. a gallon of thin decoct.

Has anyone else got any experience with this problem (I'm getting worried),

or does everyone else who decocts carefully strain the last decoct?

Did you get any more info Lee?

Rob. Thomas

Date: Wed, 15 Sep 1993 10:31:12 -0500 (CDT)
From: cush@msc.edu
Subject: Re: lautering and clarity

In HBD 1226, Norm Pyle asks whether anyone has 'put to a test' Micah Millspaw's claim that minimal or no recirculation increased clarity of a brew.

Well, I did ask Bob Jones to clarify (sic) Micah's claim, and he said that Micah would sometimes (jokingly??) say that he would sometimes throw whole malt into the brew-kettle to increase clarity !! :-) Now, this was a joke, but Micah is quite vehement in his assertion regarding too much recirculation (and also makes some arguments regarding loss of stability with over recirculation.

Anyways, to my data point: last February a brew-partner and I made a Pilsner-Urquell clone that became known as "Pilsner from Hell". Why? Because it seemed everything that could have gone wrong in the brewing process...DID! This included a joint in the copper sparging manifold coming apart, which then proceeded to leak large amounts of grain husk material into the boiling kettle. We worried (gasp!) about it a little...but decided to place our fate into the considered opinion of Micah Millspaw.

Bottom line is that the brew was cloudy in the primary. After we fined with gelatin in secondary and bottled, we have the brightest brew either of us have produced!!

Also, in general I do little recirculation in my copper manifold sparger (on the order of a quart), and have had no problem with cloudy brews.

- - -

> Cushing Hamlen | cush@msc.edu
> Minnesota Supercomputer Center, Inc. |

Date: Wed, 15 Sep 1993 11:06:35 -0400
From: Bill Flowers <waflovers@qnx.com>
Subject: re: Pumpkin Brown Ale Request

In HBD #1226, EZIMMERM@UWYO.EDU writes:

> I'm going to brew a Brown Ale with some pumpkin flavor and because I
> can't find a source of fresh pumpkins I will be using canned. Yes, I am
> using pure canned pumpkin (no xtra water, salt, chemicals, etc.).
What
> I need is an idea of how much canned pumpkin would be nice for a Brown
> Ale of aoubt 1.04 to 1.06 OG and if anyone can reccomend some hops for
> this. I was thinking finnishing with Fuggles... Any ideas?

DON'T DO IT!

I tried making a pumpkin ale this past weekend using 3-28 fl. oz. cans of pure pumpkin. I discovered that the pumpkin will completely dissolve in the boiling wort, turning it into the consistency of pumpkin pudding when cooled. It made sparging next to impossible, even with my coarsest sparge filter. All the pumpkin ended up in the fermenter where most of it has settled out. It takes up quite a bit of space, leaving me with less beer.

If I were to do it again I'd wait for pumpkins to be in season, carve up one or two and use chunks of the meat (after cooking it a bit).

I'll be racking the beer off the pumpkin, etc. into the secondary tonight where I'll add various spices (cinnamon, allspice, vanilla, etc. -- the usual pumpkin pie things). I'm hoping I'll have this ready for Cdn. Thanksgiving next month. Not much hope of that I know, but I had no time for brewing this summer. :-(

- - - -

W.A. (Bill) Flowers email: waflovers@qnx.com
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)
(613) 591-0931 (voice) mail: 175 Terrence Matthews
(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

Date: Wed, 15 Sep 1993 08:37:04 -0700 (PDT)
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Recirculating mash runoff

>Norm responds to Gene,
>
>Gene asks about lautering wrt recirculation. He assumes most all-grainers
>just sparge without recirculation. It is my perception that most
>all-grainers do recirculate the wort. FWIW, I recirculate the wort
>until
>it runs relatively clear, but I don't go to a lot of trubble. I seem to
>recall Micah Millspaw advocating no recirculation at all; something
>about
>giving the proteins and other hot break material a nucleation point.
>Contrary to the popular beliefs, he claimed clearer beer than with
>recirculation. Anyone tasted Micah's beer? Is Bob Jones still on the
>digest?

Hi Norm, yep I'm still here, mostly a lurking. The jest of Micah and my
contention was focused at better beer stability. The stability is
improved
if there is a higher fraction of lipids in your final packaged product.
The
lipids are low to start with in american grown grain. The lipid content
is
greatest at first runoff from the mash. Therefore it is best to take the
first runnings. The particulates in the runoff don't seem to cause any
problems with final beer clarity. They may even improve it! This being
due
to the particulates acting as nucleation sites for proteins. There is an
interesting discussion coming in the next issue of Zymurgy where this
very
issue is addressed by G. Fix G. Noonan and myself and Micah. The issue
was
raised by a letter to the Professor. I have read all the text and it does
make for interesting reading.

I'm off on a three week trip to England, Wales and Scotland, a pub
crawling.

Cheers,
Bob Jones

Date: Wed, 15 Sep 93 11:36:21 EDT
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)
Subject: re o-rings and taste threshold

oconnor@ccwf.cc.utexas.edu asks:

> HOW DO YOU GET MORE THAN 1.35 CANS OF DIET COKE INTO THE
> POPPET VALVE ORING?

Simple. The problem is absorption of flavors, not absorption of total liquid. I don't know what the ratio of carbonated water to cola syrup is in fountain-mix systems (I'd guess high single digits from recollections of helping with setups) but that syrup is mostly sugar; the effect of 1.35 cans of cola could probably be matched by as little as a drop of its strongest-flavored component.

No, I don't keg. But this isn't kegging; it isn't even simple chemistry---more like bottle washing.

wrt what the judges tasted: to me, Diet Coke tastes more of the artificial sweetener than of Coca-Cola; I'm not surprised they thought of ginger ale or fruit soda when they detected the sweetness.

Date: Wed, 15 Sep 93 11:49:14 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Esoteric Bottle Caps

I'd like to get bottle caps, other than the generic (Real Beer) ones that are sold in the brew supply shops, for bottling my beer .

The Spanish Peaks Brewery bottles have caps that portray a dogs paw on their caps. I called them up, but they wouldn't sell me any of their trademarked caps.

If anyone knows of a source for non-generic bottle caps, or if you know of some method for imprinting bottle caps, please email me.

Thanks.

- - - -
email: sxupjd@fnma.com (NeXT Mail Okay)
Philip DiFalco, Senior SomethingOrOther, Advanced Technology
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

Date: Wed, 15 Sep 93 11:14 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Racking tube 'trubles'

Hello readers,

Being new to the world of racking tubes, I ask for some advice and experiences.
On several occasions, I've been unable to secure a steady siphon using either a carboy cap or good old fashion oral vacuation (non-phrase?). It seems that regardless of siphon hose diameter and the subsequent inclusion of a metal strip hose clamp, I cannot maintain a constant seal between the hose and racking tube (a wholly plastic affair, no copper).

Before the line fills, air gets sucked into the line where the hose and tube meet. This steals away the siphon and aerates fermenting(ed) beer. And I have tried two diameters of hose, to very little avail.

I had three very stressful goes at transferring 5 gals from a 7 gal. carboy to a 5 gal. I ended up using plain ol' hose and plain ol' sucking. What will really suck is my luck if foibled siphon attempts lead to any contamination.

I have done some experimenting with the tube and see that I must do more. Any suggestions to the list or to my email will be welcome. Bottling is just a few days away.

Thanks brewers.

David Atkins
UW-Madison
atkins@macc.wisc.edu

+++++Relax, don't worry and try not to get ulcers or migrains or alienate+++++
++++ friends and family whilst trying to figure out how to brew beer.+++
++++++

Date: Wed, 15 Sep 1993 12:43:31 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Re: Tarnished wort chillers

In HBD 1225 Philip J Difalco asks about tarnished copper immersion chillers.

There are different types of "tarnish", the dull kind and the green kind. When I first used my immersion chiller I put it away with a few drops of water still on it. To my horror (I scare easily) there were green copper oxide spots on my chiller! Of course, these wiped off with a soft cloth. The green tarnish you don't want in your beer. The dull red-orange colour of the copper turns to a bright, almost pink colour when immersed in an acidic medium, such as wort. The amount of copper actually being removed from the chiller is negligible, and traces of copper are actually beneficial to yeast metabolism. My suggestion: after use, rinse the chiller under running water (or hose it down under the shower), and wipe it dry with a tea towel. Before use, give it another quick rub down to remove loose oxide.

Ed Hitchcock/Dept of Anatomy & Neurobiology/Dalhousie University/Halifax
NS

ech@ac.dal.ca +-----+

| Never trust a statement that begins: |
| "I'm not racist, but..." |

+-----+
Diversity in all things. Especially beer.

Date: Wed, 15 Sep 93 12:25:28 EDT
From: sdlsb.dnet!73410%sdicc@swlvx2.msdlcc.com (Omega)
Subject: Heineken/S.A./FAQs

I have heard the Heineken ad mentioned by Mark in #1226 on a Boston station. The basic theme struck me as "don't waste your time on all those strange micros, drink Heineken". I'd rather experiment, thanks.

As for Jim Koch, in his latest ad he claims to be a microbrewer who "handcrafts" his product. Also, his claim that Sam Addams(tm) "won" at the GABF four years running is back. Injunction time, GABF organizers??
?

On the FAQ front, I would like to add that I, and I'm sure many others, do NOT have ftp access, let alone to sierra! FAQs posted to the HBD are of great value, and IMHO the spacing of the installments makes little difference.

Carl

Date: Wed, 15 Sep 1993 12:01:53 -0400
From: Bill Flowers <waflovers@qnx.com>
Subject: Vienna malt and Munich malt

Will these grains convert themselves or must they have an external enzyme source?

Also, has anyone ever tried making Vienna malt using the method outlined by Dave Miller in The Complete Handbook of Home Brewing? If so, how did it turn out?

Vienna malt doesn't seem to be available in Canada except by special order.

I've had some on order now for 10 weeks and it still hasn't arrived (through my local HB supply store). When it does it will cost me about \$2

per pound! If I were to bring it in myself it would get here much faster (about 2 weeks) but cost much, much more. (The store is bundling it in with other supplies they are ordering, so the shipping and brokerage fees will be distributed over the entire shipment.)

Don't suggest using some of those wonderful Belgian malts instead. They aren't available here either and my store won't carry them unless there is a Canadian distributor they can order them from. :-(
- - - -

W.A. (Bill) Flowers email: waflovers@qnx.com
QNX Software Systems, Ltd. QUICS: bill(613) 591-0934 (data)
(613) 591-0931 (voice) mail: 175 Terrence Matthews
(613) 591-3579 (fax) Kanata, Ontario, Canada K2M 1W8

Date: Wed, 15 Sep 93 13:53:53 EDT
From: richer@desi.HQ.Ileaf.COM (Al Richer)
Subject: Goodbye, guys...

Sorry to say this, but I've been laid off from Interleaf. It's been great dealing with you guys, and good luck to all!

Dion, have a good time with the FAQ. I'm not gonna be here to help...

Yours,

Alan J. Richer

-- --

Date: Wed, 15 Sep 1993 13:21:00 -0400
From: mike.sadul@canrem.com (Mike Sadul)
Subject: Cooler size

Greetings fellow homebrewers!

I have been an avid reader of the HBD for some time now.
Never posted ... until now!

It is because of this digest, that I have decided to move from
extract brewing to all grain (it's cheaper, tastes better, cheaper,
tastes better ...), so you're all to blame! :)
(at least that's what I tell my wife)

I am currently in the process of buying/making equipment.

All the discussions of different techniques and different types of
equipment (and the problems and limitations of each) have made
the choices easier for me. Much better than a brewing book.

However, ... a few questions remain (otherwise I would still be in
the background :)). But first a bit of the what and why's:

Because of the time involved with all-grain, I have decided to brew
10 gallon batches. The "gallons" will probably be US gallons, since
I now keg my beer and despise having to fill 3 or 4 extra bottles
after filling the keg.
(5 Imperial gallons = 22.5L = 18L keg + a few 1-litre bottles)
This takes part of the joy out of using kegs and doesn't adhere to
the KISS rule.

The equipment list (so far):

60 quart kettle and lid from Rapids (friendly staff, great prices,
quick delivery).
60,000 BTU propane burner, with 144 little holes on the ring burner,
from a local hardware store.
50' of 3/8" OD copper tubing for an immersion chiller (easy to clean
and sanitize, hot & cold break remain in kettle after siphoning).
MaltMill (cheque's in the mail Jack :))

The copper manifold that I built (before I realized I was going to
do 10 gallon batches) for a "regular" cooler (34 quarts?) will be
dismantled and the parts used to build a manifold for a larger cooler.

Question:

What size cooler should I buy?

I want to be able to mash 15 - 25 lbs. of grain AND be able to dump
all of my sparge water into the cooler to do one of those batch
sparges (back to the KISS rule (1 kettle, 1 cooler)). I can get
either a 68 quart or a 107 quart cooler. Will the 68 quart be a
little tight? Will the 107 quart create too shallow of a grain bed?
Will I get flamed for wasting so much bandwidth for this one question?

Thanks for all of your help (so far!),

Mike

mike.sadul@canrem.com
Toronto, Ontario, Canada

Date: Wednesday, 15 September 93 13:35:29 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: Texas ales

Howdy,

On 9/15/93, Troy asks for the lowdown on Texas legal definitions on beers.

It's really quite simply. If it's below 4% alcohol, it's beer. If it's above, it's ale. You have to have a separate permit to brew each commercially.

The permits are flat fees. So Anheuser-Busch, which brews beer in Houston, pays half of what Pierre Celis, who brews beer & ale in Austin, does in fees, even though A-B produces more in a day than Celis does in a year.

And people wonder why there isn't more happening on the beer front in Texas.

BTW, Celis can't offer samples of Grand Cru at the brewery because it's an ale.

However, they can offer unlimited samples of the others. Also, he can't sell

his beer directly to the public, only through a retailer, while A-B owns Sea World of San Antonio, which sells, by coincidence, A-B beers. The Texas

Lege made a special exemption just for them a full two years before legalizing

brew-pubs & after A-B had been selling beer for years at Whale Jail.

So you can see that even though the new brewpub laws in Texas are quite limited, we're pretty happy just to have something.

Alan, Austin

Date: Wed, 15 Sep 93 14:33 CDT
From: korz@iepubj.att.com
Subject: The O-ring Challenge

Don asks:

>HOW DO YOU GET MORE THAN 1.35 CANS OF DIET COKE INTO THE
>POPPET VALVE ORING?

Well, it seems to me that Don is not aware of what most Cornelius Canisters are really used for: post-mix. Few are used for what's called pre-mix. What's the difference. Pre-mix is pre-mixed at the bottling plant -- it's the same stuff as the soda in bottles and cans. Post-mix is an altogether different animal -- it's syrup! It is mixed with carbonated water by the dispenser. It is altogether conceivable that you could absorb more aromatics than are found in a case of diet coke into the 8 gaskets that are found in a standard Cornelius canister.

When I sell a reconditioned keg (which I do myself), I put the used gaskets and poppets into a 6-mil HDPE bag and tape it to the side of the keg. I do this not only to prove that I've changed all the seals, but also to give the buyer the opportunity to smell them and reassure themselves that changing them was worth the money they paid.

One time, I was expecting a customer and had no reconditioned kegs on hand. Halfway through the reconditioning, I realized that I had no poppets in stock for this type of keg. I smelled the original poppets and they smelled strongly of soda pop. "Perhaps I could boil the smell out of them?" I said to myself. 20 minutes of boiling later, the poppets still smelled of soda pop. My last resort, was to take the poppets out of my own personal kegs (which were purchased new and have never been in contact with syrup) and to give the customer a discount since they weren't getting all new seals.

Regarding the flavor of cola, try this at home: have someone give you a blind taste test between Coke and Seven-Up. Ten of us did this test and only one of us could consistently identify which was which. What does this prove? That soda pop aromas are non-descript (except for root beer, maybe) and lemon-lime doesn't taste very different from cola. The aroma of cola and the aroma of beer are definately different and, personally, I prefer to keep them separate.

Finally, that's Korzonas, not Korzonis. It's Lithuanian, not Greek. Fairer skin, blander food and better beer (right George?).

Al.

Date: Wed, 15 Sep 93 14:51 CDT
From: korz@iepubj.att.com
Subject: TX laws/Decoctions

Troy writes:

>Hey! Don't leave us all in suspense, out with the ugly truth. Enquiring
>minds want to know. What exactly did the Texas legislature do with
"ale"?

Texas requires a beer labeled as "ale" to have an alcohol level of at
least

a certain percentage (sorry -- someone from TX please post the
percentage).

But it's perfectly okay to have a beer below that alcohol level be called
a "bock." This is why Celis Pale Bock cannot be called what it really is,
namely, a Pale Ale (well, I think it's more of a Brown Ale, but that's
me).

Rob writes:

>The accepted "industrial" procedure for decoction involves
>taking out the THICKEST third (ie mostly grain), heating it to
>conversion temperatures and then to boiling, when, indeed, the
>starch gelatinises, the inner structure of the grains is disrupted,
>and generally the starch is made more accessible to enzymes.

Yes, but according to Noonan, this (using the thick part of the mash
for the decoctions) is only for the first two or three decoctions.
For the final decoction, the one that takes the mash up to the
mash-out temperature, Noonan recommends using the thinnest part of
the mash. I'm quite sure that this is what Lee was talking about.
It's actually important to gelatinize and burst-open the starch
granules during the first 2 or 3 decoctions, but equally important,
as Lee mentioned, to NOT gelatinize or release any additional
starch during the FINAL decoction. Any starch that gets liberated
during the final decoction will not have any "live" enzymes left in the
mash (during the mash-out) to convert them to sugar.

Al.

Date: Wed, 15 Sep 93 19:43:00 +0000
From: MOORE_ED/HP0800_01@mailhub.cs.itc.hp.com
Subject: kegging pressure problem

I am new to kegging and have a problem which I can not figure out. I have a CO2 cylinder, regulator (purchased new from local Pepsi supplier) and a pair of used cornelius kegs (with beer). Somehow, I have overpressurized my beer.

I have the regulator set for about 15 psi. When I connect the system for an extended period of time, the low pressure side RISES to 40 psi. More confusing yet, the high pressure gauge rises from about 850 psi. to 950 psi.!

As an experiment, I have left the system connected and turned off the CO2 cylinder. Pressure has dropped to about 10 psi as of today. I think I have a leak, however, one of the kegs is new and may still be absorbing CO2.

What problem in my setup can cause the low pressure side to go from 15 psi to 40 psi? I don't have a clue.

Ed Moore

Date: Wed, 15 Sep 1993 15:21:40 -0600 (MDT)

From: EZIMMERM@UWYO.EDU

Subject: Brew Club lists

Salutations!

When I found out I was moving to Laramie I made a post to the HBD asking if anyone knew of a homebrew club here. No one did. I did, however, get one response asking me to update them when I arrived if there was a home brew club here as they were keeping some kind of list. Well, I'm here and there is, but I have forgotten who wanted to know. Write me if you are interested. Sorry to waste the HBD space...

Gene in Laramie

Date: Wed, 15 Sep 93 15:21:55 PDT
From: tpm@wdl.loral.com (Tim P McNerney)
Subject: Using Soda Kegs for Fermentation

A couple of days ago, Dave Smucker mentioned using 1/2 barrel kegs as fermenters and I was wondering about using soda kegs, also. I usually do my primary fermentation in my brewkettle and would like to transfer directly to a keg for secondary, saving myself the trouble of transferring to a glass secondary, then a keg at racking time. It seems to me that I should just be able to flush the headspace with CO2 and then leave the relief valve open. Then I just need to wait for secondary to complete, close up and pressurize. The only problems I see with this are:

Chance of infection through the relief valve, but I don't think this would be a big problem.

Difficulty determining when secondary is done, but so what if I underestimate the time for secondary.

Does anyone see any other serious problems with this scheme? Would there be any problem sealing the valve when I first transfer and then release the pressure once a day or so (I figure this eliminates the problem of infection even more)? Does anyone else use soda kegs for secondary and if so, does anyone bother trying to attach a fermentation lock?

Thanks.

- --Tim McNerney
- --Loral Western Development Labs
- --(408) 473-4748
- --tpm@wdl.loral.com

Date: Wed, 15 Sep 93 18:53:18 EDT

From: gorman@aol.com

Subject: Heineken and micros

Mark writes:

>Has anyone else heard Heineken's "swipe" at Microbeers
>in their latest radio ad? They have really taken a good
>one at our friend Jim Koch:

>Guy to bartender: "Hey Tom! What's this Benedict Arnold
>Pittsburgh Lager?"

My anecdotal understanding is that the rise of quality brewing in the US
has
hammered "traditional" imports like Heineken most of all.

Does anyone know any numbers?

Date: Wed, 15 Sep 1993 19:00:08 -0500 (CDT)
From: MEHTA01@swmed.edu
Subject: Pubs/Bars in Paris???! Pls help!!

Hi.

i will be in Paris for about 5 days next week.

i know that there are some experienced travellers on this net who share a similar interest for local attractions ;-), so please suggest a couple of GOOD pubs to go to. Atmosphere is as important as the beer variety :-).

Merci Beaucoup!!

SHreefal Mehta

End of HOMEBREW Digest #1227, 09/16/93

Date: Thu, 16 Sep 1993 08:46:30 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: local homebrew supplies

local homebrew supplies

Date: Wed, 15 Sep 1993 10:14:04 -0400 (EDT)

Hi Gary...

Subject: local homebrew supplies

i'm very new to all this (still shopping for equipment), but there is what seems to be a neat place in Red Bank, called Red Bank Brewing Supply.

Red Bank Brewing Supply
67 Monmouth Street
Red Bank, NJ 07701
908/842-7507

They seemed like really helpful people...explained a lot to me. They claim to actually brew stuff there as well, but I can't validate that.

I live in Freehold, work at Ft Monmouth, so they are really quite close.

Hope this helps....

george tempel

Date: Thu, 16 Sep 93 06:35:40 PDT
From: 16-Sep-1993 0933 -0400 <ferguson@zendia.enet.dec.com>
Subject: o-rings again

Another way to break-in a "new" soda keg that you don't feel like replacing the gaskets on, is to fill the keg with a nice heavy stout or doppelbock.

I've also found that soaking o-rings in soapy water noticeably reduces the soda smell.

Of course, your mileage may vary;

Also, I fully agree w/ Al: everyone has different tastes. If you happen to have very sensitive tastes, overhaul your keg; if not, relax, fill it, and bottoms up!

JC FERGUSON

Littleton MA USA

Date: Thu, 16 Sep 93 10:25:11 EDT
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: decoction mashing

Hi All,

Picking up the recent thread on decoction:

Lee and I discussed this a few days before his post, and I didn't have the information at hand. This prompted me to look through my brewing books,

it turns out both Miller and Noonan are quite explicit on the issue of grain in the final thin decoction causing haze problems.

From Miller's "Continental Pilsner", p. 52, the context is a discussion of various decoction techniques:

"Other variations are even quicker. For example, some brewers use a single-decoction mash in which the boost to saccharification is accomplished by decoction but the final boost to mash-out at 168 degrees F (75 degrees C) is done by directly heating the mash-tun. This program is arguably more sensible than the double-decoction method because starch released during the second boil may not be converted during the mash-out rest (the amylase enzymes are rapidly destroyed at such temperatures) and might cause hazes in the wort and finished beer."

From Noonan's "Brewing Lager Beer", p. 118:

"When the starch end-point has been verified, the **very thinnest** ("very thinnest" is italicized in the text) part of the mash is removed to be boiled."

"Because there are fewer starch and albuminous particles in the thinner portion, there is less risk of these being decomposed during the boiling and spoiling the runoff."

Rob Thomas writes in HBD#1227:

>In retrospect your conclusion about the last boil containing small
>amounts of grain and therefore liberating starch seems reasonable,
>but only if your yields are usually lowish (otherwise there wouldn't
>be any starch left to gelatinise).

I don't think this is the case. There is always some insoluble starch in the chunks of grain that amylase enzyme won't touch. Boiling gelatinizes this starch, releasing starch that is now soluble but not converted into the wort. Thus, the presence of unconverted starch in the wort is not necessarily a consequence of low yields.

Rob writes:

>Has anyone else got any experience with this problem (I'm getting worried),
>or does everyone else who decocts carefully strain the last decoct?

Can't speak for everyone else, I use a 10 gallon cylindrical Igloo cooler with a copper sparge manifold as a mash/lauter tun. When it's time for the

final thin decoction I simply open the spigot on the cooler, and drain the liquid from the tun. With the exception of the initial cloudy runoff, the final decoction consists of clear wort and *NO* grain. I've never had clarity problems with beers brewed using decoction mashing, in fact, I believe decoction mashing improves clarity, what with multiple boils breaking down all that protein.

My take on all of this is that including *ANY* grain in the final decoction is risky. Perhaps the amylase enzyme will convert the starch before it denatures, perhaps not. Given the time and effort involved in grain brewing and decoction mashing, I choose not to take the chance.

Comments?

Cheers,
Jim

Date: Thu, 16 Sep 1993 10:38:28 -0400 (EDT)
From: bickham@msc.cornell.edu
Subject: Adding fruit to the secondary

I'll be brewing a fruit beer soon and want to add cherries to the secondary. Since they are out of season, I'll have to buy them frozen, but that's fine since a lot of people recommend freezing to set the pectins. My questions are:

1. Should crush the cherries or at least macerate the skins before I add them to the fermenter.
2. In one of the recent issues of Zymurgy, someone recommended putting the fruit in a pantyhose legging to keep the fruit from forming a surface barrier which traps the carbon dioxide. Has anyone tried this?

Thanks, Scott

- --

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Scott Bickham
bickham@msc.cornell.edu
=====

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Date: Thu, 16 Sep 93 10:50:14 -0400
From: jake@apollo.hp.com
Subject: Fining with gelatin

Hi -

Having passed through my "I need gallons of beer to drink...Now!" phase, and upon entering my "This beer had better be exceptional!" phase, I have need of some information...

I am planning on splitting my latest concoction between bottles and keg, and would like to ensure clarity. As well, it had, upon moving to secondary, a decidedly overly-yeasty taste, which seemed to me to be more than simple immaturity.

As a result, I am going to do some gelatin fining to yank some yeasties. The bible by Sir Charles recommends fining at bottling time. I was wondering if it was acceptable to fine for a week or so in secondary, so that I can bottle with less sedimentary concerns.

Thanks for any help,

Jack

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  Jack Danahy   | Cottleston,   | Systems Software
Senior Software Widget | Cottleston, | Hewlett-Packard
(508) 436-4120 | Cottleston Pie. | Chelmsford, MA 01824
jake@ch.hp.com | Things are as they are. | M/S CHR-03-BC
=====
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Date: Thu, 16 Sep 1993 09:53:56 -0500 (CDT)

From: cush@msc.edu

Subject: Enzymes and Munich malt

>In HBD 1227, Bill Flowers asks whether Munich malt contains sufficient
>enzymes to convert themselves:

Last winter I tried making a Munich Dunkel using 100% munich malt. The
source of the malt claimed that the malt had sufficient enzymes to
convert
itself.

Well, to make a long story short, I ended up with a large pot of starchy
porridge..... (that I fed to the compost pile)

When I went back to the supply shop to complain/ask whether the malt
did indeed have sufficient enzyme activity they (jokingly??) asked me
if I was SURE I had not killed my enzymes. (and, as it turns out, spread
the
story to a few select members of the local brew-club when they came into
the
store after I left...) **

When I got over my apoplexy, we had a productive dialog about mashing
schedules, after which we decided I would try again with a 50/50 munich/
pale
malt mixture, and they would call their supplier (Breis??) to inquire
again
about the enzyme content of Munich.

I was vindicated! The second attempt converted nicely, and their
supplier
said the malt did NOT have sufficient enzyme activity to convert itself.
(though members of the local brew club still occasionally give me grief
about killing my enzymes...sniff...)

Although I am not SURE about this, I think a reasonable generalization is
that
domestic Munich malts do not contain sufficient enzymes to convert
themselves,
but munich malts of European source will contain sufficient enzymes.

** Just for fairness, the claims of killing enzymes were made in fun...
though

I DO still get grief for it from club members....

- - -

> Cushing Hamlen | cush@msc.edu

> Minnesota Supercomputer Center, Inc. | 612/337-3505

Date: Thu, 16 Sep 93 10:00 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Decoction, Coolers

>From: Lee=A.=Menegoni@nectech.com
>Subject: Decoction procedure

>Regardless of the number of prior "thick" decoctions one still needs to raise the temp from mash range 150sF to mash out 170F.

It is my considered opinion that there is no advantage in raising a decoction mash to mash out via the decoction mode. The benefits of decoction arise from the mashing at 155F of the previously boiled decoctions. Once saccrification is complete, this last decoction(s) is superfluous. It is far simpler just to heat the whole kettle to mash out.

>From: "Bob Jones" <bjones@novax.llnl.gov>
>Subject: Recirculating mash runoff

>The lipid content is greatest at first runoff from the mash. Therefore it is best to take the first runnings.

Someone has confused two issues here. Micah was talking about sparging and the advantages of first runoff. This has little to do with re-circulating the runoff.

In the former, we are talking about running additional water (sparging) through the mash to increase the overall volume of wort which will be further processed. Micha's comments discussed the advantages of only using the wort that runs from the original mash, without sparging additional water through it.

The re-circulation discussion revolves about the oft proclaimed advantages of recirculating the original mash liquid through the filter bed BEFORE collecting it for further processing.

In a proper mash tun, the only objective is to utilize the initial runoff which is usually very turbid and full of husk material. Instead of throwing it away, it can be poured back into the mash so that then next time it passes through the filter bed it will run clear. The amount that must be recirculated depends on the design of the mash tun and the dead space under the false bottom and the flow rate. It varies from a cup or two to gallons.

Now, the problem comes from the claims that prolonged re-circulation of the

runoff before commencing the sparge, has a profound effect on extraction rate. I know of no reason for this to be true unless there is something wrong with the design of the mash tun.

>From: mike.sadul@canrem.com (Mike Sadul)
>Subject: Cooler size

>I am currently in the process of buying/making equipment.

>The equipment list (so far):
60 quart kettle and lid from Rapids (friendly staff, great prices, quick delivery).
60,000 BTU propane burner, with 144 little holes on the ring burner, from a local hardware store.
50' of 3/8" OD copper tubing for an immersion chiller (easy to clean and sanitize, hot & cold break remain in kettle after siphoning).
MaltMill (cheque's in the mail Jack :))

>The copper manifold that I built (before I realized I was going to do 10 gallon batches) for a "regular" cooler (34 quarts?) will be dismantled and the parts used to build a manifold for a larger cooler.

>Question:
>What size cooler should I buy?

Don't buy one. In the interest of International good will, I will include an EASYMASHER with your MM shipment. Install it in your kettle and you don't need any other equipment. Mash in your brew kettle, collect the wort and clean out the "mash tun" and now call it a "brew kettle". If you fall in love with the system, your next money would be best spent on another smaller kettle for mashing and another EM for it.

You can easily mash 10 gallon batches in the (\$40) enamel on steel canner but you can only boil 5 gallon batches. If you are loaded, buy the 10 or 16 gallon Rapids kettle for your mash tun.

Any of these kettles also make great fermenters. The 10 gal is a little tight for 10 gallon batches but if you lager, there is not much foam buildup.

If I had to do it over again, I would have bought two 16 gal kettles but I am stuck now with one of each. I mash and sparge in the 10, boil in the 16 and ferment in the ten. It would be nicer to ferment in the 16 but then I have to hold the wort while cleaning and sterilizing it.

js

Date: Thu, 16 Sep 93 11:02:04 EDT
From: dipalma@banshee.sw.stratus.com (James Dipalma)
Subject: RE: soda kegs as fermenters

Hi All,

In HBD#1227, Tim McNerney asks about using soda kegs for secondary:

>Does anyone see any other problems with this scheme? Would there
>be any problem sealing the valve when I first transfer and then release
>the pressure once a day or so

I exclusively use kegs for secondary fermentation, they work great! My procedure is to purge the keg with CO2, then rack from primary a day or so after the krausen has fallen. Filling the keg with CO2 helps prevent oxidation of the beer during the transfer. CO2 is considerably heavier than oxygen, if you don't tip the keg during racking, it'll pretty much stay in there for the duration of the transfer.

Once the beer is transferred, seal the keg, and purge the headspace.

Put

a small amount of pressure on the keg, enough to ensure you have a tight seal around the large o-ring. For the first day or two, open the relief valve slightly, and bleed off some of the pressure, once or twice daily. After the first day or two, you'll find very little gas is released when you open the valve, as fermentation is very nearly complete. Drop back to bleeding the pressure every 2 to 3 days.

BTW, the relief valves on my kegs are rated to open at 50-60 psi, the kegs are stamped "130 psi maximum". Provided the relief valve does not fail, there is little danger. Since the pressure is bled periodically, I don't believe there is any danger at all. I've done over 30 batches in this manner over the last 18 months, with no problems.

There is an added benefit to using kegs as secondaries. When the time comes to transfer to a serving keg, the entire batch can be transferred without siphoning. Get a length of pressure tubing, and attach a liquid hose barb to each end. Purge the receiving keg of oxygen, and make sure it is tightly sealed. Bleed all of the pressure off the full keg, then connect the two kegs via the liquid OUT fitting on each. Put 15-20 psi on the full keg, and the beer will start to flow into the receiving keg. Keep an eye on the flow, it will slow down periodically as pressure builds in the receiving keg. Use the relief valve to bleed some pressure off the receiver, and the flow will resume. The advantage to this method is that the entire batch can be transferred in about five minutes to a serving keg without worrying about starting a siphon, without oxidizing the beer by splashing during siphoning, and without exposure to airborne micro-nasties.

Cheers,
Jim

Date: 16 Sep 93 10:15:13 CST
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>
Subject: Goofy Texas laws

To add to the discussion of Texas beer laws, the word "stout" implies a strong beer to the TABC (Tx Alc Bev Comm) and so we can't get Sam Smith's Oatmeal Stout because the alcohol content is not high enough to be called stout! Also, we also have a packaging restriction relating to the alcohol content. If the brew is < 4% alcohol, then it has to be packaged in 7, 8, 12, 16, 24, 32 oz containers or in fractions of a barrel (like 3.375 gal, 7.75 gal, 15.5 gal). I think the factory breweries got a special addition of the 5 gal beerball size to the list. It cost them a fortune to schmooze and lobby our legislature.

However, if the brew is > 4%, then it can have any size package it wants, like 16.9oz (0.5L) for the German imports. This means that we can't get Anchor Steam on draught because the alc content is not high enough to be packaged in their 50L kegs. Unfortunately, Texas is such a huge market that many breweries will make special versions to get around our stupid laws.

Here's an interesting point (brought up in another forum): since beer sold here in the USA cannot have an alcoholic content labelling (to protect us from ourselves), is there a restriction on OG labelling? This is the case with the German beers that I brought back, and it helps a bit to try to duplicate the style. (I think it's part of their packaging law to have it on there....)

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Thu, 16 Sep 93 11:34:55 EDT
From: emeeks@tx.ncsu.edu
Subject: Cascades dying?/Building a basement brewery

Hi folks--

I have a couple of questions, one regarding the apparent death of one of my hops plants, and another regarding the construction of a basement brewery.

My Cascades plant, after growing to @ 15 ft. and putting out a small number of cones in its first year, has suddenly started to turn black and shrivel from the top down (I only had one shoot come up this year). Up to now, I have been impressed with the ruggedness of this variety, compared to my dearly-departed Mt. Hood (slugs) and Saaz (spider mites) cuttings. Now, I think something is consuming my Cascades.

If it matters, after the death of the Saaz plant, I began weekly applications of "Safer soap" to control the spider mites on the cascades. In the two months since the demise of the Saaz, the spider mites seemed to disappear. Is the plant reaching the end of its season or do I have an interloper?

Also, I will be moving at the end of the month to a house with a basement. My roommate (and owner of the house) has agreed to help me convert a corner into a "brew room". The basement has a concrete floor with brick walls and an unfinished ceiling. Putting in the framing should be inexpensive, since we have a free source for 2x4's. Can anyone recommend a cheap material to use for the walls? I'm thinking of something like the plastic used to make shower walls. The basement is fairly dusty and will also be used for a workshop and storage area, so I'd like to create a closed area that could be kept sanitary with periodic "swabbings".

For the record, I don't plan on using an open burner in the basement. My hot water source will be the house's gas-fired heater, and the boiling of the wort will take place outside. The brew room will be used for mashing, fermentation, and beer/equipment storage.

To save bandwidth, email replies are welcome.

Ed Meeks (emeeks@tx.ncsu.edu) "Won't you please tell the man I didn't hurt

anyone, no I'm just tryin' to have me some fun." --John Prine

~

Date: 16 Sep 93 08:42:18 MST
From: "Cisco" <FRANCISCO@osmo.CCIT.Arizona.EDU>
Subject: O-ring Challenge/Keg Pressure

Al Korzonas says

>
> Well, it seems to me that Don is not aware of what most Cornelius
> Canisters are really used for: post-mix. Few are used for what's
> called pre-mix. What's the difference. Pre-mix is pre-mixed at
> the bottling plant -- it's the same stuff as the soda in bottles and
> cans. Post-mix is an altogether different animal -- it's syrup!
> It is mixed with carbonated water by the dispenser. It is altogether
> conceivable that you could absorb more aromatics than are found
> in a case of diet coke into the 8 gaskets that are found in a standard
> Cornelius canister.

Al is right on with this one! I use all used Pepsi Cornelius kegs and I know that they contained some of the residual syrup and the guy at the Pepsi plant told me that's what they contained before I bought them. He highly recommended that I change all my gaskets, which I did because they reaked of sweet syrup. A lot of the used kegs on the market have just been heavily rinsed and contain all the original gaskets and poppet valves - change all of them! I've had my kegs for ten years now and finally changed out all the gaskets and poppet valves again last year just as a preventative measure for possible leaks that might start forming. You can tell when the main lid gasket needs to be changed by bending it and looking for cracks starting to form in the rubber.

John (Cisco)

>

>

> -----
Ed Moore says:

> Subject: kegging pressure problem

>

> I am new to kegging and have a problem which I can not figure out.
> I have a CO2 cylinder, regulator (purchased new from local Pepsi
> supplier) and a pair of used cornelius kegs (with beer). Somehow,
> I have overpressurized my beer.

>

> I have the regulator set for about 15 psi. When I connect the system
> for an extended period of time, the low pressure side RISES to 40 psi.
> More confusing yet, the high pressure gauge rises from about 850 psi.
> to 950 psi.!

>

> As an experiment, I have left the system connected and turned off the
> CO2 cylinder. Pressure has dropped to about 10 psi as of today. I
> think I have a leak, however, one of the kegs is new and may still be
> absorbing CO2.

>

> What problem in my setup can cause the low pressure side to go from
> 15 psi to 40 psi? I don't have a clue.

>

> Ed Moore

>

This sounds really strange. Even when my beer absorbs CO2 after extended periods (Al & I still have this under investigation) my pressure on my gauges remain the same as when I first hooked them up. I'm willing to guess that maybe you have a defective regulator, especially since both the high side and low side gauges are increasing. I've rebuilt my regulators and have never had the pressure change on its own.

John (Cisco)

Date: Thu, 16 Sep 93 10:17:26 PDT
From: tima@wv.MENTORG.COM (Tim Anderson)
Subject: Yet another request for pubs

I'm going to Europe next month, and I'm feeling pretty cocky about it. Sampling local beer is high on the agenda. I'll have short stints in The Netherlands, Belgium and the Alsace region in eastern France. I can't be more specific, because I'll pretty much know where the next stop is about the time I step off the train. I'm especially interested in trying beer I've never heard of, very small brewery beer, and anything made by monks. I have no plans to bring any back, or even take pictures.

Any pointers appreciated.

tim

Date: Thu, 16 Sep 93 12:20:35 EST
From: Ulick Stafford <ulick@gauguin.helios.nd.edu>
Subject: Decoctions

Quite a discussion going on about decoctions. As a committed decocter of most beers I have found that decocted beers tend to be perfectly clear with no other fining. However, the one or two times I have gotten lazy and mashed out in a normal manner (let's call it Warner method), I have produced beers that presented more clearing problems - usually wheat beers and usually chill haze, than if I had used a thin decoction. It is nearly impossible to avoid grain when pulling a 40-50% thin mash. The expectation is that the starch was well gelatinized by the earlier decoction. One is necessary except for very unconverted malt that you won't find here. I have never experienced a starch haze, but the great effect that a thin decoction has on protein coagulation reduces the boil time to what is needed to extract hop acids and clarity is less of a problem. Typically, for the thick decoctions I remove grains with a sieve, and thin decoctions with a ladle (a small pot), and then return some of the grains to the rest mash with the sieve. Once or twice I set up my cooler with the false bottom in at the start of the mash, and got the most beautiful runoff for the thin decoction. However the long time that the mash was on the bottom caused it to clog and loitering was a bitch. In general I have found the following procedure to work well for most barley beers, especially stouts with the high unmalted component.

Dough in at 70-90 with .75 quarts per pound.
Add another .75 qt/lb of hot to boiling water to raise temp into protein rest range (122-131). The amount and temperature of water will depend on the heat capacity of your mash tun - in my case quite a lot with a 7 gallon Gott

Rest 15-20 min. Pull 33-40% thick decoction (using sieve and capacity marks on the inside of cooler)

Heat decoction to 145. Rest 10 minutes.

Heat decoction to 153. Rest 10 minutes.

Heat decoction to 158. Rest 10 minutes.

Heat to boiling. Boil 15 minutes.

(all heating should be done slowly to prevent hot spots and burning. constant stirring is needed while raising the temp, except for boiling, when the odd stir will do. Make sure the decoction isn't too thick)
Return to rest mash. In my experience the heat capacity of the cooler means

the temp will always be ~146, but your equipment will vary. I usually rest there for 10 minutes and then raise with either a small thick decoction or small infusion of boiling water or on the burner till

the top of my saccharification range is reached, ~153-155. Rest here for 10 minutes.

Pull loiter decoction. 40-50% of the thin mash. Boil 15-20 minutes.

Return to rest mash- mix in well. Again temp may be low of strike, thanks

to heat capacity of cooler. Dump out into boiler (yes I have heard of HSA). Heat to 170. Put sparge manifold in cooler and dump mash back in.

Start heating sparge water etc.

'Heineken!?! ... F#\$\$ that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Thu, 16 Sep 1993 13:05:00 EST
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill
Ridgely/"@mr.cber.fda.gov
Subject: Catfish Bait

I realize this is "bottom feeding", but I've offered to pass this along
for private e-mail response.

"Beer - The Magazine" is doing a piece on the wide variation in
commercial
beer pricing around the country.

As part of this effort, they are trying to find "The Cheapest 6-Pack in
America". We're not talking gourmet-quality microbrew here folks. As I
said, this is strictly bottom feeding.

If you have any leads on the cheapest factory suds available anywhere,
please respond privately to the address below.

Thank you for the use of bandwidth. I'll go wash my hands now...

Bill Ridgely (Brewer, Patriot, Bicyclist)___o
ridgely@a1.cber.fda.gov -/<,
ridgely@cber.cber.fda.gov ...O/ O...

Date: Thu, 16 Sep 1993 15:04:09 -0400 (EDT)
From: drose@husc.harvard.edu
Subject: Viennaless Viennas?

Hello:

I am interested in brewing an Oktoberfest-type all grain beer (OK, by the time it is ready it will probably be a Decemberfest at the earliest). I was reading the article in the last Brewing Techniques about this style. For those of you who have not read it, it discusses the style

and particularly emphasizes ways in which brewers can "cheat" and still end up with a reasonable beer. For example, by not lagering (if you haven't got the facilities) or by doing a single step infusion mash (which

is the only type of mash some places are equipped to do). The article also mentions that Vienna-type malts are not necessary, and that recipes contained in G. and L. Fix's book on the style use NO Vienna/Munich malts.

This appeals to me, since I like to buy my grain (American 2-row and Crystal Malt) in bulk to save money, and would like to use what I have instead of buying small quantities of something else at higher prices. My question is, though, if you don't use these special malts, what do you use

to get the appropriate color and flavor? Crystal malt? Home-kilned mock-Munich a la Dave Miller? What? (I realize that I could solve this puzzle by buying and reading the Fix book but I don't have easy access to it and figured I would try to get the answer for free first (sorry George)). Thanks....

Dave.

Date: Thu, 16 Sep 93 12:48:54 PDT
From: florianb@ying.cna.tek.com
Subject: Recirculation, debunking the myths

In yesterday's hbd, cush@msc.edu says,

=>
included a joint in the copper sparging manifold coming apart, which then proceeded to leak large amounts of grain husk material into the boiling kettle. We worried (gasp!) about it a little...but decided to place our fate into the considered opinion of Micah Millspaw.

Bottom line is that the brew was cloudy in the primary. After we fined with geletin in secondary and bottled, we have the brightest brew either of us have produced!!

=>

and a second post by bjones@novax.llnl.gov,

=>
contention was focused at better beer stability. The stability is improved if there is a higher fraction of lipids in your final packaged product. The lipids are low to start with in american grown grain. The lipid content is greatest at first runoff from the mash. Therefore it is best to take the first runnings. The particulates in the runoff don't seem to cause any problems with final beer clarity. They may even improve it! This being due to the particulates acting as nucleation sites for proteins.
=>

Both these comments are in keeping with my original post about three years ago, when I claimed rights to a new method of lautering. This new method, which I stole from my brother-in-law, involves putting all the sparge water into the lautering tub at once. Only a minimal amount of recirculation is used. When I changed to this method, my beer clarity improved, particularly in the case of ales (which don't lager and thereby settle out for 4 months). At that time, I couldn't find reference to this method in any of the some 20 books I have on home brewing, nor in the hobby rags. I won over support from several brewers here on the hbd after they tried it. I highly recommend the process as it improves the beer and saves time, too.

I still plan to post a description of the method, as soon as I change my spark plugs. Too bad I have to work for a living.

Florian

Date: Thu, 16 Sep 93 12:59:04 PDT
From: florianb@ying.cna.tek.com
Subject: Re: racking tube 'trubles'

In hbd #1227, David Atkins asks:

=>

Before the line fills, air gets sucked into the line where the hose and tube meet. This steals away the siphon and aerates fermenting(ed) beer. And I have tried two diameters of hose, to very little avail.
=>

I'm not sure what you're seeing is air. It could be CO2 coming out of solution at the interface of the plastic racking tube and the siphon hoze. In any case, this happens often. You can eliminate it by getting the siphon going and then "thumping" it with your finger really hard at the place where the two meet and the gas is present.

If this doesn't work, then it might be air due to a poor fit of the hoze and the racking tube. Put a little glycerin on the racking tube before fitting the hoze over it.

Luck,
florian

Date: Thu, 16 Sep 1993 16:10:54 -0500 (EST)

From: ADM_WWIBLE@VAX1.ACS.JMU.EDU

Subject: Miller Reserve Amber Ale

Just thought I'd share this tidbit for those not brave enough to dare the Budmillours swill. Personally, I'm of the crowd that believes there is no bad beer...some are just more drinkable than others. This Amber Ale they're putting out now is definitely top of the line swill. Give it a shot. Generally I only resort to store bought stuff when I haven't been able to keep the homebrewing up with my appetite.

Anyway, this stuff isn't bad. I was shocked when I looked at who made it and took a sip.

Will Wible
adm_wwible@vax1.acs.jmu.edu

Date: Thu, 16 SEP 93 17:21:6 EST
From: DEROSEGA%ML%WPAFB@MLGATE.ML.WPAFB.AF.MIL
Subject: List of competitions available?

Is there a list of AHA-sanctioned homebrew competitions available
anywhere?
I would like to get my latest brew judged so I know what needs
improvement
next time, but I need information on what will happen in the next few
months. I am particularly interested in the midwest USA.
TIA,

Guy DeRose

Date: Thu, 16 Sep 93 17:40:06 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: hydrometer in the primary

Is there any problem with leaving, an initially sanitized, hydrometer
in the primary during that period of fermentation?

- - - -
email: sxupjd@fnma.com (NeXT Mail Okay)
Philip DiFalco, Senior SomethingOrOther, Advanced Technology
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

Date: Thu, 16 Sep 93 16:12:27 EDT

From: man@lcwdwl.att.com

Subject: oring blues

I make beer in 15 gallon batches. I make a session bitter to keep my wife happy. I make this beer a lot. It is very reproducable. The last time I made

it, I kegged it in 3, 5 gallon soda kegs. One, I dry-hopped and brought to

a family picnic. The second I brought out at a party. I was terribly disappointed in it. I couldn't pinpoint the taste, but blamed it on a heat-wave induced high temperature at end of fermentation. One other source I

feared was a contaminated keg. I took a sample out of the third keg. Hmm, tastes better. I brought a sample from each keg to the judge (my wife). Two different beers, I was told. I sat on the basement floor hugging keg number three and staring at number two trying to figure out what went wrong.

Then I saw it, a red oring on the liquid fitting. I had recently acquired a

number of soda kegs, but hadn't replaced all the orings (I ran out). I was a

minor doubter in the "you must replace all orings. They are evil" debate. Up

until this time, I hadn't noticed any problems with beers in these kegs (3 of

10). The orings were original. I replaced it with a new one and guess what?

The two samples tasted the same. I was happy. Better yet, the judge was happy.

This oring had enough leaching capability for my wife, a few beer friends, and

myself to notice. Just a datapoint.

Mark Nevar

Date: Thu, 16 Sep 93 15:16:04 MST
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: Novice mashing questions

I have just completed brewing my second all-grain beer. I now have a few questions about the procedure.

First, here are the details of the recipe:

8 lbs pale lager malt, pre-crushed
.5 lbs 40L crystal malt
1 tablespoon Irish Moss, 90 min
1 oz 5.5 alpha Cascade pellets, 30 min
.5 oz 7.7 alpha Northern Brewer pellets, 10 min
.5 oz 7.7 alpha Northern Brewer pellets, 1 min

Mash-in lager malt with 3 gallons water from the coin-op drinking water machine (to which I added .25 oz gypsum), at 60 C, in 5 gal Easymasher. Temp stabilized at 55 deg C. Protein rest for 30 minutes. Raised temp to 68 C, held for 1.5 hour conversion. Raised to 75 C, held for 10 min mash-out. Added crystal malt. Sparge with 4 gal coin-op drinking water with .25 oz. gypsum added. SG at end of sparge was 1.009, and a barely perceptible tea-like taste was present in final runnings.

Boiled 1.5 hours with above hop additions in 10 gal pot in which I installed a home-made Easymasher clone. Immersion chiller used to reduce temp to about 15 deg C. Drained into carboy using copper tube with holes in it to aerate.

Measured OG 1.054 for 5 gal. Pitched yeast, placed carboy into temp chamber mistakenly set to 5 C. Visible yeast activity after 18 hours, which increased dramatically after temp re-set to 10 C.

I got the idea for using purified water plus gypsum from G. Fix's article on Belgian Malts in Brewing Techniques.

My questions:

1) Rather than use the iodine test, I just tasted the mash. It was sweet and sticky after about 30 minutes, but I went for 1.5 hours to make sure. Any problem with this?

2) If I just add gypsum to purified water, do I really need to make pH measurements?

3) The sparge rate out of the easymasher was pretty fast, so I shut the valve down just to slow things down. Was this necessary, or could I just run it wide open and finish quicker? Runoff was clear after about 1 quart.

4) After draining the boiling pot, there was a lot of break material and hop pellet sludge remaining inside, thanks to the screen on the homemade easymasher clone. The bitter wort in the carboy was cloudy. After about 1/2 hour in the temp chamber, the cloudy wort in the carboy had cleared and precipitated a bunch more break material. My guess is that the stuff in the carboy was "cold break" or something similar, and the stuff remaining in the

boiling pot was "hot break". Sound reasonable?

5) In both of my grain brews, there has been a lot of sludge on top of the foam in the fermenter. This appears similar to the stuff that remained on top of the spent grain after sparging. Is this related to the protein rest duration and temperature? Seems like this came up recently in conversation here.

6) When I brewed from extracts in the past, I used three types of specialty grains: crystal malt for sweetness and color, roasted barley for that coffee-like bite, and black patent for blackness. Now I have become aware of a veritable plethora of specialty grains like Cara-Pils, Dextrine, Munich, Cara Vienne, Aromatic, etc.... Can someone tell me how to use all of these different types of grains?

I hope this long post is not considered a waste of bandwidth.
Thanks for your help,

Joel Birkeland
Motorola SPS
birkelan@adtaz.sps.mot.com

Date: Thu, 16 Sep 93 17:39 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Troubles no more, thanks

Hello again readers.

Thanks to all those good folks who contributed advice and know-how in solving my racking cane siphon problems. I received many a suggestion and am indeed appreciative.

To return the favor, the next time any of you find yourselves in hippy-dippy Madison, let me know and we'll buy each other a beer (results of homebrewing still pending)

Happy Brewing,
David Atkins
UW-Madison

P.S. Go Vols! Apologies to Scott Wisler. I'm in the Big Ten as a matter of geography, not team loyalty.

Date: Thu, 16 Sep 93 12:43:05 MDT
From: npyle@n33.stortek.com
Subject: Decoction procedure

Lee describes his decoction procedure in no less than 22 steps, the first being "Put 5 dead CDs in player, start". I would have to add step 23 if was to try this procedure: "Sign divorce papers, say goodbye to kids". Yow! If this is what it takes to do a decoction, I won't be trying a PU clone anytime soon. My infusion procedure is something like this:

Put 1 Dire Straits CD in player, start.
Heat 1 qt water per lb grain to 168F.
Add grain and water to mash tun.
Check mash temp, adjust as needed to around 154F.
Go to store or for a bike ride with the family, return.
Iodine test (wasted step?).
Add a few gallons of near boiling water to the mash, stir constantly.
Adjust mashout temp to near 170F.
Mash out for 15 minutes.
Kiss my wife.

I count 10 steps and 3 (4?) of them are unnecessary in terms of the actual brewing. Now, I'm not trying to start a flame war, nor am I trying to compare the merits of simple infusion mashing with decoction mashing. I just want to inform some of the extract brewers out there that all-graining doesn't have to be that tough. I suppose if you're really out to make a world class pils or something, that all of Lee's steps are valid, but you've used an entire day to do it. My method takes me about 6 hours now start to finish, and that includes the part about spending some time with the family. I still get "you're not going to brew beer this weekend again, are you?".

How about Lee's steps, all you decocters out there? Is all that pH adjustment necessary? Anyone like to compare procedures with his? Or mine for that matter? This is the type of thing I'd like to see discussed here, so that we can get more ideas on how to make better beer (maybe easier, too).

What about Rob's starch test idea on the finished beer? Would there be enough starch in the final beer for the iodine to pick it out? Too bad I just finished my Starch Brown Ale (boiled some brats with the last four bottles), or I would've tried this.

Mike, I think the 68 quart cooler will work fine for you for normal brews (as

you say, up to 25 lbs) but for a high gravity brew it might fall short.
The
solution to this is to do a normal sparge for the rare high gravity brew,
and
your 68 quart will be fine.

Cheers,
norm

Date: Wed, 15 Sep 93 14:04:41 MDT
From: npyle@n33.stortek.com
Subject: Hops FAQ Call for Papers

I have received only positive feedback on the idea of a hops FAQ, so I'm going ahead with it, partnering with Mark Garetz (mgaretz@hopstech.com). He's going to provide the technical expertise and I'm going to help out with some legwork, etc., as in this post. Never fear, naysayers, we'll try to work out all the details via email and post only relevant information to this forum.

The general form of the FAQ will be something like this:

General description of hops (Mark Garetz)

IBU formulae (anyone have Rager's formulae in a nice form? Other formulae?)

A treatise on growing hops (volunteers?)

A treatise on dry hopping (volunteers?)

A table of sorts with the following information (this will be the bulk of it):

Hop name
Area grown
Taste profile
Common useage (length of boil, type of brew)
Commercial beer examples
Alpha acid range
Good substitutes
Other?

Consider this an official request for information. I am looking for people to help fill in these areas, especially actual brewer's information on the last section. If you'd like to contribute please email the information to me: npyle@n33.stortek.com -OR- to Mark at mgaretz@hopstech.com. I should be the primary contact, but if you have trouble reaching my email address (this system is about as reliable as dry yeast), then send it on to Mark. I suggest that you don't send the same thing to both of us (except for comm problems), so we don't have to sort through it all and pick out the dupes. To make it easier on us, try to put things in this general order, but if you already have a bunch of info in a file, send it on and don't worry about it.

One more thing: we are open to suggestions about the format but we'd like to keep it simple; this is a FAQ, not a detailed research paper or book (Mark's writing that offline!). This is your chance to contribute to the digest, whether you are a relative newbie or a wise old owl! (Almost) everyone uses hops, so let's get your feedback. Hop-heads Unite!

Cheers,
norm "unreformed hop-head"
- - -

Norm Pyle, Staff Engineer Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
Organization
2270 South 88th Street 1500 Elmhurst Drive
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End of HOMEBREW Digest #1228, 09/17/93

Date: Thu, 16 Sep 1993 16:48:41 -0800
From: pohl@unixg.ubc.ca (Derrick Pohl)
Subject: Brewing ingredients in Belgium

A friend of mine is going to Belgium for a couple of weeks in the near future. Are there any exotic brewing ingredients available only in Belgium that I should ask him to look out for? For instance, I thought I saw reference here once to some sort of orange or orange peel used in Belgian brewing that is hard to get in North America. I'd like to get a strong orange or bitter-orange flavour in my Christmas ale. Does anyone know anything about this or any other unique ingredients easier to find in Belgium than here?

(Naturally, I have also asked him to bring back a brew or too.)

- - - - -

Derrick Pohl <pohl@unixg.ubc.ca>, Faculty of Graduate Studies
University of British Columbia, Vancouver, B.C.

Date: Fri, 17 Sep 93 13:03:18 MET DST
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: yet more on decoction (yawn)

Hello again everyone,
I've certainly got enough info over the past couple of days to carry out a considerable number of tests at home. (maybe this weekend). One last point about the thin decoct:
in "Die Bierbrauerei" by Schuster Weinfurtner and Narziss (1992, vol. 2) they say that the thin part is 1Kg grain to 4.5 - 5 litres of liquid. Now that is definately not free of grains! So I read further. They say that returning this to the main mash gives a temperature of 75 - 77 degC, with a total of 1 Kg grains / 3 - 3.5 litres liquid. Under these conditions they claim that by the time the sweet wort reaches the kettle any starches have been hydrolysed to (soluble) dextrans by the ca. 8 percent activity alpha amylase remaining. However, as Jim Dipalma said, do we want to risk it after a whole morning's work?
Rob. Thomas

p.s. I just read further in the book, they say that the mash should be kept at 75 - 78 degC until there is a negative iodine test. Also:
"Thereby the gelatinised starch liberated during the boiling of the lautermash is also saccharified".

I test I might try is taking some of what's left in the mash tun during the last decoct and adding a boiling suspension of starch to it. Presumably I will see hydrolysis, and eventually a negative iodine test.

Cheers, and thanks all for the discussion,
rob thomas

Date: Fri, 17 Sep 93 08:57:58 EDT
From: EAJOHNS@FLIC.erenj.com
Subject: Local Brew Shop

From: Eric A. Johnson
IOSD FP102/F08 (201)765-2519
Subject: Local Brew Shop

Another New Jersey homebrew shop is:

The Brewmeister
115 N. Union Ave.
Cranford, NJ 07016
(908)709-9295

I am a customer at both The Brewmeister and Red Bank Brewing Supply,
and have been satisfied with the products and assistance provided
at both. Red Bank currently has a bit larger selection. Both will
do mail order.

Eric

Date: Fri, 17 Sep 93 09:15:48 -0400
From: Jim Frost <jimf@centerline.com>
Subject: Miller Reserve Amber Ale

ADM_WWIBLE@VAX1.ACS.JMU.EDU writes:

| Anyway, this stuff isn't bad. I was shocked when I looked at who
| made it and took a sip.

I would have to concur, I was favorably impressed too. That first
taste astounded me, although its flavor seemed to weaken as I drank
through the bottle. While I wouldn't make it my daily brew it
represents a remarkable feat from Miller and it's definitely worth
trying. It's a far cry from Clear Beer.

jim frost
jimf@centerline.com

Date: Fri, 17 Sep 1993 09:29:50 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: McEwans Scotch Ale Recipe

In HBD #1227, Bob writes:

> I am in the process of trying to emulate the flavor of Ye Ole McEwans
Scotch
> Ale. I am an extract brewer that uses added grains. If there is
anyone out
> there that has had any success I would be very appreciative if you
would share
> your recipe with me.
>
I suggest the following extract based recipe to emulate McEwans Scotch
Ale:

9 lbs. light dry malt extract
1.5 lbs. dark caramel malt (90-120L) preferably English
8 oz maltodextrin powder
3 oz black malt

30 to 35 bittering units - this is 9 to 9.5 alpha acid units in a 1.088
gravity
wort boil. All bittering hops boiled for 45 minutes. no finishing hops.

use WYeast #1084 Irish Ale yeast and rack to secondary as soon as the
head falls
or as soon as possible.

In my recollection, McEwans is fairly strong (1.088 O.G.), malty
bordering on
sweet, has a pronounced diacetyl character and has big body. The color is
dark
brown.

The caramel and black malt provide caramel sweetness and a dark brown
color.
Maltodextrin powder and caramel malt provide residual sweetness, i.e.,
dextrins
and the relatively low hop rate lets the malt come through. The Irish
ale yeast
produces a high diacetyl concentration and early racking prevents the
yeast from
reducing too much diacetyl.

**** Rob Reed ****
*** IC Design Center***
*** Delco Electronics Corporation ***
**** Internet: rhreed@icdc.delcoelect.com****

Date: Fri, 17 Sep 93 08:21:32 MDT
From: bacco@md.fsl.noaa.gov (Corby Bacco)
Subject: Kajun cooker...

Hello,
I know this has been posted before but I didn't save it (didn't have
a kajun cooker at the time), how do you modify the burner on a kajun/
propane
cooker so that it burns more effciently at low flame and doesn't produce
so much soot? TIA

-Corby

Date: Fri, 17 Sep 1993 10:46:18 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Tuns/Sparging

> Date: Thu, 16 Sep 93 10:50:14 -0400
> From: jake@apollo.hp.com
> Subject: Fining with gelatin
>
> As a result, I am going to do some gelatin fining to yank some
> yeasties. The bible by Sir Charles recommends fining at bottling
> time. I was wondering if it was acceptable to fine for a week or
> so in secondary, so that I can bottle with less sedimentary concerns.
>
>

I have never used gelatin (or isinglass for that matter), but I have done some research on using isinglass in real ales. A pretty good micro near here is Red Feather Ale, a Peter Austin system, and they use isinglass in the secondary to drop the yeast prior to packaging. The brewer told me to "blend" the isinglass until thick and pasty and stir it in, let stand 12-24 hours prior to packaging. This is obviously not true real ale, but

>
> Date: Thu, 16 Sep 93 10:00 CDT
> From: arf@genesis.mcs.com (Jack Schmidling)
> Subject: Decoction, Coolers
>
> In a proper mash tun, the only objective is to utilize the initial runoff
> which is usually very turbid and full of husk material. Instead of throwing
> it away, it can be poured back into the mash so that then next time it passes
> through the filter bed it will run clear. The amount that must be
> recirculated depends on the design of the mash tun and the dead space under
> the false bottom and the flow rate. It varies from a cup or two to gallons.
>
> Now, the problem comes from the claims that prolonged re-circulation of the
> runoff before commencing the sparge, has a profound effect on extraction
> rate. I know of no reason for this to be true unless there is something
> wrong with the design of the mash tun.

First of all, Jack, mash tun != lauter tun, at least for most serious brewers who are using any system other than single infusion or your EasyWidgets. The objective of a mash tun is to convert starches to fermentable sugars and dextrins. The objective of a lauter tun is extract these fermentable sugars and dextrins without extracting tannins from the malt husks. Anyone who is "throwing away" the first runnings is wasting a lot of extract. Micah is/was of the school that does not believe in recircing, primarily due to his desire to maximize the

amount of lipids that survive into the fermenter. I believe in recircing until the wort clarifies, but still has particulate matter present. I have brewed all grain batches in 4 different systems over the past 5 years, and no matter what the size of the lauter tun, the recirc time is in the order of 10-15 minutes. I agree with concept that extract efficiency is not dependent on recirc time or quantity, provided an adequate amount of sparging is done to rinse the grains.

> Date: Thu, 16 Sep 93 11:34:55 EDT
> From: emeeks@tx.ncsu.edu
> Subject: Cascades dying?/Building a basement brewery
>
> shower walls. The basement is fairly dusty and will also be used for a
> workshop and storage area, so I'd like to create a closed area that
could be
> kept sanitary with periodic "swabbings".

The swabbing of the area is most likely overkill as long as you use lots of healthy yeast and good (not necessarily anal) sanitation.

>
> For the record, I don't plan on using an open burner in the basement.
My hot
> water source will be the house's gas-fired heater, and the boiling of
the
> wort will take place outside. The brew room will be used for mashing,
> fermentation, and beer/equipment storage.
Think about physical labor requirements. How many pounds of hot wet mash are you going to lug into the backyard? Or if you lauter in the basement, how many gallons of fluid are you willin to lug upstairs? Can you do this yourself, or do you require a partner to brew?

>From Florian:
> Both these comments are in keeping with my original post about three years ago, when I claimed rights to a new method of lautering. This new method, which I stole from my brother-in-law, involves putting all the sparge water into the lautering tub at once. Only a minimal amount of recirculation

Hardly "new". Its called batch sparging and is the "other" way to sparge. Usually when this technique is used, the fluid level is allowed to drop below the grain bed, then the sparge water is dumped in to a few inches above the grain bed and lautering continues.

Good brewing,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Fri, 17 Sep 93 15:01:00 +0000
From: DAMON_NOEL/HP0800_01@mailhub.cs.itc.hp.com
Subject: decoction

With respect to the recent thread on decoction...for those doing kettle mashing, why not avoid the last thin boil cycle and simply add heat to complete the mash out? This would avoid the need to remove any solids from the thin wort and also eliminate one cycle.

Date: Fri, 17 Sep 93 08:37:02 PST
From: Bob W Surratt <Bob_W_Surratt@ccm.hf.intel.com>
Subject: Bass Ale Yeast

I want to make the Bass Ale recipe listed on page 32 of The Cat's Meow II
& was
wondering what style of Wyeast liquid yeast I should use??

Thanks in advance, Bob

Date: Fri, 17 Sep 93 11:10 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Decoction, Malts

>From: dipalma@banshee.sw.stratus.com (James Dipalma)
>Subject: RE: decoction mashing

> I don't think this is the case. There is always some insoluble starch in the chunks of grain that amylase enzyme won't touch. Boiling gelatinizes this starch, releasing starch that is now soluble but not converted into the wort. Thus, the presence of unconverted starch in the wort is not necessarily a consequence of low yields.

This may be a semantic point and I am not sure of your meaning because cause and effect seem to be reversed. However, unconverted starch in the wort is one the CAUSES of low yields.

>From: cush@msc.edu
>Subject: Enzymes and Munich malt

>Although I am not SURE about this, I think a reasonable generalization is that domestic Munich malts do not contain sufficient enzymes to convert themselves, but Munich malts of European source will contain sufficient enzymes.

It has been reported that The Munich malt from Belgium will convert completely by itself. This fact, along with its outstanding taste and easy availability make me wonder why anyone would use Bries.

>From: birkelan@adtaz.sps.mot.com (Joel Birkeland)

>Raised to 75 C, held for 10 min mash-out. Added crystal malt.

I question this strategy but not knowing your reasons, I will simply state that I mix all grains together as I weigh them and then crush them together. I know of no reason to keep them separate.

>Measured OG 1.054 for 5 gal.

Nice yield. 3 cheers for the easymasher.

>1) Rather than use the iodine test, I just tasted the mash. It was sweet and sticky after about 30 minutes, but I went for 1.5 hours to make sure. Any problem with this?

Nothing other than the waste of time. Sweet and sticky however, is not good enough but 1.5 hours, no doubt is. The iodine test is far more precise than

taste but given enough time, it becomes irrelevant. If you don't want to use the test, you can just double the specified conversion times for the malt.

All malt is tested and rated for conversion time and this information is available from most sources.

>2) If I just add gypsum to purified water, do I really need to make pH measurements?

Without making the pH measurement, how do you know that you need to add gypsum? If it aint broke, dont fix it.

>3) The sparge rate out of the easymasher was pretty fast, so I shut the valve down just to slow things down. Was this necessary, or could I just run it wide open and finish quicker? Runoff was clear after about 1 quart.

It will clear faster if you slow it down but once it is clear, the rate is your option. There are those who believe that it affects the extraction rate and those who do not. I am of the later opinion.

>4) After draining the boiling pot, there was a lot of break material and hop pellet sludge remaining inside, thanks to the screen on the homemade easymasher clone. The bitter wort in the carboy was cloudy.

When using an emersion chiller, it should be perfectly clear after chilling and sitting for a reasonable amount of time. Try an extra thrity minutes after it is chilled.

The only time I get cloudy runoff is if I let it suck the kettle dry. I have a pump on mine and it will suck. It takes very little sediment to make your wort that was perfectly clear, look cloudy. Stop draining as soon as you hear the sucking sound. If the easymasher is installed correctly, this should only leave a few qts of stuff on the bottom. You can pour this into a sterile jug and add it back after settling.

> After about 1/2 hour in the temp chamber, the cloudy wort in the carboy had cleared and precipitated a bunch more break material. My guess is that the stuff in the carboy was "cold break" or something similar, and the stuff remaining in the boiling pot was "hot break". Sound reasonable?

Again, if you used an emersion chiller, what is left on the bottom is a combination of the two. What settled out later is what should have settled out in the kettle before transferring.

One other point (as you made the em yourself), the mesh size may be a factor here. It is not too critical in the mash tun but in the boiler, there is no real filter bed. For the record, I use and recommend 32 mesh screen.

>6) When I brewed from extracts in the past, I used three types of specialty grains: crystal malt for sweetness and color, roasted barley for that coffee-like bite, and black patent for blackness. Now I have become aware of a veritable plethora of specialty grains like Cara-Pils, Dextrine, Munich, Cara Vienne, Aromatic, etc.... Can someone tell me how to use all of these different types of grains?

My suggestion is for you to make a batch with none of the above to get a handle on the basic beer. Keep in mind that PU is made from a single malt and that is not a bad place to start. Many of the specialty grains are used to make extract beer taste like grain beer and offer little to the all grain brewer. The problem is sorting out the ones that are useful.

The most obvious are the color malts for obvious reasons. The next would be the roasted malts for that roasted flavor.

Beyond that, I run out of gas. I can't taste any of the others when added to by beer in the usual amounts and prefer to change the base malt. Please note that I said "I can't taste" and presume that those who can will fill in the blanks.

js

Date: Fri Sep 17 07:38:17 1993
From: darrylri@microsoft.com
Subject: re: Enzymes and Munich malt

cush@msc.edu writes:

> >In HBD 1227, Bill Flowers asks whether Munich malt contains
sufficient
> >enzymes to convert themselves:
>
> Last winter I tried making a Munich Dunkle using 100% munich malt. The
> source of the malt claimed that the malt had sufficient enzymes to
> convert itself.
>
> Well, to make a long story short, I ended up with a large pot of
starchy
> porridge..... (that I fed to the compost pile)
[...]
> When I got over my apoplexy, we had a productive dialog about mashing
> schedules, after which we decided I would try again with a 50/50
> munich/pale malt mixture, and they would call their supplier (Breis??)
> to inquire again about the enzyme content of Munich.

Real Munich malt (known as Dunkles Malz in Germany) contains enzymes,
and will convert itself in a 100% mash. For example, Dr. Fix has tried
the experiment with the DeWolf-Cosyns Belgian malts. The Siebel
Institute ran analyses on the D-C malts when they were importing them
(now they are imported by Schreier Malting), and as I recall, their
Munich malt had a diastatic power of about 60 degrees Lintner. (Keep in
mind that US 6 row can have 150 Lintner and 2 row Harrington, 110
Lintner.)

Munich malt is traditionally made from the highest quality, low protein,
2 row malt. By partially drying the green malt at 50-60C for 8 hours
and then raising the temperature to 100C for about 4 hours, melanoidins
(color compounds) are formed by the combination of amino acids and
simple sugars. The 100C temperature is a minimum needed to form the
melanoidins, but it is low enough, and the conditions within the malt
dry enough, that some enzymatic power is retained.

Briess "Munich" malt is not made the traditional way. It is regular US
6 row malt that has been roasted at well above 100C after drying to
produce a higher color, more akin to the way chocolate malt is made.
This high temperature roasting will destroy the enzymatic power of the
malt. It also doesn't produce the same flavors and aromas.

Your supplier should be able to get a malt analysis of any of the
products they supply, and the diastatic power (in degrees Lintner) will
tell the story.

--Darryl Richman

Date: Fri, 17 Sep 1993 12:26:05 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: identifying flavours

Trying to hone my judging and production skills, I am always trying to identify specific off flavours. At last week's meeting one of the club members brought a sample of diacetyl diluted in commercial beer. I think I now have a handle on what diacetyl smells and tastes like, and IMHO it is not even remotely buttery or butterscotch. However, if someone (a beer judge) tells me that a beer is buttery, I now know what sensation they are referring to, and I recognize it's contribution to the flavour profile of Yorkshire ales.

I am now trying to identify some other flavour/aroma components. There is a flavour I have come across recently in a friend's kit beer (all malt) which has a very sweet cotton-candy flavour, which I presume to be 2-3-Pentanedione. Again, this does not have a "honey" smell which is frequently linked to this compound. I have detected a "clover honey" aroma in some beers (notably Brick, when it first came out), but this did not come through in the flavour profile.

Can anyone help with these compound identification problems:

1. Does anyone else think Diacetyl (2-3-Butanedione) smells and tastes nothing like butter or butterscotch?
2. Does 2-3-Pentanedione taste like cotton candy? If not, what does?
3. What actually produces the clover honey aroma (note, this aroma is fairly specific to clover honey, not honey in general. Sniff some honey if

you don't believe me...)

Thanks.

Ed Hitchcock ech@ac.dal.ca | "I'm not from outer space. I'm from Anatomy & Neurobiology | Iowa. I just work in outer space."
Dalhousie University, Halifax |- James T. Kirk
[Eschew racism. Drink beer from all nations]

Date: Fri, 17 Sep 93 12:59:30 EDT
From: franc!kstiles@woomera.att.com
Subject: 1993 Hop Harvest

Well, the hops are in and dried. Anyone interested in comparing notes?

My hop yield last year, their first season, was very dependent on variety. I assumed that Mt. Hood, Nugget and Willamette just needed another year to get established. However, yields for these varieties were disappointing again this year:

Dried weight (oz)	
Variety	19921993
=====	=====
Cascade	12 16
Mt. Hood	5/83/4
Nugget	3/8 1
Willamette	3/83/4
Chinook	10 1/2 5 1/2

My location is eastern PA; the hops get a lot of sun and good rich compost, but I may not have been diligent enough with the watering. The Chinook vines in particular seemed to get scorched this year, possibly explaining their low yield compared to last year. Any hints for getting yield out of the other varieties.

Also, I'm moving to Orlando next year. Can you grow hops there?

-Kevin Stiles

-Kevin
kstiles@woomera.att.com

Date: Fri, 17 Sep 93 13:45:36 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Decotion : epilogue

The recent thread on decotion mashing is a fine example of using the HBDS collected resources to better understand the details of brewing. In this case we discussed getting to mashout temp in a decotion mash: equipment, methods and potential problems. The long strange trip 23 step method to better decotion wasn't intended to scare people away from grain brewing. It was intended to show the steps involved in this advanced all grain brewing process and act as a point of reference in further discussions involving efficiency improvements in this time consuming process.

Norm fears divorce if he tries decotion mashing: Decotion mashing does take much longer. I do 3 or 4 a year in an attempt to brew a world class Pils or Fest beer, it takes about 6 hours for double decotion (strike to protein rest temp decotion 1 to mash temp 2 to mashout) and about seven for a triple which I don't do anymore. IMHO the only way to achieve the malty character of these beers is decotion mashing of under modified malts. I have tasted well brewed Pilsners that were made from highly modified US, British and Belgian lager and pils malts decocted or infused and they don't have the same character as a brew from decotion mashed under modified German pils malt.

Re: having a life + brewing
This spring I did a triple decotion Pils, one of my best efforts ever, in between steps I would attend the annual town meeting. I didn't miss a single vote and got to speak on the issue that most impacted the neighborhood I live in. Most of my other brews are single or double step mashed ales. I brew a beer called "Pride of Cucamonga" it is a not to AHA style single step US 2 row Cream Ale. It takes about 4 hours start to finish. Tastes great/filling. I also tend to intermingle brewing and household projects and do them on the weekend day that my SO works. This Saturday paint the hall + stairwell and brew some "Pride" next weekend the Dead, they're high stepin' into town.

RE: "All those PH adjustments"
These are readings, easy with a digital PH meter, more than adjustment and were included more for theoretical completeness, this net gang is a tough crowd to please. It is important to maintain a low enough PH when you boil

the grains or off flavors will be extracted. Since I add water to the thick decoction to minimize scorching and caramelization attention should be paid to the preboil PH particularly if your water can cause a significant rise in PH.

I have recently constructed an insulated mash/lauder tun, I will post the description soon. This will allow me to now:

Do an Iodine test on liquid drawn from the spigot it is less likely to contain grain chunks with ungelatinized starch that can produce false negatives.

Remove liquid only for the final decoction and eliminate the potential for starch haze as discussed previously.

Reduce a source of hot side aeration since I will not be transferring hot mash from the kettle into the lauder tun.

Date: Fri, 17 Sep 93 15:28:25 EDT
From: denist@cae.ca (Denis Trudeau 3610)
Subject: Brewing 2-1/2 gallons in a 5 gallon carboy

My friend and I are relatively novice brewers (actually, I am more the novice, he has been brewing beer for about 2 years now) and we want to attempt to brew 2.5 gallons of beer in a five gallon carboy (we want to brew two types of beer and feel ten gallons of beer would be a little excessive :)).

Has anyone out there done this before? Can anyone think of any possible problems that may occur? (Basically we are worried about oxydization)!

Thanks!!

Denis Trudeau
(Peter Taussig)
*** The Brews Brothers ***

Date: Fri, 17 Sep 93 15:24:50 EST
From: John DeCarlo<jdecarlo@homebrew.mitre.org>
Subject: How much carbonation is good?

I am sure I have asked this question before, but can't find any answers in my archives. Anyway, here goes.

It seems that there are two basic options out there for serving beer:

- 1) Get the carbonation to the level you want it to be in the glass and pour gently from the bottle/keg/cask.
- 2) Overcarbonate in the bottle/keg/cask and pour more violently, pausing frequently to let the foam settle down and get a decent amount of liquid in the glass.

Now it seems most German lagers use method 2). What is the advantage to overcarbonating and then getting back to a more normal level with pouring correctly? Is it something to recommend we homebrewers try? Is it something that only benefits a few styles? Do some brewers avoid it only because they are afraid it won't be poured correctly from the bottle? Enquiring minds want to know.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Fri, 17 Sep 93 15:56:00 EST
From: John DeCarlo<jdecarlo@homebrew.mitre.org>
Subject: Re: Pumpkin Pie Ale

I had the same experience as Bill Flowers with pumpkin from hell never getting out of the beer, but the resulting brew won a prize (OK, it was in the "weird beer" category). Make a darker ale and they can't see the pumpkin haze.

But what I figured I would do next time is "mash" the pumpkin and put it in a grain bag or somesuch and just squeeze out the "pumpkin essence". Just don't put canned pumpkin right in your wort.

Also, I used the "amount for two pies" rule and used that amount of pumpkin and that amount of spices.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org

Date: Fri, 17 Sep 93 15:06:54 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Keg secondary -> bottle sanitation

While discussing bottling from a soda keg secondary one of our club members told us a sad story. He had brewed an excellent brew that was chosen to represent our club in an AHA club competition. Per usual he used a soda keg secondary and transferred it to a sanitized, air free serving keg using the process outlined by Jim Dipalma in a recent post. He then sanitized a bunch of bottles a rigid plastic tube and his tap. He added some boiled corn sugar solution to the serving keg and stuck the rigid plastic tube in the outlet of his tap and bottled. A month later he tasted a bottle, ugh contaminated. He reviewed his process which he followed many times before. Someone asked him did you soak your tap or disassemble and soak? He never knew that the picnic tap could be disassembled. That night I went home inspected one of my picnic taps, It unscrewed into two pieces and revealed possible places for contamination to develop.

Next time I bottle from a keg either counter pressure or from primed serving keg I will disassemble my picnic tap and sanitize.

Date: Fri, 17 Sep 93 12:50 CDT
From: korz@iepubj.att.com
Subject: All Munich malts are not created equal!

Cushing writes:

>Last winter I tried making a Munich Dunkle using 100% munich malt. The
>source of the malt claimed that the malt had sufficient enzymes to
>convert
>itself.
>
>Well, to make a long story short, I ended up with a large pot of starchy
>porridge..... (that I fed to the compost pile)
>
>When I went back to the supply shop to complain/ask whether the malt
>did indeed have sufficient enzyme activity they (jokingly??) asked me
>if I was SURE I had not killed my enzymes.

Those people at the supply shop should get their education and attitude
in order or they will be out of business soon. Just a few data points
that I can offer on the DeWolf-Cosyns Belgian Malts:

name	Lintner Lov		
Pale Ale	60	3.21	
Pilsner	1051.83		
Wheat	1.75		
Munich	50.2	7.83	
Aromatic	29.1	25.7	

A US 2-row, for comparison:
Schreier 1311.78

This is how it is listed in the lab tests -- all the rest of the DeWolf-
Cosyns
malts either have 0 or a blank under degrees Lintner. I'm confident that
the
Wheat does have diastatic power, but it probably was not tested for it.
The
analysis says that the Aromatic will mash itself, which means that
anything
over 29.1 degrees Lintner will mash itself. I've seen 200 degrees
Lintner
reported on some 6-row pilsner malts, but since most of us don't add too
much
flaked grains (corn, wheat, oats) I don't think that there's much to
worry
about if you have at least 50 Lintner in your base malt.

Al.

Date: Fri, 17 Sep 93 12:51:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: problems siphoning

In HBD 1226 ATKINS@macc.wisc.edu (David Atkins) wrote:

DA> On several occasions, I've been unable to secure a steady siphon

DA> regardless of siphon hose diameter and the subsequent inclusion of a

DA> Before the line fills, air gets sucked into the line where the hose
> and tube meet. This steals away the siphon and aerates
> fermenting(ed) beer. And I have

David,

This might be air but it is more likely carbon dioxide. You are probably seeing a combination of the siphon tube not being completely filled with liquid when the siphon is started, combined with CO2 coming out of solution while racking.

DA> suggestions to the list or to my email will be welcome. Bottling is

I've seen a number of people have the same problem and the solution is amazingly simple. Start your siphon by whatever method you use (I just take a good "draw" on the end of the tube. Put the end of the tube in the vessel that you're racking to and immediately grasp the tube where it is fitted on to the racking cane. About 1-2 inches from where the tubing joins the racking cane, bend the tubing up, above the level of the top of the bend in the cane. You might even slightly pinch the tubing at the top of the bend. You'll see the tubing on the cane side fill completely with liquid, pushing the air/CO2 out and up over the "hump" that you've formed. Slowly lower the "hump" down and the entire tube will fill with liquid and your siphon will proceed normally.

It sounds a lot harder than it is; it's easy to do but hard to describe. Try it once with water and you'll see how simple it is.

Chuck

* RM 1.2 00946 *

Date: Sat, 18 Sep 93 10:29 EDT
From: Richard_Loring@vos.stratus.com
Subject: o-ring defunking

I don't keg and wouldn't know an o-ring from an onion ring (I thought they were the same thing). However, for those who would rather not replace their o-rings, I have a suggestion which may be helpful in eliminating unwanted odors.

Try placing the offending o-rings in an airtight container (zip-loc bag) with some balled up newspapers and leave them in the freezer overnight. The newspapers will "suck-up" the odors.

This works on those wonderful "plastic containers sold at parties" so it just might do the trick on the ol' o-rings.

Later,

Dick Loring

Date: Sat, 18 Sep 1993 11:04:46 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: FAQ's

I think the recent trend toward FAQ's is absolutely great. (Personally, I don't much care how they get hashed out in the digest. If I'm interested in the dicussion I follow it, if not, I scroll past it. The important thing is that it gets done!)

The only thing is, I've lost track of how many there are! Can somebody post a quick directory of the FAQ's and how to get them?

I remember something about all-grain equipment, the recently completed yeast FAQ, the keg FAQ in progress, and of course the Cat's Meow. Are there others?

Personally, any helpful information for the computer-illiterate would be real welcome too. I hook up to my campus VAX through my Macintosh. I "f.t.p.'d" to stanford to get the Cat's Meow about a year ago, but it didn't print out too well. I saw someone else's copy which looked absolutely beautiful, with cover art and all, but this is all kind of a mystery to me as to why the copies came out differently. I suppose it has something to do with zipping or compressing or one of those things?

Sorry to flaunt my ignorance. I eagerly await enlightenment!

Guzzling away,

Jonathan Knight
Grinnell, Iowa

Date: Sat, 18 Sep 93 22:41:00 BST
From: p.shaw5@genie.geis.com
Subject: Homebrew Digest #1223 (Septemb

I have recently made my first foray into mini-kegging, with those 5-liter jobs that have been available for imported beer for so long. I was told that approx 1/12 a cup corn sugar would suffice. After 4 weeks of aging, on two different batches that I bottled at the same time and turned out fine, both kegs were nearly completely flat. Luckily my friends were willing to drink flat beer, but I was wondering if anyone else had any experience in priming amounts necessary for these mini kegs.

While I'm here and dyslurking, I have another question. Other than spiritual and philosophical blessings, are there any real, tangible advantages to priming with DME or using a gyre to prime? I'm just an evil barbarian extract/dry yeast brewer at this stage in my experience and while lots of the stuff I make is quite decent, the flavors are always strong and harsh, like a Ben & Jerry's beer.

Date: Sun, 19 Sep 93 18:58:04 PDT
From: 19-Sep-1993 2147 -0400 <ferguson@zendia.enet.dec.com>
Subject: apple/cinnamon brew

Hi Folks,

Well, here in New England, Autumn is approaching us rapidly; leaves are changing, pumpkins are available by the ton, apples are ready, and hot mulled cider fills the air.

I'm interested in making an apple-cinnamon brew; seems appropriate for the season. My initial thoughts on how to brew this are below. I'd appreciate any tips/input on ways I can make this better. This will be my first brew w/ fruit.

6-7 lbs light DME
2 oz hallertauer hops
3 oz cinnamon (boil) (I'll use sticks)
3 oz cinnamon (finish)
irish moss
EDME dry-yeast

(5 gallons)

Boil 60 mins; add finishing hops when i remove the brew from the flame. Likewise for the finishing cinnamon. I'll probably rehydrate the yeast too.

Ferment for 4 days or so; after 4 days, prepare the apples; i'll cut 'em up, then pastuerize them at 170F. transfer the brew to a secondary, dump the apples in. Ferment for another 4-7 days; bottle/keg. As for priming, I was thinking of using honey - how much should I use? Is there a risk of beer bombs if i don't drink the stuff fast enough? No problem w/ the keg...

Questions:

- How much apples? I'm thinking 7-10 lbs
- Should I include the apple skins?
- More cinnamon? less? my experience tells me that the cinnamon effect disappears like hop aroma over time...

Thanks,

JC FERGUSON
Littleton MA USA

Date: Sun, 19 Sep 93 22:03 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: WINE GRAPES

WINE GRAPES ARE HERE (CHICAGO)

California wine grapes are now available at North Side Grape
Distributors,
6045 W Grand in Chicago. (312) 622 1167

This is seasonal operation and only a vacant lot the rest of the year.

They have a wide variety of California grapes and juice, all kept in
about a
dozen refrigerated semi trailers.

Cost ranges from \$15 to \$20 per 32 lbs case. I just squeeze 14 gallons
from 4
cases of Cabernet Sauvignon so you can figure on about 10 lbs to the
gallon.

js

Date: Sun, 19 Sep 1993 23:40:36 -0700 (PDT)
From: Jack Thompson <jct@reed.edu>
Subject: Dublin Porter (old)

This afternoon, while browsing through the *Boston Medical and Surgical Journal* (Vol. 66, No. 18), p. 383; published Thursday, June 5, 1862 (yes, 1862), I came across the following chemical analysis:

"Ingredients of Dublin Porter. Dublin porter has been analyzed in an elaborate manner, and a statement of the results appears in the *Journal of the Royal Dublin Society*.

One gallon was found to contain of fixed organic matter, 4689.70 parts; fixed inorganic matter, 297.64; alcohol, 6356.0; sugar, 120.50; albumen, 552.0; extractive matter, 4017.30; silica, 20.30; phosphate of magnesia, 59.71; phosphate of lime, 11.06; phosphoric acid, 44.31; sulphate of potash, 42.0; potash, 83.16; chloride of sodium, 31.36; soda, 5.74.

Without expressing any opinion as to the medicinal virtues of the porter examined, the analysis draws attention to the fact that it contains a large quantity of heat-giving and flesh-forming matters, as well as the necessary inorganic constituents required in the formation of bone and flesh."

Just another data point.
Jack C. Thompson

End of HOMEBREW Digest #1229, 09/20/93

Date: Mon, 20 Sep 93 08:53:58 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: King Kooker mod

I did the following mod to my King Kooker this week end. It works great on the 6-8 gallons I begin to boil. No black soot on the bottom of the pot, no black soot when I turn the flame way down, seems like a more efficient burn.

I removed the brass nut that constitutes the burner. I plugged the existing hole with a sheet rock screw. I ground the head end of the screw off flush to the nut. On an adjacent nut surface I drilled a 1/16" hole. I replaced the brass nut.

Notes:

- 1) I removed about 1/8" - 1/4" from the point of the screw prior to insertion so it would not protrude thru the old hole.
- 2) I used the surface "after" the one with the original hole making it 1/8 turn tighter. I thought this better than 1/8 turn less.
- 3) 1/16" was the smallest bit I had. If all you brew is in the 5 gallon range and you are trying to improve the fuel efficiency of the Kooker a smaller hole may work. These brass nut are available in hardware stores for half a buck so I may try a smaller hole if I find a smaller bit.

Date: Mon, 20 Sep 1993 11:00:39 -0400
From: esonn1@cc.swarthmore.edu
Subject: fermenting with reckless abandon

Greetings in HBD land,

I am having a problem with a current all-extract wheat beer I'm making. I have made this same recipe several times, but this is only the second time I have used a liquid yeast (Wyeast Bavarian Wheat). The problem is that it's fermenting so wildly, that it blows the sanitizing solutions out of my one-way valve and then fills the valve with foam. The other time I used this yeast, it fermented quickly, but not so violently. I'm still using the cave-man equipment of a single stage fermenter made out of high grade plastic. My question is "Is there a way to slow down the fermentation a bit?". If not, is there a way I can clear out some of the foam while minimizing the risk of polluting my beer? I've been taking the valve off, pressing down on the cover so a bit of foam comes out and replacing the valve (all cleaned out and refilled with more sanitizing solution).

Should I merely relax, don't worry...?

Any help would be greatly appreciated.
Thanks in advance, Eugene

Date: Mon, 20 Sep 1993 11:02:14 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Malt/Wort vs. Dextrose Bottle Priming

In HBD #1229, p.shaw5@genie.geis.com writes:

> While I'm here and dyslurking, I have another question. Other than
> spiritual and philosophical blessings, are there any real, tangible
> advantages to priming with DME or using a gyre to prime? I'm just an
evil
> barbarian extract/dry yeast brewer at this stage in my experience and
while
> lots of the stuff I make is quite decent, the flavors are always strong
and
> harsh, like a Ben & Jerry's beer.

Theory tells us that due to the differences in the way that yeast
ferments
malt and corn sugar, that there will be differences in the beer according
to the priming technique you choose: a beer primed with DME or wort will
go through both respiration and fermentation phases of yeast
metabolism. During yeast respiration, the yeast consume oxygen on their
journey to reproduction. The corn sugar primed beer will bypass the
respiration phase via the crabtree effect. Theoretically, the malt
primed beer will have better flavor stability as oxygen has been
scavenged from the bottle during the bottle fermentation.

Some unsolicited advice: If you switch to pure liquid yeast cultures,
you can make huge advances in your beer quality. Using some simple,
creative culturing techniques, you can use liquid yeast with minimal
price penalty. All you really lose is the ability to brew on a whim as
brewing good beer with liquid cultures requires the use of a yeast
starter and its associated leadtime.

**** Rob Reed Internet: rhreed@icdc.delcoelect.com ****
**** IC Design Center Delco Electronics Corporation ****

Date: Mon, 20 Sep 93 10:45 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: gas stove conversion & easymasher

Hello readers,

I recently came into possession of an efficiency apt. size gas stove w/range top. The burners are close enough together to use in tandem in bringing a 33 quart pot to boil...one pot resting on 2 burners.

While a gas stove, I don't have a natural gas hookup in the basement and no room in the kitchen. I'm looking into converting the stove to propane-- hooking up a portable tank of the gas to the stove. Has anyone done this? If so, what special hardware and safety precautions will I need? Don't want to turn a brew session into a moon shot. Ventilation is no problem but someone in Monday's list mentioned possible soot residues with propane. Is there a way to correct for this?

Also, the resent postings on decoction tech's. mention a piece of hardware called an easymasher. Could someone describe this item? Uses and where to find, etc?

Thanks,
David Atkins
atkins@macc.wisc.edu

Date: Mon, 20 Sep 1993 16:19:04 GMT
From: COOK@CDHF2.GSFC.NASA.GOV (Chris Cook)
Subject: CO2 Connection Questions

A question about keggering and counter-pressure bottle fillers. How do people change fittings to CO2 systems?

I have one CO2 tank that I use for everything. That means:

- 1) Storing beer at home in the basement. Because of leaks, I usually keep the CO2 disconnected, repressurizing kegs when they need it. The best setup is one gas connection and a long hose.
- 2) Serving beer at group events. Although for smaller groups I just repressurize periodically, for larger events I try to keep CO2 connections on the popular kegs. The best setup is a string of gas connections spaced closely.
- 3) Counter-pressure bottle filling. This means one gas connection and the CP filler.

The only way I can connect and disconnect this stuff is to get the wrenches out, and I worry about the wear and tear for the connections and nylon bushings (which I usually drop at least once).

Is there an easier way to make changes? Are there quick-disconnects for the line, or some such? How do other people work with CP fillers?

Chris Cook
cook@cdhf2.gsfc.nasa.gov

Date: Mon, 20 Sep 93 10:23:06 CDT
From: lencell@unmc.edu (Lance Encell)
Subject: cardamom

I'm wondering what kind of spice cardamom is?
-Lance

Date: Mon, 20 Sep 93 10:21:48 CDT
From: lencell@unmc.edu (Lance Encell)
Subject: Beer of the month club

Could someone fill me in on this beer club. I hear you can get a case of beer every month or something. How does one find out about this?
-Lance

Date: Mon, 20 Sep 93 12:29:21 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Sweet Gale (Bog Myrtle)

Today, I was reviewing some books on brewing before taking them back to the library, to see what I might want to copy for my files, and re-encountered this passage from Odd Nordland's Brewing and Beer Tradition on Norway. I should note that the quotations come from questionnaires filled out by Norwegians about their knowledge and recollection of old brewing practices.

The important part played by the grut of Central Europe ... has already been discussed. From the fourteenth to the seventeenth century, the most important ingredient of this mixture of dried leaves

and spices was bog myrtle, *Myrica gale*, which will here also be referred to as pors [presumably the Norwegian name].

The bog myrtle was an important plant in medieval Norway, being mentioned as early as in fourteenth-century laws. ... rent for farms could be paid in bog myrtle ...

... bog myrtle occurs as one of the plants that could be used for flavouring ale: 'To add a strong flavour to the ale, and to make it heady, pors was put into it. ... It was gathered in autumn, and the leaves were also taken.' 'When this plant was used, the ale was strong. It went to one's head. They spoke of having a "Christmas head".'

... In northern Hordaland, small quantities of pors were added to the Christmas ale until the turn of the century.

... 'The ale was flavoured with hops mixed with pors. It was slightly yellowish, and had a fresh, sweet taste. It was said locally that when one drank much of it, it was strongly intoxicating, with unpleasant after-effects.'

...

That bog myrtle produces a special effect when added to ale is ... well documented in our material, and in earlier sources ... Linnaeus ... mention[s] the especially intoxicating effects ...

... Does bog myrtle possess the properties that were once ascribed to it...? ... chemical analysis has revealed no such properties. [One writer] is inclined to believe that there must be some substance in the bog myrtle that has the effect described. But he is also open to the suggestion that the belief in a special effect gave rise to an increased consumption [that] produced effects of the kind described. ... The solution of these problems would ... require a complicated analysis, and as it is of little practical value to find the cause of the alleged headaches of bygone ages, the question will probably remain unsolved.

It is not clear from this material what part(s) of the plant were used, except for the mention that "the leaves were also taken." He does refer at one point to the shape of the fruit of the plant, so we might assume that this is what was used. Certainly, Rajotte refers to the seeds as the flavoring agent in his Santa's Magic Potion. In the American herbal, the most closely related plant is the bayberry, from which the twigs and roots seem to be used (at least, that's what I can

find in herb shops around here).

=Spencer

Date: Mon, 20 Sep 1993 12:50:00 -0400
From: mike.sadul@canrem.com (Mike Sadul)
Subject: Cooler size, Hop yields NOT

Thanks to all who responded to my cooler size question, both publicly and via e-mail. Many of you requested information about my equipment (price, where purchased, etc.). I responded to all, except my mailer said I provided one incorrect address (didn't tell me which one, though). If you sent me e-mail and I didn't reply, please let me know.

Re: hop yields

I purchased hop plants this year (yes, little plants, not rhizomes) VERY late in the growing season through mail-order from Richters in Goodwood, Ontario, Canada.

I received one each of Cascade, Mt. Hood and Hallertauer. I planted them on the last weekend in June about 70 miles north of Toronto.

The Hallertauer only reached a height of around 7 feet, while the Cascade grew off the end of its pole (around 12 feet). I am already preparing for next year by searching for 30 foot saplings.

The Cascade was/is my only producer, with 3 hops. :(
The hops look very sad hanging there all alone.
Perhaps I can use them in a small (1 oz. wort) test sample. :)

The Weatherman predicted ground frost last night, can hop plants handle a little cold?

Cheers,
Mike
mike.sadul@canrem.com

Date: Mon, 20 Sep 93 13:34 EDT
From: Mike_ONeil@vos.stratus.com
Subject: Arizona and Utah Brewpubs

My wife and I will be going to Arizona and Utah in a couple of weeks for vacation and would appreciate any information on brewpubs and microbreweries.

TIA, MIke

Date: Mon, 20 Sep 93 14:28 CDT
From: korz@iepubj.att.com
Subject: Bass yeast/2.5 gal in a 5 gal carboy/DME priming

Bob writes:

>I want to make the Bass Ale recipe listed on page 32 of The
>Cat's Meow II & was wondering what style of Wyeast liquid yeast
>I should use??

I recommend that you use Wyeast #1028, London Ale, which is reported to be the Whiteshield strain (Whiteshield being a bottle conditioned beer made by Bass -- at least it used to be bottle conditioned -- now, I don't know).

Denis writes:

>we want to attempt to brew
>2.5 gallons of beer in a five gallon carboy (we want to brew two types
of beer
>and feel ten gallons of beer would be a little excessive :)).

>Has anyone out there done this before? Can anyone think of any possible
>problems that may occur? (Basically we are worried about oxidation)!

Don't worry, to borrow a phrase from Charlie... when you just add the wort to the carboy, you will have air in there, but that's when you want oxygen entering your wort. Later, when fermentation begins, the air will be pushed out of the carboy by the CO2 that the yeast produces (CO2 is heavier than air). See... no problem!

p.shaw writes:

>Other than
>spiritual and philosophical blessings, are there any real, tangible
>advantages to priming with DME or using a gyle to prime?

Personally, I started by using dextrose for priming. Then I went to DME because I had read so much about the "EVILS OF ADDING CORN SUGAR TO YOUR BEER." Eventually, I switched back to dextrose most because I think it's easier.

On some of my batches primed with DME, I noticed a sort of floating, "oily" scum on the top of the beer in the bottle. Some have written that this is similar to the kraeusen ring in the fermenter, but I have reason to doubt it. I think it's protein from the DME priming solution. If I'm correct in this assumption, it should be remedied by force cooling the DME priming solution so that cold break forms and is not added to the priming vessel (is left behind). See what I mean about dextrose being easier? Since switching back to dextrose priming, I have yet to see this scum in my bottles. I would test this theory myself, but since I'm having trouble finding time to brew, I would suspect it will take years for this test to reach the top of my list. Any takers?

Al.

Date: Mon, 20 Sep 93 16:27:46 MDT
From: npyle@n33.stortek.com
Subject: Specialty malts at mash-out?

Jack sez:

>>From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
>
>>Raised to 75 C, held for 10 min mash-out. Added crystal malt.
>
>I question this strategy but not knowing your reasons, I will simply
state
>that I mix all grains together as I weigh them and the crush them
together.
>I know of no reason to keep them separate.

I know of a couple. For crystal malt, the starch -> sugar conversion has supposedly already taken place in the process. Crystal malt is kilned at a high temperature (160F+???), causing the enzymes to convert the starch to "unfermentable" sugars. It is then dried, forming sugar crystals within the kernels, thus the name (one of several). It is not necessarily a bad thing to add this to your mash but it is likely that some of the "unfermentable" sugars in it will be broken down by the enzymes in the mash into fermentable sugars and some of the desired sweetness will be lost. Granted, this is probably a small portion of the sugar in the malt, but some sweetness will be lost.

For other specialty grains, like chocolate and black patent, I like to add them at mash-out time as well. In this case, I've noticed a harshness extracted from the dark grains if left in for the entire mash cycle. It has never appeared to me in my beers when I added the dark grains at mash out. With dark grains, the intention for me is to add some color, and roasted flavor. I can get a really smooth brown ale with my method, but I like the beer much less if the dark grains are mashed with the pale malt. I've also noticed this with at least one microbrew, although others have not. It may just be something I'm sensitive to. I've not brewed a stout, though, so I don't know how this method works in that arena.

...

Lee, sorry to be a tough crowd. I do appreciate your explanations re: the pH adjustments. Maybe I'm just jealous about your awesomely malty lagers, but I'm also fortunate that my favorite beer styles (US and UK hoppy ales) can be done with a simple infusion.

...

Fairly often someone (this time Denis Trudeau) asks about brewing small batches in a large carboy wrt oxidation. I do this virtually every time: brew 5 gallon batches in a 7 gallon carboy. This gives more surface area than, say 2.5 gallons in a 5 gallon carboy because the diameter of the 7 is larger. Anyway, I have had no discernable oxidation problems and was wondering if others have had any trouble. (This question is aside from blowoff considerations, Al!)

...

John asks about carbonation and pouring methods. Sorry, John I've got no answers, just more uncertainty. I've heard a half a dozen ways to "properly" pour beer. Here's a sample:

- 1) Pour down the side of the glass to start (to see how much carbonation is there) and finish off at the top with as much turbulence as is necessary to create a 1" head.
- 2) Pour down the middle of the glass to start and then ease off (i.e. pour down the side to achieve the magical, mythical 1" head.
- 3) Pour down the side of the glass (a good beer shouldn't need help in forming a nice head). I believe this one was from M. Jackson, but I can't swear to it.
- 4) Pour down the middle of the glass until full of head. Stop. Wait for head to drop. Repeat until you achieve the quintessential 1" head.

There are others, but I suggest: Pour it the way you like it. One of the reasons we homebrew is to do things the way we like them. Pouring should be no different.

...

Jonathan wants a FAQ for FAQs. Hmmm, are we getting high-tech or what?

...

Cheers,
Norm

End of HOMEBREW Digest #1230, 09/21/93

Date: Tue, 21 Sep 93 07:47:50 -0400
From: Rich Ryan <ryancr@install4.swin.oasis.gtepsc.com>
Subject: Mailing Brew

I recently received an entry form for an AHA sponsored homebrew event. Since the event is located miles away I will have to mail the bottles. A friend of mine said the US Postal Service has regulations forbidding this. He said that some of the private carriers may or may not have similar restrictions. Can anyone tell me definititvely what the regulations are? If this has already been discussed before private emails are fine.

Rich Ryan
GTE
Chantilly, VA
ryancr@swin.oasis.gtepsc.com

Date: Tue, 21 Sep 93 08:25:00 CST
From: Montgomery_John@lanmail.ncsc.navy.mil
Subject: rebottling

I have recently bottled (several weeks ago) an entire five gallon batch of Kolsch in Grolsch bottles (Kolsch in Grolsch ?...Hey, I'm a poet and don't know it but my feet show it cuz they're Longfellows :)).

Anyway, since then, I found that a local brewpub is sponsoring an Oktoberfest/Homebrew competition and I would really like to enter this beer for critique. Those who have submitted beers in competitions now see my dilemma - I can't enter the beer in a Grolsch bottle. So I'm considering rebottling a number of them in the required brown 12 oz. longnecks.

What is the collective wisdom on this? Should I "supercool" the beer and decant it very slowly into the longnecks so as not to disturb the brew?...Will I lose the carbonation? Anybody ever done anything like this?

Thanks,
john

<montgomery_john@lanmail.ncsc.navy.mil>

Date: Tue, 21 Sep 1993 09:06:12 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: someone asks about cardamom

The dictionary describes cardamom thusly: "A tropical Asiatic perennial plant, *Elettaria cardamomum*, having large, hairy leaves and capsular fruit, the seeds of which are used as a condiment and medicine." Cardamom is used as a seasoning in Asian cooking, especially Indian cooking. Specialty food stores carry cardamom seeds, while your favorite grocery store has crushed cardamom in the spice section. When fresh, cardamom has (to me) a lemon-citrus flavor note. I've used it as a "secret" ingredient in small amounts in wit and strong Belgian ale recipes. While there are lots of ways to add spices, what has worked for me is adding some in the last 10 minutes of the boil.

Date: Tue, 21 Sep 93 10:55:39 EDT
From: poconnor@lager.tn.cornell.edu (Peter OConnor)
Subject: slowing fermentation

Eugene asks how to slow down an unruly fermentation. How about cooling down the fermenting vessel. It usually slows fermentation without changing the flavor. It will mean longer fermentation times. -Pete

Date: 21 Sep 1993 09:59:09 GMT
From: "Tom Stolfi" <WAUTS@cwemail.ceco.com>
Subject: Brewpubs/Micro's

From: Tom StolfiWAUTS - CWE1IIN
To: Open-Addressing Application for Internet Acc INLINE - CWEMAIL
Subject: Brewpubs/Micro's

If anyone knows of any Brewpubs/Micro's in the Morgantown, West Virginia
or
Albuquerque, New Mexico area please forward the info to me via private
email
at wauts@cwemail.ceco.com. Thanks in advance.

Tom Stolfi
wauts@cwemail.ceco.com

Date: Tue, 21 Sep 1993 11:14:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: Re: Hop Harvest '93 & Beer of the month club

I planted my risomes (2 Cascade, 2 Chinook & 1 willamette) in late April. I live about 40 miles northeast of Boston on the NH border, so we have a decent growing season. My Chinook did great, they grew about 15 up the side of my house and I got a sandwich bag full of hops. The cascade grew well too, about 12 feet, but didn't produce any hops. The Willamette, was a disappointment, it never came up. It sent out roots, (I dug it up to check on it) but it never sent any vines. I was reassured by the people I got them from that it will do something next year, but I have my doubts. Has anyone else had a similar experience?

Regarding Beer of the Month Club, I have a subscription to one called Beer Across America, for details e-mail direct, Day@a1.tch.harvard.edu

Cheers! P. Day

Date: Tue, 21 Sep 93 09:22:41 -0500
From: gjfix@utamata.uta.edu (George J Fix)
Subject: Fusel Alcohols; Lipids

Greetings one and all!

The article I wrote on fusel alcohols that appeared in the last issue of Zymurgy had the following typographical errors:

(1) The last part of the second paragraph on page 32 was truncated. It should read as follows:

" ...widespread agreement about the implications that brewing procedures and brewing materials have on fusel alcohol levels. Some of the most important of these points will be discussed in this article."

(2) The sentence on page 33 stating that aromatic alcohols were volatile should read

" These are also non-volatile, and are characterized by the presence of aromatic rings."

(3) I have no idea where the crazy structure shown at the bottom of page 33 (first column) came from. It is certainly not Tyrsol. The correct structure can be found on page 64 of my book on brewing science.

I have received a lot of private e-mail concerning the Jones/Millspaw article that appeared in Zymurgy, and in particular about the general question of "lipid enhancement". It is well known that lipids can be used by yeast as a replacement for O₂. Turbid wort is rich in lipids, and if this is carried over to the fermenter, there is less need to aerate the wort before pitching. This has been exploited by high gravity brewers (primarily in the the UK) to lessen the O₂ demand of yeast used to ferment worts with OEs of order 18 P (1.074). My problem with this practice comes from my experience that fatty acids derived from trub are major players in beer staling. This may not be a major issue with homebrew that is afforded pristine care. However, it could be an issue for beer that is shipped (to competitions or friends), and is subject to mechanical and/or thermal abuse. In any case, it appears from my own brewing experiences that failure to properly clarify wort can be a destabilizing factor for most beers.

George Fix

Date: Tue, 21 Sep 1993 10:34:10 -0600 (MDT)
From: Mark Taratoot <SLNDW@cc.usu.edu>
Subject: re Brewpubs in Utah

Mike O'Neil asked about brewpubs in Utah and Arizona.

There are three brewpubs that I know of in Utah. Squatters in Salt Lake City, Eddie McStiffs in Moab, and Ebenezers in Ogden.

Squatters is the oldest, and they produce some fine offerings. Last time I was in SLC, they had cask conditioned real ale. The stout is OK. The pale ale is lacking something, but after all, this is a 3.2% (control) state and I am sure most of their customers do not like lots and lots of beer flavor.

Ebenezers is housed in a beautiful structure in Ogden. The beer is too cold, and it does not have much beer flavor. They usually have 4 offerings, one of which is a seasonal brew.

Eddie McStiffs has a tasty stout. I was not impressed with their pale. I guess Utah is not a good place to get pale ale, unless you make your own.

Hope this helps.

-toot

Date: Tue, 21 Sep 93 10:49:47 MDT
From: seiferth@cs.unm.edu
Subject: Hops in San Francisco Canyon NM

Last year there were a number of people who had visited the canyon and reported wild hops there. Has anyone returned this year? I'd like to go pick some but don't want to make the 5 hour drive unless it will bear some "fruit".

Justin
seiferth@lyra.plk.af.mil

Date: Mon, 20 Sep 93 21:27:59 EDT

From: dassemiri@aol.com

Subject: yeast & oxidation

I've been a lurker since I subscribed to this digest, and have enjoyed the

letters and information a great deal. Here's my question:

Has anyone tried to culture the yeast from Double Diamond? Is it used purely

for conditioning, or is this the yeast used for the actual fermentation?

Also:

I've only made one excursion away from extract brews, using a partial mash,

and I hope to go further in this direction. Can anyone explain the dangers of

oxidation DURING mashing? I thought it was only a concern after fermentation

began, but Miller's book leads me to believe that this is not the case.

Thanks and, to all those migratory folks from *P-land... pros't!
steveinmassachusetts

Date: Tue, 21 Sep 1993 13:15:05 -0500 (CDT)

From: jack@wubios.wustl.edu (Jack Baty)

Subject: Competition Announcement

The annual St. Louis Brews Happy Holidays Homebrew Competition will take place on 18 December. Entry deadline is 22 November. This is an AHA-sanctioned competition,

ASCII files containing competition rules (comprule.txt), entry form (compform.txt), and bottle entry forms (bottle.txt) are available via anonymous ftp from the /pub subdirectory of sirronald.wustl.edu (IP Number: 128.252.150.1). If you can't use anonymous ftp you can request the files from jack@wubios.wustl.edu.

Additional judges are always welcome. We will have Beds for Brewers available.

- - -

Jack Baty jack@wubios.wustl.edu

Division of Biostatistics Washington University Medical School St.
Louis

If you don't think too good then don't think too much.

Date: Tue, 21 Sep 93 09:19:08 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Grain at mash / DME prime /Recirculate

I agree with Al K's comments on DME priming. Unless one boils it for a half hour or so and then chills you will get potential haze. The small amount of corn sugar used to prime will not cause off flavors. Since I bottle from keg secondaries and there is a fair amount of CO2 in the brew already

I use 1/3 cup per keg with my ales. I don't provide additional carbonation to lagers with sugar I force carbonated them, I do so because it took me so long to brew (decoction) and ferment/lager I am concerned I may produce off aromas.

Grain at mash out: For dark brews I add grains at mash out it makes the iodine test easier to read. For lighter colored brews I mash all the grain.

When I sparged my recent brew I used Rob Thomas suggestion of testing for starch. When the liquid tested negative I declared this to be "clear" and began collecting wort even though the run off was some what opaque. Does the matter in suspension contain lipids mentioned in a previous post? Is clear another of those vague terms that we find in brewing references?

Date: Tue, 21 Sep 93 13:32 CDT
From: korz@iepubj.att.com
Subject: Re: fermenting with reckless abandon

Eugene writes:

> I am having a problem with a current all-extract wheat beer I'm
>making. I have made this same recipe several times, but this is only
the
>second time I have used a liquid yeast (Wyeast Bavarian Wheat). The
>problem is that it's fermenting so wildly, that it blows the sanitizing
>solutions out of my one-way valve and then fills the valve with foam.
The
>other time I used this yeast, it fermented quickly, but not so
violently.
>I'm still using the cave-man equipment of a single stage fermenter made
out
>of high grade plastic. My question is "Is there a way to slow down the
>fermentation a bit?". If not, is there a way I can clear out some of
the
>foam while minimizing the risk of polluting my beer?

The way to slow down your fermentation is to lower the temperature -- if
this is possible with your fermentation room. If you are fermenting in
the
basement, if you patiently search around the basement with a thermometer,
you can usually find a cooler corner. Greg Lawrence, a fellow local
homebrewer, was having problems with too warm a fermentation room. His
heat plant was in there, plus the dryer, plus a refridgerator, plus the
beer itself was making a lot of heat. He solved the problem by building
a sort of foam insulation box, which insulates his fermenters from the
room -- the three uninsulated sides of the box are the cement floor and
two cement walls of the foundation. This effectively reduced the temp
a good 10 degrees (if I recall correctly).

Another method for fermenting in a cool place if you don't have a cellar
is to ferment outdoors in an insulated box with a thermostatically
controlled
heater in there -- be careful to not burn anything down! Some have used
an old refridgerator with a light bulb for the heat, but recall the light
damage that can result, so you'll have to figure out a way to get the
heat
out of the bulb without the light. Some kind of sheetmetal baffle system
painted with flat black engine (heat resistant) paint, might be the
solution.

My initial thought was (no, not the blowoff method, Norm) to suggest a
larger
fermenter, but you did mention that you were having this problem
specifically
with a *WHEAT* beer. I suspect that the fact that wheat malt is higher
in
the proteins that give good head retention is why the kraeusen may be
lasting
so long as to come out through the airlock hole. If, indeed this is why
you
are having this problem, perhaps even a lower fermentation temp may not
help.

I used to be a strong supporter of the blowoff method, but I've begun to
have

my doubts. My doubts began when I brewed my 1120 OG Lithuanian Imperial Stout. The head retention on this beer's krausen was so good that not only did the fermenter blowoff into the 1-gallon blowoff vessel (a plastic milk jug), but the krausen of the blowoff vessel foamed all over the place! I cleaned up, dumped the blowoff vessel, added fresh water and let it finish. When I went to bottle the beer, I found some blowoff behind the fermenter that had dried like a piece of styrofoam! This is when I first began to suspect that perhaps head-retaining proteins were being lost in the blowoff.

I plan to test this theory.

Despite this, if you cannot contain your krausen, I suggest that attaching a hose (the wider diameter the better -- my blowoff hoses are 1" ID!) and putting the "out-end" into a bucket or jug partially filled with water is safer than skimming or the procedure you described in your post.

Al.

Date: Tue, 21 Sep 1993 14:57:13 -0400 (EDT)
From: Wayde Nie <u9106857@mcmail.cis.mcmaster.ca>
Subject: Silver Solder on wort boilers

Hi All,

What is the collective net wisdom on using silver solder to install the fittings into to base of a converted keg style boiler. I would think that soldering would be less of an undertaking than paying someone to weld SS.

///
(o o)

-----ooO--(*)--Ooo-----

/| | | / | Wayde Nie, u9106857@McMail.CIS.McMaster.CA
<o.O> bleah! |
(v)snort! | "I stayed up all night playing poker with Tarot cards..

·
--"--- | I got a full house and four people died!"
Bill The Owl | Steven Wright

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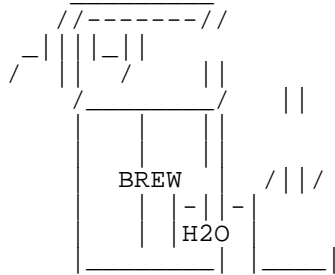
.
--"--- | I got a full house and four people died!"
Bill The Owl | Steven Wright

Date: Tue, 21 Sep 93 15:24:31 EDT
From: Aaron Morris <SYSAM@ALBANY.ALBANY.EDU>
Subject: Fermenting with wild abandon

esonnl@cc.swarthmore.edu queries:
> ... "Is there a way to slow down the
> fermentation a bit?". If not, is there a way I can clear out some of
the
> foam while minimizing the risk of polluting my beer?....

Eugene,

You don't want to slow down your fermentation. You should use different equipment. Rather than using a fermentation valve, substitute a stopper with a hose that runs into a bottle of H₂O with a few campden tablets dissolved in it. The foam that is clogging your fermentation valve will pass through the tubing into the jar of water/campden solution. The system will be a closed system and will keep any airborne nasties out of your brew. When the primary fermentation has settled down, remove the stopper and replace it with a fermentation valve. I routinely use such a set up when brewing mead (which has a rather violent primary fermentation



Date: Tue, 21 Sep 1993 15:47:55 -0600
From: Paul Boor <PBOOR@beach.utmb.edu>
Subject: cheap beer contest

My nomination for cheap beer goes to Goebel's (tm) lager purchased here in Galveston, TX at \$3.99 for a twelve pak. It's great stuff, but how it ever made it down here to our subtropical island from Detroit MI, I haven't the foggiest. I had read about "lawnmower beer" in the HBD, but when I put this stuff in my lawnmower, the thing conked out. I like drinking it better anyway

pboor

Date: Tue, 21 Sep 93 15:02:20 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Re: CO2 Connection Questions

>>>> "Chris" == Chris Cook <COOK@CDHF2.GSFC.NASA.GOV> writes:

Chris> A question about kegging and counter-pressure bottle fillers.
Chris> How do people change fittings to CO2 systems?

Chris> I have one CO2 tank that I use for everything. That means:

Chris> 1) Storing beer. 2) Serving beer at group events.
Chris> 3) Counter-pressure bottle filling.

Chris> The only way I can connect and disconnect this stuff is to get
Chris> the wrenches out, and I worry about the wear and tear for the
Chris> connections and nylon bushings (which I usually drop at least
Chris> once).

What nylon bushings? None of the flare fittings I have have any nylon bushings and unless you are a gorilla on your wrenches, you should have no trouble with repeated coupling/uncoupling of flare fittings.

Chris> Is there an easier way to make changes? Are there
Chris> quick-disconnects for the line, or some such? How do other
Chris> people work with CP fillers?

Sure, you could use any number of different disconnects, only they will cost you in the range of \$15 to \$20 per part at wholesale prices. I just get out the wrenches every time I want to use the CP filler. No hassle at all. You could also get a distribution block which is a brass block with 6 threaded holes, one input and five output with check valves and ball valves. Hook up to your heart's content any combination of things.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucsc!megatek!hollen

Date: Tue, 21 Sep 93 17:31:24 PDT
From: rkaye@denali.csc.calpoly.edu (Mr. Raytrace)
Subject: Cranberry Beer

The holiday season will soon be upon us and it is time to brew up some ales for Xmas time. I'd like to try my hand at brewing a beer that uses cranberries. I was a little bit disappointed by Sam Adams' Cranberry Lambic last year -- I'd like something with more cranberry bang.

Does anyone have a good recipe for a cranberry ale laying around? Or, better yet, just some tips on how to use cranberries in the brewing process. I'm aware of the pectin problem; I'm more curious of what quantities of cranberries should be used. Also, is it ok to let the cranberries steep in the wort after the wort is done boiling??

-ruaok

Robert Kaye -- rkaye@denali.calpoly.edu

Date: Tue, 21 Sep 93 21:19:36 EDT
From: ae877@freenet.buffalo.edu (Beth Bradley)
Subject: cherry beer

Hi, I'm new to the list(and really enjoying it) but not too new to homebrewing.
I have a nice can of Kangaroo Lager and about 4 cups of homemade cherry juice(also some homegrown cascade hops). I was going to put the cherry juice in at the beginning of the boil along with everything else but after reading the postings about fruit additives to beer I'm totally confused. Now I'm thinking of adding the juice right at the end just before bottling. I would appreciate any suggestions.

- - -

WHILE WE HAVE PRISONS IT MATTERS LITTLE

WHICH OF US OCCUPIES THE CELLS. -G.B.S.

Date: Tue, 21 Sep 1993 20:04:24 -0600 (CDT)
From: jim@n5ial.mythical.com (Jim Graham)
Subject: Samuel Smith's Pale Ale & Oatmeal Stout

Note the Reply-To address listed in my .signature---please direct replies to me as n5ial!jim@gagme.chi.il.us. This is temporary, but for the next couple of weeks, it's very important. I'd set the actual Reply-To field, but in a digest, it would never appear anyways.....

Anyways, I was wondering if anyone had a recipe (extract or extract plus specialty grain) for a clone of either Samuel Smith's Old Brewery Pale Ale or Samuel Smith's Old Brewery Oatmeal Stout.

Alternatively, does anyone have a recipe for a good oatmeal stout? One sip from the Samuel Smith's oatmeal stout had me sold on this wonderful variant.... (I've always been a fan of the Samuel Smith's Pale Ale...at least, I have been for about 9--10 years or so.) I must say, even though I've had some pretty good stout in the past, the oatmeal stout beats all of the others, hands down.

Oh, I should add this bit---I don't have a carboy. I have a single-stage fermenter, and zero money to buy a carboy. If there is any way at all to brew either variety in a single-stage process, please gear any responses in that direction. Otherwise, I'm still interested, if nothing else, for future reference.

Thanks,
--jim

```
- - -
#include <std_disclaimer.h>      73 DE N5IAL (/4)
- -----< Running Linux 0.99 PL10 >-----
-----
*** E-mail to me from now until roughly 2 Oct.:  n5ial!jim@gagme.chi.il.
us ***
AMATEUR RADIO:  (packet station temporarily offline)  AMTOR SELCAL:  NIAL
internet:  jim@n5ial.mythical.com  |  j.graham@ieee.orgICBM:  30.23N 86.
32W
- -----
-----
E-mail me for information about KAMterm (host mode for Kantronics TNCs).
```

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End of HOMEBREW Digest #1231, 09/22/93
*****
-----
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Date: Wed, 22 Sep 93 04:55:15 CDT
From: BOKENKAM@ucs.indiana.edu
Subject: Grainmill information request

I am covered with shame, embarrassment, and residue. The richness of HBD overwhelms me and, having other interests, I plead guilty to precipitate zapping. Now, I find that my grainmill has gone south (where I foolishly sent all that HBD wisdom) and I am in need. I seem to remember that a new grainmill was announced, but heeded not. Now I quiver to know, being desirous of fine crush (almost powderlike, with intact husks) and minimal gelt requirements. Gods, do not tell me that there is a FAQ-file; do not overwhelm me with penitential test results, but respond, I beseech thee, to Bokenkam@ucs.indiana.edu.

Yr. humble svt. S. Bokenkamp

Date: Wed, 22 Sep 93 09:15:22 EDT
From: Elaine Boris <EBORIS@UGA.CC.UGA.EDU>
Subject: CHERRY PORTER

Greetings & Happy Equinox,

Back in July I had asked about making a half batch of cherry stout in my 7 gal secondary. I want to thank, belatedly, everyone for their input and suggestions. They encouraged me to give it a try. I ended up making more of a porter than a stout and I was very pleased with the sample I had this weekend. The only problem is that the carbonation is low, and no head to the beer. There is enough so that you wouldn't call it flat and it stays carbonated even with a slow sipper like myself.

I used cherry extract (w/pits, unpasteurized) because several HBDers suggested it and also the available cherries looked unwholesome. I started with 8 oz that I added to the primary fermenter, but when I racked to the secondary and sampled a little, it had no cherry flavor so I added 8oz more. Now the cherry flavor is there but subtle.

INDEPENDENCE CHERRY PORTER 7/05/93
4 GALS BOTTLED 7/18/93
1LB EXTRA DARK DME (-1 CUP FOR PRIMING)
1CAN MUNTON & FISON AMBER HOPPED MALT EXTRACT (3.3LB CAN)
1LB CRYSTAL MALT (CRUSHED)
2CUPS CHOCOLATE GRAIN MALT (CRUSHED)
1CUPS BLACK PATENT GRAIN MALT (CRUSHED)
1IN BREWING LICORICE
.5 TSP SALT
.5 TSP CALSIUM CARB
2TSP GYPSUM
1OZ NORTHERN BREWERS HOPS PELLETS 60 MIN BOIL
.5 OZ NORTHERN BREWERS HOPS PELLETS 30 MIN BOIL
.5 OZ KENT GOLDING HOPS PELLETS 5 MIN BOIL
1PKT WHITBREAD LIQUID ALE YEAST (WYEAST 1098)
8OZ CHERRY EXTRACT
8OZ CHERRY EXTRACT - ADDED AFTER RACKED TO SECONDARY FERMENTER
1CUP DME FOR PRIMING

STARTING SG1.050 (BEFORE EXTRA CHERRY EXTRACT WAS ADDED)
ENDING SG1.022 (OOPS - AFTER PRIMING SUGAR WAS ADDED)

I steeped the crushed grains 45 min in 150 degree water and then sparged with warm water into my brew kettle. I had a vigorous fermentation going about 5 hours (that evening when I checked) later. I racked to the glass secondary after about 4 days, bubbling had slowed but not stopped and then bottled about 9 days after that.

Elaine Boris Student Information Systems
Computer Services Specialist University of Georgia
706 542-0484 Athens Georgia

Date: Wed, 22 Sep 1993 09:43:00 -0400 (EDT)
From: Kieran O'Connor <koconnor@mailbox.syr.edu>
Subject: Temperature Adjustments

Awhile back I read Miller's book--and finally took one of his pieces of advice to heart. I checked the calibration of both my Thermometers and my hydrometer.

As it turned out--my hydrometer is ok--and my floating thermometer is. But my bi-metal probe type thermometer was off by 4 degrees F. It has a locking nut on it--so I boiled it in distilled water and calibrated it. At the school I work in--in Cortland NY--we are at 1000 ft elevation, so my science teacher friend said to calibrate it to 98C for boiling--given the altitude.

now my question in--if the temps we use, say for mashing (148-158F) need to be somewhat accurate--do we need to make adjustments across the board? Shoudl i now lower my mash temps 4 degrees F when I brew in Cortland?

It seems that if I did not--the if I were mashing at 154--the real temp would be 158F--a significant difference.

Any thoughts?

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu
Syracuse, N.Y. USA

Date: Wed, 22 Sep 93 09:57:24 EDT
From: poconnor@lager.tn.cornell.edu (Peter OConnor)
Subject: Silver soldering

Hi Brewers,

Wayde Nie asks about using silver solder on a SS wort boiler.

One problem that I see is that silver solder typically doesn't wet Stainless steel. You might be able to find some that specifically does work on SS, but you should be careful to avoid leaded solders and solders that melt at low temperatures. You dont want that seal coming loose in the middle of a boil. 8-). -Pete

Date: Wed, 22 Sep 93 8:49:39 MDT
From: npyle@n33.stortek.com
Subject: DD yeast/mash oxidation/blowoff

steveinmass asks about borrowing some yeast from Double Diamond bottles. I had a DD last night and didn't notice any yeast. Shortly after I emptied the bottle my wife poured hot frying oil in it, so if they were there they died a horrible screaming death. May we have a moment of silence...

...
I also wasn't too impressed with the pale ale but that's a different story. Am I the only one who's noticed this problem with ales from the UK: they are overcarbonated! I'm talking about the common UK ales like DD, Bass, and Watney's. Now I know they carbonate them more for the US market but this is ridiculous. I like to be able to drink more than one sip between burps and well, I can't with these beers. It also doesn't help the taste any. I much prefer a good American pale ale these days; the imports can't touch 'em, at least not the imports that I get (slow dock, slow boat, slow dock, slow warehouse, slow truck/train, etc. etc.). Of course, though I love it, SNPA is overcarbonated IMHO, too.

...
Oxidation during the mash is a potential problem area, contrary to old wisdom. When I first got into brewing, I read that hop constituents were the cause of oxidation reactions which in turn caused stability problems. Now, it is apparent that malt constituents contribute to this as well. Without getting into details of which I know little, it will suffice to say that treating a hot mash the same way you treat hot wort is wise (i.e. no splashing, dumping, etc.).

...
Al, I plan to brew a(nother) pale ale in a couple of weeks, and I would consider trying a blowoff/non-blowoff test with it. I could conceivably make about a 8 gallon batch, putting 5 in my 5 gallon carboy (blowoff) and 3 in my 7 gallon carboy (non-blowoff). The problem with this is that I couldn't then do a secondary, which is standard at my brewery. Any suggestions? Am I wasting my time?

- - -
Norm Pyle, Staff Engineer Head Brewer,
Storage Technology Corporation Pyledriver Brewery, A Non-Profit
Organization
2270 South 88th Street 1500 Elmhurst Drive
Louisville, CO 80028-0211 Longmont, CO 80503-2323
(303) 673-8884 npyle@n33.stortek.com

Date: Wed, 22 Sep 93 07:56:39 PDT
From: mri10@mfg.amdahl.com (Michael Inglis)
Subject: Sam Smith Hops

Question: Does anyone know what hop variety is used in Samual Smiths
Pale Ale for flavor/aroma? I think it may be the same as is used in
Beck's. Saaz perhaps? Email is fine for answers. Thanks.

Mike Inglis
mri10@charon.amdahl.com

Date: Wed, 22 Sep 93 10:06 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: thanks/haze/oldish starter(?)/easymasher

Hello all,

Thanks to all those folks providing advice on converting a nat. gas stove to LP.

I was fortunate to receive a slew of response with good suggestions and care for and my apartments well-being.

And now for some more advice:

I may have a haze in my extract/specialty grain beer. It was several days ago when I drew a sample to F.G. and taste. The recipe is a modification of a NCJ porter (amber extract with crushed crystal, choc, black, and toasted malts).

When we bottle tonight and the beer's clear there will be no worries, but FMI, for my information, could I inflict a starch or protein haze with specialty malts? I had pleasing hot and cold breaks. If I find off flavors w/ haze I know the verdict.

Speaking of beer, I was unable to brew this past weekend, leaving 2 cups of yeast lab american ale 'starting' in a wine bottle. Has anyone or knows of anyone who has had a starter starting for a week. Can I salvage it by adding what I already have to a couple more cups of sterile wort? Is it too late to put the bottle in 'fridge to keep? An air lock has been affixed since the get go so sanitation may not be an issue.

Speaking of starters, sometime before the end of this decade, I hope to be competent enough for all-graining. I haven't gotten any info on the mysterious easymasher. If anyone could give me some info. on the item, I'd be grateful (as in thanks, definitely not dead)

Thanks,
David
atkins@macc.wisc.edu

Date: 22 Sep 1993 11:25:11 -0400 (EDT)
From: STBLEZA@grove.iup.edu
Subject: Blowoff and Silver Solder Comments....

Eugene <esonnl@cc.swarthmore.edu> wrote:

> I am having a problem with a current all-extract wheat beer I'm
>making. I have made this same recipe several times, but this is only
the
>second time I have used a liquid yeast (Wyeast Bavarian Wheat). The
>problem is that it's fermenting so wildly, that it blows the sanitizing
>solutions out of my one-way valve and then fills the valve with foam.
The

As far as the blowoff goes, you could attach a large, sanitized balloon
to the
top of your carboy. Remember to attach it well (I use Duct Tape), or it
will
re-distribute the foam ALL OVER THE ROOM. Also, it should be large so
that it
won't burst (mine are about a foot long un-inflated). This allows the
blowoff
to not be lost, so you keep all of the material it contains (good or bad)
while
not letting any nasties in. Once the foam has gone down, I replace the
balloon with a fermentation lock. BTW, a large mouthed fermentor won't
work
with the balloon since you can't get the balloon over the mouth. Also,
don't
use condoms, they have lubricants and poisons in them. Hope this helps.

- -----

Wayde Nie <u9106857@mcmaster.ca> wrote:

>Hi All,
> What is the collective net wisdom on using silver solder to
>install the fittings into to base of a converted keg style boiler. I
>would think that soldering would be less of an undertaking than
>paying someone to weld SS.

Most silver solders contain more than 40 percent LEAD. Since we are
talking
about food related equipment (at least I assume you intend on drinking
your
homebrewed beer), using lead bearing solder does not seem like a good
idea.
There are, however, silver solders that don't contain lead, so be certain
to
check carefully the solder you use. Also, all of the non-lead solders
that
I've personally dealt with require special equipment and techniques to
use them
effectively (this has been mostly Sterling Silver wire used by audiophile
friends), and are designed for very low resistance electrical components,
not
structural/mechanical support as you intend, so I don't know if it will
hold
well. I have heard of non-silver, non-lead solders designed for food
related

Date: Wed, 22 Sep 1993 11:36:18 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: partial-mash question(s)

I have 27 extract brews which have at various times been under my belt, and I am thinking about making this year's Christmas Ale a partial-mash brew. I don't have the equipment for all-grain, but I'd like to experiment. I have many questions, but I'll start with just one, in the interests of "bandwidth", and also hoping that by getting responses to my questions one at a time, eventually I'll get them all answered!

So here is my first question. I have heard or thought of a couple different ways of handling the four pounds or so of grain I'll be dealing with. (1) Put all the grains in a grain bag, go through the various temperature rests, and instead of the "mashout" remove the bag and either just squeeze the liquid out of the bag by mashing (sic) it down in a colander placed across the top of the kettle or running 170F. water through the bag/colander or both. (2) Don't use a bag; at the end of the mash, dump the liquor and grains into a kettle, then pour back through the colander to catch the grains and then sparge; (3) get another plastic bucket and drill holes to make the double-bucket lautering system; (4) fabricate that portable easymasher thing with the copper tube w/ screen or choreboy attached that rises over the side of the kettle and can drain into another vessel. Which method would be considered preferable, and what are the pro's/con's of each? Is there a way I haven't thought of? Is there one of the above I should definitely NOT do? Okay, so that was four questions, give me a break.

I would vastly prefer (1) or (2) for the sake of simplicity and minimal investment of time (not fabricating things), unless I'm likely to produce off-flavors or I might get such lousy extraction that it will not have been worth the effort.

Sorry about the FAQ on FAQ's a while back. Actually, the irony was not lost on me when I posted my request, so I'm glad if some of you got a chuckle out of it!

Jonathan Knight
Grinnell Iowa

Date: Wed, 22 Sep 93 11:41:27 CDT
From: lencell@unmc.edu (Lance Encell)
Subject: Beer in Telluride?

Anybody know of brew-pubs or micros in the Telluride, CO area or neighboring towns? Thanks,

-Lance

Date: Wed, 22 Sep 93 12:02:21 EDT
From: cjh@diaspar.HQ.Ileaf.COM (Chip Hitchcock)
Subject: re malt v dextrose

rhreed@icdc.delcoelect.com says

> . Theoretically, the malt primed beer will have better flavor stability as oxygen has been scavenged from the bottle during the bottle fermentation.

Has anyone tested this? Miller suggests leaving very little headspace, and not capping for a short while after filling, on the grounds that enough CO2 will evolve to flush out the oxygen; I don't know anyone who's measured this.

One method /not/ recommended for homebrewers due to messiness: at Old Dominion, the owner told us his bottling machine squirts a tiny bit of hot water into each filled bottle to make the beer foam, thus replacing O2 with CO2. (The machine fills from the bottom and is not very high-speed; I don't know whether high-speed machines produce enough foam just in handling the beer.)

Date: Wed, 22 Sep 93 12:23:10 EDT
From: cecil@udc.com (Cecil Clontz)
Subject: Have Brew Keg - What Now?

Greetings Homebrewers,

I am new to this mail list and to homebrewing. I am on my fourth batch of Brew.

I recently aquired a 15 1/2 Gallon Brewery keg (The kind your local beverage shop sells beer in and keeps your \$50.00 deposit til you return). This Keg uses a tap that pushes down and turns. I have several questions. 1) Where can I get a tap (other than rent one and dont return it). 2) can I rig this keg to use CO2 and use it insted of bottling. 3) If I can use a regular tap, how do I get the beer carbonated since with oxygen pumped in it will go bad in a few days. I know someone out there has the scoop on these ignorant questions.

Cecil Clontz
Iguana Head Brewery
cecil@udc.com

Date: Wed, 22 Sep 1993 09:24:00 PDT
From: David Allison 225-5764 <ALLISON.DAVID@algw.gene.com>
Subject: kegging/infection(?) question

First time caller - long time listener

After kegging my beer, which was malty/low bitterness/clear, it became sour and cloudy very quickly. Before kegging, I allowed the beer to condition in the secondary at 32 - 34 F for a couple of weeks and then racked to my cornelius (sp?) keg. While racking, I accidentally picked up some trub (approx. 10 - 20 mL) off of the bottom of the secondary. The corn. keg was purged with CO2 prior to racking by filling the keg with 12 ppm BTF iodophor and displacing it with low psi CO2. This prevents the beer from exposure with air. Anyway... After force carbonation with CO2, two days later the beer is bitter/sour/cloudy. I allowed it to set for a couple of weeks at 32-34 F, thinking that the stuff from the bottom of the secondary was the culprit and it needed to settle out. Well... That didn't work.

Any ideas/comments that can help?

Beer history:

All grain - 5 gallons
8# 2-row Belgian malt
1# Belgian caravienna malt
1/2 # Belgian Special B malt
Saaz/Hallertau hops
Wyeast German Ale Yeast (w/ starter)

American Double Mash (90 F -> 122 F -> 152 F)
3.25 gal mash water in 10 gal SS pot
3.25 gal sparge water (170 F) - grain bag/bucket w/spigot method

Immersion wort chiller

Glass primary and secondary
- 5 day primary at 65 F (blew out air-lock due to high activity of this yeast as discussed in previous thread)
- 10 day secondary at 60 F
- 2-week condition at 32 - 34 F
- racking as stated above

Thoughts?

Thanks
- David
(allison2@gene.com)

Date: Wed, 22 Sep 1993 12:42:28 -0600
From: Paul Boor <PBOOR@beach.utmb.edu>
Subject: Easy Masher

In response to the recent posting by NPyle who seems in search of streamlining methods (rather than complicating them), I submit my EASY MASHER METHODOLOGY with which I have brewed upward of 50+ brews, many of them great.

This methods owes its seemingly bizarre beginnings to the 20 year old book by C.J.J. Berry, a paperback that is still found in some homebrew stores. The method also harkens back to postings of several months ago concerning overnight mashing:

- 1) Friday night (near midnight): grind up your grain bill.
- 2) Heat lots of water to 180F; make up a THICK mash in your masher/spargatron of choice.
- 3) Stick in your preset AQUARIUM HEATER, put on the top, plug in the heater.
- 4) Sack out with your significant other, if available.
- 5) Wake up early and stir one kettle-full of near-boiling water into the masher/spargatron, bringing temp up toward 170F.
- 6) Sparge it out with 170F water.

If you insist on taking lots of temps and otherwise wasting precious time, you will get a strike of about 155F on Friday night. The masher/spargatron should be of the insulated variety so frequently discussed on the HBD. Indee, in the years before the great GOTT gave us coolers, I used "wastebin" wrapped up in blankets a la C.J.J.Berry's original description. With today's standard insulated deal, even without tinkering with an aquarium heater, your AM strike will be in the 125-135 range; the heater keeps it higher.

It is true: "all-graining doesn't have to be that tough!" This method is especially well suited to use with English (well-modified) malts and heavier beers.

Any other easy-mashers out there???

Date: Wed, 22 Sep 93 12:30:44 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: cloning Samuel Smith beers

An important part of getting the Samuel Smith taste is by producing elevated levels of diacetyl in your fermentation process. Diacetyl production by the yeast occurs early in the fermentation process and is directly related to temperature. Diacetyl reduction by the yeast occurs later. I accidently brewed a SSPA clone from a standard Pale Ale recipe by: Pitching my starter into wort that was about 10F warmer than fermentation temp. This produced the elevated levels of diacetyl.

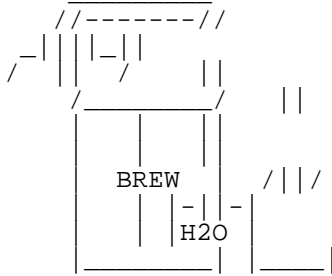
Racking to secondary immediately after primary fermetation ceased and then adding finings to percipitate the yeast out prematurely. This reduces the yeast population at the point at which diacetyl gets reduced. The high level produced early coupled with the small yeast population available for reduction will result in a beer with noticable levels of diacetyl.

Notes: I pitch a starter that I step up for about a week, it has about 3/8" of slurry on the bottom of a 1.5l wine bottle. I suspect this large yeast population coupled with the warm temp directly effects the amount of diacety produced. If your starter was smaller the wort would cool while its population expands and the level of diacetyl would be less.

I have also heard that excessive diacetyl is produced in under airated worts does any one have information on this?

Date: Wed, 22 Sep 93 13:11:49 EDT
From: lyons%adcl@swlvx2.msd.ray.com
Subject: Can the liquid loss in a blow off setup be minimized?

In HBD #1231 Eugene gives the following schematic for a blow-off setup.



I used such a system recently for a OG 1054 dry stout and lost one gallon of brew during the blow-off period. The fermentation was carried out at 68F using the new Red Star Ale yeast. The tubing I'm using between the two containers is the standard 3/8" (ID) siphon tubing. Does anyone experienced with this technique have any tricks for minimizing the amount of fluid loss?

Chris

Date: Wed, 22 Sep 1993 14:54:54 -0500 (CDT)
From: One Lain Meyer <meyer@uxa.cso.uiuc.edu>
Subject: fermentation substrate and flavor...

On a windy day i overheard:

```
#Date: Mon, 20 Sep 1993 11:02:14 -0400 (EDT)
#From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
#Subject: Malt/Wort vs. Dextrose Bottle Priming
#
#In HBD #1229, p.shaw5@genie.geis.com writes:
#
#> While I'm here and dyslurking, I have another question. Other than
#> spiritual and philosophical blessings, are there any real, tangible
#> advantages to priming with DME or using a gyre to prime? I'm just an
evil
#> barbarian extract/dry yeast brewer at this stage in my experience and
while
#> lots of the stuff I make is quite decent, the flavors are always
strong and
#> harsh, like a Ben & Jerry's beer.
#
#Theory tells us that due to the differences in the way that yeast
ferments
#malt and corn sugar, that there will be differences in the beer
according
#to the priming technique you choose: a beer primed with DME or wort will
#go through both respiration and fermentation phases of yeast
#metabolism. During yeast respiration, the yeast consume oxygen on their
#journey to reproduction. The corn sugar primed beer will bypass the
#respiration phase via the crabtree effect. Theoretically, the malt
#primed beer will have better flavor stability as oxygen has been
#scavenged from the bottle during the bottle fermentation.
#
*****
**** Rob Reed Internet: rhreed@icdc.delcoelect.com ****
**** IC Design Center Delco Electronics Corporation ****
*****
```

If there is oxygen available, then the yeast will continue from glycolysis thru TCA and ETC, regardless of what substrate you use. (DME or corn sugar)
When the oxygen is depleted then they will reduce the pyruvate from glycolysis into ethanol and CO2 via Acetaldehyde.

-OLM

Date: 22 Sep 93 15:45:00 CST
From: "DEV::SJK" <SJK%DEV.decnet@mdcgwy.mdc.com>
Subject: RE: Mailing Brew

Hi: I just joined the club and thought I'd make my debut with my \$0.02 on Rich Ryan's question 'bout sending beer through the mail.

I regularly exchange homebrew with a buddy who has lived in Florida, Oregon, and Nevada. The very first time I tried to send him brew, I very cleverly told the lady behind the counter what was in the package (they will not ask you, you have to give yourself away). She promptly pushed the package back at me and said that sending liquids in bottles via the US Mail is not something I wanted to get caught doing. So I went to another post office. I guess this means that the US Postal Service doesn't want us using them to send beer. However, I always do.

I ALWAYS send beers First Class. It costs a lot (about \$1/lb.) but the packages I sent from Long Beach, CA to Corvallis, OR got there in two or three days. For me, this short time for delivery is worth the extra cost. I like the idea that if my beer is sitting somewhere that is beer-hostile, it won't be there for long.

Zymurgy had an article not too long ago (issue?) specifically about packaging beer for sending to contests. I remember that it specifically did NOT say whether or not it is legal to send beer via UPS, US Mail, etc. The article was written by someone who has done a lot of UNpacking beer for contests and he recommended that you not get carried away with packaging. Basically, his reason for this was that over-packaged bottles were a hassle for him to deal with. If you're going to send via US Mail, I would recommend the opposite. I don't know the legal ramifications of getting beer on other people's mail and I don't want to know (at least not from a postal inspector knocking on my door). I use lots of newspaper for insulation from temp extremes, cushioning, and absorbtion (though I haven't lost one yet), and two layers of plastic for "head retention". Of course, packaging == money, but I want my beer there quickly, quietly, and safely.

I called UPS ((800) 222-8333) and they said that they do NOT handle beer. The person I spoke to acted as if she had heard this question many times (she laughed) but said that they do handle wine "in some states". This whole

thing may be trickier than I thought. Is it illegal to send alcohol across state lines, period? Is the AHA in big trouble for encouraging this sort of behaviour? Somebody MUST do this. How does Anchor send out their Xmas Ale? Or do they only ship within California? Hmm...

I do have some experiences with UPS which I think are worth sharing. First, this very friend with which I exchange beer once worked for UPS unloading trucks. According to him, UPS would prefer to suffer some breakage and compensate the customer rather than slow things down (I realize this is hearsay and other's experiences may be different). In support of this, my friend and I have exchanged only one package via UPS and it was the only time bottles arrived broken. Also, it took MUCH longer for the package to arrive (about 7 days instead of the 3 days which seems to be typical for 1st Class). I realize this is condemnation on slim evidence and the main reason I don't use UPS is the time for delivery, though I can't say for sure that spoilage has been a problem. Perhaps they offer a speedier but cheaper service similar to 1st Class.

Hopes this helps. I guess Rich's question still stands. Anyone know the legal way?

Scott Kaczorowski
sjk%c17fcs.decnet@mdcgwy.mdc.com

Date: 22 Sep 93 16:41:06 CST
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>
Subject: Zymurgy and Tix to GABF

I just got the latest Zymurgy last night (I'm reserving comment until it gets further inspection.) and a card fell out inviting me to a *special* AHA-members only beer tasting on October 9 from 2-5pm. You'll need a valid ID, a GABF ticket stub, and this postcard (no mention of *needing* an AHA membership card or anything like that).

Anyway, I'm not going to the GABF, but I'd hate for someone to miss out on such an *exclusive* event because of some silly regulation like membership in the AHA. So, I'll mail this invitation to the first person (presumably, a non-AHA member) who e-mails me with their address.

The early bird gets wormed,

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Wed, 22 Sep 93 08:21:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: soldering keg fittings

In HBD 1231, Wayde Nie <u9106857@mcmail.cis.mcmaster.ca>
asked about Silver Solder on wort boilers

WN> What is the collective net wisdom on using silver solder to
> install the fittings into to base of a converted keg style
> boiler. I would think that soldering would be less of an
> undertaking than paying someone to weld SS.

First, I'm not sure that you could get it to effectively bond to the
stainless.

Second, if you did get it to stick, you'd run the risk of having the
solder melt from the heat you're applying to the wort.

Third, solder is composed (I believe) of tin, lead, and antimony. I
don't think I'd want to take the chance of exposing my acidic wort
to that particular composition and risk some of it dissolving in my
wort.

The welding shouldn't cost you more than \$20 if you find the
stainless pipe nipple for the welder and pre-drill the hole.

You might also check out the brass fittings at a good hardware
store. I'm sure you can find some sort of compression fitting that
will do the trick.

Better yet, offer to trade homebrew for welding. That's what I did.

Chuck
* RM 1.2 00946 *

Date: Wed, 22 Sep 93 08:21:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: wierd yeast activity

All,
I'm making an all-grain pale ale using Yeast Labs American Ale yeast (Hey, it's all I had available at the time!).

I have never seen a yeast act this peculiar. I made a starter 9/9. The yeast was relatively fresh; the good until date was the end of October. The yeast took 36 hours to start working, and then it was very subdued.

Once added to the wort (at 70 deg. F) it took 24 hours to give any evidence of working. After noticing reduced ferm. lock activity after three days, I racked to secondary.

The yeast acts like it is still in primary fermentation phase. It still is producing a "cap" of sticky bubbles after about 9 days in the secondary (at 68 deg.). If I slightly agitate the carboy the bubbles collapse into large flocculante (?) (large pieces of yeast-beastie stuff that falls to the bottom of the carboy), and then the bubbles immediately re-form into a cap. Fermentation lock activity is now at about the once every 30 seconds stage, but the bubbles persist.

I have never seen anything like this before. Has anyone used this yeast stain before or experienced this?

Chuck

* RM 1.2 00946 *

Date: Wed, 22 Sep 93 22:11:52 GMT
From: sbsgrad%sdph.span@Sdsc.Edu
Subject: St. Pat's of Texas

From: Steve Slade <sslade@ucsd.edu>
Date sent: 22-SEP-1993 15:10:39 PT

Could some kind soul please send me, by private email, the phone # for
St.
Pat's of Texas? Seems I lost it in the last disc purge/backup.

Thanks,

Steve Slade
reply to: sbsgrad%sdph.span@sdsc.edu or sslade@ucsd.edu

Date: Wed, 22 Sep 93 17:54:49 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Brazing vs Silver-soldering vs TIG welding

Someone asked about silver-soldering vs welding nipples onto kegs...

Be very cautious of silver solders, as most of them are about 96% tin. As others have pointed out here, tin is not compatible with hot wort.

A third option is to braze the nipple. Brazing is similar to soldering, except that higher temperatures and different alloys are used. Because of the higher temps involved, a simple propane torch will not suffice. However, I just finished brazing my nipple, (this is beginning to sound like S&M) using a combination propane/oxygen torch. This heats the SS up to bright cherry red, hot enough to braze. I believe a MAPP gas torch will also work, I think a MAPP cylinder can simply be used in place of propane on a standard propane torch for a hotter flame. The brazing rod I used was called Copper-Phosphorous. I checked the MSDS for these and there didn't seem to be anything in it that would be bad for me or my beer (note there is no cadmium or other heavy metals in these rods). All of this equipment/materials can be purchased at any good hardware store/home center, for much less than the cost of a MIG or TIG setup.

Kelly

Date: Wed, 22 Sep 93 17:13:51 PDT
From: MURRAYT@WSUVM1.CSC.WSU.EDU
Subject: Barley diseases

In the HBD on 14 Sep 93, korz@iepubj.att.com wrote the about production of various malting barley varieties in the U.S. I have heard from two different sources now that most of the malting barley in the midwest and upper great plains (Minnesota, North & South Dakota) has been damaged/destroyed this year due to scab. Scab, or head blight, is caused by a fungus that produces several mycotoxins, among them vomitoxin, which prevents the sale of contaminated grain. One book I read says that "beer made with scabby barley takes on a 'gushy' or excessive foaming characteristic. However, because of strict grading standards, scabby barley is not used by the brewing industry today." As little as 3% scabby barley can be toxic to hogs, but other livestock do not react the same. If I remember correctly, some of the mycotoxins produced by this fungus have been implicated as potential carcinogens too. The excessive rain this spring and summer in the region is to blame for the above-normal amounts of scab. This means that malters will likely be buying grain from other areas of the country, like Washington, which do not normally produce large amounts of malting barley. I have not heard whether this is expected to affect price and/or supply.

Tim Murray
Dept. of Plant Pathology
Washington State University
MURRAYT@WSUVM1.CSC.WSU.EDU

Date: Wed, 22 Sep 93 22:57:18 -0400
From: Marty Hicks <martyh@kitchen.mcad.edu>
Subject: Interactive CD-ROM

Are there any home brewers out there interested in an interactive CD-ROM with beautiful graphics and animation that describes the history, process and products of brewing? A group of people including myself has begun thinking seriously about such a project and has started producing prototypes. How much money would such a CD be worth to you? Would it be more attractive with a sponsor? We would appreciate your input.

Marty

Jon Martin Hicks martyh@mcad.edu

CERRELUS
Virtual Worlds, Intermedia
2223 Stewart Avenue
Saint Paul, MN 55116

Phone: (612) 699-0083 Fax: (612) 699-0083

End of HOMEBREW Digest #1232, 09/23/93

Date: Thu, 23 Sep 1993 06:05:05 PDT

From: wegeng.XKeys@xerox.com

Subject: Re: Barley diseases

In HBD #1232, Tim Murray writes:

>I have heard from two different

>sources now that most of the malting barley in the midwest and upper
great

>plains (Minnesota, North & South Dakota) has been damaged/destroyed this
year

>due to scab. [...] I have not heard whether this

>is expected to affect price and/or supply.

I have not heard about this problem, but I do recall hearing that there
is

currently about a one year surplus supply of barley in storage in the US.

If

this is true, then the scab problem may not have much affect on the price
of

barley.

/Don

wegeng.xkeys@xerox.com

Date: Thu, 23 Sep 1993 08:35:35 -0500
From: Todd Enders - WD0BCI <enders@plains.NoDak.edu>
Subject: re: Barley Disease

In HBD #1232, MURRAYT@WSUVM1.CSC.WSU.EDU writes:

>
>In the HBD on 14 Sep 93, korz@iepubj.att.com wrote the about production
of
>various malting barley varieties in the U.S. I have heard from two
different
>sources now that most of the malting barley in the midwest and upper
great
>plains (Minnesota, North & South Dakota) has been damaged/destroyed this
year
>due to scab.

I wouldn't go so far as to say most. Local Ag. reporters have said the
damage runs in the neighborhood of 30% recently. More worrisome is the
fact
that harvest is running **very** late around here due to excessive
moisture.
The longer drydown times have left the remainder of the unharvested small
grain crops at risk for diseases, but I haven't heard of large losses due
to this, yet.

Malting and feed barley aren't the only things effected. The wheat
crop is also suffering from scab. This has put some of the export
customers
ill at ease about purchasing wheat (cf. China).

>
> [...]
>
>The excessive rain this spring and summer in the region is to blame for
>the above-normal amounts of scab. This means that malters will likely
be
>buying grain from other areas of the country, like Washington, which do
not
>normally produce large amounts of malting barley. I have not heard
whether
>this is expected to affect price and/or supply.

>
In the upper Great Plains, the predominant varieties of malting barley
are of the 6-row type (Morex, Larker, Robust), employed primarily by the
big industrial brewers (AB, Miller, Stroh). In fact, **very** little 2-
row
is grown around here (< 5% of total), with most of the 2-row production
coming from the Northwest. If indeed maltsters are buying from other
areas,
6-row malt may be in short supply. This hasn't manifested itself in
higher
prices for malting barley (at least not around here). The homebrewing
market probably has little to worry about. However, I suspect the mega
breweries are at least somewhat nervous.

=====
=====

Todd Enders - WD0BCI ARPA: enders@plains.nodak.edu
Computer Center UUCP: ...!uunet!plains!enders
Minot State University or: ...!hplabs!hp-bsd!plains!enders
Minot, ND 58701 Bitnet: enders@plains

Date: Thu, 23 Sep 93 08:41 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: MASH TUN = LAUTER TUN

>From: Jim Busch <busch@daacdev1.stx.com>
>Subject: Tuns/Sparging

>First of all , Jack, mash tun != lauter tun, at least for most serious brewers who are using any system other than single infusion or your EasyWidgets. The objective of a mash tun is to convert starches to fermentable sugars and dextrans. The objective of a lauter tun is extract these fermentable sugars and dextrans without extracting tannins from the malt husks.

Not sure of your symbolism but if "!=" means not equal, the advent of "EasyWidgets" suggests it is time to change the definition. With an easymasher (note lower case) installed, the mash tun becomes the lauter tun simply by opening the spigot.

> I have brewed all grain batches in 4 different systems over the past 5 years, and no matter what the size of the lauter tun, the recirc time is in the order of 10-15 minutes.

Is it possible that none of those four different systems was an easymasher?
It takes less than a minute with the em. Furthermore, I do not see what time has to do with the issue. It is the volume that must be recycled that effects the characteristics that were brought up. If a cup or two has to be poured back into the tun, it would have little effect on anything and would not even qualify for calling it "recirculating". If 5 gallons have to be recirculated, it is a different ball game.

I hate to always sound like I am trying to sell something when this subject comes up but the fact is, the easymasher has revolutionised home brewing as anyone who has ever used one will testify to. Few of the age old problems and concerns apply to it.

Someone asked what an easymasher is and I waited a discreet amount of time hoping someone else would respond but as no one did, here is a brief description. Please note that this device can be easily made from hardware store stuff and whether you make one or buy one makes little difference to me. That is the reason for the lower case/upper case business.

The following is taken from my article on kettle mashing and anyone wishing the whole article can receive same via email.

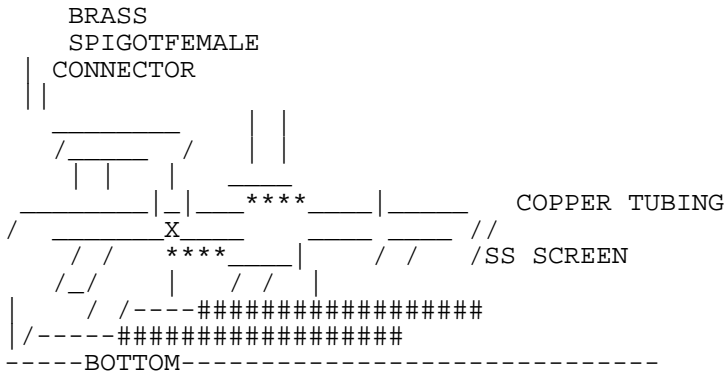


FIG. 1

Fig. 1 shows an exploded view of the spigot and strainer. The strainer is simply a 2 x 6 inch piece of screen, rolled into a six inch tube and clamped to the copper tube. The last half inch is bent over itself to seal it off.

The copper tube has a double bend in it to allow it to be rotated so that the end is right on the bottom leaving almost no wort behind. It is easily removed for cleaning.

The spigot passes through a clearance hole drilled in the kettle and is retained by the female connector and a washer to take up the treads and make a tight fit.

.....

>From: franc!kstyles@woomera.att.com
 >Subject: 1993 Hop Harvest

Dried weight (oz)
 Variety 19921993
 =====
 Chinook10 1/2 5 1/2

The only hops I had in last year were Chinook but the yield on two vines went from less than one dried ounce to about six this year. I used 50 grams in the last 10 gallon batch and the bittering seems about what I expect from a similar weight of commercial pellets.

js

Date: Thu, 23 Sep 93 10:00:26 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Columbus OH pubs

It looks like I will be in Columbus OH next week. I would appreciate any recommendations for pubs/brewpubs. I saw these in the publist, any comments?

Ohio -- Columbus:
Columbus Brewing Co.
Microbrewery
Growlers Brewpub - 1380 Bethel Rd; 43220 (614)451-0108
Brewpub which is now closed
Hoster Brewing Co
Brewpub

e-mail responses please. Thanks in advance.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Thu, 23 Sep 93 09:38:02 -0500
From: Brian R Seay </G=Brian/I=R/S=Seay/O=MAC/PRMD=ALCATEL/ADMD=TELEMAIL/C=US/@alcatel.aud.alcatel.com>
Subject: Bittering Hops

Subject: Time:8:28 AM
OFFICE MEMOBittering HopsDate:9/23/93
In the spirit of "There are no stupid questions":

All of the hop oils in the lupulin glands of boiling hops are boiled away during a 60 minute boil. The hop oils are the source of hop flavor and aroma, so there should be no hop flavor or aroma contributed by the boiling hops. Therefore, one ounce of Northern Brewer @ 10% alpha could be substituted for two ounces of Willamette @ 5% alpha. The same bitterness would be achieved and there would be no perceptable difference in taste. Right? Probably not. Where is the flaw in my thinking?

A little knowledge is a dangerous thing.

-Brian

Date: 23 Sep 1993 10:44:02 U
From: "Walker John" <jwalker@msmac.prc.hq.nasa.gov>
Subject: A few questions.

1. Does anyone know of an outlet on the east coast for Upper Canada beers?
2. Are there any vendors selling 7 oz. brown bottles.
3. Are there any publications of old recipes of American beers? There are a few great books for English beers, but I have not seen one for the US. Also, if anyone has old recipes, either from family or professional brewers, I would love to see them.

John Walker
jwalker@prc.hq.nasa.gov

Date: 23 Sep 93 07:00:00 EST
From: "PAUL EDWARDS" <8260PE@indy.navy.mil>
Subject: Soldering/brazing, etc.

To add my couple of pence worth to the soldering discussion:

Those who suggest that brazing is the way to go are on the right track. Soldering is a much lower temperature process and doesn't provide nearly the strength that brazing does.

I've successfully brazed fittings on SS pots using "Safety-Silv 1200" rod.

The manufacturer, J. W. Harris, says its suitable for food processing equipment. The exact metallurgic composition escapes me, but the major components are silver and copper, with a small amount of zinc and a tiny bit of tin. I've never experienced haze problems or metallic off-flavors

in beers brewed in the pots with this braze. Flux is boric acid, I believe, and comes off with hot water and scrubbing with a wire brush.

I've used Safety-Silv 1200 to braze numerous bicycle frames, without a joint failure, so it provides a fairly strong joint. I use either Mapp gas with a Turbo head or one of those propane/oxygen setups from the h/w store. As you probably can guess the brazing rod melts in the 1200 deg F range. I've read that prolonged heating of SS above 1200-1400 degrees can cause it to become brittle, so be careful. I'd suggest practicing on the portion of the keg you've cut off.

Whatever brazing rod you choose, make sure it has no lead and *** NO CADMIUM ***. Cadmium fumes will kill quicker than you can say "Rheinheitsgebot".

One last thing, I wouldn't trust a brazed joint to be "sanitary" in the same sense that professionally welded and ground would be, so I wouldn't use this method on fermenters and the like. Just on Hot liquor tanks, mash-tuns and boilers.

One final thing, Silver braze flows like water when it reaches liquidus, and won't fill gaps of more than .001 or so, in my experience. Make sure you have a good tight joint before lighting up that torch...

-- Paul Edwards

Date: Thu, 23 Sep 93 8:55:28 PDT
From: John McCaffrey <johnmc@brooktree.com>
Subject: Keg Forced Carbonation Confusion

Boy, am I confused. I setup my keggling system about a week and a half ago and had problems getting enough carbonation/head. I used the method outlined in Cliff Tanner's Braukunst catalog and after 3 days, my beer seemed to be carbonated OK but had little or no head. Since then, I have researched this further and found that there is no consistency whatsoever regarding the temperatures and pressures needed for both force carbonating and dispensing. Can anyone shed some light on this? Here are the various methods I've uncovered.....

Braukunst Method:

Chill beer to your liking (40 degrees), determine how carbonated you want it (2.25 atmospheres for ales, 2.75 atm for lagers), look up your beer temp and carbonation (in atm) on the big chart and determine the saturation pressure needed to carbonate (my Red Ale came out to 9.5 psi at 40 degrees), pressurize to that pressure and let sit for 2-3 days, dispense at 2-3 psi GREATER than the carbonating pressure.

Charlie P. Method (from TNCJOHB):

Chill beer (40 degrees), pressurize to 25-30 psi, let sit for two days (or shake vigorously for 5-10 min), then dispense at 5 psi.

Williams Brewing Supply method (from mail order catalog):

Chill beer (no temp specified), pressurize (no pressure specified) and wait FIVE days, no dispense pressure specified

Bob Clark's Method (from HBD Archives 6/7/93):

Chill beer (no temp specified), pressurize to 30 psi, wait 3-4 days. Then dispense at 8-10 psi.

Mark Parshall's method (from HBD Archives 6/3/93):

Chill beer (40 degrees), pressurize to 25-30 psi, let sit for 3-5 days, lower regulator to 10 psi to dispense (he says this generates too much head).

Mark Parshall's friend's method (from HBD Archives 6/3/93):

Chill beer (40 degrees), pressurize to 40-50 psi, shake vigorously for 15 minutes, no dispense pressure specified.

HELP! What's a kegger to do?

Date: Thu, 23 Sep 1993 10:57:55 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: campden/cranberries/oatmeal stout

I'm a couple of days behind in my digest reading. I suppose you could say that I am suffering from indigestion.

Anyway, in #1231 Aaron Morris recommends Campden tablets in the blowoff bucket. What does the campden do? I've never heard of this.

In this same issue, Robert Kaye asks about cranberry ale. I have a recipe at home which I haven't tried yet, but it was posted to the HBD a year or so ago I think. The author recommended putting frozen cranberries in the pot at the end of the boil - incidentally, helping the cooling along - and letting them sit for awhile, then racking the wort off the berries and break material. Anyone else tried this?

And finally, Jim Graham asks about Oatmeal Stout. Jim, if you are an extract brewer, try William's Oatmeal Dark extract. I used it once and was real pleased with it. If you're not an extract brewer, well, then you certainly don't want MY advice! I usually follow Al K.'s advice and just do single stage for ales, especially dark ones, unless I am dry-hopping.

Jonathan Knight
Grinnell, Iowa

Date: Thu, 23 Sep 93 10:08:51 MDT
From: pjd@craycos.com (Phil Duclos)
Subject: silver solder

Let's get one thing straight, silver solder is not your typical plumbing or electrical solder. It does not contain lead, although it may contain other undesirable metals, and it melts at ~1100 F. It does not contain tin either. It is used for refrigeration, precious metals, etc..

where strength is required. It comes in many melting points and mixtures and is more like brazing than soldering. It requires significant heat, and on stainless, that means an oxy/acetylene torch. Joints are strong, but tend to be brittle and because of that it may be unsuitable for the roughhouse brewery environment. It does not meet sanitation requirement per typical health codes. The technique is difficult to get right so its not for a beginner to welding. All that said, it is cheaper than TIG and may be a good choice for someone properly equipped and trained. A nice TIG job on a brew kettle should only cost \$10->20 so, its not unreasonable to have a really nice job. Trading for beer might be possible too. I plan to add a sight tube and thermometer to my hot liquor tank and I expect to pay almost as much for the fittings as the welding job. Its not all that cheap, but it sure looks nice!

phil duclos

Date: Thu, 23 Sep 1993 09:55:24 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Fuller's water treatment

A while ago I sent out some requests to a few English Ale Brewers, most notably Fuller Smith & Turner P.L.C., for information about their water treatments. Hey, it was worth a shot. Fuller's Brewing Director, R.H. Drury, responded thusly:

"I am not able to tell you the mineral content of our Brewing water for commercial reasons. Suffice to say it is not the typical London analysis which is too high in carbonates and is therefore "burtonised" to some extent."

In light of the most recent issue of Brewing Techniques and Karl King's article on water treatment which shows that "burtonized" water is much higher in carbonates than London water:

Ca CO3 SO4 Mg Na Cl

Burton 275 260 450 40 25 35
London 90 125 40 5 15 20

What is Mr. Drury talking about? Does he mean that Fuller's water is "...therefore "burtonised" to some extent" or does he mean London water? It may be important to note that Fuller's Brewery is in London, and perhaps he is switching names (Burton <==> London). On the other hand, in Fuller's Cask Conditioned ESB I detect a front of the tongue and behind the teeth sharpness, a tang, almost a mild "furriness". High sulfate?

Am I making too much of water treatment?

Since I mentioned the most recent issue of Brewing Techniques, I'd just like to say that I'm very impressed with the publication. I actually found 3 out of 4 of the features and articles of compelling and immediate interest (at this time I'm not charged up about rye), even so I found the rye article well written and full of good information. (This contrasts greatly with articles about labels). I am particularly looking forward to the next issue's "Practical Guidelines for Cask Conditioning

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Thu, 23 Sep 93 13:18:10 EDT
From: steve@garnet.spawar.navy.mil (Steve Jacobs)
Subject: Lambic Cultures

I'm interested in brewing some p-Lambics, can anyone point me to a source (preferably non-commercial) of the following cultures:

brettanomyces lambicus
brettanomyces bruxellensis
pediococcus damnosus

Thanks,

Steve Jacobs

Date: Thu, 23 Sep 93 13:44:59 -0400
From: arndtr@acs.bu.edu (Randy Arndt)
Subject: Subscription Request

New subscription to arndtr@acs.bu.edu

Date: Thu, 23 Sep 1993 10:43:53 -0700
From: paul@rational.com (Paul Jasper)
Subject: Re: Sam Smith Hops

On 22 Sep, 7:56, Michael Inglis wrote:

> Subject: Sam Smith Hops

>

> Question: Does anyone know what hop variety is used in Samuel Smith's
> Pale Ale for flavor/aroma? I think it may be the same as is used in
> Beck's. Saaz perhaps? Email is fine for answers. Thanks.

>

>-- End of excerpt from Michael Inglis

"The European Beer Almanac" by Roger Protz lists the ingredients for Samuel Smith's Old Brewery Pale Ale as "Pale ale and crystal malts. Fuggles and Goldings hops. 30 units of bitterness. Top fermenting yeast." ABV 5%; degrees Plato 12; OG 1048. It is fermented in Yorkshire stone squares.

- - -

- - - Paul Jasper

- - - RATIONAL

- - - Object-Oriented Products

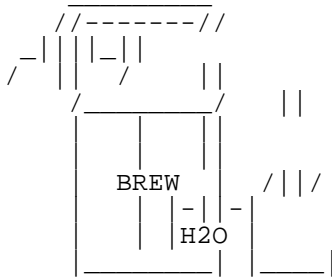
- - -

Date: 23 Sep 93 13:39:00 EST
From: "Anderso_A" <Anderso_A@hq.navsea.navy.mil>
Subject: Minimizing Blow-off Loss

The following attachments were included with this message:

TYPE: FILE
NAME: BLOW_OFF

>In HBD #1231 Eugene gives the following schematic for a blow-off
>setup.



>I used such a system recently for a OG 1054 dry stout and lost one
>gallon of brew during the blow-off period. The fermentation was
>carried out at 68F using the new Red Star Ale yeast. The tubing I'm
>using between the two containers is the standard 3/8" (ID) siphon
tubing.

>Does anyone experienced with this technique have any tricks for
>minimizing the amount of fluid loss?

>Chris

Sure, switch to a 1" ID plastic hose and move the bucket of water to a height about 2 feet above the top of the carboy. Most of the beer kicked out during the blow-off period can't make it out and falls back into the carboy. I use this system for any beer with an OG of at least 1.050. Lower strength beers tend not to kick out as much fluid.

Cheers,
Andy A

Date: 23 Sep 1993 11:39:04 U
 From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
 Subject: Usage of Silver Solder Alloys

Hey Group,

I noticed the post on using Silver based Brazing (soldering) alloys. This is a good alternative to welding of fittings. In addition, it allows the use of copper tubing and fittings into the stainless steel tanks. There is the potential for some galvanic corrosion of the copper in preference to the silver. While I cannot predict the rate, I think it will be quite small; small cathode, big anode, etc. Be sure to use a flux for Stainless Steel before attempting to braze or it won't stick. Use a slightly reducing flame and type 3A flux. Silver Solder does not contain lead, but some of the alloys contain Cadmium, which is worse. I don't know if it will leach out, but if it does, it will cause heavy metal poisoning. The American Welding Society alloy designations are listed below, don't use the alloys containing Cadmium. Here's the table.

Table of Silver-based brazing (soldering) alloys

AWS spec.	Composition(a), %			
	AgCu	Zn	Others	
BAG-1	44.0-46.0	14.0-16.0	14.0-18.0	23.0-25.0 Cd
BAG-1a	49.0-51.0	14.5-16.5	14.5-18.5	17.0-19.0 Cd
BAG-2	34.0-36.0	25.0-27.0	19.0-23.0	17.0-19.0 Cd
BAG-2a	29.0-31.0	26.0-28.0	21.0-25.0	19.0-21.0 Cd
BAG-3	49.0-51.0	14.5-16.5	13.5-17.5	16 Cd, 3 Ni
BAG-4	39.0-41.0	29.0-31.0	26.0-30.0	1.5-2.5 Ni
BAG-5	44.0-46.0	29.0-31.0	23.0-27.0	...
BAG-6	49.0-51.0	33.0-35.0	14.0-18.0	...
BAG-7	55.0-57.0	21.0-23.0	15.0-19.0	4.5-5.5 Sn
BAG-8	71.0-73.0	Rem
BAG-8a	71.0-73.0	Rem	...	0.25-0.50 Li
BAG-13	53.0-55.0	Rem	4.0-6.0	0.5-1.5 Ni
BAG-13a	55.0-57.0	Rem	...	1.5-2.5 Ni
BAG-18	59.0-61.0	Rem	...	10 Sn, .025 max P
BAG-19	92.0-93.0	Rem	...	0.15-0.30 Li
BAG-20	29.0-31.0	37.0-39.0	30.0-34.0	...
BAG-21	62.0-64.0	27.5-29.5	...	6 Sn, 2.5 Ni

(a) Total maximum allowable impurities in each alloy is 0.15%.

AWS spec.	Solidus temp.		Liquidus temp.		Brazing temp.	
	F	C	F	C	F	C
	F	C	F	C	F	C
BAG-1	1125	607	1145	618	1145-1400	618-760
BAG-1a	1160	627	1175	635	1175-1400	635-760
BAG-2	1125	607	1295	702	1295-1550	702-843
BAG-2a	1125	607	1310	710	1310-1550	710-843
BAG-3	1170	632	1270	688	1270-1500	688-816
BAG-4	1240	671	1435	779	1435-1650	779-899
BAG-5	1250	677	1370	743	1370-1550	743-843
BAG-6	1270	688	1425	774	1425-1600	774-871
BAG-7	1145	618	1205	652	1205-1400	652-760
BAG-8	1435	779	1435	779	1435-1650	779-899
BAG-8a	1410	766	1410	766	1410-1600	766-871
BAG-13	1325	718	1575	857	1575-1775	857-968
BAG-13a	1420	771	1640	893	1600-1800	871-982
BAG-18	1115	602	1325	718	1325-1550	718-843

BAg-19	1435	779	1635	891	1610-1800	877-982
BAg-20	1250	677	1410	766	1410-1600	766-871
BAg-21	1275	691	1475	802	1475-1650	802-899

Notes: Ag is Silver, Cu is Copper, Zn is Zinc, Cd is Cadmium,
Ni is Nickel, Sn is Tin, Li is Lithium, and P is Phosphorus.

Cadmium is toxic when it gets into the blood stream and causes heavy metal poisoning, similar to lead, but worse. While I am not sure that it will leach out of the soldered joint like lead, it might, don't use those alloys.

Solidus is the temperature when the alloy starts to melt upon heating, Liquidus is the temperature when it is completely melted. Or conversly, Liquidus is when it starts to solidify on cooling, Solidus is when it is completely solid.

John Palmer
MDA-SSD M&P
Support Space Station!

Date: Thu, 23 Sep 1993 12:48:09 -0400 (EDT)
From: Wayde Nie <u9106857@mcmail.cis.mcmaster.ca>
Subject: Keg system setup

In HBD 1232, Cecil Clontz Sez:

<I recently aquired a 15 1/2 Gallon Brewery keg (The kind your local beverage
<shop sells beer in and keeps your \$50.00 deposit til you return). This
Keg
<uses a tap that pushes down and turns. I have several questions.

My housemates and I have been using a CO2 charged, brewers retail style keggng system for almost a year now and don't know how we ever got along without it. This sounds, from your description, to be exactly what you want. We like this setup as opposed to the cornelius (SP?) one mainly because it can be used for homebrew and we can dispense commercial swill for our parties. This leaves our precious brew for us!

First of all, for your homebrew, I'd find a more suitable sized keg. Here in Canada, Brewer's Retail offers a "cylinder" (22 liters) which is roughly 5 Gal for \$20 deposit. We have found this size to be great for our single batches. Save your 15 1/2 Gal keg to make a good brew kettle. (As per any of the suggestions in the HBD archives)

<1) Where can I get a tap (other than rent one and don't return it).

All of our equipment came from a co called Johnson Enterprises in Illinois. They were very helpful and supplied us with exactly what we needed to convert an old fridge. (I have no affiliation with Johnson, just

a satisfied customer, BlahBlahBlahBlah....)

for a basic fridge conversion you will need:

i) A CO2 cylinder, ours is a 20lb tank and thats PLENTY.

It has been on line for almost a year and is still quite full.

ii) A CO2 regulator, IMHO a 2 gauge reg. is comforting and really only a few bucks more. (one gauge for tank presure (optional) the other is for line presure (a must)).

iii) A "Sankey" coupler. (the twist and push down type) this is what connects to your keg. It has two threaded connectors, one for beer out :-) and the other for CO2 in.

iv) Faucet assembly. This is the actual tap with all the necessary hardware for mounting. (fridge door, under the bar, beside your bed, etc...8*)

v) Proper pressure hoses and clamps to hook the whole thing together.

Except for the CO2 tank and fridge, we got the entire setup UPS'ed across the border and to our front door in about a week for less than \$200

Canadian. (Worth *EVERY* penny).

<2) can I rig this keg to use CO2 and use it instead of bottling.

Yep, we do this routinely! Inside the "beer out" hole of the sankey you'll find a small rubber "pea" with acts as a backflow valve. If you carefully poke this pea out (remember, it has to go back in later!) you

can siphon your beer into the keg through this hole. The connectors on the Sankey seem to have odd threads (at least we can't seem to find a match locally). Therefore, we'd recommend buying an extra female beer line connector to hook your siphoning hose to the sankey. To carbonate, put the full keg under about 30 - 40 lbs of pressure from your CO2 tank and shake like mad (the keg, not you) for about 1-2 min. Repeat this in another couple of hours and let the keg sit over night under this pressure. The next day, bleed off the excess keg pressure, reduce your CO2 reg. to about 10-15 lbs, and enjoy a *Sediment free* draught homebrew! (**This requires NO extra sugar at kegging time**) Don't be distressed if the first few draws are mostly foam, this is normal. If the foaming continues, play with the reg pressure. This is an outline of our process, others may have slightly different ones, but this works well for us.

<3) If I can use a regular tap, how do I get the beer carbonated since with <oxygen pumped in it will go bad in a few days.

This setup uses CO2 and a properly cared for keg will last for quite some time. (Can't give you solid dates, ours are always gone within a couple weeks...(Hick!) Hope all this helps, if you want us to clarify anything then feel free to EMail us back directly.

PS. here's there phone number.

Johnson Enterprises, INC,
Rockford, Illinois
(800)435-6950

///
(o o)

-----ooO--(*)--Ooo-----

/| | | / | Wayde Nie, u9106857@McMail.CIS.McMaster.CA
<o.O> bleah! |
(v)snort! | "I stayed up all night playing poker with Tarot cards..

·
--"--- | I got a full house and four people died!"
Bill The Owl | Steven Wright

Date: Thu, 23 Sep 1993 15:25:31 -0400 (EDT)
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>
Subject: Speaking In Tongues

=====
===
The following list was compiled by schuyler@rest.tasc.com. I'm hoping that you folks will enjoy it and send me additions and/or corrections. It might be best if comments were mailed directly to me to avoid a potential avalanche of posts to the digest. I'll update the list and re-post it when replies have subsided. Take care. - ligas@mcmail.cis.mcmaster.ca
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TRAVELLERS' VOCABULARY LIST

Afrikaans: oke
Albanian: birre" (e" = e-umlaut, pronounced approx. schwa)
Arabic: bira (birra)
Armenian: garejure (transliteration)
Basque: garagarnoa
Breton: bier
Bulgarian: bira
Burmese: biya (transliteration)
Cantonese: beljau2 (1 = high tone; 2 = high falling tone)
Catalan: cervesa
Croatian: pivo
Czech:pivo
Danish: o/l (o/ = fronted o sound, written o with slash)
Dutch:bier
English: beer
Esperanto: biero
Estonian: o~lu (o~ = o-tilde, pronounced short unrounded 'o')
Finnish: olut, (slang: kalja; actually other beverage)
Flemish: het bier
French: la bie`re
Frisian: bier
German: das Bier
Greek:mpi'ra (transliteration) ('mp' is pronounced 'b')
Greenlandic: immiaarag
Hausa:fita
Hawaiian: pia or bia
Hebrew: birah (bira)
Hindi:biar (transliteration)
Hokkien: bit3 djiu4
Hungarian: so~r (o~ = short-o-umlaut; s = "sh"-sound)
Icelandic: bjo'r (o' = o-acute accent)
Indonesian:bir
Irish:beoir
Italian: la birra
Japanese: biiru/bieru (r is sort of between USA 'r' and Eng. 'l')
Korean: maekju (transliteration)
Latin:cervisia
Latvian: alu
Lithuanian:alus
Luxemburgois: be'ier (e' = e-acute accent)
Madagassian: labiera (yes, one word)
Malay:bir
Maltese: birra
Mandarin: pi2jiu3 (2 = rising tone; 3 = fall/rise tone)

Nepali: biyar (transliteration) (from phrase book)
Nepali: chang (from person who's been there)
Norwegian: o/l (o/ = fronted o, written o with slash)
Papiamentu: serbes
Persian: ab-e-jow (a = slightly rounded; j = as in 'juice')
Pidgin (Papua): bia
Polish: piwo ('w' is pronounced 'v')
Portuguese: a cerveja
Quechua: sirwisa
Raeto-romanian: bi'era (i' = i-acute accent)
Rumanian: bere
Russian: pivo
Samoan: pia
Scots Gaelic: beo`ir (o` = o-grave accent)
Serbian: pivo
Singalese: bire (transliteration)
Slovakian: pivo
Slovenian: pivo
Spanish: la cerveza, la birra (Central America)
Swahili: pombe
Swedish: o"l (o" = o with two dots ["med tva prickor"])
Tagalog: beer
Tasmanian: beer
Thai: bia
Tibetan: chang (transliteration)
Turkish: bira
Ukrainian: pivo
Welsh: cwrw ("w" is pronounced approx. as "u" in "put")
Yiddish: bier (transliteration)

Date: Thu, 23 Sep 93 13:30:53 MDT
From: mlh@cygnus.ta52.lanl.gov (Michael L. Hall)
Subject: Temperature Adjustments

Kieran O'Connor asks about whether he should change his mashing temperature due to problems in measuring the temperature. I'm not quite sure which of the following questions he was asking, so I'll answer both.

1. "I checked the calibration of both my Thermometers ... my bi-metal probe type thermometer was off by 4 degrees F."

For this case you do need to mash with the corrected temperature. For instance, if your thermometer reads 4 degrees high and you want to mash at 154 F, then you should make sure that your thermometer reads 158 F. In other words, you should correct the temperature from your thermometer to get the real temperature.

2. "I boiled it in distilled water and calibrated it. At the school I work in--in Cortland NY--we are at 1000 ft elevation, so my science teacher friend said to calibrate it to 98C for boiling -- given the altitude."

I'm a little more familiar with this one, since I live at 7300 ft! If you're not boiling the water, then the temperature you want doesn't change. In other words, if you want to mash at 154 F, you heat the water until your corrected thermometer reading is 154 F, regardless of altitude. The difference with altitude comes in when you boil. Since you're boiling at a lower temperature, you might want to boil longer to get the same effect. Our boiling temperature is around 198 F, so there's quite a difference here.

Hope this helps,

Mike Hall, Thermohydraulic nut
Los Alamos Atom Mashers

Date: Thu, 23 Sep 1993 15:26:51 -0400 (EDT)
From: "Tim Tillman (BIO)" <tillman@chuma.cas.usf.edu>
Subject: Florida Homebrewer's Weekend

Hello HBDers!

I am trying to arrange a homebrewer's get together in Florida. I envision an overnight camping (not mandatory) kind of event. There might be a seminar or two, beer tasting, introduction to brewing for beginners, vendors. What else?

If you are in Florida and are interested in helping in anyway please Email me.

Tim Tillman
tillman@chuma.cas.usf.edu

Date: Thu, 23 Sep 93 07:55:59 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Hops sale discovered

Hi fellow brewers -

I just placed an order for some hops and much to my surprise was informed that there was a sale on to move out this year's crop and make way for next year's. The details are as follows:

Order from HopTech Email to mgaretz@hoptech.com. Only orders received over Email and mentioning the HBD discount qualify for a 25% discount on U.S. grown WHOLE hops only.

I have no affiliation with HopTech other than being a satisfied customer.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucscd!megatek!hollen

Date: Thu, 23 Sep 1993 15:46:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: Re: Mailing Beer/ UPS

I have found that as far a UPS is concerned, as long as they don't know it's beer, they don't care. Even if they find out that it's beer they really don't care. My mother (being totally without a clue that she shouldn't do this) sent my brother in Kentucky a case of Sam Adams via UPS. When he got it, he called to thank her and ask why she bothered to repack it and why was one bottle missing. It turns out that a bottle broke during shipment and UPS repackaged it and sent it on it's merry way, no questions asked.

Oh well...

Pam

Date: Thu, 23 Sep 93 13:15:35 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Silver Solder on wort boilers

>>>> On Tue, 21 Sep 1993 14:57:13 -0400 (EDT),
Wayde Nie <u9106857@mcmail.cis.mcmaster.ca> said:

Wayde> Hi All,
Wayde> What is the collective net wisdom on using silver solder to
Wayde> install the fittings into to base of a converted keg style boiler.
I
Wayde> would think that soldering would be less of an undertaking than
Wayde> paying someone to weld SS.

Wayde Nie, u9106857@McMail.CIS.McMaster.CA

Having done this, I can testify with some authority. Silver soldering SS works, but is **EXTREMELY** difficult to do correctly. The **MINIMUM** amount of heat possible to get the solder to flow should be used. Heat should not be applied for more than about 1 minute at a time, after which the area should be cooled **IMMEDIATELY** with a sopping wet rag. The best flux to use is the white paste kind which comes in the white 3" diam. plastic jar with a blue top (I forget the name). Use the flux sparingly. If you see that your solder is flowing in one place, but not all the places which you are trying to solder, you have oxidized that non-flowing area. **DO NOT APPLY MORE HEAT** to that area, cause that is our normal reaction when we see lack of flow. This is exactly the wrong thing to do. Stop, cool it off, clean it off well and start over again. If you overheat SS, it will become brittle.

I know about all of what I say since I did all the wrong things. When I was done, the joints between the keg and the pipe nipple were strong, but they still leaked. Well, so we went to clean things up and in the process of melting off the excess solder, a piece of keg as big as my little finger nail dropped out of the keg wall. It had cracked and now I had a large hole to fill in as well. Finally changed over to bronze brazing rod and got the job redone and no leaks.

Bottom line, get it welded. Don't be cheap and foolish. Also, when you get it welded, make sure the welder cools it immediately. If you do the welding and leave it to cool naturally, it will heat the surrounding area for more than the critical 5 minutes and you will get brittle SS again.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucSD!megatek!hollen

Date: Thu, 23 Sep 93 16:57:08 EDT
From: Bob_McIlvaine@keyfile.com
Subject: POC

Subject: Silver Solder

Silver solder can be nasty to solder and can be hazardous to your health if you get the wrong stuff. For your health's sake, get the kind that is cadmium free, for your yeast's health get low, low lead content. The simplest flux is plain old borax, the chemical not the soap :-). You can get the solder and the flux at your local welding supply, consult them about the solder for food preparation vessels, melt point of at least 1200 degreesF. The flux you can get at hardware stores, drug stores (sometimes), and your local supplier of chemicals for school science labs. The actual soldering is tricky, burnish the stainless steel parts, mix the borax powder with water and apply to the joint, bring entire joint up to temperature, the borax will melt. Don't get the joint too hot (easier said than done, with stainless steel), too hot and the solder will ball up and roll right off. Some old timers will wrap the solder wire around the joint and heat indirectly until the solder sweats into the joint making a very nice fillet. The key is to not oxidize the surface that the flux has cleaned, direct heat from a flame WILL oxidize.

P.S. A welder with mig or tig capabilities will take about 10 minutes to weld the joint with Stainless but will probably charge an hour minimum, typically \$30 to \$40 per hour.

Regards,
Mac

Date: Thu, 23 Sep 93 14:13:17 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Vigorous fermentation

```
begin 666 .tar.540.Vigorous_fermentatio_.attach
M'YV0:=R0*8/'A1PZ9@`H7,BPH<.'$-*G$BQ(HB+-FC0``$`1(P8-6#<X'BQ
M)`R2)40*T#@21`T:(6?8F`&SI<L;-V)TK,BSI/^?0(,*'4JTJ-&C2),J5;J'
MRT$$S,+B$<3,G35,S;]S0H2.&#1<S,;ZV>3-0CAL00][4D9.FC)P=?11P:1-&
MSADV,63`D$07KIR/>[G`J4N&"QT/'VO(,(Q'Q@P8-!C3K&&#,0T;,'`PKG$#
M,V,;.?(RQ@S(C^,<,F)4/AP#ADS-K$'J_1I63-0T4>NP<9.US-<Y*[^.B3H&
M*@@N'I*
```

end

email: sxupjd@fnma.com (NeXT Mail Okay)
Philip DiFalco, Senior SomethingOrOther, Advanced Technology
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

End of HOMEBREW Digest #1233, 09/24/93

Date: 23 Sep 1993 14:35:28 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: Footnote to Silver Alloys

Hi Group,
As I was reading over (yesterdays) Digest, I realized I was mixing the terms
Brazing and Soldering. The information I posted dealt with Brazing, at
1400F
a much higher temp process. The brazing alloys I listed will be
unaffected
by boiling of the wort, with respect to heat. As before, don't use the
first
few that contain Cadmium, I included them so you would know which ones
not to
use. Someone mentioned Tin and Wort being bad, I have not heard the
reason
for this. Please email me if you have any questions, I am not a Welding
or
Brazing engineer, just a metallurgical, but I do have good reference
books.
John Palmer
Space Station

Date: Thu, 23 Sep 93 17:33:48 EDT
From: gorman@aol.com
Subject: Zymurgy GABF members only postcard

I'll be making the trip to Denver to visit my sister and attend the GABF.

If somebody sent me their extra Zymurgy postcard for the member's only tasting, I'd be able to get her in as well.

I'd be overwhelmingly grateful.

Bill Gorman
243 N. Barton St.
Arlington, VA 22201

Date: Thu, 23 Sep 93 02:44:02 -0400
From: polstra!larryba@uunet.UU.NET
Subject: Re: Silver Solder on wort boilers

In HBD#1231 Wayde Nie writes:

> What is the collective net wisdom on using silver solder to
> install the fittings into to base of a converted keg style boiler. I
> would think that soldering would be less of an undertaking than
> paying someone to weld SS.

I did just that with my rig. I was able to assemble my mash/lauter tun, kettle and hot liquor tanks using brass fittings and silver bearing solder. I was able to do it using a regular blow torch.

A couple of things to know:

1. Make sure whatever solder you use is FOOD GRADE!
2. Silver braze (e.g. 15% or so silver) is very strong and harder to use. Silver bearing solder (3-5% silver) is easier to use but much weaker.
3. Get the right kind of flux - ask a welding shop for help. As I found out there are different temperatures and compatibilities to deal with.
4. In short, brass and SS are incompatible with Silver Solder and you will

probably be frustrated in getting a solid, watertight, durable connection.

The problem is that the copper in the brass dissolves into the silver solder and makes it very brittle. As your joint cools it will crack. You are getting shafted not only by the presence of copper, but the differential expansion between brass and SS.

If you can get SS fittings for at least the bulkhead (where you would be silver soldering to the keg) your job should be much easier. One possibility, that I have not explored yet, would be to get some threaded SS pipe (say 1/2" npt), bore a hole in your keg and just solder the nipple in place. Then you could attach your (cheap) brass fittings on either side. If you can get some sort of SS fitting with a flange, all the better.

Just in case you are wondering: yes all my joints leak a tad. Now that I have several brews behind me the cracks have filled with caramelized sugar (at least on the kettle)... :-(

- --
Larry Barello uunet!polstra!larryba

Date: Thu, 23 Sep 93 18:46:11 PDT
From: Bruce Seiler <goshawk!seiler@compass-da.com>
Subject: RE: someone asks about cardamom

Cardamom is also used by Scandinavians in bread.

Bruce Seiler
seiler@compass-da.com

Date: Fri, 24 Sep 93 03:45:00 BST
From: mike.keller@genie.geis.com
Subject: Mailing brew

Scott Kaczorowski comments in HBD 1232:

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|| Zymurgy had an article not too long ago (issue?) specifically ||  
|| about packaging beer for sending to contests. I remember ||  
|| that it specifically did NOT say whether or not it is legal ||  
|| to send beer via UPS, US Mail, etc. The article ||
```

On GENie we began having regular brew swaps about a year ago. When we first decided to do this, someone called around to the USPS, UPS and Bureau of Alcohol, Tobacco and Firearms (hey, ask _everyone_) about the legality of shipping beer. Basically, ATF doesn't care as long as it's not whiskey. USPS said it is AGAINST the LAW to ship alcoholic bevs through the mail (first class or otherwise).

UPS folks will give you varying answers. I've had them reject a package of framed photos because I used glass (they prefer plexi). However, unless you tell them "liquid in glass" they won't know and might not care; that amount of caring is what varies from counter to counter. I usually write on the UPS slip "yeast samples" or "brewing samples." Never questioned.

This week I shipped to a fellow brewer in Canada, so I had to deal with a customs form as well. Since I had to be honest on the customs form ("two (2) bottles homemade beer, value \$1 each"), I pretty much had to be honest on the UPS papers too, so I said "Homemade beer samples for judging." (I know that many winemakers ship samples via UPS) Flew right through, and he reported getting my beer today (four days from WV to Ontario).

The bottom line is that UPS is not a gov't agency, not the law, and the worst they can do is reject your package.

mike keller, food and wine roundtable, GENie

Date: Thu, 23 Sep 93 07:04:00 BST
From: s.quarterman@genie.geis.com
Subject: RE: Mailing Homebrew

Rich Ryan asks about mailing beer.....

Our group of folks on GENie regularly mail beer to each other for our Swap/Tastings held on-line on Saturday nights. It is true that the US Postal Service frowns 8^(very heavily on shipping alcoholic beverages by mail. I think it is again BATF regulations. You can ship by UPS though. This is what we do. We just label the boxes as Brewing Supplies and leave it like that. We have had no problems to date.

Steve Quarterman -- Portland, Oregon
S.Quarterman@GENie.geis.com

'Artificial Intelligence Beats Real Stupidity'

Date: Fri, 24 Sep 1993 10:54:02 -0600 (CST)
From: Damian Hogan <hogan@tais.telecom.com.au>
Subject: cloning commercial beers

Hi,
I was just wondering whether there is an FAQ for cloning commercial beers. My favorite commercial brew is Victoria Bitter. If anyone has a recipe for VB or other Aussie beers I would be very interested in hearing from them.

Thanks,

Damian P. Hogan
Telecom Australia
Adelaide, SA AUSTRALIA
email : hogan@tais.telecom.com.au

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Date: Fri, 24 Sep 93 7:50:34 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: malt v dextrose

> > primed beer will have better flavor stability as oxygen has been
> > scavenged from the bottle during the bottle fermentation.

> Has anyone tested this? Miller suggests leaving very little headspace,
> and not capping for a short while after filling, on the grounds that
> enough CO2 will evolve to flush out the oxygen; I don't know anyone

I have not tested this but I use Miller's suggestion mostly for convenience. I fill all my bottles and set a cap on each one as I fill it. When all the bottles are filled, then I go and fasten the cap on each one. As I said, this is mostly for convenience because I don't need to worry about keeping the bottling wand sanitized or worry about it leaking or worry about keeping the siphon primed while I am capping. That said, as I get about 1/2 - 3/4 of the way through bottling, the bottles that were filled first have started to "burp" as the air is pushed out by the CO2 produced by the yeasties.

One item that is critical for the success of this method is that my 2 & 4 year old helpers are asleep.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Fri, 24 Sep 1993 13:41:28 GMT
From: COOK@CDHF2.GSFC.NASA.GOV (Chris Cook)
Subject: Purging Keg Headspace

John McCaffrey <johnmc@brooktree.com> wrote on keg-forced carbonation confusion (love that phrase) and discussed several major techniques.

One minor thought that may help. When I carbonate my kegs, I found out (the hard way, of course) that it is important to completely purge the air from the headspace.

A while ago I kegged a batch and forgot to purge, just ran the pressure up.

Normally when I force-carbonate I can hear the CO2 going to work, and every time I shake the key, more CO2 pours into the key. This time, nothing. Days later it hadn't carbonated at all, despite having way too much pressure for dispensing. Thinking on this, sudden memory struck and I started purging. I emptied the headspace from the gas disconnect, charged it and emptied it, and charged it again up to carbonation pressure. This time the beer took some CO2, although still not that much. After a day of middling carbonation and overpressurization, I tried two more empty/refill cycles and suddenly everything was working OK.

This raises a question: what procedures are people using for purging keg headspaces? My usual practice when I don't have amnesia is to hook up the gas supply with the keg lid ajar, open the gas valve halfway and let the CO2 run into the tank second or two, then pull the lid shut.

When people say "purge the headspace," what procedures are you following?

Chris Cook
cook@cdhf2.gsfc.nasa.gov

Date: Fri, 24 Sep 93 09:55:36 CDT
From: Paul Sovcik <U18183%UICVM@UIC.EDU>
Subject: Re: Bittering Hops

In regards to the question of if the actual variety of hop really matters for bittering purposes:

I am also interested in the general net opinion on this issue. I have always wondered about this ever since I read the "Hops" special issue of Zymurgy which describes how one guy set out to brew every style of beer known. He used Chinook hops as the base bittering hop for every style. The rationale was that bitterness is bitterness and Chinook hops have the most %AA per dollar.

So how about it? Am I wasting big money using lots of Czech Saaz for bittering pilsners?

-Paul

Date: Fri, 24 Sep 93 10:31:20 CDT
From: chips@coleslaw.me.utexas.edu.mer.utexas.edu (Chris Pencis)
Subject: Austin Stuff, Celis

Hey out there in HBD land, I just went to the Celis brewery for the first time a few days ago and I had a great tour. The tour info was primarily historical (the story of Pierre Celis and his coming to Texas and getting the brew kettles) and an intro to the brew process for those who are not initiated. The best part of the tour, of course, was the beer samples - *fresh* from the tap, brewed within 6 weeks, words don't do the taste justice. Anyway - the sum total of all of this is - if you are in the Austin/Central Texas area and haven't gone, you should go. If you are coming into the Austin area from out of town - make time for the trip, the brewery is no more than a 30 minute drive from anywhere in Austin (its actually about 5-10 minutes from I35 and 290). While on Austin, anyone know details on the upcoming Austin Brew Ha-Ha Competition?

While I'm here - I want to make a spiced beer for holidays and have decided that the spiced liquour (sp!) is the way to go for me. Anyone know where I can get some Gloegg or other kind of spice concentrate for use in such a beer? If not I'll resort to making my own and wing it.

Hope you people up north are enjoying your fall - it'll be 98 again here today and no chance of any turning leaves...

Chris

=====
|Chris Pencischips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |
=====

Date: Fri, 24 Sep 93 11:30:20 EDT
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: Re: Keg Forced Carbonation Confusion

I keep my kegs at room temp and run the beer line into a small fridge that has a cold plate in it. I cool my beer on demand. Being at room temp, I have to run my kegs at 30 psi for it to have 2.5 volumes (NOT atmospheres - atmospheres is a unit of pressure) of CO2. All I do is pressurize the keg and shake it until I don't hear any more CO2 being absorbed by the brew and then I know the beer is saturated and ready to go. This takes 10 to 15 minutes.

The following table has been posted to HBD in the past and is very useful.

formula:

$$P = -16.6999 - 0.0101059 T + 0.00116512 T^2 + 0.173354 T V + 4.24267 V - 0.0684226 V^2$$

Here's a table that that function generates:

	Volumes of CO2 desired										
Temp	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0
32F	3.5	4.4	5.4	6.3	7.3	8.2	9.2	10.1	11.0	12.0	12.9
34F	4.3	5.3	6.3	7.3	8.2	9.2	10.2	11.2	12.1	13.1	14.1
36F	5.1	6.2	7.2	8.2	9.2	10.2	11.2	12.3	13.3	14.3	15.3
38F	6.0	7.0	8.1	9.1	10.2	11.2	12.3	13.3	14.4	15.4	16.5
40F	6.8	7.9	9.0	10.1	11.2	12.3	13.4	14.4	15.5	16.6	17.7
42F	7.7	8.8	10.0	11.1	12.2	13.3	14.4	15.5	16.7	17.8	18.9
44F	8.6	9.7	10.9	12.1	13.2	14.4	15.5	16.7	17.8	19.0	20.1
46F	9.5	10.7	11.8	13.0	14.2	15.4	16.6	17.8	19.0	20.2	21.3
48F	10.4	11.6	12.8	14.0	15.3	16.5	17.7	18.9	20.1	21.4	22.6
50F	11.3	12.5	13.8	15.0	16.3	17.6	18.8	20.1	21.3	22.6	23.8
52F	12.2	13.5	14.8	16.1	17.3	18.6	19.9	21.2	22.5	23.8	25.1
54F	13.1	14.4	15.7	17.1	18.4	19.7	21.1	22.4	23.7	25.0	26.3
56F	14.0	15.4	16.7	18.1	19.5	20.8	22.2	23.6	24.9	26.3	27.6
58F	15.0	16.4	17.8	19.2	20.6	21.9	23.3	24.7	26.1	27.5	28.9
60F	15.9	17.3	18.8	20.2	21.6	23.1	24.5	25.9	27.4	28.8	30.2
62F	16.9	18.3	19.8	21.3	22.7	24.2	25.7	27.1	28.6	30.0	31.5
64F	17.8	19.3	20.8	22.3	23.8	25.3	26.8	28.3	29.8	31.3	32.8
66F	18.8	20.3	21.9	23.4	25.0	26.5	28.0	29.6	31.1	32.6	34.1
68F	19.8	21.4	22.9	24.5	26.1	27.6	29.2	30.8	32.4	33.9	35.5
70F	20.8	22.4	24.0	25.6	27.2	28.8	30.4	32.0	33.6	35.2	36.8
72F	21.8	23.4	25.1	26.7	28.4	30.0	31.6	33.3	34.9	36.5	38.2
74F	22.8	24.5	26.2	27.8	29.5	31.2	32.9	34.5	36.2	37.9	39.5
76F	23.8	25.5	27.2	29.0	30.7	32.4	34.1	35.8	37.5	39.2	40.9
78F	24.9	26.6	28.4	30.1	31.8	33.6	35.3	37.1	38.8	40.5	42.3
80F	25.9	27.7	29.5	31.2	33.0	34.8	36.6	38.3	40.1	41.9	43.7

Volumes of CO₂:

British style beers = 2.0 - 2.4 (I think that 1.0 is more like it)

Most other beers = 2.4 - 2.85

High-carbonation beers = 2.85 - 2.95

- --Tony Verhulst

Date: Fri, 24 Sep 1993 07:51:16 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Re: Force Carbonation

John McCaffery has asked for some information about force carbonation, so here goes (I'm sure this will be just one post among many):

Carbonation is the process of dissolving CO2 in water to form carbonic acid.

Gasses are more soluble at lower temperature, though they get forced out of solution just before freezing. This is what makes the bubbles in ice cubes. CO2 is pretty soluble, but not instantly so. Nor does it diffuse rapidly through the beer. The dissolving takes place only at the gas/liquid interface, so the amount of surface area is important.

There are several implications to these facts.

- 1) Pressure does not equal carbonation. It is possible for a keg to be under high pressure and not have the beer well carbonated.
- 2) As the pressure/temp/vol CO2 tables imply, as temperature rises (or falls) the pressure necessary for a certain degree of carbonation rises (or falls).
- 3) An upright motionless keg presents the least surface area and thus provides the worst conditions for carbonation.

Keeping these things in mind, here's how I handle my carbonation--

Sanitize the keg. Purge it of air by pressurizing to 15 psi and venting it off several times. Open the safety release on the lid and then open the lid just enough to slip in the racking hose. Bleed CO2 into the *open* keg at very low regulator setting (2-3 psi). This is anti-oxidation voodoo. Rack the beer into the keg.

Seal the lid, pressurize to 35 psi. Check for leaks and a good seal. Shake the keg repeatedly until no more gas will flow at 35 psi. Put the keg in the fridge overnight. When the keg is chilled, hook it back up to the CO2 at 35 psi and lay the keg on its side with the gas inlet uppermost. I don't have a check (one way) valve on my regulator, but I do have a long (6') clear hose. I will occasionally get a few drops of beer moving into the gas line, but it has never been a problem, just some cleaning after I'm done. With the keg horizontal (to expose more surface area) rock and slosh the keg until the regulator stops hissing. Set the keg upright. Take a break. Repeat until no gas is drawn into the key when shaking.

At this point the keg is over pressurized and undercarbonated. The pressure is 35 psi. If the pressure is vented to dispensing range, the beer will have large coarse bubbles, foam a lot and go flat quickly. Now I put the beer back into the fridge. As more gas dissolves, the pressure will drop. Over the next day or so, it will drop to 15-20 psi. At this point, I keep the keg at dispensing/equilibrium pressure (for me this is 12-15 psi at 47F, your taste may vary). Depending on which tap and lines I use, I may have to lower or raise the dispensing pressure to get the right head.

Something odd happens as the storage time increases. The bubbles get smaller, the beading (trails of bubbles) improves, and the carbonation

lasts longer in the glass. I suspect this is due to the CO2 bonding (slowly) to things other than water, but you can't prove it by me. This improvement in the quality of carbonation over time is puzzling, but pleasant.

I hope this helps out John and others. I arrived at the process empirically, 'cause the instructions I had (like his) didn't seem to work properly. Shake it up!

agitatedly,

Paul.

Date: Fri, 24 Sep 1993 08:33:28 -0700 (PDT)
From: Paul dArmond <paulf@henson.cc.wvu.edu>
Subject: Portable taps

For some time, I've been dissatisfied with my "cobra head" portable tap. It seems like the hose is too short, too fat. The tap causes a lot of turbulence. I have arrived at the conclusion that these things are just a kluge. If I have time, I now remove a tap and line from my dispensing fridge, but this is both a hassle and a compromise.

Does anyone know of a source for a better hand-tap for field use? I don't want to go to the expense of a cold plate or jockey box setup. I just want a tap that has a smaller i.d. hose and a tap that was designed for beer, rather than coffee. Any help out there?

Paul.

Date: Fri, 24 Sep 1993 13:05:01 -0400 (EDT)
From: Scott Benton <sbenton@telerama.pgh.pa.us>
Subject: RE: Partial-mash question(s)

In HBD1232 Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU> wrote:

>So here is my first question. I have heard or thought of a couple
different
>ways of handling the four pounds or so of grain I'll be dealing with.
(1)
>Put all the grains in a grain bag, go through the various temperature
rests,
>and instead of the "mashout" remove the bag and either just squeeze the
>liquid out of the bag by mashing (sic) it down in a colander placed
across
>the top of the kettle or running 170F. water through the bag/colander or
>both. (2) Don't use a bag; at the end of the mash, dump the liquor and
>grains into a kettle, then pour back through the colander to catch the
grains
>and then sparge; (3) get another plastic bucket and drill holes to make
the

I do kind of a hybrid of 1 and 2. I essentially do the mash in a SS pot
that
I put in a picnic cooler for temperature control. When it comes time to
sparge, I line a plastic colander with my grain bag and pour the mash
into
it. After recycling the first runnings through the grain bed thus
created, I
run my 168F water through the grain. My colander has holes that are too
large
for this purpose, so my water goes through too fast, but I seem to get
pretty
good extraction this way. I use 2-2.5 gal of water and 2.5 to 3# of
grain for
this process.

I intend to fabricate one of those double bucket systems some year when I
get
a few minutes of free time.

Scott D. Benton sbenton@telerama.pgh.pa.us

Date: Fri, 24 Sep 93 13:27 CDT
From: korz@iepubj.att.com
Subject: Mash Oxidation

Norm writes:

>Oxidation during the mash is a potential problem area, contrary to old wisdom.

I agree. Coincidentally, I was re-reading Noonan last night, in preparation for re-taking the BJCP exam, and in the section on "Why Decoction?" he says that the boiling of the decoctions helps to de-oxygenate the wort which leads to the grain bed settling in "layers" at lautering time Noonan claims this makes for a better filter bed. I have no experience with this, but thought it might be of general interest.

For the record, when kettle mashing, I scoop the mash into the lauter tun with a small pot and try to do this as gently as possible to avoid oxidation. In general, oxidation is a bad thing -- offhand the only positive oxidation I can think of at this minute is the protective oxidation on aluminum and stainless steel.

Al.

Date: Fri, 24 Sep 93 12:14:38 PDT
From: bert@crseo.ucsb.edu (Bert Davis)
Subject: yeast behavior

HBDites:

As I am drinking some of the last of the summer's extract-brewed weissen batches I thought I would report some variation in the results, almost certainly due to the yeast.

I brewed four 5 gallon batches, dark then light, and light then dark. I pitched the 'dregs' from the fermenter, shaken up, from the first dark batch into the next light batch. I started over for the next two batches, also pitching from the first (light) into the second (dark). The boiling times, 60 min., were the same for all batches. The fermentation temperatures were also approximately the same (~70 F), as were the temperatures when I pitched (~75 F). Both light brews and both dark brews had the same rather simple recipes:

6.6 lbs. NorthWestern Weissen extract
1.5 oz. Saaz (3/4 in boil, the rest at the end)
22 oz. Yeast Lab W51 Bavarian Weizen, primed for the first of each pair of brews

=====
>From yeast FAQ:
Yeast Lab W51 Bavarian Weizen
This strain produces a classic German style wheat beer, with moderately high, spicy phenolic overtones reminiscent of cloves. Medium attenuation, moderately flocculent.
=====

The two dark batches had, at the usual reboil stage:

1/2 lb. chocolate malt
1/4 lb. crystal malt

The finished brews made with the fresh yeast were almost overwhelming in mostly clovelike phenolics while the brews made with the "repitched" yeast had much more balanced phenolics (some vanilla) and esters (banana), like commercial weissens, only more intense (and delicious in my opinion). The 'overly' clovelike brews have mellowed with age, but their weissen character is still not close to the pleasant balance between phenols and esters found in the other brews and in store-bought European wheat beers.

Regarding this, I can find no illuminating material in Warner's great monograph on german wheat beer, except that the overall level of phenolic substances is higher when the entire fermentation is carried out at higher temperatures. My working hypotheses are that some change in the yeast or some substance(s) in the sediment contribute to the (better) character of the second batches. Any comments? Any advice on how I can acheive second-batch results from the getgo?

Bert Davis

Date: Fri, 24 Sep 93 13:27:35 PDT
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Hop aroma/vs bittering hops in boil

Brian R Seay writes:

>Subject: Bittering Hops

Subject: Time:8:28 AM
> OFFICE MEMOBittering HopsDate:9/23/93
>In the spirit of "There are no stupid questions":

>All of the hop oils in the lupulin glands of boiling hops are boiled away
>during a 60 minute boil. The hop oils are the source of hop flavor and
>aroma, so there should be no hop flavor or aroma contributed by the
>boiling hops. Therefore, one ounce of Northern Brewer @ 10% alpha could
>be substituted for two ounces of Willamette @ 5% alpha. The same
>bitterness would be achieved and there would be no perceptable
>difference in taste. Right? Probably not. Where is the flaw in my
>thinking?

Firstly, not *all* of the oils are boiled away (*most* are though and some are changed into oxidation products, also with aroma). But enough survive into the beer to have subtle impacts on the beer's flavor. Also, the "oil" is not a single compound but contains upwards of 300 compounds that occur in differing proportions depending on the variety. Also, there is the question of the "bitter flavor" that comes from the alpha acids and their oxidation products. The proportions of the alpha acids (which is variety dependent) has an effect on the quality of the bitter flavor. The best documented example of this is the cohumulone level. It is suspected that high cohumulone levels lead to a harsher bitterness. It so happens that usually "aroma" hops have a low proportion of cohumulone, and the high alpha hops tend to have higher proportions.

Back to the oils: So here's what happens. When you put in a low alpha hop for bittering, you are usually adding a lot more aroma compounds to the beer because you are adding a lot more ounces of hops to get the alpha acid content right. Conversely, when you use a "high alpha" hop, you add less oils. Now I say "usually" because some of the high alpha varieties also have high oils, but the noble aroma hops (that the studies have been done with that I am basing my comments on) also have fairly high oil contents but low alphas.

A lot also depends on the beer style. The aroma compounds left over from the bittering hops is a lot more likely to be noticed in a well-made lager than it would be in a pale ale that would typically have more finishing hops or a stout/heavy beer where lots of flavors will mask the hop subtleties. All of the commercial studies on this subject have been done with lagers. They have been trying to answer the age-old question "Does

using noble and/or aroma hops for bittering make a difference in the beer's taste?" The answer seems to be "Yes." But again, they are concerned with lagers. So, it's not a stupid question. The pros have been at it for years.

Mark

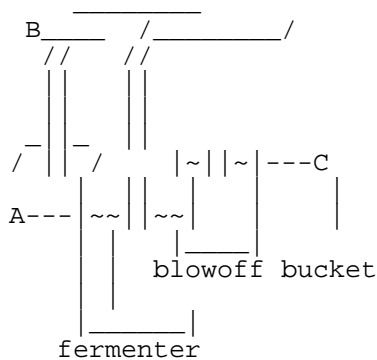
Date: Fri, 24 Sep 93 12:02:36 MDT
From: npyle@n33.stortek.com
Subject: Minimizing Blow-off Loss

I'm the last guy who should be commenting on a blow-off method, but call me a blowhard. Andy sez:

>>Does anyone experienced with this technique have any tricks for
>>minimizing the amount of fluid loss?
>
>>Chris
>
> Sure, switch to a 1" ID plastic hose and move the bucket of water
> to a height about 2 feet above the top of the carboy. Most of the
> beer kicked out during the blow-off period can't make it out and
> falls back into the carboy. I use this system for any beer with an
> OG of at least 1.050. Lower strength beers tend not to kick out
> as much fluid.

Aren't you risking a siphon of potentially contaminated water (or sanitizer) back into your fermenter?

blowoff hose



A is the level of the wort in the fermenter. C is the level of the liquid in your blowoff bucket. B is the point at which the wort is forced up to during heavy fermentation. When the fermentation slows, since the mass of the liquid in the left side of the tube is greater than the mass of the liquid in the right side of the tube, the direction of motion of the liquid is now left (pulling liquid from the blowoff bucket). No?

RE: HOPS FAQ, progress is slow, mostly because of the underwhelming response to my request for information. I am currently looking for commercial examples and flavor/aroma profiles for the following hops:

Hallertau Hersbrucker
Hallertau Mittelfruh
Liberty

Mt. Hood
Styrian Goldings
Willamette
Bullion
Centennial
Chinook
Cluster
Galena
Nugget
Perle
Pride of Ringwood

Yes, I realize this is practically a list of every hop ever known to (modern) man. The point is that for this FAQ to work I need input from you brewers. I haven't tried a lot of these hops and even some of the ones I did try, I didn't take notes on hop flavor profile, etc. As far as the flavor profiles, your own adjectives are what I'm after (i.e. citric, flowery, funky, strong, non-descript, etc.) Also, commercial examples of a particular hop would be quite welcome, but I'd prefer not to get things like "I've heard they use Mt. Hood in XYZ beer". If its a rumour it probably doesn't belong in the FAQ. Part of the reason for me doing this FAQ is selfish; I want the information. If it was solely for that purpose, though, I wouldn't be putting in the kind of time I'm spending. The extra effort is for the digest participants; I'm just asking for a little input. Is that too much to ask?

As always, we thank you for your support,
norm

Date: Fri, 24 Sep 93 16:00:07 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Vigorous fermentation (non tarred)

Sorry about the tar-corrupted file - I only have a slight idea how that may have happened, but it's too mundane to elaborate.

Basically, I brewed a Scottish Ale (recipe taken from pg. 9-6 of Cats Meow), brewed using standard extract procedures. I used Wyeast #1056 (American Ale yeast), made a starter, and added it to the wort.

I racked to a secondary (carboy) after 9 days. Today (day 12) the brew is still actively fermenting (one bubble from airlock about every minute, and tiny bubbles regularly rise to the beer's surface - as noticed through the carboy). My basement temp. ranges between 67°F to 70°F (where the beer's fermenting). Additional Note: My tarnished Wort Chiller became de-tarnished after the wort chilling phase for this brew.

QUESTIONS/CONCERNS:

Is this long of a fermentation period abnormal (for #1056)?
How long a fermentation period can I observe before I become worried?

Any/all responses/observations welcome.

Looking through the 1992 HOMEBREW Digest Index (1992.index) I noticed some articles referencing "Problems with long ferments for WYeast 1056" - however, I don't have direct ftp access to sierra.stanford.edu, and therefore am unable to view those HB Digests (Digest #'s: 835, 837, 969->972, 1011, 1012).

(if you want the awk script I used to do the HB Digest Index search, let me know and I'll email it - usage: searchFor searchString indexFileNames).

- - - -
email: sxupjd@fnma.com (NeXT Mail Okay)
Philip DiFalco, Senior SomethingOrOther, Advanced Technology
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

Date: Fri, 24 Sep 1993 17:27:33 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: next partial-mash question

I've had this partial-mash question partially answered from someone already in private e-mail, but since it's next on my list I'll go ahead and post it to the think tank anyway.

When partial-mashing, to what extent might it be beneficial to (1) measure & adjust the ph of the water (2) use the iodine test for conversion?

It sounds to me like most partial-grain people pretty much fly by the seat of the pants on these matters.

Opinions?

Jonathan Knight
Grinnell, Iowa

Date: Fri, 24 Sep 93 17:49 CDT
From: korz@iepubj.att.com
Subject: Cherry Juice Beer

Beth writes:

>I have a nice can of Kangaroo Lager and about 4 cups of homemade
>cherry juice(also some homegrown cascade hops). I was going to
>put the cherry juice in at the beginning of the boil along
>with everything else but after reading the postings about
>fruit additives to beer I'm totally confused. Now I'm
>thinking of adding the juice right at the end just before
>bottling. I would appreciate any suggestions.

It's not a good idea to add the juice early in the boil because boiling will boil-off many aromatics from the juice and about all you'll get is alcohol out of the juice's sugars. The flavor is in the aromatics!

Also, it's not a good idea to add the juice at bottling because it has sugars in it and you'll get overcarbonated beer.

In addition to the two suggested cherry juice additions there are at least two more:

1. add the juice in the last 1 minute of the boil, and
2. pasteurize the juice by heating it to 160F for 10 minutes, cool it, and add it after the primary fermentation is over.

Suggestion 1) is more likely to set the pectins (I think your homemade juice has pectins in it) which will make your beer cloudy.

Suggestion 2) is the best because adding the cherry juice (or any fruit) at pitching time is that the fermentation of the malt sugars and fruit sugars will produce a lot of CO2 which will scrub the cherry aromatics out of the beer.

I think that 4 cups may be an un-noticeable amount of cherry flavor for a 5 gallon batch. I'm about to make a cherry beer and am thinking about using between 6 and 8 pounds of cherries under 3.5 gallons of beer. I've used 13 pounds in a batch of pKriek and the cherry flavor was quite intense.

I've looked through many grocery stores looking for 100% cherry juice, but no luck -- they are always (in order on the label): water, corn syrup, white grape juice, cherry juice, preservatives. That's not what I want in my beer. If you can't find more real cherry juice, it would be a shame

to waste the 4 cups you have. Here's what I suggest:

- * Brew up the batch of beer.
- * When it's done, siphon one gallon onto the four cups of PASTEURIZED juice in a sanitized, two-gallon container.
- * Bottle the other four gallons.
- * Wait till the cherry sub-batch is done, bottle that.

Al.

Date: Thu, 23 Sep 1993 17:04:33 -0300

From: Ed Hitchcock <ECH@ac.dal.ca>

Subject: lactic cultures

Has anyone successfully produced an acidic belgian ale, such as Goudenband or Rodenbach? Perhaps a more appropriate question might be has anyone successfully reproduced a tart belgian style ale? Where might one get appropriate lactic bacteria cultures? I don't think pediococcus is what I want, I'm not looking for ropiness. Has anyone used a yogurt culture for producing lactic beer? If so, can these bacteria stand alcohol and low pH?

Ed Hitchcock ech@ac.dal.ca | "I'm not from outer space. I'm from
Anatomy & Neurobiology | Iowa. I just work in outer space."
Dalhousie University, Halifax |- James T. Kirk
[Eschew racism. Drink beer from all nations]

Date: Sat, 25 Sep 93 03:30:00 BST

From: r.mcglew3@genie.geis.com

Subject: Cardamom

I don't know about cardamom in beer, but I do know about it in bread. It gives bread a nice sweet flavor, it is my secret ingredient in almost any sweet bread that I bake. Don't know what it will add to beer. Almost any spice can be bought less expensively at a store that specializes in spices and herbs. Look in the Yellow pages locally, or in the back of a gourmet magazine for mail order. I've found much greater variety (like three different kinds of cinnamom) and better merchandise this way!

Date: Fri, 24 Sep 93 22:41 PDT
From: Thomas A Ludwig <IZZYQK4@MVS.OAC.UCLA.EDU>
Subject: Red Tail Ale Clone Request

Does anyone out there have a recipe for Red Tail Ale or something quite similar? Respond via HBD or private e-mail and I'll post a composite response.

Cheers.

Thom Ludwig at UCLA Neuroscience (IZZYQK4@mvs.oac.ucla.edu)

Date: Sun, 26 Sep 1993 15:18:01 -0400 (EDT)
From: KONSTANTINE@delphi.com
Subject: Silver solder

I've been following the discussion on silver soldering and decided to pull out The Complete Metalsmith by Tim McCreight and look up silver solder alloys. Here's what I found.

AgCuZnCdMelt. Pt.

"IT" 8016 4 01490

HARD 7621 3 01425

MEDIUM 702010 01390

EASY 602515 01325

EASY-FLO 501515201270

If there are any questions, Ag=silver, Cu=copper, Zn=Zinc, and Cd=Cadmium. The Melting Point is degrees fahrenheit.

These are all high temperature alloys and from personal experience they will solder stainless. Keep close tolerances and the joint will be stronger than the items you are bonding. As the chart indicates, stay away from Easy-Flo for food grade applications because Cadmium is very toxic.

Later,
Konstantine.

Date: Sun, 26 Sep 1993 21:54:25 EDT
From: WJCS75A@prodigy.com (PAUL N HRISKO)
Subject: Brewpub & Microbrew info needed

All,

I'm finally taking a well deserved vacation traveling around the southwest.
Therefore, I'm asking for any information you may have on (good) brewpubs and microbreweries located in the following states:

New Mexico
Arizona
Nevada
Utah
Colorado
Wyoming

Please e-mail me the info if you can.
Thanks in advance!

Paul N. Hrisko
Prodigy Services Company
>When the going gets weird, the weird turn pro - HST<

Date: Sun, 26 Sep 93 21:20:26 PDT
From: Keith Hill <khill@eecs.wsu.edu>
Subject: HELP!! (mead)

I was wondering if anyone wout there has mad mead using fruit? If so I would like some hints for future batches or help on the following problem, how to avoid. I need some opions if the mead I made would still be good, it had mold on the top of it when I was transfering it to a secondary. (It sat a little long in the primary) I was curious for opinions if it will be good?

Thanks for any help.

K Hill
khill@ren.eecs.wsu.edu

End of HOMEBREW Digest #1234, 09/27/93

Date: Mon, 27 Sep 93 11:22 BST
From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>
Subject: BRFware

Sorry to use the HBD for this, but I couldn't get direct mailings to work:

To: Chris Campanelli

- - - - -

Are you planning a new version of the BRF brewing calculator, of which I'm a big fan? Can I persuade you to include a US/metric conversion for those of us on the wrong side of the Atlantic? I get very confused about the size of US gallons, quarts and pounds.

Thanks

Andy Phillips, Bristol, UK

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Date: Mon, 27 Sep 1993 07:09 EDT
From: JMGARNETT@ATCSD.ESS.HARRIS.COM (JIM)
Subject: Pumpkin-pie beer

Anyone out there have a good pumpkin recipe? I don't do my own mashing, so I need to be able to buy the malt. How do you cook the pumpkin? Only leave it in the wort and filter it out, or should it stay in the fermenter?

Thanks
Jim

Date: Mon, 27 Sep 1993 07:46:40 -0400 (EDT)

From: GONTAREK@JHUVMS.HCF.JHU.EDU

Subject: Beer/Pubs in Barbados

Greetings all! Forgive me if this is not strictly a homebrewing question, but does anybody know of any good pubs in Barbados? In two weeks I'll be going there for my honeymoon, and I wanted some input on where my new wife and I could go for some chilly ones. Do they drink beer there, or is rum the only thing they imbibe? I would be grateful for any and all information regarding brewskies and this lovely vacation spot. You can e-mail me directly. Cheers!

Rick Gontarek
Dept. of Biology
The Johns Hopkins University
gontarek@jhuvms.hcf.jhu.edu

Date: Mon, 27 Sep 1993 07:38:08 -0500 (CDT)
From: dspalme@mke.ab.com (Diane Palme x2617)
Subject: Hops! (and more hops)

Hi All!

Just thought I would throw in my \$0.02 on this year's hop harvest. With three brand new rhisomes put in the ground ~mid-May, I was able to get enough hops to distribute freely among friends and family. We planted three varieties: Cascade, Hallertau, and Tett. The Hallertau was the early-on favorite but in the end, pooped out before putting out many cones. Total? Well, maybe 12-15 cones. That's right, CONES, not ounces. :(The cascade, on the other hand, did a bang-up job. The hop vines reminded me of grape vines, there were so many cones! Yikes! We have a standard grocery bag which has about a 4" layer of cones. This is verrrrry promising. The Tett? Well, it was a shy plant. Total vine length was about 12". Yup, that's right, 12". Oh well, I'll get 'em next year!

Looking forward to brewing with home-grown hops ...

D.

- - -

Diane Palme
Department Engineer, Central Inspection
Allen-Bradley Co.
(414) 382-2617
dspalme@mkelan5.remnet.ab.com
dspalme@mke.ab.com

" I have found that it is much easier to fake an orgasm than to pretend to like basketball. "

Oh yeah, um, what I say is my opinion, um, what I think are my own ideas, uh,
Allen-Bradley has nothing to do with them, uh, yeah. That's about it.

Date: Mon, 27 Sep 93 08:53:14 EDT
From: sims@pdesds1.scra.org (Jim Sims)
Subject: mailing samples

I was at the Post Office Friday and checked out the "mailing liquids" issue. They have a big poster on packaging. It specifically includes mailing liquids, so obviously that *IS* legal. They say to pack it in absorbent padding (in case it breaks, obviously).

No mention of mailing alcohol being illegal, despite a long list of other stuff you cant mail (flammables, toxins, compressed gases, explosives, etc)

jim

Date: Mon, 27 Sep 93 08:43:15 EDT
From: tmr@fjtld.att.com
Subject: PHILLY HOMEBREW COMPETITION

I recently heard there was going to be a homebrew competition at the Sam Adams brewery in Philadelphia some time in November. My first question is: has anyone heard about it, does anyone have any details about it like location, date, time, cost, parking and directions. My second question is:

what does a person do at a homebrew competition besides watch judges taste beer? I'm thinking of taking a friend (a non-homebrewer) and wondered how interesting it would be for either of us. I won't have any entries so the judging might not be the highlight of the day for me.

Tom Romalewski

Date: Mon, 27 Sep 1993 13:31:12 GMT
From: Chris Estes <CESTES@argos5.argosinc.com>
Subject: Cherry Juice

Hi All,

In today's HBD there was a discussion (sorry, no quotes or sources) about using cherry juice instead of whole cherries. One respondent mentioned that he couldn't find 100% cherry juice. Many health food stores carry Knudeson's (sp?) and they make a 100% cherry juice. They also make a variety of other pure, juices (anyone for a kiwi-papaya weiss?!?).

I've used the cherry juice twice. The first time was in a light ale. The stuff had a real metallic edge to it and wasn't very drinkable (I just dumped out the last gallon of it yesterday - over a year old!). It actually turned out to be passable if consumed on the rocks! I later made a cherry stout which was much better. In both brews, I used about 3 quarts of the stuff.

Personally, I'm not wild about fruit in my beers. I did my part as a homebrewer and experimented, and now I'm happily back to malt, hops, water, and yeast!

-Chris Estes-

Date: Mon, 27 Sep 93 09:35:08 EDT
From: Bob_McIlvaine@keyfile.com
Subject: Solder And Brazing

A welder with mig or tig capabilities will take about 10 minutes to weld a keg type joint with Stainless, and charge an hour minimum, typically \$30 to \$40 per hour. Make sure the guy knows how to do stainless and can handle liquid tight joints. Get all your holes and fittings ready to weld and he can probably do all your joints in an hour. If your lucky, you'll find a welder who will do the job for several pints of good home brew.

Silver solder can be nasty to solder and can be hazardous to your health if you get the wrong stuff. For your health's sake, get the kind that is cadmium free, for your yeast's health get low, low lead content. The simplest flux is plain old borax, the chemical not the soap :-). You can get the solder and the flux at your local welding supply, consult them about the solder for food preparation vessels, melt point of at least 1200 degreesF. The flux you can get at hardware stores, drug stores (sometimes), and your local supplier of chemicals for school science labs. The actual soldering is tricky, burnish the stainless steel parts, mix the borax powder with water and apply to the joint, bring entire joint up to temperature, the borax will melt. Don't get the joint too hot (easier said than done, with stainless steel), too hot and the solder will ball up and roll right off. Some old timers will wrap the solder wire around the joint and heat indirectly until the solder sweats into the joint making a very nice fillet. The key is to not oxidize the surface that the flux has cleaned, direct heat from a flame WILL oxidize.

Regards,
Mac

Date: Mon, 27 Sep 93 09:51:47 EDT
From: tmr@fjtdl.att.com
Subject: Re: Purging Keg Headspace

Although Chris Cook writes about purging kegs with CO₂, I have been doing this with my secondary fermenter to eliminate any risk of wort oxidation. Before racking from the primary to the secondary, I fill my 5 gallon glass carboy with CO₂ using a small 2 or 3 inch long CO₂ "charger" used in making carbonated water. I place the cartridge into the empty water container, tighten the cartridge to puncture it and then squeeze the lever on the bottle to release all the CO₂ into the secondary. With a carboy I use a rubber or vinyl tube long enough to reach the bottom of the carboy. Since the CO₂ is denser than air it should fill up from the bottom upwards, displacing the air on top as it fills. Then when racking, the wort is transferred into the secondary under a blanket of CO₂ avoiding any contact with air.

I also use this technique when adding priming sugar/DME. I purge whatever air I can out of the primary plastic pail with the CO₂ bottle. In this case I don't need any tube. Just fire the CO₂ into the secondary starting all the way at the bottom. I don't know how well this works since I can't see the CO₂ in the fermenters, but it seems like it should work. Maybe I'll lower a match or candle into the CO₂ filled pail and see at what level the flame goes out.

Tom Romalewski

Date: Mon, 27 Sep 93 09:06:00 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Troubleshoot my dry hopping!

Recently, I tried my first dry hop, and I'm not entirely pleased with the results. In brief, the brew was half of a 10gal batch of American Pale Ale. When secondary was almost complete, I added 1 oz of homegrown cascade, in a weighted nylon stocking, to the carboy. Sunday, after 10 days dryhop, I bottled. I tasted the brew at bottling time, and found a very pronounced excess bitterness. I compared this to the other half of the batch, which had not been dry hopped, and which did not have this bitterness. So, the bitterness was a result of the dryhopping.

Questions:

Is this simply a temporary bitterness that will soon mellow? Or can dry hopping really add noticeable bitterness? Did I over dryhop? How many IBU's can/should dry hops introduce?

By the way, the hop aromatics in the dry-hopped batch are great, so I'd prefer not to reduce the amount of dry hops, but I'm afraid this bitterness may have spoiled an otherwise great ale.

Thanks,

Kelly

Date: Mon, 27 Sep 1993 10:34:14 -0500 (CDT)

From: Paul Boor <PBOOR@BEACH.UTMB.EDU>

Subject: Wedding Bells

I've been brewing like a madman, the kegs have aged up, and the bride and groom

have tasted and decided which two kegs they want to have at the wedding.

Now

my problem is: How do I set it up at the wedding?

I noticed several earlier posting about beer for weddings, so anyone with experience please let me know how it went; specifically:

- 1) transport:: I was going to haul it over a couple of hours before but is this enough time?
- 2) temperature:: THIS could be a problem. I was planning on having the kegs in a tub with a little ice on the bottom and cover the whole thing with a rug or something. I don't want it too cold, etc.
- 3) Tank:: I'll tape the 5lb CO2 tank to the outside of the tub, I guess, and cover the regulator to protect it.

Basically I have the standard 5gal kegs, a 5lb tank, and a regular regulator.

Any advise appreciated,

paul boor

Date: Mon, 27 Sep 93 09:46:49 MDT
From: bacco@md.fsl.noaa.gov (Corby Bacco)
Subject: Apple cider in Boulder area...

Hello,

Does anyone know of a good source of apple cider suitable for making hard cider in the Boulder area? Are there any apple orchards in the area?

Thanks,
Corby

Date: Mon, 27 Sep 93 08:50:32 PDT
 From: tima@wv.MENTORG.COM (Tim Anderson)
 Subject: Blow-off Loss and Cherry Juice

Norm sez:

>Aren't you risking a siphon of potentially contaminated water (or sanitizer)

>back into your fermenter?

>

> blowoff hose

>

> B _____ /_____/
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> /-|-|/ |~|||~|---C
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> A---|~|~|~|~| | | |
 > | | |

>

blowoff bucket

>

>

> fermenter

> ...

If you did it this way, you'd have a bigger problem than sanitizer suck-back.

You'd probably blow most of your batch out the hose! The hose goes just into

top of the carboy thusly:

blowoff hose

B _____ /__foam__/
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blowoff bucket

fermenter

I agree with raising the effluent bucket above the carboy. I put mine on a

shelf well above the carboy. In fact, I intend to get a longer hose

(maybe

8 feet) so I can put it way up there. Most of the foul goo sticks to the

inside of the hose and never makes to the bucket anyway, and I'm hoping I

can get back most of the magic liquid that rides along with the foam.

Added note: 1" ID hose jammed right into the carboy neck is the only way to go. (But jam it in just a little!)

A data point for the cherry juice:

Some months back I made a wheat ale with Wyeast Belgian and primed with pure cherry juice. It was just some commercial bottled stuff from a local "natural food" store (no added sugar, preservatives, or camel snot)

I didn't have a clue how much to use. It wasn't very sweet, so I used 2 quarts to a 5 gallon batch. Didn't boil, heat, or otherwise incant; Just dumped it in. The carbonation came slowly but in the end was over-carbonated. The result was tasty and surprisingly kriek-like. Were I to do it again, I would use only a quart and resign myself to less cherry flavor.

tim

Date: Mon, 27 Sep 93 11:25:59 -0500
From: bliss@pixel.convex.com (Brian Bliss)
Subject: CO2 / mead

Chris Cook (cook@cdhf2.gsfc.nasa.gov) writes:
>When people say "purge the headspace," what procedures are you following?

Being totally anal, blanketing the keg with CO2 before you siphon into it, pressurizing the headspace to 15 PSI and releasing the gas at least 3 times, once with the keg stright up, once tilted to the side (so that the "IN" gas fitting is on top), and once swirling the beer in the keg, to make damn sure you got every last little bit of air out of the headspace.

You should at least be this anal if you are going to force carbonate the beer by agitating it - any O2 in the headspace is going to making into solution, and you can easily oxidize 5 gal of beer overnight if you're not careful (If it doesn't taste as good the next morning as it did the night before when you carbonated it, then you did something wrong :-).

If you just crank up the pressure and let sit undisturbed for a few days, it's not a big factor...

- - - - -

Paul dArmond <paulf@henson.cc.wvu.edu> writes:
>At this point the keg is over pressurized and undercarbonated. The
>pressure is 35 psi. If the pressure is vented to dispensing range, the
>beer will have large coarse bubbles, foam a lot and go flat quickly.
>...
>Something odd happens as the storage time increases. The bubbles get
>smaller, the beading (trails of bubbles) improves, and the carbonation
>lasts longer in the glass. I suspect this is due to the CO2 bonding
>(slowly) to things other than water, but you can't prove it by me. This
>improvement in the quality of carbonation over time is puzzling, but
pleasant.

I have definitely noticed this, also. I kind of like the "foamy head, but little CO2 in the beer" effect that happens just after force carbonation via agitation (for dry stouts). It makes for more of a Guinness-like taste. certainly not appropriate in most brews, though.

- - - - -

Keith Hill <khill@eecs.wsu.edu> writes:
>I was wondering if anyone wout there has mad mead using fruit? If so
>I would like some hints for future batches or help on the following
>problem, how to avoid.

If you use watermelon, beware that the pith will not dissolve during fermentation; rather, it will float on top, forming a sponge-like layer that easily clogs blowoff apparati. It also has a red-fireworks effect (much better than anything you've seen on the 4th of july) when the pressure is released. If you figure the carpet cleaning in with the price

of the batch, the cost is prohibitive. On the + side, what's left
tastes great :-)

bb

Date: Mon, 27 Sep 1993 12:50:47 -0400 (EDT)

From: drose@husc.harvard.edu

Subject: Keg aging

Greetings:

I have a relatively new keg set up, and I am working on getting a system that works well for me. I have read the recent postings on forced carbonation with interest, but I have an additional question. Everyone suggests shaking vigorously to get the CO2 into solution. However, this would appear to be at odds with another objective, getting the beer to clear. In other words, one is also stirring up sediment when shaking. So, once the keg is carbonated, how long does it need to sit to get a good clear final product? While I try to rack carefully, some stuff invariably comes along for the ride, particularly if I dry hop. Also, will chill haze eventually settle out if I store the kegs cold? How long does this take? Help.

Dave Rose.

Date: Mon, 27 Sep 93 13:05:33 EDT
From: lyons%adcl@swlvx2.msd.ray.com
Subject: Accelerating bottle carbonation?

Paul dArmond posted an answer to the question on forced carbonation in kegs (HBD #1234):

> ...
> cubes. CO2 is pretty soluble, but not instantly so. Nor does it difuse
> rapidly through the beer. The dissolving takes place only at the
> gas/liquid interface, so the amount of surface area is important.
>
> There are several implications to these facts.
> ...
> 3) An upright motionless keg presents the least surface area and thus
> provides the worst conditions for carbonation.

Does this imply that bottled beer would carbonate faster if placed on its side rather than upright? Anyone have a data point?

Chris

Date: Mon, 27 Sep 1993 12:32:24 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: oatmeal stout extract, mash HSA

Jim, my e-mail to you bounced.

William's Brewing is a big mail-order outfit in San LEandro CA. Their malt/oat extract syrup, Oatmeal Dark, is one I used with great success last year.

You can add more specialty grain or extract if you want (I did) but I imagine it's pretty good just by itself too. (I have no finacial or other blahblahblah I'm just a yakkityyakkity O.K.? Enough of that.)

Here's yet another partial-mash question, raised by the recent thread on aeration (bad) of the mash.

If I use the colander to strain/sparge my grains into the brew pot, am I not then subjecting the mash to Hot Side Aeration?? How hard should I work to avoid this?

Jonathan Knight
Grinnell Iowa

Date: Mon, 27 Sep 93 14:01:56 EDT
From: uszvnrl6@ibmmail.COM
Subject: Hydrometer rea

- ----- Mail item text follows -----

I'm new the the HBD and homebrewing for that matter, but I figure that someone out there has probably wanted to do this before. I would like to record temperature and gravity readings using my personal computer. What I need is a way of obtaining a hydrometer reading that can be modified, or already provides an 8/16 bit output. I'm not sure if there are commercially available "electronic" hydrometers, or if what I will have to do is attach a carbon strip to the scale of the hydrometer, and read a resistance to determine the gravity. If I use the resistance method, I need to find someplace that makes a beer scale hydrometer that has a rather large distance between units of measure. Any assistance would be greatly appreciated.

response via E-Mail or HBD is acceptable.

Don Zickefoose
Electronic Systems Engineer
InterBold

internet: USZVNRL6@ibmmail.com
compuserve: 71155,220

Date: Mon, 27 Sep 1993 13:34:40 -0500
From: holloway@ezmail1.ucs.indiana.edu (Jan Holloway)
Subject: Brewpubs in Dartmouth, NH? Need info by 9/30

Greetings, brewlist. A friend is going to Dartmouth, NH, on Thursday and needs your recommendations for local microbreweries/brewpubs. He's leaving Indiana Thursday, so we need your inspiration post-haste!

If you want to reply to me, please write to holloway@indiana.edu. We who are staying behind in Indiana thank you. --Jan

Date: Mon, 27 Sep 93 13:47 CDT
From: korz@iepubj.att.com
Subject: Louis Vierling

Louis-- Can't reach you via email -- please call me some evening
at 708-430-HOPS -- sorry for the bandwidth.
Al.

Date: Mon, 27 Sep 1993 11:58:53 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

Subject: Mash temperature drop

I have seen little about acceptable temperature drops during mashing. There is much about target and strike temps, however I'm looking for an indication of how much of a temperature drop is acceptable over the course of a mash. So, for a single step infusion with a target of 153F what is an acceptable temperature drop over an hour? Can one average the temp over the mash and then assume that the conversion characteristics are actually those found with a mash of the average temp. For example, if I start at 156F, and drop to 150F over an hour is it safe to assume that I would have gotten the same result with a constant 153F?

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Mon, 27 Sep 1993 13:30:15 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: Utah Brewpubs

There are four brewpubs in the land of 3.2 beer and the Osmond family :(

The biggest in Wasatch brewery in Park City. About 1/2-1hr up from Salt Lake. Worth the visit just to see the location. Beautiful! They have a number of brews. I would recommend the Slickrock. Light, hoppy, hazy. Good afternoon brew. Ale. Usually pretty good. Recently has been excellent. Malty. Slightly browned amber. Good heady/hoppy. Stout. I used to love this stuff till I started making better stouts Used to seem very thick and creamy. Now...I've had ones I could walk on top of. This would be a swimmer! Seasonals...You may still catch the Raspberry. I think it's slickrock with raspberry extract added. Pretty good though. Holiday ales, christmass ale, fall bock...depends on what they are up to at the time. There is a Light beer now. Watered down slickrock is my guess. ugh. I have not known them to have the "best quality control" but hey....it's a brewpub not Miller! It is the only bottler you could take with you from Utah.

Squatter. Salt Lake City. Mostly a restaurant which brews too. Hop vines on the patie. Good selection of styles. I don't know what they have going now. They've had a cask-conditioned ale which was quite true to style. Light ales, cream stouts, ambers...Generally nice beer. More adventurous and willing to bring out the flavors of a style, rather than catering to "american beer" style consumers. That's a very good thing! (ps. that should read SQUATTERS)

Ebeneezers. Ogden Utah. An hour north of salt lake. A wonderfully built log cabin housing a classy restaurant. Oh by the way, they brew beer upstairs too. Haven't tried the food, but the 4 beers we sampled were...well...played pretty safe. Their setup looks very nice and clean...but being the extreme hop-head I am, I felt the brews were lacking. The pub has only been open a couple of years, and I hit it early on so maybe things have changed. A worthy place to visit all in all. They had a light, amber, stout...and a specialty, which changes. That may all have changed by now. (oh..it was a lager at the time)

????Can't remember the name. In Price Ut. A few hours south of Salt Lake. Never been there. Never had their beer. Seen the label on a bottle. Looked nice. Don't know what the inside was like. But I liked the homebrew toot refilled it with!

And finally for the more adventurous... The Coyote Brewery in Logan UT. Run my....none other than.... The Wyllie-Man himself. Fresh brewed beer on tap in a senic basement lounge decorated in the fashion of the Lambic breweries. All spiders intact. Even the aggressive house spiders! An ever changing array of tastes to delight. IPA's, Malty ambers, hoppy bitters, Creamy stouts, Potable Porters... and the occasional experimental adventures... Fruits, spices, one of the latest being a Pepper Cardamon corrupted Scotch Ale (90 shilling).

The Pumpkin Mash will begin it's life with the full moon!

(really...if you're passing through northern Ut. drop me a line.
We have the biggest vendor of Wasatch beers (other than their home)
here in town, the White Owl tavern. Nothing like an Owl burger on the
deck
friday afternoon with a Big Dog of Ale. Summers gone, the trees are
alive!)

**** PS: I don't have any affiliation with any of the breweries, except
my own! And sharing the kinship of the many other mini breweries found
in basements and closets all over this little valley!!! *****

***** John (The Coyote) Wyllie SLK6P@cc.usu.edu 801-753-0825 *****

Date: Mon, 27 Sep 93 19:57:00 +0000
From: ron_hall%80@hp6400.desk.hp.com
Subject: Smoked Porter

I would like to make a Smoked Porter similar to the wonderful stuff put out by the Alaskan Beer Co. and Greg Noonan's brewery. I would like to smoke my own grain, but I have heard or read widely varied recipes on how to do this. TCJOHB recommends 1 lb. of smoked 2-row for their Smokey the Beer recipe, and suggests doing it on a brass screen on the BBQ. I seem to remember a winning recipe from the national AHA convention that used 4-5 lbs. of smoked grain for a 5 gallon batch. Any experiences out there? I guess the plan for now is to use 2 lbs. of 2-row, fire up the Weber, add some Alder chips (that seems to be the smoker's wood of choice here in the Pacific NW), place the grain on a screen or cookie sheet, cover and wait until deep roasted color prevails. Any advice?

Ron Hall
Corvallis, Oregon
ron_hall@hp6400.desk.hp.com

Date: Mon, 27 Sep 93 15:05 CDT

From: korz@iepubj.att.com

Subject: Re: heating SS/Keg Forced Carbonation Confusion/Campden Blowoff

Paul writes:

>I've used Safety-Silv 1200 to braze numerous bicycle frames, without a joint

>failure, so it provides a fairly strong joint. I use either Mapp gas with

>a Turbo head or one of those propane/oxygen setups from the h/w store. As

>you probably can guess the brazing rod melts in the 1200 deg F range.

>I've read that prolonged heating of SS above 1200-1400 degrees can cause

>it to become brittle, so be careful. I'd suggest practicing on the

>portion of the keg you've cut off.

I once got a hold of a Cornelius keg which I was told was legal, but in retrospect, I'm quite sure wasn't. The source was a guy from one of the homebrew clubs who said he got a dozen kegs from an aluminum recycler and that they had been released by the owners. The kegs still had the: "WARNING: PROPERTY OF PEPSI COLA BOTTLERS OF ILLINOIS" or some such statment.

I tried removing this label by pulling, but that's not a good way. Then, I thought, hey, why don't I burn it off with a propane torch? The label burned off quite nicely, but in the process, the SS glowed red-hot. Upon cooling, the metal was dark brown and rough. On the inside of the keg, there was a rainbow colored area, right where I had been heating. I never ended up using that keg and I think it just started to rust in that heated area.

The bottom line is that I think that it's possible to ruin a SS keg by overheating, even with a simple propane torch (no oxygen other than that in the air).

In response to John McCafferey's keg carbonation/dispensing pressure confusion:

John "Cisco" and I are still working this issue. We'll report shortly on our findings.

Johnathan writes:

>Anyway, in #1231 Aaron Morris recommends Campden tablets in the blowoff

>bucket. What does the campden do? I've never heard of this.

The campden tablets sanitize the water in the blowoff bucket. I believe they are Sodium or Potassium Metabisulfite. I'm quite sure the intent is to sanitize the water in case the cooling of the wort sucks blowoff water up the blowoff tube into the fermenter. Since I've switched to 1.25" OD, 1" ID blowoff hoses, there's no fear of this happening, so I just use plain water. You could just as well use boiling water in the blowoff bucket if you wish since after 24 hours, the gas that the campden tablets make (I forget which it is -- some sulfur-compound) has fizzled-out

and anything that wants to live in your bucket can, so boiling water would

work just as well and is cheaper. I strongly recommend that you use an

oversized tube for blowoff (ideally, 1" ID) to avoid clogging and explosions.

I might also add, that I'm still debating (with myself) on whether to use blowoff or not anymore (fear of lost head-retaining proteins).

Al.

Date: Mon, 27 Sep 93 14:26:45 -0400
From: Philip J Difalco <sxupjd@anubis.fnma.COM>
Subject: Cellar Notes: Radio Program

Hugh Sisson & Al Spoler (of Sisson's, The South Baltimore Brewing Co.)
can be
heard on WJHU, Baltimore Public Radio, 88.1 FM, every Wednesday at 8:
25PM and
Sunday at 12:55PM. The show explores various topics in the areas of
beer, and
at some point is supposed to develop into a Q&A call-in program.

- - - -
email: sxupjd@fnma.com (NeXT Mail Okay)
Philip DiFalco, Senior SomethingOrOther, Advanced Technology
FannieMae, 3900 Wisconsin Ave. NW, Washington, DC 22016(202)752-2812

End of HOMEBREW Digest #1235, 09/28/93

Date: Tue, 28 Sep 1993 10:59:14 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Keg Purging w/ CO2

cook@cdhf2.gsfc.nasa.gov writes:

> This raises a question: what procedures are people using for purging
keg
> headspaces? My usual practice when I don't have amnesia is to hook up
the
> gas supply with the keg lid ajar, open the gas valve halfway and let
the
> CO2 run into the tank second or two, then pull the lid shut.
>
> When people say "purge the headspace," what procedures are you
following?
>

I purge the keg prior to racking into it by filling the keg with CO2
and opening the vent in the lid. I repeat this several times. Then
I rack into the keg with gas still attached to receiving keg (2-3 psi) to
ward off the demons of beer oxidation. One can also rack into the keg
using the liquid out connector with the appropriate fittings. You will
have to bleed the gas out of the receiving keg as it fills with beer.
When complete, I pressurize the keg to 10-15 psi, vent and re-pressurize
and repeat 3 or 4 times. *Another* useful technique to exorcise the
demons
of beer oxidation is to use the two-hole (orange) carboy cap at racking
and force LOW pressure CO2 into one hole (the side hole) to start the
siphon.
After the siphon has started, loosen the carboy cap and maintain a low
flow rate of CO2 to keep a blanket of CO2 on the beer until you're done
racking.

- - -

**** Rob Reed Internet: rhreed@icdc.delcoelect.com ****
**** IC Design Center Delco Electronics Corporation ****

Date: Tue, 28 Sep 93 10:04:00 PDT
From: "Moore, Brian" <Moorebw@hvsmtpl.mdc.com>
Subject: decoction (not again!), SN Pale Bock

Hello all,

I've been an HBD reader for a few months now, but this is my first writing adventure. I know the decoction discussion has come and gone, but it did inspire my buddy and I to try it. Although slightly intimidated by the 23 step process, possible divorces, etc., we leapt right in. It all started yesterday...

We started just as we would for a temperature controlled mash. Infuse about 10 quarts 135 F water with 10.5 pounds grain (9 # Belgian Pilsener Malt, 1 # Belgian Munich Malt, and 1/2 # Crystal Malt (30 L)) into a 10 gallon cooler equipped with a copper sparge manifold. We hit our protein rest temperature of about 125 F. We held this for about thirty minutes then pulled our first decoction (about 1/3 of the total volume, mostly grains). Our plan was to slowly heat this on our propane cooker to about 155 F. It was then we realized that the words "slowly heat" and "propane cooker" do not go together well. After an almost instantaneous local boil, we moved the decoction inside to the stove. Here we were somewhere between 140 F and 160 F for about 30 minutes.

Figuring this would be okay, we proceeded to boil for about 20 minutes. We slowly added this back to our mash.

Our mash came to a temperature of about 140 F and stayed firmly there. After a few boiling water infusions and another small decoction, we managed to get all the way to 152 F. Cautiously optimistic, we let it mash for about an hour and a half. Our iodine tests never showed complete conversion (maybe because of grain particles in the sample?). We pulled our final decoction (all liquid, about 2 gallons) and heated it to boil quickly on the propane torch. Once added back, we began our sparge with about 4.5

gallons of water. This went fine (sparged till runnings were about 1.010), as did the boil. We cooled the wort using an immersion chiller and racked off some brilliantly clear wort. Total time was about 8 hours.

Our original gravity was 1.044. This gives an extraction of about 21 pts/lb/gal (I think). This is a bit lower than my typical extraction for a temperature controlled mash (about 25 pts/lb/gal).

My questions are these:

1. Was my extraction so low because of incomplete conversion or some other reason?
2. Was my temperature control a factor? If so, how do others out there control temperatures more precisely?
3. Should my first decoction have been bigger?
4. Does anyone out there have a good recipe to duplicate the Sierra Nevada Pale Bock? My wife really likes it and since she gave me no grief about this decoction mess...

Sorry about the length and TIA for the info.

Brian Moore
<moorebw@hvsmtpl.mdc.com>

No cool sign off thingy here

Date: Tue, 28 Sep 93 08:48:45 PDT
From: 28-Sep-1993 1141 -0400 <ferguson@zendia.enet.dec.com>
Subject: my method of purging O2 from a cornilius keg

I connect the gas to the liquid poppet, then, while holding the pressure relief valve up, i crank on the gas. you can hear the co2 bubble up. i do this for maybe 10 or so seconds. then i pressurize to about 5-7 psi, check for leaks, then let it condition.

jc

Date: Mon, 27 Sep 1993 12:56:04 -0600 (MDT)

From: COYOTE <SLK6P@cc.usu.edu>

Subject: Specialty Malts/Hot Side aeration-oxidation

>Many of the specialty grains are used
> to make extract beer taste like grain beer and offer little to the all
grain
> brewer. The problem is sorting out the ones that are useful.

>The most obvious are the color malts for obvious reasons. The next
would be
>the roasted malts for that roasted flavor.

>Beyond that, I run out of gas. I can't taste any of the others when
added to
>by beer in the usual amounts and prefer to change the base malt. Please
>note that I said "I can't taste" and presume that those who can will
fill in
>the blanks.

>

>js
Ok ok. We all have our opinions. Jack your approach reminds me of a
brewing friend here who won't budge from his tried and true methods.
Despite all the renovations and improvements my brewery has gone through
much in part due to major learning/ideas/creations developed from net
knowledge. His brews are all made from the basics:

Pale malt, crystal malt, the three dark malts (choco/roast/black)
He basically rotates between: Pale, golden, amber, stout.
It works for him. He likes his beer.

Me...I adventure. I've tried most anything, from pumkin to pepper, to
vast arrays of fruits and spices. Plus...a number of specialty malts.
Yes they add color and flavor. They can give an extract brewer a
grainier
taste. But many of them will perform best in the presence of mashing
enzymes. to an extractor they may just lead to starch and haze.

Here's some examples of ones I use and why (I've been all-graining for
about 4 years now, so I've tried a couple along the way...)

Basics: Pale malts, 2 row, 6 row. Basic mashing enzyme power-
fermentables

Vienna 2 row. A slightly darker maltier base malt. Good for ambers
Munich malt. 2 or 6 row, depending on supplier (see discussions)
A bit darker still, has enzymes. Good in strong lagers styles.

Crystals. The whole shlew of lovibond ratings. Use em all. 10-120.
Don't just settle for generic "crystal". Get the rating, try high and
low. I don't think I've ever made a beer w/o crystal. The higher
end add a particularly nice heavier maltiness to mid-color brews.

Specialties worth trying (IMHO of course) Use .5-3 #/5 gallons

Victory. Adds a nutty/roasty flavor, but MUCH more subtle than
the dark malts. Great for a nut brown, or vienna

Dextrine. Want the full body mouth feel in your stouts? That sweet
chewy kind of character you find in a good full porter.

Wheat. Go 50/50 for a real wheat beer, or just a touch to add some
serious head retention. I usually toss in a few cups for fun.

Rye. A bit more unusual. Not for everyone. Adds a red tone.
Try some DARK crystal with about 30% rye in a golden/amber brew.
It has an unusual flavor. Sort of "bitey" , tart almost.

Hard to describe by a nice change of pace. One taster swears by it

Dark malts

Chocolate, Roasted, Black Patent. (These should almost be in the basics!) I love chocolate. I bought 30 #'s so I'd NEVER run out. Get to know them separately or in combinations. The battle over which belongs in porter may never end- black or roast?!!!! Try a full pound, or just toss in a handful to a "light" beer and see what happens. Wonderful things come to life. Dark grains are NOT only for dark beers. A subtle roast taste can do wonders for a pale.

How to get to know specialty malts...Thoughts to ponder.

So many variables, so much beer, so much tasting, and brewing... Make a lighter beer with just pale and crystal as the base. Add a slightly oversized amount of the specialty malt. Say 3 or 4 pounds. see how it really tastes. Then use it in smaller quantities to your liking. Do this SEPARATELY with different batches and different malts,

then start to mix and match.

Look to style recipes for what is "appropriate" for a particular style and go for it. Alternate combinations. Use victory and munich, then munich and dextrine, then victory and dextrine.

I have gotten to a point where I don't formulate a recipe ahead of time. I decide on degree of color, and go to my grain room and mix and match letting the grains speak to me and call out who wants to give their all to this particular batch. I try to add several but NOT ALL types in each batch. I've had brews with as much as 10 different types of malt. The resulting flavors can be very complex and perform dances of ecstasy on the taste buds and "brew senses". Then there is the whole world of hop varieties to play with, but that's another story.

I know there are many other types of malts out there. Belgian and all, which I have yet to sample. There are certainly differences between american 2 row and english 2 row, or lager malts. Worth the prices to try for that special holiday ferment, or all the time!

NOW A QUESTION: Hot side aeration.

I have not seen Fix's article on this, I was wondering if anyone could summarize the crux of it for me. The concern is over adding air to a mash once it's brought up to mashing temp, and then upon sparging and splashing.

I made a copper manifold/rectangular cooler lauter tun (I love it!) I added a tube that extends upward at the side away from the spigot. I can run water through the tubing and sprinkle sparge water gently on top of the mash with NO disturbance of the grain bed. One idea which came up was that I could use this tube to set the grain bed. I begin the mash in my brew pot, get it well mixed then add hot water to bring the temp up and dump the shlew into the cooler. I can then blow air into the tube at the top side to mix the contents, allowing the heavier pieces of husk to settle quickly while any powder rises to the top. I've had excellent sparges using this. I've even run the tun dry (got distracted) before finishing the sparge, so I added more water (underlet) and reset the grain bed by blowing air in. The bubbles rise from below- stirring all the grain and bits upward. As they re-settle the heavies drop first and the bed is re-set. With this setup I don't see how I could ever have a stuck

sparge.

But what damage can be caused by bubbling air through a mash? I know that boiled hot wort is subject to oxidation reactions, but we're talking about a fair few degrees cooler here. Do other mashers out there take efforts to avoid splashing the wort upon sparging? I stick a spoon in the line of flow to let the wort travel down the spoon rather than through the air splashing into the collecting vessel.

Any knowledgable info on this, or personal experiences would be welcomed. Thanks in advance. Good brew to you all.

***** John (The Coyote) Wyllie SLK6P@cc.usu.edu *****

PS: Pumkin beer is on the way. Gotta do that seasonal thing. Hmmm
full moon is on the way. The carma may lead me to it!

Date: Tue, 28 Sep 93 11:47:43 edt
From: Bill Sadvary <SADVARY@DICKINSON.EDU>
Subject: AHA Membership dues and kegging.

I have an old issue of Zymurgy (1991) and the Application to join the AHA list a \$25 one year membership fee and a \$45 fee for two years.

Are these the current fees? I'd like to join.

-Bill Sadvary
Dickinson College
Carlisle, PA

Date: Tue, 28 Sep 1993 10:10:06 -0600 (CST)
From: John Mare <cjohnm@ccit.arizona.edu>
Subject: RE: "Beer" translations

The Afrikaans word for beer is "bier" not "oke" as given. "Castle" &
"Lion" biere are the most common, "Windhoek Export" in my view the best.
I
will be testing the "biere" in Windhoek and Durban in the next few weeks!
Gesondheid!
John of John's Alehouse, Tucson, AZ.

Date: Tue, 28 Sep 93 13:43:25 -0400
From: edo@marcam.com (Ed Oriordan)
Subject: First All Grain

I am slowly preparing for my first all grain batch, and would like to ask a few questions on my proposed recipe. I am going for a kind of Pete's Wicked or dark pale ale (this is somewhat of a conversion of my standard extract brew). 5 gal batch size.

8 lbs 2-Row American
1/2 lb Crystal
1/2 lb Cara-Pils
1/4 lb Chocolate malt
1 oz Norther Brewer (bittering)
1 oz Cascade (finishing)
1056 WYeast American

Q1 - I am planning a single step infusion. Is 2-Row American the grain I should be using? If not, what and why?
Q2 - Should I be using more than 8 lbs? Should I use 9 lbs?
Q3 - I have used crystal and chocolate in the past, but never Cara-Pils. Is there anything I need to know? I am using it for body (is this a waste for a single step infusion?) Should I use more than 1/2 lb?
Q4 - Do all four grains require the same grind? I have my own mill so I can adjust it? Are they all about the same grain size?
Q5 - I am planning on mashing the Cara-Pils and 2-Row and adding the crystal and chocolate at mashout time, is this correct?

If anybody could give me a hand I'd appreciate it.

Later I'll post what I am planning for the actual brewing procedure if that's OK.

Thanks

Ed O' -----> edo@marcam.com

Date: Tue, 28 Sep 1993 11:27:13 -0600
From: Michael Howe <howe@gwl.com>
Subject: Chicago Area Brew

Hello all,

This is yet another request for local brewpub information. I am planning a trip to the windy city in about a week. Busy days and free evenings will allow me to visit a few local brewpubs. Are there places that are not to be missed? I will probably be staying on the north side of town (i.e. Evanston) if that is any help. I would retrieve the brewpub list myself from the archives, but I don't have FTP access. Besides, I am very eager to receive comments along with the recommendations from the 'locals'.

Thanks in advance,

Michaele-mail : howe@gwl.com

Date: Tue, 28 Sep 1993 14:25:04 -0400 (EDT)
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>
Subject: PVC/DWC Tubing - Food Grade?

To date, I have conducted my mashes in a cylindrical insulated water cooler (the big orange type) with a false bottom. The system works well as far as holding a constant temperature, but I have always found it difficult to stir the mash in a deep and narrow container. Therefore, I plan to convert a large rectangular picnic cooler into a mash tun for easier stirring/mixing. Rather than using slotted copper tubing for drainage, I am considering using either black or white PVC/DWC tubing that is sealed with either the yellow PVC cement employed in plumbing procedures, or with silicon sealant (the aquarium type). Now the question:

Is PVC tubing safe for this type of food application?? What about the yellow sealant? All comments appreciated. Take care.

- ML -
ligas@mcmail.cis.mcmaster.ca

Date: Tue, 28 Sep 1993 14:25:04 -0400 (EDT)
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>
Subject: PVC/DWC Tubing - Food Grade?

To date, I have conducted my mashes in a cylindrical insulated water cooler (the big orange type) with a false bottom. The system works well as far as holding a constant temperature, but I have always found it difficult to stir the mash in a deep and narrow container. Therefore, I plan to convert a large rectangular picnic cooler into a mash tun for easier stirring/mixing. Rather than using slotted copper tubing for drainage, I am considering using either black or white PVC/DWC tubing that is sealed with either the yellow PVC cement employed in plumbing procedures, or with silicon sealant (the aquarium type). Now the question:

Is PVC tubing safe for this type of food application?? What about the yellow sealant? All comments appreciated. Take care.

- ML -
ligas@mcmail.cis.mcmaster.ca

Date: Tue, 28 Sep 93 15:30:53 EDT
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: forced carbonation

drose@husc.harvard.edu asks:

> Everyone suggests shaking vigorously to get the CO2 into solution.
> However, this would appear to be at odds with another objective,
getting
> the beer to clear. In other words, one is also stirring up sediment
when
> shaking. So, once the keg is carbonated, how long does it need to sit.
.....

I age the beer in a glass carboy and transfer it to the keg when the beer
is perfectly clear. Pressurize the keg, shake it to force carbonate and
it's ready to serve - immediately. If, during the final racking you do
introduce some sediment, the amount is rarely enough to be a factor.

- --Tony Verhulst

Date: Tue, 28 Sep 1993 16:35:34 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Bottle carbonation/mash temp/blowoff tubes

Chris asks:

>Does this imply that bottled beer would carbonate faster if placed
>on its side rather than upright? Anyone have a data point?

When bottle conditioning, the CO2 is being generated in the beer itself, and comes out of solution to enter the headspace. In a keg, the CO2 is in the headspace and has to dissolve into the beer. Two opposite scenarios. In the bottle, the dissolved CO2 and the headspace gas will tend to find their own equilibrium. In the keg, you start with a low dissolved CO2 and high head space CO2 partial pressure. If you want your keg carbonation to mimic bottle carbonation, attach a plastic hose from your CO2 dip tube down to the bottom of the keg, clamp it at the end, and punch it full of a million pin holes. Then, start at about 5 psi, upping the pressure by about 1psi/day for a week. Of course, it's faster just to shake the kegs....

Domenick Venezia asks:

>I have seen little about acceptable temperature drops during mashing.
>There is much about target and strike temps, however I'm looking for
>an indication of how much of a temperature drop is acceptable over the
>course of a mash. So, for a single step infusion with a target of
>153F what is an acceptable temperature drop over an hour? Can one
average
>the temp over the mash and then assume that the conversion
characteristics
>are actually those found with a mash of the average temp. For example,
>if I start at 156F, and drop to 150F over an hour is it safe to assume
>that I would have gotten the same result with a constant 153F?

I think that if you are trying to maintain a specific temperature, you're acceptable temperature fluctuation is the precision tolerance of your thermometer. That said, I think we all have temperature variation in the mash, and do our damndest to minimize it, unless it is specifically desired. I tend to pre-heat my oven to 200°F, then turn it off and put in the mash tun. I get almost no heat loss over a two hour mash that way. Even this way, though, at the time I put the tun in the oven the bottom and middle of the mash may be a few degrees warmer than the top and sides. To answer your question specifically, if your mash drops from 156 to 150 over an hour, *record* it as a drop of 156 to 150 over an hour. If you want a mash of 153, either find a way of better insulating the tun, or give it extra heat boosts every now and again. Sometimes accuracy requires a little extra work. But then, sometimes you can just pop it in the oven.
..

On the subject of blowoff tubes:

Recently I have started following Miller's suggestion, racking off the trub a little while after pitching the yeast, but before primary fermentation

gets going. This can be tricky, because a good healthy yeast starter will get going before the trub gets to settle out. What I do is this: My immersion chiller (planispiral) cools the wort rapidly to under 100°F, but then slows down, as the temperature differential is decreased. I take the temperature down to about 80°F, then rack into a carboy (I use the ventury tube aeration here). I let it cool a further few hours, then pitch the yeast. I wait another few hours, and rack it off the trub while transferring to the primary, a 23L carboy, again aerating the wort. When the kraeusen forms, it is birght, clean, and white. No brown gunge at all. It rises into the extra headspace the 23L carboy offers, and falls back in, retaining all those lovely heading proteins. Moral: The brown gunge is from the trub, and is not a product of the kraeusen. Get to the source of the problem instead of employing bandaid solutions. If you use blowoff because you like to ferment in carboys, get a bigger carboy. I you use a blowoff to remove bitterness, rack off the trub instead. Of course, if you're happy with your beer, ignore this.

Ed Hitchcock ech@ac.dal.ca | "I'm not from outer space. I'm from Anatomy & Neurobiology | Iowa. I just work in outer space."
Dalhousie University, Halifax |- James T. Kirk
[Eschew racism. Drink beer from all nations]

Date: Tue, 28 Sep 1993 15:41:37 -0400 (EDT)
From: todd royer <royer@ac.wfunet.wfu.edu>
Subject: Raspberry Stout

This past summer I drank a Raspberry Stout in Crested Butte, CO. Does anyone have a recipe for this brew? Would it be better to use whole raspberries or raspberry juice? Is Raspberry Iced Tea Snapple brewed the same way? (just kidding) Thanks in advance for your help.

TODD

Date: Tue, 28 Sep 93 11:06:14 MDT
From: scojam@scojam.Auto-trol.COM (Scott James.)
Subject: DME vs. Dextrose - scum ring in bottle

Al writes:
> On some of my batches primed with DME, I noticed a sort of floating,
> "oily"
> scum on the top of the beer in the bottle. Some have written that this
> is
> similar to the krausen ring in the fermenter, but I have reason to
> doubt
> it. I think it's protein from the DME priming solution. If I'm
> correct
> in this assumption, it should be remedied by force cooling the DME
> priming
> solution so that cold break forms and is not added to the priming
> vessel
> (is left behind). See what I mean about dextrose being easier? Since
> switching back to dextrose priming, I have yet to see this scum in my
> bottles. I would test this theory myself, but since I'm having trouble
> finding time to brew, I would suspect it will take years for this test
> to reach the top of my list. Any takers?

I made a sweet stout recently and primed with M&F light DME. I noticed
a ring around the bottle after 1 1/2 weeks or so. I figured I had
infected
the whole batch, but it all turned out excellent! Thanks for posting
this
message, Al. Now I have a better feel about that ring. There was also
oily scum in the beer after the head drops :(after 5 mins or so. I
brewed
a four gallon batch in a five gallon carboy - little blowoff. But now
I
suspect the DME was the culprit, rather than unexpelled krausen.

scott

Date: Tue, 28 Sep 93 15:12:03 CDT
From: caa@com2serv.c2s.mn.org (Charles Anderson)
Subject: Dry hopping, bottle carbonation

> Date: Mon, 27 Sep 93 09:06:00 -0600
> From: Kelly Jones <k-jones@ee.utah.edu>
> Subject: Troubleshoot my dry hopping!
>
>
> Questions:
> Is this simply a temporary bitterness that will soon mellow? Or can
> dry hopping really add noticeable bitterness? Did I over dryhop?
> How many IBU's can/should dry hops introduce?

I did the same thing with my first full mash Pale Ale. I added 1oz of Willamette to the fermenter, it came out with a great hop aroma, but also an unbelievable bitterness. BTW I just threw the hops in on top of the fermenting wort. It took a long time for my bitterness to go away, and by that time I didn't think the beer was very good. (couldn't tell if wasn't very good to start with too much bitterness)

> Date: Mon, 27 Sep 93 13:05:33 EDT
> From: lyons%adcl@swlvx2.msd.ray.com
> Subject: Accelerating bottle carbonation?
>
> Paul dArmond posted an answer to the question on forced carbonation
> in kegs (HBD #1234):
>
> >3) An upright motionless keg presents the least surface area and thus
> >provides the worst conditions for carbonation.
>
> Does this imply that bottled beer would carbonate faster if placed
> on its side rather than upright? Anyone have a data point?

No because when you are force carbonating the keg, you need the extra CO2 beer contact. When the bottle is carbonating the yeast are producing CO2 in the beer.

-Charlie

Date: Tue, 28 Sep 93 17:06:11 CDT
From: jay marshall <marshall@pat.mdc.com>
Subject: more cherry juice stuff...

Chris and Al talk about the difficulties in finding and using cherry juice for beer. I too have used the Knudsen's cherry juice, added in the secondary. I used two quarts and the result was only a slight cherry aftertaste. The beer was good, but I was disappointed with the low level of cherry flavor (no metallic taste though!). Adding the cherry juice kicked off a very strong fermentation and, if I were to do it again, I would use more juice (or the concentrated version) and reduce the temp of the secondary to slow down the extra fermentation caused by the new sugars.

This having been said, however, I don't think I'll be trying the juice anymore. The last cherry ale I made was done using HopTech's cherry flavoring, and I was very pleased. One tbspc in the keg resulted in a wonderful cherry flavor. The beer was a 30% wheat base and hopped using US Saaz at about 1/2 my usual rate. Incidentally, this beer was very popular with my non-HBing friends.

Of course, the usual disclaimers about associations with HopTech apply. Just a happy customer...

BTW, for those interested in finding the pure cherry juice, check out Whole Foods. That was the only place I could find it.

Jay
marshall@pat.mdc.com

Date: Tue, 28 Sep 93 16:26:38 PDT
From: mikel@netlink.nix.com (Mike Lemons)
Subject: Pete's Wicked Ale Extract Recipe

Ingredients for 5 gallons:

6 lb bag of William's nut brown extract: "includes a blend of pale, victory, crystal, chocolate, dextrin, and other malts" from Williams Brewing 1-800-759-6025
6 oz of crushed chocolate malt. (Lovibond 350)
1 & 1/3 ounce cascade hops.
1 cup of corn sugar for priming.

Yeast: "Wyeast American/Chico Ale"

Total boiling time: 70 minutes

Hops added : "Cascade" State: "Whole 1992 4.6%" Amount: 0.95oz Boiled for: 70

Hops added : "Cascade" State: "Whole 1992 4.6%" Amount: 0.30oz Boiled for: 10

Initial gravity: 1.043 Final gravity: 1.012

Prepare the chocolate malt in a separate boiling pot containing at least a gallon of water. Add the chocolate malt to cold water. Raise the temperature to 170 F. Pour the hot liquid through a strainer into the main brew pot to remove spent grains.

You probably could substitute a simple pale ale extract with some crystal malt for the William's nut brown extract.

Tasting Notes: In a side-by-side comparison with Pete's Wicked Ale, the two beers were nearly identical. The homebrew was preferred because the roasted-coffee-like flavor component was slightly stronger and much more persistent in the homebrew. This was probably due to the freshness of the homebrew. (Who knows how long the Pete's Wicked Ale has been sitting on a shelf!)

- - -

INTERNET: mikel@netlink.nix.com (Mike Lemons)

UUCP: ...!ryptyde!netlink!mikel

Network Information eXchange * Public Access in San Diego, CA (619) 453-1115

Date: Tue, 28 Sep 1993 20:33:41 -0300 (ADT)
From: ANDREW GRANT <AGRANT@mta.ca>
Subject: Good Recipes Please :-)

Hi, I know some of you out there have some really good receipes
for beer. Could some of them either be put into this news letter or
sent directly to me.

Thanks
- --Andrew ;-)

PS. My E-mail is AGrant@mta.ca or ud891@freenet.victoria.bc.ca

Date: Tue, 28 Sep 93 20:00:05 EDT

From: perryengle@aol.com

Subject: Portsmouth, New Hampshire Brewers Festival

(Apologies if this has already been posted, or for the late date if it hasn't)

The Strawberry Banke Grande Olde Portsmouth Fall Brewers Festival will be held

on Saturday Oct 2, at Strawberry Banke, in Portsmouth New Hampshire, starting at 10 am.

Portsmouth is about 1 hour North of Boston and 1 hour South of Portland, on I-95. Just take the Portsmouth downtown exit and follow the signs to Strawberry Banke.

Events include a home brew contest (non-AHA sanctioned), demonstrations by local suppliers, and samples from the areas micro breweries. There will be historic re-enactments, family activities and games, and shows including a Victorian era magician and a recreation of a Women's Temperance League rally.

Admission is \$5 for adults, \$3 for children 7-17, and children under 6 are free.

For more information call Strawberry Banke at 603-433-1100

Information for this posting was taken from an article in the Exeter News Letter, Exeter New Hampshire.

Date: Tue, 28 Sep 1993 18:23:11 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Yeast Hydration

Remember a while back we had a discussion about the best liquids for hydrating yeasts and for starters? The candidates seemed to be wort, sugar water, or plain water. Does anyone have a copy of those discussions. I know I can search through old digests but it will save me a lot of time if someone kept that thread.

My brother-in-law wants to do a research project on beer yeast and thought he might investigate this question. Are there any other suggestions you all have for beer yeast research (at the early graduate student level).

Thanks
Geoff

--+
A brewery is like a toothbrush, everyone should have their own.
--+
Geoff Reeves: Space Science Division, Los Alamos National Laboratory
reeves@lanl.gov (internet) or essdp2::reeves (span)
Phone (505) 665-3877
Fax (505) 665-4414

--+

Date: Tue, 28 Sep 1993 21:13:41 -0400 (EDT)
From: "Christopher V. Sack" <cvsack@mailbox.syr.edu>
Subject: Re: Automatic hydrometer

On Tue, 28 Sep 1993, Don Zickefoose wrote:

> computer. What I need is a way of obtaining a hydrometer reading that
> can be
> modified, or already provides an 8/16 bit output. I'm not sure if there
> are
> commercially available "electronic" hydrometers, or if what I will have
> to do
> is attach a carbon strip to the scale of the hydrometer, and read a
> resistance to determine the gravity. If I use the resistance method, I
> need

I have seen this subject asked before, but I have not yet read of a workable, ie. inexpensive, solution. The main problem I see is that you can not attach anything to the hydrometer itself. This would effect the weight/calibration of the hydrometer. The weight could be compensated for by recalibrating, but the friction of your proposed "slide wire" resistor might be enough to cause the hydrometer to stick and provide false readings. A possible solution to this would be to use a series of photo receptors that would be uncovered as the hydrometer sinks into the fermenting beer. This would require a light source opposie the photo receptors. The resolution would depend on the number of photo receptors that could be attached to a 3" vertical strip, the average length of the hydrometer drop from 1.000 to 1.060.

Just a suggestion, for what it's worth.

```
 /_____) | / / ) | Christopher V. Sack |  
 / | / / / | Graduate Student |  
 / / | / / (____) /____) | Dept. of Chemistry |  
 / / | / / )____) /____) | State Univ. of N.Y. |  
 / / | / / / / / | / / Syracuse, NY 13210 |  
 (____)/* | / * (____) / (____) / / / <cvsack@lor.syr.edu> |
```

Date: Tue, 28 Sep 1993 23:14:59 EDT
From: WJCS75A@prodigy.com (PAUL N HRISKO)
Subject: Thanks all!

A HUGE Thank You to all who responded to my request for brewpubs/
microbrews
in the Southwest. I appreciate it greatly and can't wait to check them
out.

Paul Hrisko (wjcs75a@prodigy.com)
>When the going gets weird, the weird turn pro.-HST<

Date: 28 Sep 1993 23:25:15 -0500 (EST)
From: RF61384%LTUVAX.bitnet@CUNYVM.CUNY.EDU
Subject: shipping beer

I work at UPS and have rewrapped damaged boxes containing Homebrew
About four years ago a box containing wine broke open and a supervisor
went to check if UPS could ship alcohol. I was told it was ok and the
only
time regulations applied is when it is being sold mail order. If its
being sold
the purchaser has to be of age and the seller licensed. No
restrictions on pe
rson to person.

The best thing to pack it in, in my opinion, is a box lined with one inch
thick
styrofoam insulation. Its ridgid so it adds strength to the box wont
shift
around, and its cheap and easy to find. Styrofoam popcorn shifts so does
balled
newspaper and your bottles wind up against the bottom of the box.
Pack it right - Dont bother writing fragile on the box we dont have time
to
read it.

End of HOMEBREW Digest #1236, 09/29/93

Date: Tue, 28 Sep 1993 12:40:02 -0400 (EDT)
From: Owen Plowman <owen@ca.oracle.com>
Subject: Problems with carbonation

Hello! We are using this account as guests to ask the following questions:

1. We are a couple of new brewers in Toronto and we are experiencing some difficulties in getting our beer to carbonate properly. So far we have made three batches of beer (all from kits available at the local "Brew Your Own" store) and have had mixed success. Our first batch was a simple "kit" lager which went four days in primary and thirteen days in secondary. While not totally flat this beer did not carbonate fully and was somewhat disappointing. The store suggested that we should siphon off our beer before adding the carbonation sugar to ensure that all the sugar would be fully mixed and not fall into the bottom sludge that never gets into the bottles.

Batch number two was the same "kit" lager, with 6 1/2 lbs of fresh raspberries added to create a fruity summer beer. The beer fermented four days in primary and seventeen days in secondary (with very vigorous fermentation going on all the time). The result was great with lots of carbonation and a super taste.

Batch number three was an English Bitter brewed using a bitter "kit" with a mixture of grains and hops added to improve the taste. Primary lasted four days and secondary fifteen. Carbonation this time was poor with the beer being nearly flat.

In all three cases we used malt sugar (between 2/3 and 1 cup) for eighteen litres of beer. The actual taste of all our beers is quite good and we have had no problems with contamination at all. We suspect that our problem is related to the life cycle of the yeast and that for some reason there is not enough left at bottling time to create carbonation. Can some of you more experienced brewers offer any ideas on what we are doing wrong and how to improve for future batches? Should we be bottling sooner and how can we judge when the time is right?

It's probably best if you reply directly to the mail id we are using ("owen@ca.oracle.com") for this question, and then we will summarize to the list.

2. Is there anybody on the list who is familiar with the Widmer Brewing Co. in Portland Oregon? They produce a Hefeweizen and we would very much appreciate any recipes that closely mimic this beer if somebody has one.

3. We read Bill Flowers note on Hoptech's fruit extracts and are interested in finding out more about these. Where is Hoptech located and do you know if these same extracts are available in Toronto?

Thanks very much

Doug and Brian

Date: Wed, 29 Sep 93 13:13 BST
From: "Andy Phillips, Long Ashton, Bristol, UK" <phillipsa@afrc.ac.uk>
Subject: Re: Beer Recipe Formulator

Once again I have to apologize for the following messages,
as my mailer won't accept either correspondent's address.

To: Chris Campanelli:
Glad to hear Version 2 of the Beer Recipe Formulator is on the way.
If you can't include automatic US/metric conversion, how about
having a help screen with conversion tables/formulae for
the arithmetically challenged?

To: Tom Nelson:
Your "Brewer's Workshop" program sounds interesting. Could you
send me some details? My snailmail address is:
Andy Phillips, Velly Cottage, 137 High St, Pensford, Bristol,
BS18 4BH, U.K. Or FAX to +44-275-394281

Thanks
Andy

Date: 29 Sep 93 03:32:03 GMT
From: GANDE@slims.attmail.com
Subject: Buffalo?...

Apologies for the deplorable use of BW, can anyone tell me of a source of grain in Buffalo, N.Y.? I can get Canada Malting 2 row really cheap here in Toronto, but imported malts are unheard of. Buffalo is just 'cross the border and worth the drive. EMAIL response to: gande@slims.attmail.com

TIA....Glenn Anderson

Date: Wed Sep 29 06:43:28 1993
From: darrylri@microsoft.com
Subject: re: Troubleshoot my dry hopping!

caa@com2serv.c2s.mn.org (Charles Anderson) writes
> > From: Kelly Jones <k-jones@ee.utah.edu>
> > Questions:
> > Is this simply a temporary bitterness that will soon mellow? Or can
> > dry hopping really add noticeable bitterness? Did I over dryhop?
> > How many IBU's can/should dry hops introduce?
>
> I did the same thing with my first full mash Pale Ale. I added 1oz of
> ^^^^^^^^^^^^^^^^^^^
> Willamette to the fermenter, it came out with a great hop aroma, but
> also
> an unbelievable bitterness. BTW I just threw the hops in on top of the
> fermenting wort. It took a long time for my bitterness to go away, and
> by that time I didn't think the beer was very good. (couldn't tell if
> wasn't very good to start with too much bitterness)

This struck a chord in me. I'd just like to point out that your hop utilization is going to change dramatically when you go from a partion boil extract brewing process to a full boil mashing process. I discovered when I changed over that I needed about half as much hops as I had been using in extract beers.

The reason is that if you boil 6 pounds of extract in a gallon and a half of water, the gravity of that wort is well over 1.100, and probably somewhere near 1.125. High gravity worts don't take up much iso alpha acids from the hops. When you switch to all grain, and therefore full wort boils, your gravity will be more like 1.050, and you'll get a lot more bitterness out of your hops.

--Darryl Richman

Date: Wed, 29 Sep 93 09:50:14 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Zymurgy price error [from Karen Barela]

[I'm probably violating some Compu\$erve conditions of use policy, but since I don't have a C\$ account, I don't care.] I have been waiting for this notice to show up in the HBD, but it hasn't, so here it is.

(No, I'm not connected with YeastLab. Just an interested bystander.)

=S

#: 242768 S14/General Homebrewing
17-Sep-93 10:11:22
Sb: #Zymurgy price error
Fm: Karen Barela/AHA VP 75250,1350

To all AHA members and zymurgy readers:

zymurgy magazine inadvertently printed incorrect prices for G.W. Kent's Yeast Lab Liquid Yeast Cultures in the New Products section of our 1993 Fall issue. Please accept our apologies for any confusion this may have caused. G.W. Kent does not sell directly to homebrewers, which is incorrectly implied in the information we published. For information on this product, contact your retailer directly. If you have any questions about this error, contact me at (303) 447-0816.

Sincerely,

Karen Barela
President,
American Homebrewers Association

Date: Wed, 29 Sep 93 10:15:02 EDT
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>
Subject: article on Maine brew pubs and micros

In the October 1993 issue of -Down East- magazine appears an article entitled The Ultimate Pub Crawl by Al Diamon. According to the article **Maine currently ranks fourth in the nation in number of breweries per, one for every 136,000 of us.** If his notes on the tastings are accurate, there are some good brews to look forward to if one were to visit Maine. The article finishes with a Where to Find Maine's Breweries list:

Acadia Brewing, 30 Rodick St., Bar Harbor, 288-9513
Andrews Brewing, Box 4975, Lincolnville, 763-3305
Bar Harbor Brewing, 22 Fore St, Bar Harbor, 288-4592
D.L.Geary Brewing, 38 Evergreen Drive, Portland, 878-2337
Gritty McDuff's Brew Pub, 396 Fore St, Portland, 772-2739
Kennebunkport Brewing, 8 Western Ave, Kennebunk, 967-4311
Lake St. George Brewing, RR 1, Box 2505, Liberty, 589-4180
Sea Dog Brewing, 43 Mechanic Street, Camden, 236-6863
Sunday River Brewing, 1 Sunday River Road, Bethel, 824-3541

Three summers ago because the weather had turned foul while vacationing with friends in Rhode Island, we took a drive up to Portland. We spent far too long in Gritty McDuff's that afternoon and evening. The beer seemed just right for the day, against all of our better judgment we stayed overnight in a Holiday Inn, went back for more excellent beer and food for lunch the next day before returning to Rhode Island.

Date: Wed, 29 Sep 93 06:05:11 PDT
From: RDG3%QA%D CPP@encon01.comp.pge.com
Subject: Brewing Partner

A friend of mine (who does not have access to HBD) recently move to Merced California, and was wondering if there were anyone in the area who was looking for a brewing partner. If you know of any local clubs or individuals please let me know.

Thank you, Bob (RDG3@pge.com)

"All you touch & all you see is all your life will ever be." Pink Floyd

Date: Wed, 29 Sep 93 10:20:47 EDT
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>
Subject: Darn, I had the chance and I missed it -- not.

I heard on the radio as I was coming into work today that Millers has decided to withdraw their Clear Beer. What a bunch of no-brainers they must have in their marketing department. I never tried the stuff and figured I wan't missing anything. You may want to pick up a six for collector's items because you gotta figure that if there are folks who will pay \$50 for Billy Beer there will be folks eventually wanting to buy some of the defunct Clear stuff.

Date: Wed, 29 Sep 93 10:28:44 EDT
From: twilloug@brynmawr.webo.dg.com (Tony Willoughby)
Subject: Idophor Stains

Howdy,

My regular habit for sanitize my bottling bucket is to fill it to the rim with a mild bleach solution. I've recently tried Idophor for this and after two days the inside of my bucket looks rusty! Any way to get rid of this?
If not, will it do any harm?

- - -
Tony Willoughby |
twilloug@brynmawr.webo.dg.com | "...and there's some homebrewed stuff
| in the promoter's car"
|-Spinal Tap

saccharification rest. This process of releasing additional soluble starch during the boil, then allowing the amylase enzyme a second phase of conversion, is the cause of the higher extraction rates achieved through decoction mashing.

Pulling the thickest 40%-50% should be roughly 2 - 2.5 gallons of mash by volume. This fits easily in a 4 or 5 gallon pot. Heat the mash on the stove slowly, monitoring the temperature. When the desired mash temperature is reached, find some way of stabilizing it. I use a cheap plastic picnic cooler with a trivet in the bottom to avoid melting the plastic. Hold for 30 minutes. Don't worry about the iodine test at this point, as the boil will re-introduce soluble starch into the decocted mash.

After 30 minutes, add the decoction back to main mash as described above.

>Here we were somewhere between 140 F and 160 F for about 30 minutes

It's really important to exercise better control over the mash temperature, if you ever expect to attain any consistent results from your recipes.

>Sorry about the length

No problem, like I said, one of my favorite brewing topics.

Cheers,
Jim

Date: Wed, 29 Sep 93 10:31:00 CST
From: Thomas_Joe@lanmail.ncsc.navy.mil
Subject: Pumpkin reciplease

Fellow Brewers,

I subscribed to HBD a few months ago and have only recently started reading the info consistently. Therefore, please be lenient with me if I breach any protocol or etiquette(I have witnessed some of the more serious 'discussions'). Anyway, I have seen people mentioning pumpkin brews on occasion and my mouth is beginning to water and my mash tun is twitching! I tasted a friend's Frambroise(raspberry brew) and it was such a treat that I think this fall warrants a pumpkin brew! If anyone has recipes or suggestions for brewing with pumpkin PLEASE respond before my taste buds rebel. Also, this will be my first batch made with fruit or vegetable so any advice is always welcome. I switch back and forth between all-grain and partial mashes so any type of recipe will be appreciated.

TIA,
JOE

(my email address is: Thomas_Joe@lanmail.NCSC.Navy.mil)

"We are never as great as we think WE are, and others are never as bad as we think THEY are" -Anonymous

- ----- Replied Message Body -----

Date: 9-28-93 1:00am
From: [homebrew-request@hpfcmi.fc.hp.com]:ddn:navy
Subject: Pumpkin reciplease
Subj: Homebrew Digest #1235 (September 28, 1993)
Attach: h:/GATEWAY/IN/HISTORY/47131.att

The original message was sent as an attachment because it was too long.

See attached file: 47131.att

Date: Wed, 29 Sep 93 10:33:17 EST
From: Ulick Stafford <ulick@bizet.helios.nd.edu>
Subject: Trub racking, Bottles on side, decoction

Ed Hitchcock comments on the Miller suggestion of racking off trub. I did this for a while, but a few very slow takeoffs convinced me that I left most of my yeast behind. If one has consistent yeast habits, it's OK, but mine are so variable. Last night I brewed a wheat beer, pitched at 66F with German Ale yeast slurry top-cropped from my last use of that yeast and had the characteristic Kraeusen from hell by 8 this morning, despite the cold <60F in the basement. Hard to predict when to rack when other yeast takes up to 18 hours or more.

Ed also comments on use of blowoffs - or actually non use. I actually reverted back to a plastic bucket for ales and skim - not to remove brown muck-

I don't believe it causes problems but to top crop yeast. I suppose I could use blowoffs in the Burton Union method, but for my boiler 5 gallon carboys are too small and 6.5 are too big. But I guess I could dilute at pitching for my weaker beers (15B is really a bit high for the wheat Kolsch I made yesterday - and I'll dilute at bottling anyway). I guess I could shell out for a 6 gallon carboy.

Charles Anderson comments that it won't help carbonation to turn a bottle on its side. I won't comment either way, but I did read a published source recommending this procedure for a few days at warmer temperatures immediately after bottling. I presumed the advantage was to have more yeast sediment close to all the beer, and to improve natural convection patterns that would seem pretty lousy in a bottle. I just bottled beer last night and will turn a few bottles on their side when I get home and see if there is any difference. The patch was primed with wort. I'll report in a week or two.

Decoctions again. Last night I brewed a beer with 8lb wheat, 2lb Pale ale (only basic malt I had) and 1lb Cara-pils. I doughed in with cold water, and then added hot to reach a temperature of 100 with 16 qt total. Heated on the burner to 122 and held, and then did the decoction in reverse, i.e. poured the thin stuff into the mashtun. The resulting decoction was huge ~ 60% of the mash. Heated normally and then returned over 5 minutes allowing some of the thick mash to cool before adding it. I rose the small rest mash and the cooler from 117 or so to 155 with little difficulty. I also assume that I boiled more grains than usual and so got a more effective decoction, but also a little more liquid reducing the amount of enzyme in the rest mash. Could the latter be a problem? Otherwise the extra big decoction seems to be a good solution to the problem of doing decoctions on a small scale - i.e. heat loss during returns.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Wed, 29 Sep 93 11:13 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Hidebound Brewers, HSA

>From: COYOTE <SLK6P@cc.usu.edu>
>Subject: Specialty Malts/Hot Side aeration-oxidation

>Ok ok. We all have our opinions. Jack your approach reminds me of a brewing friend here who won't budge from his tried and true methods. Despite all the renovations and improvements my brewery has gone through much in part due to major learning/ideas/creations developed from net knowledge. His brews are all made from the basics:

Just for the record, Pilsener Urquel is made from pale malt only and might be considered basic beer although, a very highly regarded one.

My recommendation is that, until one can consistently produce such a beer, there is no point in throwing in a dozen other variables that swamp the learning process. It has nothing to do with stiffling creativity.

> But what damage can be caused by bubbling air through a mash?

Hot Side Aeration. Exactly what the new wave brewers are cursing.

> Do other mashers out there take efforts to avoid splashing the wort upon sparging?

I am not sure to what extent HSA is a real problem in small batches but I took one simple measure that cost nothing after reading the Fix article.

My sweet wort travels from the kitchen to the boiling area at basement level via plastic tubing which passes through the floor. It was free-falling the last foot or so into the brew kettle. I added several feet of copper tubing at the end so it can deposit the wort at the bottom of the kettle without aeration.

I do indeed change my process as rational new ideas are presented.

js

Date: Wed, 29 Sep 93 10:32:11 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Decoction / low extraction

In a recent post someone tried the 23 step long strange trip decoction method
I posted and had a couple problems. I had similar problems when I did my first decoctions.

Slow + propane don't mix... instant boil.. mashed 30 minutes boiled 20.
Even if you nuked the enzymes with heat the remaining grains have enough conversion power to convert the starch to sugar, Belgian Pils malt is high in conversion power. The boil will liberate starch that will improve extraction and aid in wort clarity.

Remove 1/3 kettle mash boil add to main mash temp is about 140.
This is a problem with the Noonan decoction method. You need to kettle mash and boil 40% to 50% in order to get the temp in the 150s otherwise you end up with a rest at 140s and a thin bodied beer. This is especially a problem with highly modified grain like the Belgian stuff since it will convert so quickly. Using under modified malts and two kettle mash steps results in most of the grain being converted at high 150s in the kettle mashes and the final fraction in the 140s.

Add boiling water to get to desired mash temp, mash for 1.5 hours, do iodine test still negative, sparge anyway .. get clear wort extraction about 22points per lb.

I'm guessing but you may have thinned the the mash too much and not converted all the starch to sugar. You also may have severely reduced the enzymes in the brief boil while kettle mashing. This could have resulted in all the enzymes for sugar reduction coming from 2/3 of your grain.

Bottom (2) Line(s): If doing a decoction with a single kettle mash step.
Kettle mash and boil about 50% of the grains.

Date: Wed, 29 Sep 93 12:25:21 EDT
From: sean v. taylor <sean@chemres.tn.cornell.edu>
Subject: cinnamon in apple cider

Date: Wed, 29 Sep 1993 14:42:31 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Recipe request

<Date: Tue, 28 Sep 1993 20:33:41 -0300 (ADT)
<From: ANDREW GRANT <AGRANT@mta.ca>
<Subject: Good Receipes Please :-)

<Hi, I know some of you out there have some really good receipes
<for beer. Could some of them either be put into this news letter or
<sent directly to me.

I was meaning to post this anyway:

Pale Ale

2 row american *breiss* base malt, target OG 1.063 (total)
CaraVienna (DeWolf-Cosyns) 12% of grist
Munich(DeWolf-Cosyns) 6% of grist
Aromatic (DeWolf-Cosyns) 4% of grist
Biscuit (DeWolf-Cosyns) <1% of grist
Gypsum in mash
US Whole Perle, ~8% alpha in Kettle-60 min
Goldings Pellets ~5% 30 min
Goldings Pellets10 and 2 min
Saazer Whole Plugs ~3% 2 min
Saazer Whole Plugs ~3% dry hopped

Add ~1 qt per lb hot water, gypsum and malt. Hold 20 min at
144F. Raise to 152-154, hold 45-60 min, raise to 172, lauter.
Boil, hop.....
Counter flow chill,
add ~10% boiled water to dilute to ~1.050
force oxygen, pitch thick Dominion Ale Yeast

FG 1.008, 5.3% ABV

Notes: Since this is the time of year that I run out of
whole hops (mostly cascade and centennial), I was using up some
inventory of Perle (good kettle hop) and goldings (great flavor
hop). A brewer friend of mine had a 5oz pack of saazer plugs
that he asked me to use (tough situation), so I brewed up the
above recipe. I had just made an IPA of 1.060 gravity, so when
this batch ended up at 1.063, I decided to continue my experiments
with pre ferment dilution. I had already convinced myself prior
to this that I could water down a batch considerably with no
great impact on flavor, so I went for it here. I am using a
counterflow pipeline to run my wort from the brewery to the
conditioning room, so I merely hooked up the hot liquor tank to
the counterflow pipeline and let 170F water enter the pipeline,
chilling and rinsing the line somewhat. After topping up the
fermenter, I added O2 and yeast.

Tasting: A good amber color, almost no detectable biscuit character,
but this may change with more yeast dropping out. The goldings
flavor comes through real well but not too strong. The finish
of saazer and goldings adds a bit of complexity to the otherwise
dominant saazer dry hopping. I had never dry hopped with saaz before,
and it is a great change from the norm.

Malt notes: Despite the well known limitations of american 2 row malt, I use it without difficulty. The key is to tailor your recipe so that there are abundant flavoring malts/caramel malts to give the body/dextrins/color desired. By adjusting the munich and caramel malts, a very full bodied beer can be brewed with a terminal gravity as low as 1.008.

Good brewing,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: 29 Sep 93 12:21:00 PST
From: "CCA::ELS_DEM" <ELS_DEM%CCA.decnet@consrt.rockwell.com>
Subject: Maize/Cornstarch/CherryJuice

Since my wife prefers light bodied and light colored brews, but doesn't mind a little alcohol, I have been considering using either maize flakes or cornstarch as an adjunct to an all-grain ale. (You know how it goes, brew something the wife likes so she doesn't complain so much when you brew something you like.) I have seen numerous references to using maize flakes on this digest. I have seen a recipe in TNCJOHB that uses cornstarch. However, does this differ substantially from just throwing in a pound of so of corn suger before the boil? It seems to me that the sugars obtained from mashing cornstarch would be -- corn sugar. Using sugar would make the mash a bit smaller, but would also remove some of the satisfaction of making my own. What's the collective wisdom on this?

On another note, I have read with interest the recent posts concerning the brewing of fruit beers through the addition of pure juice. I just tried that. I added three quarts of 100% pure unsweetened cherry juice to the secondary in a recent batch of pale ale. It started another ferment, which completed normally. Although the juice had a very strong cherry flavor, there was absolutely NO cherry flavor in the resulting beer. There is a strange (but not unpleasant) fruity flavor. However, I couldn't tell you if it was cherry, apple, or diet coke. (This beer has the stickiest head I've ever seen. It is actually difficult to wash out of the glass.) I think I may turn this batch into my "holiday beer" by making a "tea" made by steeping spices, e.g. cinnamon, cloves, and allspice, in a quart or so of water, then adding this "tea" to the keg. How well will that work?

Cheers,

Don

Date: Wed, 29 Sep 1993 16:00:18 -0400 (EDT)
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>
Subject: New Cleaner/Sanitizer - an inquiry

I was just reading the recent (Fall, 1993) issue of Zymurgy and noticed an ad on page 14 from a company called 'LD Carlson' concerning an "environmentally friendly" cleanser called Straight-A Premium Cleanser and an "environmentally friendly" sanitizer called One Step that apparently requires no rinsing and is not an iodophor. Has anyone tried either one of these products and if so, what are their components? I'm particularly interested in learning about the composition of the sanitizer. I currently use an iodophor and have no problems.

Date: Wed, 29 Sep 1993 15:35:30 -0500

From: ccamley@mmm.com (Chris Amley - 3M Telecommunications - 612-736-9461)

Subject: wort chiller

Since I've been reading this list (not more than two months) there have been several items on wort chillers but I didn't see anything on the lines of *why* a wort chiller. As a new brewer this was not clear to me. Perhaps other newbies are wondering also.

The scales have fallen. I used to add about 2 gallons of cold water to 3 gallons of wort and wait six hours for it to cool to pitching temp (80F)

Now I made a simple immersion chiller. It went in the wort 10 minutes before the end of the boil. It cut cooling time from six+ hours to nine minutes!

Well worth the \$32 cost of tubing and connectors, I'd say.

Chris

Date: Wed, 29 Sep 93 22:14:39 CET
From: Alan B. Carlson <alanc@adb.gu.se>
Subject: Xmas ale

I am planning on doing a Xmas ale (a bit late to start, perhaps).
Situated
in Sweden, I don't have access to spruce, but spruce is a pine tree and
there's plenty of pine trees in Sweden. Last spring I collected some
sprigs
and dumped them into a gallon-sized ziplock bag which was subsequently
stowed in the freezer. My first question is how much sprigs should I use
and should I boil them first (separately) or add them to the boil as one
does hops? I usually do 23-26 liter batches (between 6-7 gallons) My
second
question is should I hop the wort as I normally do or should I go a bit
lighter - in case the sprigs impart some bitterness of their own? What I
would like to do is come close to last year's Anchor Xmas Ale - btw, has
anyone heard what kind of spice profile Anchor will have this year?

Alan

Alan B. Carlson Phone: +46 31 772 10 73
University of Gothenburg Fax: +46 31 772 10 91
Department of Information Systems email: alanc@adb.gu.se
Holtermansgatan 1
S-412 96 Gothenburg
SWEDEN

Date: Wed, 29 Sep 93 18:30:45 EDT
From: ai420@freenet.carleton.ca (Stephen Gardner)
Subject: Subscription request

Hi,

Please add my name to the HBD subscription list.

Thanks,
Steve

-- --

Date: Wed, 29 Sep 93 17:37:00 CDT
From: bjw@techsun1.cray.com (Benjamin Woodliff)
Subject: Mash temperatures for Scotch Ale

I'm not particularly fond of Scotch Ale, at least if bottled McEwan's is a good example of it. So, not wishing to experiment any more than absolutely necessary, I'm curious about how much of what I would refer to as the overpowering "malty sweetness" of McEwan's owes itself to mashing at somewhat higher temperatures?

I often use British 2-row and typical mash ales between 150-153 degrees F.

>From those that may have some practical experience in this matter, what characteristics of a good sweet malt flavor can be derived from mashing highly modified malt at these somewhat higher mash temperatures (ie. presumably in the 158-160 deg. F range.)?

I'd welcome any input on this matter. I'm not necessarily looking to brew a McEwan's clone but would like get a better feel for how much effect higher temps might have on the development of non-fermentable sugars and this flavor characteristic.

Thanks,

Ben

Date: Wed, 29 Sep 1993 09:22:08 -0600 (CDT)
From: jim@n5ial.mythical.com (Jim Graham)
Subject: oatmeal stout extract / different tastes from different mugs

First off, Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU> writes:
> Subject: oatmeal stout extract, mash HSA

> Jim, my e-mail to you bounced.

Either your site didn't use the Reply-To: address (n5ial!jim@gagme.chi.il.us)
I included, or it didn't like the bang-path (there are sites that can't handle bang-paths). Oh well, mail to me at my real address, jim@n5ial.mythical.com, *SHOULD* be ok by the time this hits the digest.

> William's Brewing is a big mail-order outfit in San LEandro CA. Their malt/
> oat extract syrup, Oatmeal Dark, is one I used with great success last year.
> You can add more specialty grain or extract if you want (I did) but I imagine
> it's pretty good just by itself too. (I have no finacial or other [...])

Does anyone have an address, or better yet, a phone number (1-800 number if possible) for these folks? I've got to do an oatmeal stout, and at least for now, an extract brew is the only way it'll happen. But oatmeal stout is just too good as an after-dinner/late-night treat to pass up!

Next subject.... I've noticed that different beer mugs I have will make various beers appear to taste better/worse. For example, I have a mug that I got in San Antonio, TX one time that's basically a giant ceramic coffee mug (probably around 18 oz). I've noticed that it's better, by far, for darker brews (e.g., stout, bock, etc.), but not for pale ales and such. I also have a very, very nice stoneware mug that my mom brought back from one of her trips to Germany (it was West Germany at the time, if that means anything). This is the best for the lighter ales, lagers, etc., but is just ``ok'' for the very dark brews. I have plain glass mugs, too, that are ok (but not anything special) for everything (except for the batch I'm about to bring up in a second)....

Last night, I discovered that a pewter mug that my mom brought back from a trip to England seems to mask a slight off taste in a batch that I posted questions about here several months ago (it was very cidery at the time)

.
In any other mug, there is still a slight hint of a cidery taste on at least the first few sips of each fresh beer. From the pewter mug, however, it's just d*mned good beer with no off tastes at all.

Does anyone have any idea what causes this? Btw, I'm not the only one who has noticed it. When I took some of the bock (I posted an article about that here, too) to the local homebrew shop for them to try, they also

noticed the difference between the San Antonio ceramic mug and their plain glass mug. So I know I'm not imagining things....

Is it just the texture of the mug that changes one's perception of the flavor? Or is there some magical property of different types of glass (or pewter) that actually does change the flavor in some way?

Later,
--jim

- - -
#include <std_disclaimer.h> 73 DE N5IAL (/4)
- -----< Running Linux 0.99 PL10 >-----

*** E-mail to me from now until roughly 2 Oct.: n5ial!jim@gagme.chi.il.us ***
AMATEUR RADIO: (packet station temporarily offline) AMTOR SELCAL: NIAL
internet: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.32W

E-mail me for information about KAMterm (host mode for Kantronics TNCs).

End of HOMEBREW Digest #1237, 09/30/93

Date: Thu, 30 Sep 1993 11:04:32 +0100 (BST)
From: D S Draper <D.S.Draper@bristol.ac.uk>
Subject: Help with yeast culturing

Hello all, please help me with a problem I'm having in culturing yeast from bottle-conditioned beers. My goal was to get better flavor than what

is possible using Edme ale yeast, which is all that I can get locally (liquid yeasts are not sold in the UK). I'm sorry to make such a long message, but I am desperate--I've made 14 gallons of undrinkable beer in the past three weeks. Here is the history:

Attempt #1: Took a (275ml) bottle of Worthington White Shield, decanted most of the beer, added a couple heaping spoons of dried malt extract and one of glucose. Shook it up, put a wad of sterile cotton in the top. After several days, it was quite vigorously active. Pitched a batch of beer that is designed to mimic WWS (from Dave Line's recipe). After quick startup, the main foamy yeast mat subsided after about 36 hours to be replaced by a mat with a distinctly different look--the bubbles were much larger, and had little tendril-like things on the surfaces. The bubbles gave the surface of the mat a sort of "tensile cohesion" (for lack of a better term) that is totally unlike anything I've seen using Edme. It also had a very strange smell unlike anything encountered before. After it subsided (took about a week), racked to secondary. Tasted awful, like cough syrup, with a woody, medicinal flavor--it was the taste equivalent of the smell noted above. After a few days in the secondary, with no improvement in flavor, I concluded it was infected and dumped it out. I reckoned that because I had pitched a pretty small volume of active yeast, something else must have gotten in. Alternatively, I obviously did next to nothing with respect to sanitation in this attempt.

Attempt #2: A raspberry ale using a yeast cultured from Hanseatic IPA. This time, I sterilized a wine bottle rigorously; boiled the malt extract + sugar and then cooled it. I covered the neck of the wine bottle with some plastic food wrap and a rubber band (the rubber stopper for the airlock I'd gotten didn't fit). I sterilized everything in sight this time, including wiping the neck of the bottle with alcohol prior to pouring the starter solution into the wort. This time, again very rapid takeoff, and everything looked perfectly normal. Smelled fine too... until the last day or two in the primary, when that same smell was present in small amounts. Racked to the secondary, and the smell was more noticeable while I was cleaning the primary afterwards. After a couple of days, when I added pectin enzyme (just dumped in the powder) and finings, the sample I removed had that same damn taste. I let it sit in the secondary for about 10 days, then bottled--the taste was still there, and stronger. That was 9 days ago, and last night I tried one, and it tasted like bloody cough syrup again. There is no aroma as in #1 though.

Attempt #3 (started before I realized what was happening in #2). Keg bitter using 7.5 lbs of Boots unhopped malt extract syrup, some grains, hops etc. Yeast cultured from King & Barnes Festive Ale. This time I used a 1-liter plastic Volvic water bottle, whose neck could accept the rubber stopper for my airlock. Sterilized everything in sight, boiled the

proto-wort as before, got vigorous action in a few days. Once again, very rapid takeoff, but this time we had a repeat of #1 in terms of appearance: the ordinary fluffy mat was overtaken by that slimy-looking, stiffer, larger-bubbled mat. I tasted it at several points, but "that taste" from #1,2 was definitely not present. 48 hrs after racking to the secondary, when I added finings, the sample had a different unpleasant taste: it is almost bread-like, in fact sourdough bread is what comes to mind. Plodding gamely on, I transferred to my pressure barrel three days ago, and a sample last night had the sourdough taste even more pronounced.

Aaaaaaaaaaaaaagggggggggghhhhhhhhh! 14 gallons of bad beer. What am I doing wrong??? After Attempt #1 I've been extra anal about sterility. All my beers (53 batches counting these three) have been done with the same techniques, and I never had the slightest hint of contamination before. In reading the net for the past 4 months or so, the conventional wisdom is that it's child's play to culture from bottles. Is the problem with #2 that I capped the starter bottle only with plastic wrap? Is the problem with #3 that I used a plastic starter bottle? I assumed that because it was a drinking-water bottle that it would be food-grade. In both #2 and #3, I tasted the starter solution before pitching it, and it was not unpleasant. My next step is to order a pure culture from Brewlab here in the UK (thanks to Pete Hammond for providing their address) with a proper glass flask and try that--but we're talking about a 10 quid outlay for that, and I'm on too tight a budget to spend that much for 5 more gallons of bad beer.

Once again sorry for using all the bandwidth, I eagerly await your replies. Posting is fine, but if you want to email me direct, do so at d.s.draper@bristol.ac.uk because "reply mail" doesn't seem to get to me. Many many thanks, Dave in Bristol

Date: Thu, 30 Sep 93 12:14:00 BST

From: r.mcglew3@genie.geis.com

Subject: Automatic Hydrometer

A while back I moonlighted and wrote a manual for an automatic battery monitoring system for diesel submarines. One part of it was an automatic hydrometer.

Basically, it worked similar to a battery tester with the little colored balls. Each colored ball has a known specific gravity. The device could

either have enough photo-receptors for each ball, or the operator could start out with the starting gravity and simply count the balls as they rise. The more finely spaced the balls are the more precise the measurements. Using a computer and calculating the slope, a fairly good representation of the rate of change should be determined.

How to find a supply of calibrated balls?? I'll leave that to the net.

Date: Thu, 30 Sep 93 06:10:58 PDT
From: RICH CATENA DTN 321-5170 <catena@arrcee.enet.dec.com>
Subject: nj brewpub law

Does anyone have a copy of the nj brewpub law which was signed a month or two ago? If it can be emailed that would be great. If no one has it anyone know who I need to contact to get a copy?

thanks,

Date: Thu, 30 Sep 93 10:13:34 EDT
From: abaucom@fester.swales.com
Subject: Spruce Beer

Someone mentioned they might like to make a spruce beer...I thought so too before I made one. IMHO the Bruce&Kays Black Spruce Honey Lager from TNCJOHB would have been a fine beer if only I'd left out the SPRUCE! In fact, I only added about a quarter of the spruce (extract) called for! What I got was 2 cases of Pine-Sol bathroom cleaner...urf! FWIW...

-Andrew

Date: Thu, 30 Sep 1993 08:25:58 -0600 (MDT)

From: EZIMMERM@UWYO.EDU

Subject: Drinking containers.

Salutations!

In response to Jim's article about a different taste with different mugs I just wanted to say that I remember reading somewhere that traditionally Bocks have been drunk with stoneware. Wisdom of the ages? Perhaps this could start a new container thread...

I have 4 10oz Pilsner glasses and 4 12oz 'crystal' mugs. I'd like to add a set of 4 stoneware mugs as well as some British 'dimple' pub style mugs. Oh, I'd also love to have a yard glass. Are Corning outlets still selling these?

I haven't had the chance to taste any difference in taste with different vessels, but an experiment would be interesting...

Gene in Laramie

Date: Thu, 30 Sep 1993 10:02:06 -0500 (CDT)
From: Steve Seaney <seaney@ie.egr.wisc.edu>
Subject: Dry Mead

Does anyone out there have any suggestions or recipes for an extremely dry mead? I plan to make my first one in a few weeks.

Thanks,
Steve

- - -
Steve Seaney: 608/262-5328: seaney@egr.wisc.edu

Date: Thu, 30 Sep 1993 10:04:32 -0500 (CDT)
From: Steve Seaney <seaney@ie.engr.wisc.edu>
Subject: All Grain Oatmeal Stout

Hello,

I'm planning on brewing my first all grain batch this weekend. I'd like to do an oatmeal stout. Are there any good recipes floating around for such a brew? I'm a little concerned that the oatmeal may mess up the mashing process -- should I be?

Thanks,
Steve

- - -

Steve Seaney: 608/262-5328: seaney@engr.wisc.edu

Date: Thu, 30 Sep 93 9:08:08 MDT
From: Jason Goldman <jason@gibson.sde.hp.com>
Subject: Re: Mash temperatures for Scotch Ale

bjw@techsun1.cray.com (Benjamin Woodliff) writes:

> I'm not particularly fond of Scotch Ale, at least if bottled McEwan's
> is a good example of it. So, not wishing to experiment any more than
> absolutely necessary, I'm curious about how much of what I would refer
> to as the overpowering "malty sweetness" of McEwan's owes itself to
> mashing at somewhat higher temperatures?
>
> I often use British 2-row and typical mash ales between 150-153 degrees
F.
> >From those that may have some practical experience in this matter,
what
> characteristics of a good sweet malt flavor can be derived from mashing
> highly modified malt at these somewhat higher mash temperatures (ie.
> presumably in the 158-160 deg. F range.)?
>
> I'd welcome any input on this matter. I'm not necessarily looking to
> brew a McEwan's clone but would like get a better feel for how much
> effect higher temps might have on the development of non-fermentable
> sugars and this flavor characteristic.
>

I brew a decent all grain Scotch Ale. I use a fair amount of dextrin
and crystal malts in the mash and I mash it at 158 degrees F with a
single step, stovetop infusion mash. This comes out fairly malty and
sweet. I would not be surprised if some of McEwan's sweetness came from
added sugars (e.g. treacle), though, because mine is malty but not as
'syrupy'.

Jason
jason@gibson.sde.hp.com

Date: Thu, 30 Sep 1993 09:07:32 -0600 (MDT)

From: EZIMMERM@UWYO.EDU

Subject: CO2 on wort -- infections?

Salutations!

I've just had the thought that perhaps even the food grade CO2 isn't filtered and thus has the possibility of containing 'nasties' in the form of wild yeast or bacteria. I was thinking of this when I read some of us purge our kegs with CO2. Am I missing something? I know most bugs need O2 to live, but what about some kind of hybernation sort of thing? It's not an uncommon thing to find animals that will lay dormant until the needed resources about i.e. those fish that lay in the dried mud until it rains, fungi and bacteria that can freeze and then live. Just a thought.

Gene in Laramie

Date: Thu, 30 Sep 1993 11:27:14 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Corn Starch/McEwan's Scotch Ale

"CCA::ELS_DEM" <ELS_DEM%CCA.decnnet@consrt.rockwell.com> writes:

>
> I have been considering using either maize flakes or corn-
> starch as an adjunct to an all-grain ale.
> It seems to me that the sugars obtained from mashing cornstarch
> would be -- corn sugar. Using sugar would make the mash a bit smaller,
but
> would also remove some of the satisfaction of making my own. What's
the
> collective wisdom on this?

I have used cornstarch in Pale Ale's - <15% of the total mash - and have
not
experienced the cidery flavor often obtained with adding corn sugar.
Perhaps, the method of commercial preparation of corn sugar introduces
something that results in a cidery flavor. I believe that ultimately,
the
amount of adjuncts - corn or other - that you add has the largest impact
on
flavor.

Use of a small amount of corn starch is quite simple: I add it during the
starch conversion rest. Initially, the mash thickens up like gravy and
as the
enzymes begin conversion, the viscosity of the mash returns to normal.

bjw@techsun1.cray.com (Benjamin Woodliff) writes:

>
> I'm not particularly fond of Scotch Ale, at least if bottled McEwan's
> is a good example of it. So, not wishing to experiment any more than
> absolutely necessary, I'm curious about how much of what I would refer
> to as the overpowering "malty sweetness" of McEwan's owes itself to
> mashing at somewhat higher temperatures?

>
In Greg Noonan's recent book, Scotch Ale, the 120 and 140 shilling
Wee Heavy recipes call for a very high mash temperature - 158F - and
fairly low bittering rates on the order of 30 to 40 bittering units.
These two parameters create beer with big mouth feel, body and malt
sweetness. I believe the diacetyl also enhances the perception of
sweetness in McEwan's Scotch Ale.

Rob ReedInternet: rhreed@icdc.delcoelect.com
IC Design Center Delco Electronics Corporation

Date: 30 Sep 1993 10:51:10 GMT
From: "BRADLEY R. USYAK" <ZINBU@cwemail.ceco.com>
Subject: Encl 0 of 1:

<WP Attachment
Enclosed>

Date: 30 Sep 1993 10:51:10 GMT
From: "BRADLEY R. USYAK" <ZINBU@cwemail.ceco.com>
Subject: Encl 1 of 1: Document.1:

Date: Thu, 30 Sep 93 9:55:14 MDT
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: different tastes from different mugs

jim@n5ial.mythical.com (Jim Graham) writes:

> I've noticed that different beer mugs I have will make
> various beers appear to taste better/worse.

The glass or mug can certainly make a difference in how a beverage tastes. Composition, shape, and texture all have an impact on how we perceive flavor.

You wondered specifically about the texture/material. Try "drinking" out of empty glass, ceramic, and pewter cups. They will all "taste" different -- I always thought pewter had a kind of tang to it that could, IMHO, mask slight imperfections in a beer. And a ceramic mug will, to me, lend a "fullness" of texture to the tongue that I don't get from glass.

Also, the vessel's shape can make a big difference. Different shapes will concentrate the aroma differently, and smell is a huge part of taste. That's why Trappist ale glasses are bowl shaped, weizen glasses are tall and vase-like, and pilsner glasses are tall and narrow. In (northern) Europe, they realize this, and you almost always get served a beer in a correctly shaped glass.

Serious wine drinkers have known this for years as well. You can buy different wine glasses for reislings, chardonnays, cabernet sauvignons, etc. I once read a newspaper article about a guy who makes hand-blown glassware (at \$80 a pop) for drinking only certain types of wine.

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Thu, 30 Sep 93 12:31:30 -0400
From: jsqr@sgi37.wvb.noaa.gov (John Janowiak)
Subject: Hot-Side Aeration

> NOW A QUESTION: Hot side aeration.
> I have not seen Fix's article on this, I was wondering if anyone
could
> summarize the crux of it for me. The concern is over adding air to a
mash
> once it's brought up to mashing temp, and then upon sparging and
splashing.

The crux of Fix's article on hot side aeration ("HSA") (without going
into the chemistry that I won't pretend to understand) is:

- It should be considered in the process from the beginning
of the mash through mash-out. Avoid a lot of oxygenating
(splashing, etc.) as much as possible when transferring the
wort from the lauter tun to the boiling kettle. He states
that some theorize that the introduction of a raking
mechanism in many American breweries that ungently mixed the
mash to even the temperature in the tun may have contributed
to the demise of our brew industry, perhaps as much as
Prohibition, due to the "hot-side" aeration off-flavors that
were introduced by such action.
- A vigorous boil in the kettle is desirable for a good hot break,
but wort should be handled gingerly when cooling until below
about 86 F. Of course aeration is desired when cooled to
re-oxygenate for the yeast prior to fermentation.
- Hot-side aeration is more of a concern for high gravity worts.
- Also, due to scale considerations (sfc. area vs. volume), "HSA"
should be more of a problem the smaller the batch size - hence,
beware homebrewers.

In the same issue of Zymurgy, another author or authors contend that
recirculating wort prior to sparging is not a good idea as the potential
for "HSA" exists, and that it doesn't really do much for wort clarity.
They contend (I'm not emotionally involved here) that if yield is the
issue, just add another pound of grain or so to the mash and forget
the recirculation.

John Janowiak

Date: Thu, 30 Sep 93 11:58 CDT
From: korz@iepubj.att.com
Subject: Re: Problems with carbonation

Doug and Brian write about problems with carbonation (edited):
"Brew Your Own" store) and have had mixed success. Our first batch was a simple "kit" lager which went four days in primary and thirteen days in secondary. While not totally flat this beer did not carbonate fully and was somewhat disappointing. The store suggested that we should siphon off our beer before adding the carbonation sugar to ensure that all the sugar would be fully mixed and not fall into the botom sludge that never gets into the bottles.

First off, what you made was an ale -- given that it fermented out in 17 days, I suspect that you fermented somewhere between 65F and 70F (around 20C). This will make an ale since lagers are really brewed in the high-40's or in the 50's (Farenheit). Secondly, it's recommended to rack (siphon) to a different container for adding the priming sugar not so much because your priming sugar will stay in the fermenter, but rather because you will inevitably stir up some of the gunk in the bottom of the fermenter and get it in your bottles.

Batch number two was the same "kit" lager, with 6 1/2 lbs of fresh raspberries added to create a fruity summer beer. The beer fermented four days in primary and seventeen days in secondary (with very vigorous fermentation going on all the time). The result was great with lots of carbonation and a super taste.

You probably got a lot of carbonation here, either because you bottled a bit too soon or because the raspberries had some more attenuative wild yeast or perhaps some bacteria on them.

Batch number three was an English Bitter...
...Carbonation this time was poor with the beer being nearly flat.

In all three cases we used malt sugar (between 2/3 and 1 cup) for eighteen litres of beer...

Well, there's your problem. If you prime with malt extract, you need to use more than if you prime with corn sugar (dextrose). Malt extract, BY WEIGHT, is only about 80% as fermentable as dextrose which is 100% fermentable, so 3/4 cup corn sugar is about the same as 1.25 cups of malt extract. I recommend that you switch to corn sugar for priming since it is cheaper, does not

contain proteins (which could give your beer an unpleasant, but benign ring around the collar) and dissolves easier in your priming solution. Also, another reason you may feel that your beer is undercarbonated is because most major North American beers are way overcarbonated. If you want to get a carbonation level like Miller or Molson, you will have to use 1 cup of corn sugar or 1.5 cups of malt extract and then use anti foaming agents so your beers don't gush all over the place. Either that or you will have to filter your beers so you remove all head-retaining proteins. My advice: try 3/4 cup of corn sugar and get used to the slightly lower level of carbonation -- it fights less for attention in your mouth with the real flavor of the beer.

I wrote this in a bit of a hurry, so if it sounds like I'm flaming you, I appologize -- I didn't mean to.

Al.

Date: Thu, 30 Sep 93 11:34:05 -0500
From: gjfix@utam.uta.edu (George J Fix)
Subject: Yeast pitching rates

It has been my experience that underpitching yeast is a common problem with some homebrewers, and selected micros as well. There appears to be general agreement in the professional literature that the proper pitching rate for cold fermented lagers is

12-16 million viable cells per ml wort.

I have found this to be the case with my beers as well. It should be noted that with ales fermented around 20C (68F), half this rate is satisfactory. Wort gravity is another issue, and I have found that the proper pitching rate should increase with it. To cite an extreme example, I have been playing around with several formulations for pre-prohibition Stock Ale. The OGs range from 1.070 to 1.085, and best results were obtained when the ale yeast was pitched at lager rates.

As for as practical brewing is concerned, the key is to find ways of getting good estimates for the number of cells actually pitched as well as estimates of their viability. Rodney Morris has come up with a straightforward staining procedure for estimating % viability. It is discussed in detail in my article that appeared in "Just Brew It" (1992, BP).

The most accurate elementary way to count yeast cells is with a hemocytometer. Since many homebrewers do not have access to such a device, pitching by volumes can be used as an alternative. I have found (using a hemocytometer) that there are approximately

4.5 billion cells per ml. yeast solids.

This means e.g. to pitch 18 million cells per ml. we need 1 volume of yeast solids per

$$4.5 \times 1000 / 18 = 250$$

volumes of wort. Thus, for a 5 gallon = 640 oz. batch one needs

$$640 / 250 = 2.56 \text{ oz.}$$

of yeast solids. If these are at least 67% viable, then this would be satisfactory for lagers. Half that would be ok for ales with a standard OG. If the % viability were below 67%, we would be underpitching, something that would be evident from a longer than desirable lag and/or higher than normal FG.

With yeast starters or yeast propagated from slants, we will have to estimate the amount of solids from a solution that is a mixture of yeast and liquid. Fortunately, the range for proper cells additions is rather wide, so we have some margin for error here. One can decant off the solution, and then pitch

the proper volume of yeast solids. This should be done, however, under nearly sterile conditions. I have found with some practice one can get pretty good at estimating yeast solids in solution, and this avoids the need for decanting.

For all of the yeast strains I have worked with I have found that saturating chilled wort with O₂ gives the best results. Direct DO measurements indicate that it is possible to dissolve 6-8 mg/l liter in standard gravity wort at 15 C. This decreases as either temperature or wort gravity increases. The O₂ fraction of atmospheric air is ~21% which goes up to ~32% for air dissolved in wort. This means that saturating wort with air will lead to a ~third less O₂ than direct O₂ injection. This may or may not be a problem depending on the yeast strain used. It should be emphasized that all the O₂ in the world will not help if the cell count is below the proper levels. Private discussion with Jack Schmedling has indicated to me that this was a factor in his interesting experiment on wort aeration.

Too much O₂ is toxic to yeast, but this will happen only when O₂ levels reach 20 mg/l or higher. I have found, and there is confirmation of this in the professional literature, that it is impossible to dissolve even half this amount in wort even at 0 C. Those who have read the book Belgian Ales will note that I am in disagreement with the results reported there regarding O₂ levels. The results are also in conflict with results in the professional literature.

-George Fix

Date: Thu, 30 Sep 93 11:34:36 -0500
From: gjfix@utam.uta.edu (George J Fix)
Subject: GABF

My wife and I will be attending the GABF, and we would be interested in comparing notes with other homebrewers concerning the beers that are represented there. Both Laurie and I will be on the professional panel, so I have no idea how good a condition our palates will be in either Fri or Sat. nights. Nevertheless, there are a lot of new micros that will have beers there, and the reaction to these by other brewers would be of great interest. Look us up if interested.

-George Fix

Date: Thu, 30 Sep 1993 11:31:55 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: Pumpkin Mash- recipe

I did a Pumpkin beer last year that was a variation on the CATS EYE from the Cats Meow. I did a mash from the grains below and pulled one gallon off and added the goop mix, pasteurized and fermented in a gallon jug. I named the whole beer "Cats Eye" and the gallon batch "Pumpkin Mash". Cats Eye was kegged, and the mash bottled w/ cute labels.

We had a huge party at the house- live bands, costumes..the works on Halloween and served up both (and a bit more) and had ourselves a jolly 'ol time. Then the cops wanted to reclaim the cities flashing light/ baracades. Put a slight damper on things- but they do make good party decorations ;)^

So...being as how we are to experience a full moon tonight...and october is about to begin, the time is right for pumpkin tonight!

First- last year's recipe for the 7 gal Cats Eye, and 1 gal PumpKin Mash

10# 2 row Pale Malt
2 # 40L Crystal
1 # Wheat Malt
.5 # Chocolate
4 cups (1.5#) Cooked brown rice (ah what the hell!!!)

Boil 2 oz Tettnager- flake
1 oz Saaz
Finish 1 oz Cascade

Gypsum in the mash. Irish moss in the boil.
I won't bother with the full mash routine. A step up to mash temp- 60 deg C then 65, then mashout at 70. Sparge, pull of 1 gal for pumpkin experiment.

Pumpkin Mash:

13 # pumpkin - degooped. Take orange flesh, separate out seeds (Originally I thought of getting seeds- grinding and mashing. anyone have an idea whether that would work? Gotta have starches!)
2 tbsp cinnamon
1 tsp nutmeg
handful of chopped cilantro
.5 tbsp pickling spice (includes cloves and stuff....)

This was steeped for 1 min in 1 gal of the boiled wort mix. Tossed the cascade in here for more steeping.

Both were very yummy and well received. The cats eye had a hoppy nose, good head- fresh of the tap- and a deep amber to brown color. Malty full mouth feel, but not heavy. It was intended to be on the lighter side for public consumption. The Pumpkin Mash had a creamy mouth feel, and a spicy aftertaste. I couldn't really identify the cilantro, but there was an unusual- but pleasant unique flavor. It was a very nice blend of flavors. It was hazy. Maybe I'll try fining this time. I wouldn't go overboard on the spices- but I don't know if you really could get a "pumpkin flavor",I think it added more of a fullness and feel.

I wouldn't boil the pumkin- treat it like fruit. It smelled wonderful when it was steeping.

-oh. I used Wyeast's german alt yeast culture for both.

Now this year: Same yeast...but I'm going to do a double batch (10gal)
Half will be pumpkin, the other half - peach.

MASH:

10 # 2 row pale malt

4 # Vienna 2 row

1 # 120 L Xtal

1 # 60 L Xtal

2 # Unmalted Wheat

2 # Victory

.25 # Chocolate (yeah I know everythings changed. It's a new year! Only the pumpkin remains the same!)

I think I'll use some fresh cascade hops (my big producer this year!) and some Centennial for bittering. Maybe something diff. in the peach. Got some year old Kent Goldings from william's. May be just the thing for a lambic style! (I've got a raspberry brown ale going now. Yum!)

The peaches have been stoned, and frozen. I've got about a 1/3 bushel. The rest is meading away! Smells awfully sulfury. But I digress...

Pumpkin Mash:

A big sized pumpkin (about 1 foot across) and several small ones from my garden. Gutted- and deseeded the guts.

(since I'm scaling up this year to 5 gallons)

5 tbsp cinnamon

2 tsp nutmeg

a bunch of cilantro, and a palmful of ground coriander seed.

1 tbsp pickling spice

This will be steeped as before, and the pumpkin goop strained out before it's placed in the primary. Rinse the goop with hot H2O. Should keep me busy tonight. I usually brew sat afternoons, but I'll be busy playing rock and roll this weekend, and besides- the carma of a full moon can't be beat (well, and rainy day is real nice too!).

On an off note- I just saw Michael Hedges last night! INCREDIBLE!

ok ok. sorry for all the excess band width. I banter. Let me know if any one tries any variations of these. I'd love to know how they come out. If anyone want to swap a pumpkin brau- drop me a line!

RE: Cornstarch in the mash. I'd think something serving like corn flakes,
or rice would add sugar w/o much body, but I'd also be inclined to think that the enzymes would not necessarily break down all the starch all the way to the equivalent of corn sugar. It is much more refined, and part of the process of mashing leaves fully converted and partially converted products- adding to the fullness of a brew.

Brew on Ye Brethren of Bee, Barley, and Vine. Happy Hoppiness!

J. Wyllie (The Coyote)
SLK6P@cc.usu.edu

"As long as he's got 8 fingers and 8 toes, he's alright by me." H.J.S.

Date: 30 Sep 1993 13:48:13 GMT
From: "Dowd-Brenton" <MSMAIL.DOWDB@TSOD.lmig.com>
Subject: Smaller Batches

I have a friend who is interested in becoming a homebrewer. The biggest obstacle that he sees confronting him, is the fact that he is not what you would call a "quaffer". He is interested in variety, and quality, but not quantity. When he posed the question of smaller batches to me, I responded with "I dont see why not", after which he mentioned that receipes cannot always be simply cut in half to make a half a batch. Well, I'm a quaffer, and perfer the larger size batches, so I thought I would through this question out to the knowledgeable folks on the net. Can the receipes simply be proportionatly cut down? Has anyone tried a 1 or 2 gallon batch? Good points? Bad points? Anything?
Happy brewing
Bret

Date: Thu, 30 Sep 93 14:19:07 EDT
From: pgs@ai.mit.edu (Patrick Sobalvarro)
Subject: grain mill evaluations (Boston Wort Processors' Krush-off 1/3)

This article is being posted in three parts, due to the 8K limit for HBD submissions. This is part 1 of 3 parts.

The following article is reprinted from Volume VI, Number 10 of "Brewprint," the newsletter of the Boston Wort Processors, Boston's oldest brewing club. This issue was edited by Mike Fertsch. Complete issues (which would include the illustrations for this article) can be ordered for \$2.00 each from:

The Boston Wort Processors
c/o James M. Fitzgerald
12 Ward Street
Randolph, MA 02368

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BOSTON WORT PROCESSORS HOLD KLUB KRUSH-OFF
by Patrick Sobalvarro

To the delicate strains of German "oompah" bands playing Trinklieder, the Boston Wort Processors held the long-awaited Klub Krush-off on September 12 at Tim and Heidi's beautiful home in North Reading. Club members began arriving with their mills at 2:00 p.m., and hijinks galore ensued as they attempted to fasten them to the tables thoughtfully provided by their hosts.

Represented were six different mills: a customized Marcato grain mill, a slightly modified 1989 Corona flour mill, an original 1925 Corona flour mill, a Schmidling adjustable MaltMill, a Listermann Malt Mill, and a Glatt Malt Mill.

The intention of the club in holding the Krush-Off was to evaluate these mills for ease of use and quality of workmanship, as well as to subjectively evaluate the quality of the crush they provided. We say "subjectively" here because graduated screens were not used; the crush was evaluated in each case by a group of experienced brewers in the club who closely examined the crushed grains.

The malt that was used for the crush-off was M&F 2-row pale ale malt. The operators of each mill received half a pound with which to adjust the mill; then two more pounds were run through each mill in the actual test. The crushed grains themselves were used later that day in brewing an all-grain

demonstration batch for the benefit of the extract brewers in the club.

Some of the mills were run motorized; most of those that were used a well-worn 2.3 amp 3/8" electric hand drill. In some cases, mills were run both motorized and by hand; where mills were run by hand, we made an attempt to evaluate the rate at which the operators cranked them.

We must say first that there was no clear hands-down winner among the mills brought to the Krush-off, and that the Boston Wort Processors do not endorse the purchase of any particular mill. In each case the mills produced crushed grain that should be adequate to the needs of a demanding homebrewer. That said, we did notice considerable differences between the mills, and our detailed descriptions of the results for each entrant follow.

Mill: Customized Marcato Owner/Operator: Jay Hersh
Approximate cost: \$65 (new) + tax.

The Marcato is an Italian grain mill with stainless steel knurled rollers. It may be driven with a roller or motorized with a hand drill; in the latter case an adaptor of the sort used to drive Italian pasta extruders is connected to the drive.

The customization in this case consisted of the addition of lengthwise grooves along the rollers to help them pull grains in; additionally, a plastic soda bottle was taped to the mill as a hopper. This hopper held exactly two pounds of grain.

The mill was operated by electric power during the test. A 2.9 amp electric hand drill was used for this. This mill was noticeably noisier than the others, but this may be because a different drill was used for it than for the others. The motorized mill took 2:28 (two minutes and twenty-eight seconds) to crush two pounds of grain.

The crush committee had the following comments: all kernels were opened; about half of the husks were cut in half perpendicular to the long axis; the flour content was "not bad," which is to say, less flour was produced with this mill than with the modified Corona or the Schmidling MaltMill, but there was a little more flour than with the other mills. The committee felt, however, that the crush was of very good quality, and that good extraction rates could be expected.

The workmanship of the Marcato mill itself was considered good. The clamping system used to secure it to the table appeared to be a little inconvenient, but the stainless steel rollers quite made up for it. The mill was easily adjustable simply by turning a knob, but small motions of the knob led to large variations in the roller spacing. The soda-bottle hopper, secured as it was with tape and cardboard, was deemed "kludgey, but serviceable."

Mill: 1989 modified Corona Owner: Randy Zeitvogel
Approximate Cost: \$45 (new) + tax Operator: Dan Hall

The Corona is a flour mill, made in Latin America, and generally the cheapest of the available mills. One round plate a few inches in diameter rotates against a fixed plate of the same size; both have radially-grooved surfaces. The modification in this case consisted of extra spacing between the two plates via the insertion of steel washers.

The mill clamps to a table or counter with a built-in clamp. The hopper held two and a half pounds of grain. When run with a 2.3 amp electric drill, the mill was less noisy than the Marcato (this may be because a different drill was used). The mill took only 24 seconds to crush the two pounds of grain.

The crush committee had the following comments: Every kernel was opened. The sizes of the broken pieces of kernel varied more widely than for the Marcato, but the range was considered acceptable. Two members of the crush committee felt that the amount of powder produced by this mill was greater than the amount of powder produced by the Marcato mill; but a third member felt that the amount of powder produced was slightly less (Gorman and Keohane vs. Slack). The husks were shredded more than by the Marcato; between 80% and 90% were adjudged to be cut in half perpendicular to the long axis. The crush committee nonetheless felt that the crush was of good quality and that a high extraction rate could be expected.

The workmanship of this mill, with its all-metal construction, was excellent. It was easy to adjust and appeared to be very durable.

Date: Thu, 30 Sep 93 14:21:10 EDT
From: pgs@ai.mit.edu (Patrick Sobalvarro)
Subject: grain mill evaluations (Boston Wort Processors' Krush-off 2/3)

This article is being posted in three parts, due to the 8K limit for HBD submissions. This is part 2 of 3 parts.

The following article is reprinted from Volume VI, Number 10 of "Brewprint," the newsletter of the Boston Wort Processors, Boston's oldest brewing club. This issue was edited by Mike Fertsch. Complete issues (which would include the illustrations for this article) can be ordered for \$2.00 each from:

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Mill: 1925 unmodified Corona Owner: Sarah White
Approximate Cost: Priceless! Operators: CSMC

This instrument was clearly well-loved by its operators. They were quick to point out its many features: how it operated in near silence; how its long handle nearly ground the grains itself, the turning effort was so low; how the owner's cat likes it.

The mill was clamped to the table with a "moby C-clamp." The mill was operated by hand during the test. The operator was clocked at 100 rpm. Only three-quarters of a pound were ground, in 1:38 (one minute and thirty-eight seconds).

The operators chose to adjust the mill to minimize the flour resulting from crushing. The crush committee noted that there was very little powder in the resulting crushed malt, but that about 15% of the kernels remained unopened. The pieces of kernel that were crushed were about the same size as those from the modified Corona. All the crushed husks seen were cut in half perpendicular to the long axis. The committee expected lower extraction rates from the crushed malt in this test than in any of the others.

What are we to say of the workmanship of this mill? This beautiful instrument, older than most Worts' parents, with its black-enameled wooden

handle and its metallic body hinting of tales, tales it could tell of long nights making tortillas in some Northern Mexican village, a dream landscape of desert and night sky and mountains and moonrise, this instrument was of excellent construction. By all evidence durable, as well.

Mill: Schmidling Adjustable MaltMill Owner/operator: Chris McDermott
Approximate Cost: \$129 (retail) + shipping.
 (the non-adjustable model is \$99 + shipping)

The Schmidling MaltMill is a two-roller malt mill with 10" steel rollers, finely grooved lengthwise. The roller spacing can be adjusted at one end of one roller, so that the rollers are not exactly parallel; the operator said that this was not a problem, however. The mill has a 2.25-pound hopper made of fiberboard, and a fiberboard base made to fit over the top of a grain bucket. It was tested twice: once hand-cranked and once motorized. In both tests the mill had to be held to the bucket by hand. The rollers were at their factory setting of 0.055".

The unmotorized test came first. The mill was very quiet when cranked by hand; the operator was timed at approximately 120 rpm. Two pounds of grain were crushed in 44 seconds.

When evaluating the hand-cranked crush, the crush committee said that the crushed kernel pieces were on average finer than those produced by Coronas, and the variation of sizes was smaller. Every kernel was opened, and only a small percentage were cut in half; most were split lengthwise. The amount of powder produced appeared to be about the same as the unmodified Corona. The committee expected good extraction rates from this crushed malt.

The motorized test used a 2.3 amp electric drill. Two pounds of grain were crushed in only 21 seconds, for the day's record. The crush committee felt, however, that the crushed grain was not of the same quality as when the mill was operated by hand. Approximately 20% of the husks were damaged, and there was considerably more powder.

The workmanship of the Schmidling mill was considered quite good. The long rollers gave it a high rate of crushing, and the construction, although large parts of it were fiber- or particle-board, was solid. Some club members felt that it was more difficult to adjust the spacing on this mill than on other mills. Others mentioned that it occasionally proves necessary to replace the O-rings used in the drive mechanism.

End of HOMEBREW Digest #1238, 10/01/93

Date: Thu, 30 Sep 93 14:21:48 EDT
From: pgs@ai.mit.edu (Patrick Sobalvarro)
Subject: grain mill evaluations (Boston Wort Processors' Krush-off 3/3)

This article is being posted in three parts, due to the 8K limit for HBD submissions. This is part 3 of 3 parts.

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Mill: Listermann Malt Mill Operator: Pete Langlois
Owner: unidentified

The Listermann Mill, also known as the PhilMill, is a single-roller adjustable malt mill that crushes grain against a fixed plate. A 2.5-lb. plastic-bottle hopper can be affixed to the top. It is attached to a table with two large screw-hooks.

We had trouble with the Listermann Mill during the Krush-off, and we are not sure that it was operating correctly. The mill was run motorized, with the same 2.3-amp electric hand drill as in other tests. However, the crushing rate was extremely low -- about one pound per ten minutes.

The mill has no bearings, and so the roller is secured in the metal body with two steel circlips, one on each side of the body. When the mill was operated during our test, one of the circlips ground against the metal body, producing a fine metal powder that soaked up the lubricant. As a result, the mill began to make loud metal-on-metal noises, and the test was stopped prematurely, after fifteen minutes and thirty seconds. The body of the mill became noticeably hot during the test. The rate of crushing, as noted above, was approximately one pound per ten minutes, which most of the Worts present deemed unacceptably slow.

Notwithstanding these considerable problems, the crush committee felt that the Listermann Mill produced the highest-quality crush of all. No whole kernels were found; the husks were in good shape; the crushed kernel pieces were of nearly uniform size, and there was very little powder. A very high extraction rate was expected.

The workmanship of the Listermann Mill was not considered very good. The hopper, while serviceable, was considered "kludgey," and the screw-hooks for attachment to the table proved difficult to use and not very secure. The very low rate of crushing, and the means of securing the roller in the body, with its attendant problems, were noted with some distress by those present.

Mill: Glatt Malt Mill Owner: Patrick Sobalvarro
Operator: Bob Gorman

The Glatt Malt Mill, from Glatt Machining, is a two-roller all-metal mill with 4-inch steel rollers, with wide, shallow, lengthwise grooves. Both ends of one roller are adjustable with a semi-circular vernier scale to allow one to repeat settings. The rollers are mounted in Delrin bearings. The drive is geared, and the mill is built so that the lands of one roller and the grooves of the other face each other at the crushing surface. The mill has a 2.5-lb. hopper, and is intended to be mounted on a table using two 3/8" bolts. A chute carries the crushed grain from the bottom of the rollers into the grain container.

The Glatt Mill was evaluated both hand-cranked and motorized. In both cases the rollers were left at their factory-set spacing. In the hand-cranked test, the operator was timed at approximately 150 rpm, for the most frenetic hand-cranking of the day. Two pounds were crushed in 1:06 (one minute and six seconds). In earlier testing, the mill proved very easy to crank by hand, because of the mechanical advantage afforded by the gearing.

When motorized, with a 2.3-amp electric hand drill, the Glatt Mill crushed two pounds of grain in 0:45 (45 seconds).

The crush committee found no differences between the two crush samples (from the hand-cranked and motorized tests) when they were examined side by side. Both had slightly less powder than the hand-cranked Schmidling mill. The granule size was uniform. The condition of the husks was considered to be the same or "maybe 5% better" than the hand-cranked Schmidling mill.

The workmanship of the Glatt Malt Mill was considered excellent. The metal construction and heavy enamel paint appeared very durable. The ease of adjustment and ease of cranking were both noted favorably.

It was noted during the test that some grain pieces sticking to the Glatt Mill's rear roller were ejected from the back; this amounted to a negligible amount when two pounds were crushed, but it was messy all the same. Greg Glatt has said that he is modifying the chute to entirely cover the rear roller for this reason.

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We enjoyed the Krush-off, and for many of us, it was our first opportunity to see some of the mills we've heard about, and also to see them in action. It was good fun, and the beer prepared from the crushed grain will be enjoyed at a future meeting.

Many Worts helped in the Krush-off, and space does not allow us to list them all. Tim and Heidi of course deserve all our gratitude for being such excellent hosts. Tim Madigan, the gentleman who timed the hand-crankers, has my appreciation. The crush evaluation committee, consisting of Scott Keohane, Bill Slack, Bob "El Presidente Exigente" Gorman, and various others whom I have no doubt forgotten, as well as the owners and operators of all the mills all deserve kudos for making the Krush-off possible.

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Date: Thu, 30 Sep 1993 15:29:17 -0400 (EDT)
From: ANDINATOR@delphi.com
Subject: Pumpkin Ale recipe

In HBD #1237 JMGARNETT@ATCSD.ESS.HARRIS.COM (JIM) writes:

> pumpkin brew! If anyone has recipes or suggestions for brewing with
> pumpkin PLEASE respond before my taste buds rebel. Also, this will
> be my first batch made with fruit or vegetable so any advice is
> always welcome. I switch back and forth between all-grain and

I won 3rd place in the Novelty Beer category at the 1992 Dixie Cup Homebrew Competition with this recipe. To give credit where it is due, I based this recipe largely on an extract recipe that was printed in Barley Malt & Vine's (West Roxbury, Mass) store newsletter a few year's back. I added 1 lb. light crystal malt and substituted Chico Ale Wyeast #1056(aka American Ale) for the dried yeast they recommended. I also modified (increased!) the spices used.

6 # Northwestern Golden malt extract
1 # British crystal malt
2 # sliced up pumpkin (NOT the gross seedy junk, the stuff you carve!)
1.5 oz Fuggles hops for 60 minutes
1 tsp Nutmeg
1 tsp Allspice
1 tsp Cinnamon
1 oz fresh grated Ginger root
Wyeast #1056 (American Ale, allegedly the same yeast used by SNBC)

Add all the spices (including Ginger root) for the last 10 minutes of the boil.

OK, now there is some controversey over exactly WHEN to add the pumpkin: the original newsletter said to add 2 inch cubes of pumpkin to the brew-kettle 10 MINUTES before the end of the boil, and to "ferment on" the pumpkin cubes. In the batch I made for the Dixie Cup, I put the pumpkin cubes into the brew-kettle 30 minutes before the end of the boil. I'm not sure this was a good idea - I think I boiled off some pumpkin crud ("crud" is a technical term) that got into the final product. With the batch I just brewed, I am going to add mashed-up pumpkin to the secondary carboy, and rack the contents of the primary on top of it. I used this method with excellent results on a raspberry wheat beer recently.

I also used a very different hopping schedule in my most recent batch:
60 minutes - 3/4 oz Willamette (4.5% alpha)
30 minutes - 1/4 oz Willamette
1/2 oz Cascades (5.5% alpha)
5 minutes - 1 1/2 oz Cascades

The original recipe said to add finings to clear. I added 1 teaspoon of Irish Moss at 60, 30 and 10 minutes before the end of the boil. I am also considering finings or some other clarification agent in the secondary (pumpkin has got some CLOUDY JUNK in it!).

| SysopAndrew Patrick Founder |
| Home Brew U-Midwest BBSHome Brew U-Southwest BBS |
| (708)705-7263Internet: andinator@delphi.com (713)923-6418 |

Date: 30 Sep 93 10:31:00 EST
From: "Anderso_A" <Anderso_A@hq.navsea.navy.mil>
Subject: Smoky Mountains

Message Creation Date was at 30-SEP-1993 10:31:00

Greetings,
I've a friend who will be driving from Wash., DC to the
Smoky Mountains (NC - Tenn border). He wants to know what's
in the area for good drinkin establishments. Also, if
there's anything worthwhile to stop at along Rte 81 S.

Thanks,
Andy A

Date: Thu, 30 Sep 93 14:31:56 EDT
From: pavao@ptsws1 (John D. Pavao)
Subject: chill concentrated wort?

Hello fellow homebrewers,

I have been an HBD subscriber for about a month and an extract brewer for about nine months. During that time I have brewed about a dozen batches. My usual practice is to transfer the concentrated wort (about 1.5 gallons) to a carboy containing about 3.5 gallons of cold water to make up a five gallon batch. I have heard and read about the value of quickly cooling the wort to yeast-pitching temperatures. I am wondering if I would be better or worse off if I chilled the concentrated wort before adding it to the cold water in the carboy. I would very much appreciate any comments.

John

Date: Thu, 30 Sep 93 15:49:05 -0500
From: bliss@pixel.convex.com (Brian Bliss)
Subject: McEwan's ale

bjw@techsun1.cray.com (Benjamin Woodliff) writes:

>I'm not particularly fond of Scotch Ale, at least if bottled McEwan's
>is a good example of it.

it's not.

>I'm curious about how much of what I would refer
>to as the overpowering "malty sweetness" of McEwan's owes itself to
>mashing at somewhat higher temperatures?

McEwan's Scotch Ale is sweetened with lactose after fermentation.

On the other hand, McEwan's Export IPA is not, and is a very good example
of a (mild) scotch ale (but it's not an IPA). Alternatively, MacAndrew's
(strong scotch ale, or wee-heavy) is quite nice, but lacks smokey
character and has too much hop flavor for a scotch ale (but it's yummy).
Traquair House is the definitive example, at \$5 a bottle.

Don't get turned off to scotch ales because of McEwan's Scotch Ale...

bb

Date: Thu, 30 Sep 93 17:37:26 EDT
From: chuck@synchro.com (Chuck Cox)
Subject: Trophies & NEBFF

I am involved with an upcoming beer festival and am looking for some nice trophies/plaques/whatever to give the winners in the homebrew competition.

I am soliciting recommendations for mail-order or local suppliers. My requirements are a good catalog, quality merchandise and timely delivery.

The New England Brewers Fall Festival is on October 23rd in Boston. It will be the largest beer festival on the east coast. We are expecting over 100 breweries from New England, the US and the world to attend plus such luminaries as Michael Jackson, Fred Eckhardt and Bert Grant.

If you would like more information about the event, send a request for "event info" to nebff@synchro.com. If you would like information about volunteering to work at the event, send a request for "volunteer info" to nebff@synchro.com.

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Chuck Cox <chuck@synchro.com>
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

Date: Thu, 30 Sep 93 18:34:20 CDT
From: philb@pro-storm.metronet.com (Phil Brushaber)
Subject: Lactic Acid

In Dallas we have very soft water. In order to avoid an astringent quality in my beer, I have been more carefully adjusting the PH of the sparge water. My "acidifying" agent has been Calcium Sulphate (Gypsum). Problem is with the amount of Gypsum I have to add to get the PH down, I am adding a lot of Calcium.

A brewing friend suggested using Lactic Acid. Got a bottle of Kent brand 88% Lactic Acid. I could use a suggestion from you Brewing Chemist types....

Any guess on how much of this 88% Lactic Acid I might use to adjust the PH in 5 gallons? You know something like: "1 tsp of 88% Lactic acid should lower 5 gallons of liquid by .4 PH degrees". I could use trial and error but I've got a hunch that someone out there may have the answer or be familiar with this stuff.

- - - - -
Internet: philb@pro-storm.metronet.com
UUCP: metronet.com!pro-storm!philb
Bitnet: philb%pro-storm.metronet.com@nosc.mil

Date: Thu, 30 Sep 93 17:08:21 -0700
From: Steve Christiansen <steven@sequent.com>
Subject: cold plates

A number of times, in this forum and elsewhere, I've heard of homebrewers who use cold plates to chill kegged beer to drinking temperature on the way to the tap. Sometimes this is done with ice on the cold plate. In other cases the cold plate is placed in a fridge or freezer.

Now this sounded great to me because I have a fridge space shortage, and it would be easier to find room for a cold plate than a keg. But when I asked the guy in the draft department of the local homebrew shop about cold plates, he told me I wouldn't be happy using one in that way. He said I'd have to start with the keg chilled somewhat to end up with beer that's cold enough. He gave me the impression that these things drop the temperature only a few degrees. I'm inclined to believe the guy because he could have sold me an expensive cold plate if he had kept his mouth shut, but before I give up on the idea, I thought I'd gather more data.

If you use a cold plate to chill beer, how well does it work for you? Do you need to keep the cold plate at 32F or below to work well? Are some cold plates better than others? (recommendations welcome) Or should I forget about the idea?

Thanks for any info.

- - -
Steve Christiansen
Sequent Computer Systems
Beaverton, OR
steven@sequent.com

Date: Fri, 1 Oct 93 03:54:00 BST
From: mike.keller@genie.geis.com
Subject: Williams Brewing

Does anyone have an address, or better yet, a phone number
(1-800 number if possible) for these folks? I've got to do
an oatmeal stout, and at least for now, an extract brew is
the only way it'll happen. But oatmeal stout is just too
good as an after-dinner/late-night treat to pass up!

Order line for William's Brewing in San Leandro CA: 1-800-759-6025,
M-F 8am-5pm Pacific Time, Saturdays 10-5 PT. Their fax order line, 24
hours, is 1-800-283-2745. They accept Visa, MC and Discover.

Enjoy!

Mike Keller, Beer Sysop, Food and Wine Roundtable, GENi

Date: Fri, 1 Oct 93 7:17:41 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Oatmeal Stout, William's Brewing

First of all, here are the numbers for William's Brewing:

William's Brewing
P.O. Box 2195
San Leandro, CA 94577

Orders: 1.800.759.6025
FAX Orders: 1.800.283.2745
Advice: 1.510.895.2744
Other: 1.510.895.2793

<insert standard disclaimer here>

Here is a recipe for an "oatmeal stout" I made using their extracts. I am quite pleased with it.

Oatmeal Stout

6# William's Oatmeal Dark Extract
1# William's American Dark DME
1# William's Weizenmalt DME (60% wheat, 40% barley)
6 oz. Amber Crystal Malt (60^L)
3 oz. Dark Crystal Malt (120^L)

7.5 HBU Northern Brewer Hop Plugs (1 oz. @ 7.5 %alpha) - 60 min boil
2.5 HBU E.K. Goldings Hops (whole) (1/2 oz, don't really remember the alpha content) - 60 min boil

1/2 tsp Irish Moss - 20 min boil

Wyeast Irish Ale yeast.

1. For the crystal malt, I crushed the malt and put in a straining bag & put that in 6.5 gal of water at 120^F.
2. Heated the water to 170^F & removed the heat.
3. Let steep at 170^F for 15 min.
4. Remove grains, bring pot to boil.
5. Remove heat, add malt extracts.
6. Bring to boil, add hops & boil for 60 min. Add Irish moss 20 min from end.
7. etc, etc, etc,

For the new brewers out there, it took me a while to realize that I needed to do the first part of step 5. I used to add the extracts while the heat was applied and no matter how well I tried to stir, I would scorch some malt onto the bottom of the pan. Also, it should be obvious that this is a full-boil. If you only boil 2-3 gal, you'll have to increase the amount of hops you use.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Fri, 1 Oct 93 9:28:35 EDT
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>
Subject: Brewski (tm.) it's official!

According to an article on page 66 in the 11 October issue of -Forbe's- "Brewski" is now a trademark. The guy that brought you those wonderful LA Gear products has gone into the beer business. "The label on Sandy Saemann's bottles, currently rolling out nationwide, says 'The Greatest Name in Beer.' The slogan is 'Brewski, ask for it by name.'"... The article goes on to talk about the growth of the microbrewery business. Apparently the guy sees this new venture as a 'lifestyle' marketing vehicle. "To be blunt about it, Saemann hopes to use suds to sell socks. His Brewski Brewing Co. plans to market jackets, caps, socks, - even director's chairs and barbecue sauce - with the winged Brewski logo." "Brewski catlogs will offer gift packs containing a bottle of beer, two pilsner glasses and a cap all bearing the Brewski logo. Brewski sells for about \$5 a six pack, versus \$4 for Bud and \$7 to \$8 for other microbrews. Brewski will be the only microbrew in cans, anotherway of identifying the beer as a product for people who want to act bluecollar." The contract for production will be done by G.Heileman, in small batches.

Arrgggggh!

A couple of days ago I posted the notice about the demise of Miller Clear. I had thought about dusting off the old H.L. Mencken quote that goes something like-

"No one ever lost money underestimating the taste of the American people."

Somehow, it seems more appropriate to apply it this piece about Brewski.

I guess it would have been too much to expect that this guy might have wanted to talk about the quality of his beer first, and then delve into the fun of marketing a bunch of tie-ins.

As for me I think I'll have a "homebrewski." I have reason to believe that it will be better than Saemann's/Heileman's stuff.

Date: Fri, 1 Oct 1993 10:43:04 -0400 (EDT)
From: drose@husc.harvard.edu
Subject: Corona Motorization

Hi:

I have used a corona mill for grinding for the last couple of years and am pretty satisfied. I am sure there are nicer mills out there, but cost is a factor and I am not interested in investing in a new one at the present time. However, I recently acquired a variable speed hand drill, and was anxious to make the small advance of motorizing my present mill. Sometime ago I ordered, from Northeast Brewer's Supply, for the price of \$1.00, a fitting to allow one to hook up a drill to the Corona. I had been planning on buying a bolt of the appropriate size and cutting the head off, but as it was only \$1.00, and as I was feeling a little guilty about the skimpiness of the rest of the order I was making, I got one. When it arrived, I was somewhat chagrined to find that it consisted of a bolt with the head cut off. But no matter. I attached it to my Corona, chucked on the drill, and set to work.

I was attempting to approximate the speed of my usual cranking (which is in the neighborhood of 8 lbs in 12 minutes). However, the variable speedness of the drill notwithstanding, I could only attain two states. State one consisted of no radial movement, and assorted nasty sounds and smells emanating from the drill. State Two consisted of rapid spinning of the grinder plaste, and an accompanying shower of crushed grains all over my kitchen. After alternating between states one and two for several minutes, I began to fear for both the mechanical integrity of my drill, and the cleanliness of my kitchen, and I gave up.

So, what is the deal here. Do I need a more powerful drill? Or, am I simply trying to grind too slow. Perhaps full speed grinding is required, along with some sort of backup shield to guide the grains to their appropriate destination. Finally, maybe I just need more practice to attain an intermediate speed. Any info would be appreciated.

Dave.

Date: Fri, 1 Oct 1993 14:44:24 GMT
From: COOK@CDHF2.GSFC.NASA.GOV (Chris Cook)
Subject: Small Batches

[Bret (MSMAIL.DOWDB@TSOD.lmig.com> asked about brewing smaller batches. A couple of years ago I started a similar thread, but I never got around to posting any obvious results.

In my case, I was trying to make sense of the (then new) Belgian malts. Aromatic, biscuit and the others all sounded fascinating, but I didn't have the slightest idea how to use them. I figured to make a series of small beer batches, where each was a basic beer with a lot of one specialty malt.

I brewed about 7 or 8 all-grain 1-gallon batches before I ran out of steam. It was actually a lot of fun. When you've used to 5 gallon brewing, these little one-gallon mashes were so easy I'd have three or more going at a time. Suddenly my kitchen stove was actually hot enough, my regular pots and pans were the right size, and I didn't strain my back humping 6-gallon pots.

I started by scrounging a raft of 1-gallon glass jugs. I bought a few to start off, but so many juices and ciders come in 1-gallon glass that you and your friends can finish the supply pretty easily. I ended up with 6, I think.

I didn't get fancy with mashing, limiting myself to simple infusion mashes. Jack's EASYMASHER or some variation would have been perfect, but I was just messing around using general kitchen stuff, so I rigged a mash/lauter-tun by putting a screen in the bottom of an old 1-gallon water thermos, which worked amazingly well. I wasn't trying for accurate measurements, but I think I was getting close to 30 points per pound (per gallon, obviously)

. Later I changed to a two-gallon cylindrical cooler, and that allowed me to add all the sparge water at once, which also helped. I was worried that maintaining temperatures with the small mashes would be difficult, but with the thermos, and mashing in the middle-150s, there wasn't a problem.

In cooking, one way to really understand how a specific spice tastes is to use too much, and that was my aim for these beers. My first batch was just the base beer with no additions. I think I used just under 2 pounds of Pale, but, like most people, I don't have my notes with me at work. The second batch used somewhat less Pale and a pound of Carapils. In the next set I brewed another control beer, one with Caravienne and another with Caramunich, and so on. All were hopped with what I though was a middling amount of Cascades.

For each set of batches I made up a quart of yeast starter with some neutral ale yeast. When the batches were cooled, I would split this

starter between the batches, and fermentation always started quickly.

The little batches turned out quite interestingly, although not what I'd expected. I don't know whether the hops utilization was quite different or my scales were simply inaccurate, but the beers were all very hoppy, with strong, although pleasant, bitterness and a great hop aroma. On the up side, I found I liked the beers with 'left coast' hop levels. The down side was that the high hop levels overshadowed the differences in malts.

I know that my hops scale (a postal scale, actually) isn't that accurate for my 5-gallon batches - it barely registered for the 1-gallon amounts.

I tried measuring the hops by volume by measuring 4 ounces, then interpolating, but I was still only using a large teaspoon or so of pellets per patch. I tried crushing the pellets in the mortar and pestle so that I could measure more accurately, but it still wasn't very accurate.

That was the only serious problem I had. If you can find a way to accurately measure the hops for these small batches, I recommend going for it. It was fun and easy.

One other hint. I did this before the thread about adding specialty malts at mashout, so I just mashed all the grains. If I do this again, I'll make a larger batch of the base beer and perform smaller mashouts with each specialty malt. You'd still have to perform separate lauters, but it would cut out a lot of the running around I did for simultaneous mashes. Another option would be to get a lauter tun bigger than 1 gallon and play around with first and second runnings.

Or play around with the different kinds of hops, or different fermenting temperatures. Have a ball.

Chris Cook
cook@cdhf2.gsfc.nasa.gov

Date: Fri, 1 Oct 1993 08:02:25 PDT
From: John_D._Sullivan.wbst311@xerox.com
Subject: To protein rest or not to protein rest

Hi all,
I just purchased a 55lb bag of M&F Pale 2-row malt, and am planning on making a couple of batches of pale ale, couple of browns and a couple of porters. I'm assuming this is a highly modified malt and I can do an infusion mash and skip the protein rest. Is this assumption correct? Will it make a difference on the styles, or mash them all alike?
Thanks much,
John

Date: Fri, 01 Oct 93 11:10 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: yeast query & bottled experience

Hello readers,

Two queries if I may...

YeastLabs American Ale:

I recall someone asking for any experiences or reactions to this strain. I have 5 gals of pale ale (og 40) in a secondary and the yeast head has yet to drop. I racked from underneath the primary's yeast head and a new one grew in the secondary carboy. It has diminished some but this is my first experience w/ the yeast and since it has been fermenting for a week, I just want to know what might be happening. This batch got off on a rollicking start...I had signs o' fermentation within 3 hours and a yeast top-layer in about 7-8 hours (the power of aeration and 4 cups starter). In sunny Madison, the tilt of the earth has lower the ambient temp. of my basement to 60-63 F. Could the lower temp result in such a slowing of fermentation. Before I could ferment for 1 week to 9 days and have clear beer to bottle....but that was before this yeast and temp change and recipe.

Bottles:

Has anyone used the 1 pint 6oz Sapporo or Kirin beer bottles for home brew. They don't appear to be as thick as returnable long necks but their generous size and easy access make them a tempting container. How would they hold up to bottle conditioning....3/4 cup corn sugar or 1 1/4 cup malt extract... don't need to carb. anymore than that.

Thanks,
David Atkins
atkins@macc.wisc.edu

Date: Fri, 1 Oct 93 12:22:39 EDT
From: "decc::carlson"@tle.enet.dec.com
Subject: Now, why don't they make it in an ale? ;)

SOFIA (UPI) - One of the largest breweries is beginning production of a special beer which would help against radioactive contamination, press reports said Friday.

The beer, called Lulin Special Light Laer, is supposed to help people cleanse themselves from radioactive strontium-85 particles, which enter the body through the air and various foods, and are deposited in the bones, reports the daily 24 Chasa.

Sofia newspapers carried pictures of members of the Defense Ministry's Civil Defense Department drinking the Pilsen type beer Thursday.

Lt. Colonel Valentin Angelov, scientific secretary of the ministry's Scientific Development Council, told United Press International that work on the project had begun two years ago.

``After the Chernobyl incident, we began intensive work on foodstuffs and beverages which could help the human body fight radioactive contamination,'' said Angelov.

On April 26, 1986, the nuclear power plant in Chernobyl, 80 miles (128 km) north of Kiev, Ukraine, was damaged. Radioactive contamination spread across eastern and northern Europe.

Angelov said that the special effect of the beer was due to an ingredient called Kanta-tonic, which contained some 40 Bulgarian herbs and was developed jointly by the country's Academy of Sciences and the Central Laboratory on Radiobiology and Toxicology at the Military Medical Academy.

``All our experiments have shown that the lager greatly promotes the decomposition of strontium-85,'' said Angelov.

According to the managing director of the Lulin brewery, Ivan Mihov, it is for the first time in the world that such a beverage was being produced.

He said great interest had already been shown towards the beer from abroad, notably from the the United States and Japan.

Date: Fri, 1 Oct 93 14:35:04 EDT
From: Michael Bruening <mwb2r@uva.pcmail.virginia.edu>
Subject: pint glasses

Reading the discussions about different drinking containers reminded me of a problem I've had - I have not been able to find traditional English pint glasses (NOT the dimpled kind with the handle) anywhere in the U.S. Does anyone know of a place that sells them, either direct or mail-order? E-mail responses are fine. Thanks.

Michael Bruening
mwb2r@virginia.edu

Date: Fri, 1 Oct 93 17:55 GMT
From: "Graham Truelove@START_Mail*" <Graham_Truelove+aSTART+_Mail*%START@mcimail.com>
Subject: Cooking with beer recipes

From: Graham Truelove on Fri, Oct 1, 1993 2:05 PM
Subject: Cooking with beer recipes
To: Homebrew Digest

FYI: This month's Gourmet magazine, October 1993, gives several new recipes for cooking with beer - microbrewed or mass-produced (or for that matter homebrewed). The article states "The hearty and savory dishes that emerged from our test kitchens highlighted beer's versatility as an ingredient, its most notable properties being a subtle bittersweet taste and, for meats, a tenderizing effect. It's also worth noting that most preparations made with beer are best accompanied by a tall glass of their most salient ingredient."
Sounds good to me.

Mussels steamed in spiced beer
Beer-braised brisket with root vegetables
Onion and Garlic Beer Soup
Chile con queso y cerveza (Cheese and chili beer dip)
Beer, sun-dried tomato, and olive quick bread
Deep-fried broccoli and carrots in scallion and caper beer batter
Pork chops in beer teriyaki marinade
Stout spice cake with lemon glaze

All the recipes but the last call for pale, light-bodied beers and discourage the substitution of stronger flavored beers. I haven't tried any yet but the stout spice cake and the beer-braised brisket both look tempting.

- -- Graham

Date: Fri, 1 Oct 1993 14:25:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: RE: Drinking Containers

Hi!

Gene in Laramie asked if Corning Outlets still carry Yard glasses, the answer is yes! At least in New Hampshire they do. Yards run about \$30.00, 1/2 Yards about \$22.00 and Foots are \$15.00. The 1/2 Yards are tough to get because they sell out quickly, but they've always had the others in stock when I've been in there. \$30.00 is a great price for Yards with a stand, especially when I saw the exact same one at The Boston Brewer's Festival for \$65.00. (Even more especially when one's cat sacrifices one's yard to the radiator!)

Cheers!

Pam

Date: Fri, 1 Oct 1993 14:07:37 -0700 (PDT)
From: Jeremy Ballard Bergsman <jeremybb@leland.Stanford.EDU>
Subject: aeration

George Fix writes that as the O₂ fraction in wort is ~32%, aerating with air will lead to 1/3 less dissolved O₂. Shouldn't this be 2/3 less???

Jeremy Bergsman

Date: Fri, 1 Oct 93 18:58:42 EDT
From: ab126@freenet.carleton.ca (Jay Cadieux)
Subject: Papazian's "Amazeing Pale Ale"

In 09/30/93's HBD, CCA:ELS_DEM asks about the use of cornstarch as an adjunct in ale brewing. He mentions Papazian's "Amazeing Pale Ale" recipe.

My first all-grain batch was that exact recipe. The cornstarch converted well, leaving some corn aromatics in the ferment and in the beer. These corn aromatics subsided after about 2 months in the bottle. There was no "cidery" taste that you can sometimes get with corn sugar (dextrose).

- - -

Jay A. Cadieux (ab126@freenet.carleton.ca, 1:163/277.1@fidonet.org).
"Be the master of your shadow, not the shadow of your master" - Nietzsche

Date: Fri, 1 Oct 93 20:25:21 EDT
From: sean v. taylor <sean@chemres.tn.cornell.edu>
Subject: cinnamon in apple cider

Greetings all on the HBD. I'm a newcomer (been reading the digest for a couple of months) and have found the info very helpful). Now I have a question of my own.

I recently made a hard apple cider with a friend of mine and it looks great. It's almost ready for bottling and we have a few questions about that.

1) Which bottles would be better for bottling--beer bottles or wine bottles? We think we want to use wine bottles, but is there any problem with this?

2) We have also considered adding a stick of cinnamon to each bottle. Has anybody done this? Would this affect the flavor in a bad way (i.e., off flavors due to microorganisms on the cinnamon, too much cinnamon flavor, etc.)

Any input at all would be most helpful.
Thanks,
Sean Taylor

Date: Fri, 01 Oct 1993 21:30:23 -0400 (EDT)
From: KONSTANTINE@delphi.com
Subject: Modesto Clubs

>A friend of mine (who does not have access to HBD) recently move to
>Merced California
>If you know of any local clubs or individuals please let me know.

I just looked in the Celebrator (a local brew newspaper) for clubs.
I'm not sure what's in the area of Merced, so some of these may be out of
his area.

Brew Angles - Lodi
Ken Matzek (209) 368-2515

Gold Country Brewers Association - Sacramento
Phil Steed (916) 383-7702

San Joaquin Wort Hogs - Fresno
Dale James (209) 264-5521

Stanislaus Area Assoc. Zymurgists
Micah Millspaw (209) 847-9706

Stanislaus Hoppy Cappers
Wayne Baker (209) 538-BREW

I hope there is no problem with me posting these phone numbers. They
were pulled out of a public forum. If I'm breaking a net taboo, I'm
sorry.
Also, have your friend look up homebrew supplies in the phone book and
call
up the closest one. Most shops are happy to direct you to the nearest
club.
That way you learn more about brewing (and spend much more money!). Good
luck and happy brewing.

B*B,
Konstantine.

konstantine@delphi.com

Date: Fri, 1 Oct 93 22:32 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Pitching Rate

>From: gjfix@utamata.uta.edu (George J Fix)

>It has been my experience that underpitching yeast is a common problem with some homebrewers, and selected micros as well.

I am sure George's reputation doesn't hang on my corroboration but my recent experience leads me to concur emphatically. I don't know about it being a "problem" but it certainly is a significant factor in lag time.

After pondering all the responses to my wort aeration experiment, I conducted one more experiment which makes the connection between aeration and lag time even more tenuous.

To pre-empt more of the same irrelevant discussion, please keep in mind that the experimental objective was ONLY to measure lag time as a function of aeration and had nothing to do with the well accepted need for oxygenated wort for unrelated reasons.

I normally pitch about 500 ml of active wort built up from a slant culture. The first step is to cover the slant with wort so the entire culture is available to start the starter. The slant culture is discarded after one use.

I typically spend about 5 days building up the starter doubling the volume ever 24 hrs. It typically takes about 48 hours before any sign of fermentation is apparent in ten gallons of wort at 40F and 8 to 24 hrs for ales at room temp.

On my most recent batch, I built the starter up to 3 liters and fermentation was obvious in about 6 hours at 40F.

My point is not to champion the advantages of fast startup because I don't know anymore than what I have read and I doubt that my last batch will taste noticeably different from previous ones.

I am simply pointing out that pitching rates have such a profound affect on lag time compared to aeration that any attempt to measure the later effect will be swamped by error cause by small variations in the pitching rate.

js

p.s. It also seem obvious that pitching liquid yeast in the convenient starter package as supplied by one manufacturer, is not a very sensible way to get a beer off an running.

jjs

Date: Sat, 2 Oct 1993 02:52:50 -0400 (EDT)
From: Alexander Samuel McDiarmid <am2o+@andrew.cmu.edu>
Subject: too high keg pressure?

I have brewed a batch (2) in coke type kegs (5&3 gal) and cannot get the beer out without overfoaming. I have standard 1/4 (1/8) internal Diameter tubes (they fit the barbs) and a beer keg type cheapo spigot. I bled all the pressure out and it still siphons too carbonated.

help (feel free to reply off line)

Date: Sat, 2 Oct 93 15:54:29 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Christmas Ale Recipe

For those who might be looking for a Christmas Ale recipe, here is one that Curt Freeman and I made 2 weeks ago and I just bottled my share this afternoon. We took the spice list from Phil Fleming's Christmas Ale recipe that Kinney Baughman posted here 2 years ago. Since we had had a lot of fun with our first all-grain batch a week or so earlier we decided to do a partial mash (so we each would get 5 gal) and change it from a stout base to an amber base. Anyhow, here is the recipe:

Christmas Ale for 10 gal

9# Pale Malt Mash at 156°F for 90 min
0.75# Dark Crystal Malt (120°L)-+
0.5# Caramunich Belgian Malt (60-80°L) +-- add at mash out
1# German Dark Crystal Malt (20°L) -+
10# Munton & Fison Light Malt Extract Syrup

2 oz (15 AAU) Northern Brewer Hop plugs (10 gal remember) - 60 min

1 oz Hallertauer Hop plugs (steep 10 min)
1.5# Honey-----+
10 cinnamon sticks (3") |
12 oz grated ginger root |
zest from 12 oranges+-- Simmer 45 min; then add to wort (after
4 Tbs Allspice (whole) | the boil and steep with Hallertauer
2 Tbs Cloves (whole)-----+ hops

Wyeast German Ale yeast (1007)

We added the crystal malts at mash out in an attempt to retain some body. The combination we used was based partly on what I had left over from previous batches. We used a rectangular picnic cooler for the mash/lauter tun. It did not hold the heat very well compared to the insulated box method that we used on our all-grain but we feared that there was too much grain to use the tried & true method.

O.G. 1.056
F.G. 1.010
Fermented at 60°F

At bottling time, it is very good. The cloves and allspice are more pronounced over previous batches (I've made Phil's version for the past 2 years) but that may be due to finally following the directions!

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Sat, 02 Oct 1993 15:58:32 -0400 (EDT)

From: KONSTANTINE@delphi.com

Subject: William's Brewing

>> William's Brewing is a big mail-order outfit in San LEandro CA.
>Does anyone have an address, or better yet, a phone number (1-800
>number if possible) for these folks?

OK, here goes. The address is:

William's Brewing
2594 Nicholson St.
P.O. Box 2195
San Leandro, Ca. 94577

Phone: (800) 759-6025
Fax: (800) 283-2745

B*B,
Konstantine.

konstantine@delphi.com

Date: Thu, 30 Sep 93 9:49:23 MDT
From: npyle@n33.stortek.com
Subject: re: Troubleshoot my dry-hopping!

Darryl has a better eye than I for troubleshooting brewing mistakes. He keenly noted the following:

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>caa@com2serv.c2s.mn.org (Charles Anderson) writes  
>>I did the same thing with my first full mash Pale Ale. I added 1oz of  
>^^^^^^^^^^^^^^^^^^^^^^  
>>Willamette to the fermenter, it came out with a great hop aroma, but  
also  
>>an unbelievable bitterness. BTW I just threw the hops in on top of the  
>>fermenting wort. It took a long time for my bitterness to go away, and  
>>by that time I didn't think the beer was very good. (couldn't tell if  
>>wasn't very good to start with too much bitterness)  
>  
>This struck a chord in me. I'd just like to point out that your  
>hop utilization is going to change dramatically when you go from  
>a portion boil extract brewing process to a full boil mashing  
>process. I discovered when I changed over that I needed about  
>half as much hops as I had been using in extract beers.  
>  
>The reason is that if you boil 6 pounds of extract in a gallon and  
>a half of water, the gravity of that wort is well over 1.100, and  
>probably somewhere near 1.125. High gravity worts don't take up  
>much iso alpha acids from the hops. When you switch to all grain,  
>and therefore full wort boils, your gravity will be more like  
>1.050, and you'll get a lot more bitterness out of your hops.
```

I had the same experience when I went to all-grain and I should have noticed this. Shortly thereafter I started basing my hop schedule on IBUs and have no problems since. The IBU formulae consider the OG (although the details of utilization are debatable) and avoid the problem of overhopping with full boils.

norm

Date: Sun, 3 Oct 93 15:11 CDT
From: fjdobner@ihlpa.att.com
Subject: Carboys/Yards

For those interested and living in the Northern Illinois area, the Corning Factory Store has the following to offer:

5 gallon glass carboys.....\$8.99 (ask for cardboard packing)
Yard of Ale Glasses (w/stands)....\$29.99
1/2 Yards (w/stands).....\$19.99
Foot of Ale Glasses (w/stands).....\$14.99

The yards are cheaper than I have seen before. It is not something for which I would immediately jump at at, but some would.

They are located in the Piano Factory Mall in St.Charles w/ telephone number of (708)377-5460. The mall additionally has a housewares outlet store with other things of interest to homebrewers (canning jars etc...)

.

Good Luck

Frank Dobner

End of HOMEBREW Digest #1239, 10/04/93

Date: Sun, 03 Oct 93 16:39:59 EDT
From: brewerbob@aol.com
Subject: Mailing/shipping home brew

I have checked it all out and I have been the "victim" of the US Postal Service as well. Here is the real skinny on at least two methods of shipping alcoholic beverages:

The U.S. Postal Service has regulations forbidding the shipment of any alcoholic beverage via USPS. (As well as about 100 other items such as explosives, drugs, toxic materials, etc, etc...) That's all there is to that!

I had a package that I sent (or tried to send) to the state of Washington that was dropped/hit/crushed/mishandled/etc in spite of the labels on all six sides stating it was fragile. I received a form stating that I had been a bad boy and my package was sent straight to Hell (I think that may be the other Washington!) and I could not even get my postage back!

Shipping by UPS is legal! However, to avoid any hassle with some low paid and low trained clerk that could easily occur if you identify it as beer, the best thing to do is identify the contents as "Non-parishable food products" or "Hobby parts including glass and metal" or something along those lines. If you must, call it "Live yeast cultures" and the driver may be more careful with the handling of the box.

I do strongly recommend, however, that you do NOT send it in a beer carton! I sent a case of twenty sixteen ounces to Texas in a Tucher box (after all, they were originally Tucher bottles) along with a second box which was a plain brown box containing about ten assorted bottles of home brews. The two were sent at the very same time. The second one arrived just fine, the first one never arrived. I just hope the driver appreciated my home brew. It was a Shiner style Bock beer.

I did put in a claim and UPS paid me \$100 plus the \$11.xx shipping cost. I split the money with the intended recipient and told him to buy a case or two of good beer with it!

Good luck with your shipments.

BrewerBob@aol.com

P.S. By the way, when I ship beer to the AHA competition, I always include a couple of extra labeled bottles for the crew and I pack the beer bottles in fresh popcorn so they have something to eat with all that beer. I enclose a

note telling them that the popcorn was popped as the box was being prepared for shipment so it is fresh. The whole thing starts in a plastic bag inside the box which is sealed before the box is closed.

Date: Sun, 3 Oct 1993 22:08:24 -0700 (PDT)

From: Jack Thompson <jct@reed.edu>

Subject: Old brew/Babylon

just reading through Carl S. Pederson's Microbiology of Food Fermentations, the AVI Publishing Co., Inc, Connecticut, 1971, when I came across this item on p. 211:

"The first evidence of beer manufacture has been traced to to ancient Babylonia, possibly dating back as far as 5000 to 7000 B.C....Some 18 varieties of beer, called bousa, were said to have been prepared in Babylonia as long ago as 2200 B.C.

...At some time barley was moistened and when germination began, it was crushed with a pestle, roughly ground, and made into loaves with sour dough or leaven. They were baked sufficiently to form a crust without cooking the interior. When beer was required, the loaves were broken, mixed with water, and allowed to ferment. the liquid was pressed, separated from the dough, and when fermentation was completed, the resulting acid-alcoholic beverage was called boozah or bousa.

Booze? Babylonian?

Beer=high tech?

Just another data point.
Jack C. Thompson

Date: Mon, 04 Oct 93 09:39:22 EDT
From: gorman@aol.com
Subject: Corning Outlets near DC?

Recent messages have described the variety of glassware available at
Corning
Outlets.

Does anyone know of one of these near the Washington, DC area?

Bill Gorman

Date: Mon, 4 Oct 1993 9:01:47 -0500 (CDT)
From: SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh)
Subject: re: cold plates

Regarding chilling beer with a cold plate in a freezer: This would probably work for one or two glasses of non-warm beer. But the thermal mass of the cold plate is a lot lower than that of the beer going through it. A little heat transfer:

Assume an aluminum cold plate at 255K (0 F), 5 gal of beer weighing 19 kg at 290K (62 F), and perfect heat transfer. No heat transfer to the freezer during dispensing (worst case, but not by much). No temperature change due to CO2 coming out of solution (not sure how much this matters)

Dispensing temperature to be 278K (40 F).

Specific heat of Al alloy: 820 J/kg/K
Specific heat of water (beer): 4184 J/kg/K
Equation: $mp * C_{pp} * (T_{out} - T_p) = mb * C_{pb} * (T_b - T_{out})$
where p=plate, b=beer, T_{out} =dispensing temp.
Solve for mp, mass of plate:

$mp = (19 \text{ kg}) * (4184 \text{ J/kg/K}) * (290\text{K} - 278\text{K}) / (820 \text{ J/kg/K}) / (278\text{K} - 255\text{K}) = 51 \text{ kg}$
This means you'd need a 110 lb aluminum cold plate to dispense a whole keg of beer. Of course, it's all more complicated than that, because you get a lot of temperature variation in the output of the plate as it warms.

One way to help this problem would be to put your cold plate in a pan of antifreeze solution (like what you put in your car). The bigger the better, but don't ruin your freezer; water is heavy....

| James W. Smith, NASA MSFC EP25 | SMITH@epvax.msfc.nasa.gov |
| "Emancipate yourselves from mental slavery |
| None but ourselves can free our minds" --Bob Marley |
| Neither NASA nor (!James) is responsible for what I say. Mea culpa.

Date: Mon, 4 Oct 93 10:03 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Cold Plates

>From: Steve Christiansen <steven@sequent.com>

>Sometimes this is done with ice on the cold plate.
In other cases the cold plate is placed in a fridge or freezer.

I have used a cold plate for years and assure you that they are totally adequate for serving beer when used with ice. I have noted people using them in a fridge but can not imagine how that could work very well. The difference in heat transfer between ice water to aluminum vs refrigerator or even freezer air is orders of magnitude. A freezer might work for one glass but that would be about it. If that is all you want, it might be ok.

>From: drose@husc.harvard.edu
>Subject: Corona Motorization

>I had been planning on buying a bolt of the appropriate size and cutting the head off, but as it was only \$1.00, and as I was feeling a little guilty about the skimpiness of the rest of the order I was making, I got one. When it arrived, I was somewhat chagrined to find that it consisted of a bolt with the head cut off.

This is a constant frustration for manufacturers who get accused of ripping off customers for things that seem trivial. Most people simply do not understand the costs of manufacturing which must include purchasing, inventory, interest, labor, overhead, markup for retail, taxes, shipping, packaging, warranty... the list is endless. Just what would you charge to supply me with a bolt with the head cut off? You got a bargain.

> After alternating between states one and two for several minutes, I began to fear for both the mechanical integrity of my drill, and the cleanliness of my kitchen, and I gave up. So, what is the deal here. Do I need a more powerful drill?...

You are simply experiencing the limitations of the so-called variable speed drills on the market today. They have very little torque at low speeds and are pretty useless for your purpose. I would suggest getting it to run at the proper speed before filling the hopper and then adding grain only as fast as it will take it. This unfortunately may not maintain enough pressure on the plates for a consistent grind but sow's ears do not make silk purses.

If you can afford a new drill, I highly recommend getting a geared-down version of a 1/2" drill. The power or size of the drill is not as important and the gear ratio. The higher ratio allows the motor to operate at higher speed and produce much greater torque.

You will, BTW, destroy you drill shortly after you smell smoke, if you continue.

js

Date: Mon, 4 Oct 1993 12:19:16 -0400 (EDT)
From: William Pemberton <wfp5p@holmes.acc.virginia.edu>
Subject: Re: Pint Glasses

> Reading the discussions about different drinking containers reminded me
of a
> problem I've had - I have not been able to find traditional English
pint
> glasses (NOT the dimpled kind with the handle) anywhere in the U.S.
Does
> anyone know of a place that sells them, either direct or mail-order? E-
mail
> responses are fine. Thanks.

If you mean the kind of slant sided pint glasses, Market St. Wine Shop
(downtown) has them. They aren't QUITE traditional English, since they
are a US pint.

- - -
Bill Pemberton wfp5p@virginia.edu
ITC/Unix Systemsflash@virginia.edu
University of Virginia uunet!virginia!wfp5p

Date: Mon, 4 Oct 93 12:55:46 EDT
From: pgs@ai.mit.edu (Patrick Sobalvarro)
Subject: grain mill evaluations (Boston Wort Processors' Krush-off 3/3)

Oops, it was pointed out to me that I neglected to include price information in the third part of the Krush-off writeup, which included the descriptions of the Listermann Mill and the Glatt Malt Mill. The prices in question are:

Listermann Malt Mill: \$75 + tax
Glatt Malt Mill: \$80 + \$5 shipping

A lot of people have sent me mail asking for the address of Glatt Machining. Glatt's address has been published here before, but here it is one more time:

Glatt Machining
920 Stanley Drive
College Place, WA 99324
(509) 529-2084

-P.

Date: Mon, 4 Oct 93 13:13:25 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: dryhopping rate

Yesterday I bought (and drank) a bottle of Young's Special London Ale. This beer had the most vegetal hop character that I've ever encountered in a bottled beer. I have no idea how fresh it was (don't know how to read the date code -- does anyone know if the "beer date decoder" works on this label?), but it sure tasted fresh.

This stuff's got a LOT of dry hops in it. It tastes about the same as my IPA with 2 oz E.Kent Goldings hop plugs in 5 gallons, except fresher! (I did make the IPA back in the spring, I guess.)

If you're wondering about dry hop rates, you should try this beer.

=Spencer

Date: Mon, 4 Oct 93 12:45:35 CDT
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: cleaning/brewing tips

Do you have any tips, hints (such as vortex outflow from bottles and carboys for rinsing etc) which have made the brewing and especially the cleaning processes any easier? I'm on batch 8 and I'm looking to begin streamlining the brew process....email address below. TIA
If there is a demand, I will repost depending upon info recieved.

Thanks,
Chris

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=====
|Chris Pencischips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |
=====
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Date: Mon, 4 Oct 93 14:09:07 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: Christmas Ale Recipe

Spencer Thomas asked if any water is used to simmer with the spices in the Christmas Ale recipe I posted.

No, there isn't. I put all the spices in the honey and heated it on low for 45 min. The honey gets pretty runny when heated.

Now that I think about it, I think I used a double boiler this time (in which case there is some water but not with the ingredients!).

Sorry for the confusion.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Mon, 4 Oct 93 12:29:37 MDT
From: npyle@n33.stortek.com
Subject: Barley Wine fermentation schedule?

My latest brew is an all-grain barley wine, on the weak side. The OG was around 1.085 (boiled for many many hours!). I was trying to get the OG higher, but that is another story (I now know why many people do partial mash barley wines!).

Anyway, I used a 1 pint starter from Wyeast London Ale yeast, which was possibly a bit past high krauesen, in a 5 gallon batch. The start of obvious fermentation took over 24 hours, so I suspect I underpitched considerably. Aeration was done with a venturi tube apparatus, using the falling cooled wort (new CF chiller worked great!) to suck air into it. It had a nice 3 inches or more of foam on the top of the fermenter, so I think aeration was adequate (maybe not?, read on...).

The krauesen reached a couple of inches in about 3-4 days, and slowly levelled off and went down to a 1/4 inch layer of foam after that. After a week, I sneaked a taste in the primary. No off flavors, but very sweet. I didn't take a gravity reading. After another week, 2 weeks total in the primary, I did a gravity reading and subsequent tasting. The gravity was 1.055!!! The taste was (obviously) still very sweet. I racked into my secondary, where the beer will stay for a while, but for how long? Am I looking at a 6 month ferment here? Is this normal for a high OG beer? The strongest beer I've made before was OG 1.057 and it acted quite normal (2 weeks to 1.015 or so).

I know this sounds like the standard "how long till I bottle" question, but it pertains to the high gravity end of it. I'm in no rush, but this could take forever. If this is not normal (which I suspect) should I aerate at this point, add more yeast, nutrient, what? Next time (there will be a next time) should I work extra hard (compared to "standard gravity" ales) at increasing yeast population and oxygen content?

Thanks,
norm

Date: Mon, 4 Oct 93 14:38:46 EDT
From: vella@tvrisc.timeplex.com (Jim Vella 470 XXXX)
Subject: North Jersey Suppliers

I am new to homebrewing and would like to know if there are some good supply stores in North Jersey, or any good mail order suppliers.

Please respond to vella@tvrisc.timeplex.com

Thanks -

Jim Vella

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#####  
# James F. Vella # ascom Timeplex #  
# (vella@tvrisc.timeplex.com) # 470 Chestnut Ridge Road #  
#201-391-6000 X6707 # Woodcliff Lake, N.J. 07675 #  
#####
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Date: Mon, 4 Oct 93 13:24:39 EDT
From: sdlsb.dnet!73410%sdicc@swlvx2.msd.ray.com (Omega)
Subject: Krush-off / help

Hi all,

First, thanks to Patrick Sobalvarro and the Boston Wort Processors for the Krush-off info. I now know which mill I will buy when the time comes. On to the question. I am currently extract brewing, and am attempting my first lager. It is based on the Pilsner Urquell clone on page 2-7 of the Cat's Meow (2nd ed.) with variations due to on my local supplier's advice and stock. This is what I used:

5# Briess light malt syrup
1.75# Briess Gold dry malt extract
15.5 AAU Saaz
Wyeast #2007 into 26 oz. ~1.040 starter 48 hours before pitching

Added 1/3 of the hops at 60, 30, and 10 minutes. Chilled the concentrated wort (2 gallons) to 70F, added to 2.5 gal. of 70F water, pitched entire starter (made from more of the Breiss Gold) and topped off to 5 gal. with more 70F water. Swirled to mix. O.G. 1.026, when I expected closer to 1.050. This is the first time I have used a hydrometer (out of five batches). I did correct for temperature. What am I missing here?
Private
email please to 73410@sdicc.msd.ray.com.

Happy Brewing,
Carl Howes

Date: Mon, 4 Oct 1993 15:23:19 -0500
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Novice all-grainer's comments

Now that I have three all-grain batches under my belt (not literally, yet!), I thought I should pass on a couple of the problems I've encountered and solved for the benefit for other new all-grainers.

On my first two batches I encountered significant cooling (>5 degrees over 1.5 hours) during mashing in a 5 gallon Gott cooler. On my last batch I encountered no cooling during a one hour mash. The trick is to preheat the mash tun; I did this by filling the tun with hot tap water while heating up the mash water (I do a single infusion mash). Also, I used US 2-row Klages for the last batch and experienced much faster conversion (<45 mins) than my other two batches which used English Pale Ale malt, presumably due to the higher enzymatic activity of the Klages malt. (Has anyone encountered any flavor differences between these grains?)

I also experienced very slow sparges (2 hours for 5 gallons) during my first two batches. On this last batch, the sparge slowed to a trickle so drastic action was called for. I dumped the mash out of my combined mash/lauter tun (the above Gott cooler with Phil's false bottom), and discovered that the mash had gotten under the false bottom. After removing the mash from under the false bottom and dumping it back in the tun, I was able to run the sparge as fast as I wanted. I believe the mash was getting under the false bottom during the intense stirring of mash-in. To solve this problem I may use a separate cooler for mashing and transfer the mash into the lauter tun at the end of conversion.

Hope this helps prevent someone else from encountering these problems.

Steve Zabarnick

Steve Zabarnick
steve@snake.appl.wpafb.af.mil OR
zabarnic@udavxb.oca.udayton.edu

Date: Mon, 4 Oct 1993 15:54:19 -0400 (EDT)
From: Michael Ligas <ligas@mcmail.cis.mcmaster.ca>
Subject: Dave Barry observations (fwd)

- ----- Forwarded message -----

Date: Mon, 4 Oct 1993 13:28:37 -0400
From: NAME <ECLEMENT@ADMIN2.MEMST.EDU>
Subject: Dave Barry observations

>From Dave B's column yesterday, all about the new standard for testing soap scum cleaner.

"Oh sure, you've seen TV commercials wherein the Cheerful Housewife, standing in a bathroom the size of Radio City Music Hall, waltzes up to a scum-encrusted tile, sprays it with a cleanser, and then wipes it off to reveal a sparkling shine. But these commercials are not filmed on Earth; they're filmed on the Commercial Planet, where everything is different; where fast-food-chain employees really are happy to serve you; where there is some meaningful difference between Coke and Pepsi; and where "light" beer does not taste like weasel spit."

Date: Mon, 04 Oct 93 15:52:48 PDT
From: Robert Pulliam <Robert_Pulliam@rand.org>
Subject: Chillers, Yeast, and Stout

Greetings,

Just wanted to drop a note of thanks and ask a couple of questions. First of all thanks to all who gave me info on counterflow chillers a couple of months ago. I finally got around to building one last weekend and it worked great in the test (boiling water) run. It is 30 ft of counterflow with an additional 15 ft immersed in ice water. The water was siphoned and the whole 5 gal took approximately 33 minutes (any way to speed that up?) I left a small amount of flame on the burner to ensure that the water continued to simmer throughout the entire process. It took the boiling water down to 55 degrees (great for lagers I guess.) I plan to try it without the ice bath to see what the temp change is. Anyway, thanks again. Secondly, a question or two. I plan on brewing a pale ale this weekend and a stout next weekend. I would like (read only enough money allotted by the wife) to generate a starter from a WYeast packet that would work well for both brews. Any suggestions? Also, I am looking for an all grain recipe for a Murphy's stout. Anyone? Class, class. Anyone?

Robert J. Pulliam |+|all thoughts, statements, and opinions, |+|
Los Angeles, CA. |+|demented or not, should be my own; and |+|
pulliam@monty.rand.org |+|I'm certainly not associated |+|

Date: Mon, 4 Oct 93 21:59:59 PDT
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Two Hop Topics

There has been a bit of discussion here lately about two hop topics: gravity vs. utilization and dry hop bitterness.

Gravity vs. Utilization:

In the research for my book, I have tried to verify the common homebrew wisdom that high gravity **boils** make a difference in the hop utilization by attempting to find references in the commercial brewing literature. I have not been able to find **any** mention that wort **boil** gravity makes any difference in hop utilization. The gravity at the start of **fermentation** does make a difference, meaning that low gravity beers get better utilization than high gravity beers. Note that this is a fermentation effect, not a boil gravity effect, and varies depending on the fermentation technique. Anyway, the **volume** of the boil **will** make a difference, which may explain Norm's comments about needing less hops when switching to all grain (full volume) boils.

I asked Gail Nickerson this question ("Does boil gravity affect utilization?") and she said (paraphrasing), "No. Not unless you were boiling a syrup or something of that consistency. And if it did, it would be known because the big boys are all using high gravity brewing techniques these days."

To summarize, then, it appears that low boil volume (regardless of the SG) gives less utilization, but **boil** gravity has no effect. But as the gravity of the **fermenting** wort increases, utilization decreases - the amount depends on your fermenting methods.

Bitterness from Dry Hopping

I am at loss on this one. I, for one, have never noticed it. A lot of brewers report a pronounced **astringency** but not bitterness. This will go away in few weeks. It is possible that some of the alpha acids in the hops had been converted to iso-alphas, but I think this is unlikely. The hops would have gone "cheesy" long before there was significant conversion from ambient heat, etc. It is also possible that oxidized beta acids are the culprit. They are bitter, but again, I would think that the alphas too would have oxidized along with the betas, and we would be back in cheese city. They're also not very soluble.

But here's the real issue: Brewer's report a **great deal** of bitterness and they have used 1 oz (or less) of an aroma hop, in a process without heat or agitation. If they used the same amount of hops in the boil, would it have contributed the same amount of "undrinkable" bitterness? I think not. (you have to get way up there to get "undrinkable" IBUs).

So what's going on? Obviously something is happening because we have to assume the brewers with the dry hop bitterness are telling the truth and that they're not imagining it. Are they mistaking astringency for bitterness? OTOH, those that report this bitter effect are a minority - a lot of brewers dry hop all the time and never have this effect, not to mention Anchor Liberty and Sam Adams Boston Lager, both of which are dry-hopped. Many, many barrels of these two brews are produced annually with none of these problems.

Still, it would be nice to get to the bottom of it.

Suggestions?

Mark

End of HOMEBREW Digest #1240, 10/05/93

Date: Tue, 5 Oct 93 13:31:44 BST
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : Bitterness from Dry Hopping

If we accept that there is a difference between hop flavour and aroma, then my experience is that prolonged dry hopping (as in leaving hops in a pressure barrel) has a relatively short-lived, intense effect upon aroma, but a long-lived effect on flavour. I personally love the aroma of English Goldings, but not so much the flavour, which is why I am of the school of thought which limits dry-hop contact time to less than 2 weeks. As for bitterness, isn't there a theory that alcohol is an alternative to heat as a means of isomerisation? Presumably, any effect would also be enhanced by increasing the contact between the hops and the brew, as with the use of shredded hops or pellets.

- - -

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Date: Tue, 5 Oct 93 08:09:50 CDT
From: pmiller@mmm.com (Philip . Miller)
Subject: Krush Off Kwestion

Many thanks to the Boston Wort Processors et al for the interesting post on mills. Just a quick question: was it a blind judging? (I.e., did the judges know which mill ground the grains they were judging?)

Thanks

Phil
pmiller@mmm.com

Date: Tue, 5 Oct 93 9:38:18 EDT"
From: rmm@apollo.hp.com
Subject: Beer filtering...

Hi, I have seen a couple of references to filtering beer in the digest and I have some questions:

1. How fine a filter do you use?
2. Where do you find the filters?
3. When in the brewing process do you filter?
4. How much difference does it make? Can you really clarify beer by sending it through a filter once (at the end of secondary)?

I have a couple of cornelius kegs and a CO2 setup and would guess that I should use a counter-pressure fill from one keg to the other with a filter in between.

Any tips, comments or details of personal experience will be greatly appreciated. Thanks.

-ralph

- - -

=====
Ralph Morrison Chelmsford Systems Software Lab
(508) 436-4217 Hewlett-Packard Corporation
rmm@apollo.hp.com Chelmsford, MA 01824
=====

Date: Tue, 5 Oct 93 08:47 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Wort Processors Mill Evaluation

Sounds like a fun time was had by all and the context and tone of the report indicate that it does not require much serious debate. However, there are a few points that I would like to mention (surprise, surprise) just for clarification.

First of all, the MM used in the evaluation does not represent current design which will indeed crush one lb of malt in under 14 seconds with a hand crank and 5 lbs per minute with a motor is like falling off a log.

>The Schmidling MaltMill is a two-roller malt mill with 10" steel rollers, finely grooved lengthwise.

The current design uses a much coarser texture on the rollers that has a profound effect on the efficiency of feeding the grain through the rollers.

> In both tests the mill had to be held to the bucket by hand.

The MM is supplied on a base with rubber feet for locating it on a plastic bucket. This does not imply that this is the ideal way of using the mill in all cases and in particularly when speed tests are being run. It is far more convenient and easy to use if it is clamped to the edge of a work table with a simple C-clamp.

>The unmotorized test came first. The mill was very quiet when cranked by hand; the operator was timed at approximately 120 rpm. Two pounds of grain were crushed in 44 seconds.

The current design will crush a pound of grain in less than 14 seconds at that cranking rate.

>The motorized test used a 2.3 amp electric drill. Two pounds of grain were crushed in only 21 seconds, for the day's record.

This figure would be substantially improved with a current design but not knowing the RPM I can't even guess.

> Others mentioned that it occasionally proves necessary to replace the O-rings used in the drive mechanism.

Although a fairly trivial task to replace, the current design, does not

require the O-ring to drive the passive roller. We went from two O-rings to one and now have eliminated it's need entirely.

>The Corona is a flour mill..... When run with a 2.3 amp electric drill, the mill was less noisy than the Marcato (this may be because a different drill was used). The mill took only 24 seconds to crush the two pounds of grain.

I have real problems with this one because it implies that the Corona is almost as fast as the MM and this is not consistant with my experience.

According to my measurements, it takes 93 revolutions of a correctly adjusted Corona to process one pound of grain. This compares to 30 revolutions on the MM. This is the obvious advantage of the 10" long rollers. For the Corona to process grain in roughly the same time, it would have to run 3 times faster. Granted, no RPM's were stated for the drill operated tests, but this must be known for a rational evaluation. If the MM were run 3 times faster it would process 9 times more grain then the Corona in a given time.

By extrapolating the results of the hand cranked Corona....

>The operator was clocked at 100 rpm. Only three-quarters of a pound were ground, in 1:38 (one minute and thirty-eight seconds).

It would have to run at about 1200 RPM to process 2 lbs in 24 seconds. Theoretically, the MM would crush 40 lbs per minute at that speed.

I would also point out that, not having any bearings, the Corona would not last very long at that speed.

Finally, a note on crush quality....

The most misunderstood aspect of the grist resulting from milling of malt for brewing is the bogymen known variously as flour, dust, fine particles, powder etc. I would rank the need for unscathed husks as number two. The emphasis on both of these results from the problems created by crude grain grinders combined with poorly designed and/or operated mash/lauter tuns.

The perfect grist for mashing would be molecule sized particles of malt from which all the husk has been removed. It would wet perfectly, dissolve instantly and produce 100% yield of crystal clear wort.

In the real world, some of the starch is not converted or dissolved and it is impossible to prevent some of the husk from getting into the grist. This creates the need to filter the mashed wort and in this hypothetical case, it

could be run through a submicron filter and produce a nice clear wort with very high extraction yield. The bad news is that mechanical filtration at that level is expensive, time consuming and messy. The good news is, Mother Nature has provided a simple and free filter that when properly utilized, is just as good.

By allowing the husks to remain in the grist and providing the proper environment for them to settle and layer in the lauter tun, they will filter the wort just about as well as a mechanical filter and cost nothing.

I suppose most of us know all this but what seems to get lost in these types of subjective studies of grist from various mills is that the flour bogymen is a ghost from the days of flour mills, coffee grinders and poorly designed lauter tuns. A mill that doesn't pulverize the husks, if supported by a proper lauter tun can and SHOULD produce a significant amount of very fine grist. That is what makes the difference between acceptable and maximum extract efficiency.

To worry about husks that are broken in half as opposed to remaining whole is to miss the whole point. A husk in two pieces provides more filter pores than a whole husk. Likewise with ten, twenty or a hundred pieces. The problem arises not from chopping it up into small pieces but from pulverizing it into dust. A roller mill with two or more counter-rotating rollers is inherently incapable of pulverizing husks and whatever is done to the husks is not likely to create problems. Grinders and single roller mills are candidates for pulverizing husks and must be carefully adjusted to minimize this effect.

As an aside, I have not seen the Glatt but from descriptions, it sounds like the intermeshing grooves on the rollers might pose such a problem.

The sieve tests used by commercial breweries are quantitative and very repeatable but are designed to predict or explain problems in very large batches and are virtually meaningless for small homebrew sized batches. It's fun to say that one's mill produces text book quality grist but if in the final analysis, the beer is no different from that made from grist that has a different stastical spread of particle size, what does it prove?

I think the bottom line is that a homebrewer can use a roller mill with confidence that any problems in processing can probably be looked for elsewhere. Other types of mills require much more judgement and experience to get them to do what they were not intended to do.

js

Date: Tue, 5 Oct 93 08:14:14 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Update on troubleshoot my Dryhopping

A week ago I posted a request for help with my dryhopping. I had noticed a pronounced excess bitterness in a batch of brew which had been dryhopped 10 days on fresh homegrown cascade. (This was definitely dryhop bitterness, as it was not present in a second portion of the batch which had not yet been dryhopped.) Anyway, thanks to all who responded with help/suggestions.

Second, an update: I sampled this beer again last night, after 8 days of bottle conditioning. The bitterness is (almost) completely gone. I believe I still detect a bit more bitterness than in the undryhopped batch, but it is certainly not excessive, and works just fine for the style. Whatever this bitterness was, it was present immediately after removing the hop leaves, but gone after 8 days of conditioning.

Third, I was reading yesterday's comments by Mark Garetz on this subject. One suggestion of his is that what many report as 'bitterness' may actually be 'astringency'. I cannot speak for others, but as a lover of big red wines, my palate can easily recognize astringency. What I tasted was bitter, not astringent.

Enjoyin' my brew,

Kelly

Date: Tue, 05 Oct 93 09:36:44 CDT
From: Paul Sovcik <U18183%UICVM@UIC.EDU>
Subject: Re: Dryhopping bitterness

Could this mysterious bitterness from dryhopping be due to infection?
Dumping unsanitized hops into fermented beer may introduce some bizarre
microorganism that produces bitter byproducts. Maybe this organism tends
to
live on hop flowers?

Just some wild speculation....

-Paul

Date: Tue, 5 Oct 93 09:53:32 -0500
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Yeast Viability

I have been asked if there are alternative methods for estimating yeast viability that do not require the use of a microscope. I have been told that the need for a scope in the Morris procedure effectively eliminates it as an option for most.

Many moons ago I devised an iodine test to estimate % viability. It is described on pages 144-145 of BEER and BREWING, Vol.6, 1987, Br. Publ. It is based on the fact that glycogen will stain with iodine, and that yeast with high glycogen reserves tend to display high % viabilities. This test is trivial to do, and is not unlike the iodine test used in mashing.

Yeast whose viability exceeds 90% (a highly desirable condition) will stain with iodine pretty much in the same way as a corn starch solution. At the other extreme, yeast with viabilities below 50% (an unacceptable condition) will not stain at all. The problem with the procedure is that does not provide reliable info for the intermediate cases. Rodney's test is far more reliable in this regard. I still use the iodine test, but only to get initial rough estimates. It also should be noted that Rodney's procedure can be done at 200-400X. Hence, only an elementary "student scope" is needed.

George Fix

Date: Tue, 5 Oct 93 09:53:45 CDT
From: lencell@unmc.edu (Lance Encell)
Subject: molasses

I was wondering if anyone has had any bad experiences with molasses;
either
when used during the boil or for priming. I'm thinking of using it in a
Christmas ale with some spices. I guess what I'm wondering is if
molasses
mixes badly with certain spices or certain hops in beer. Thanks for
any responses,

-Lance

Date: Tue, 5 Oct 1993 08:18 PST
From: BRUCE@ARVAX.Syntex.Com
Subject: Christmas Ale Recipies?

Greetings!

Looks like it's about time to start those Christmas Ales going! I realize there have probably been a few recipies in the HBD lately, but I frankly don't have the time to wade through every day and pick out the useful information from this digest. (Is it just me, or is the signal/noise ratio on this thing getting pretty high?) ;)

Anyway, I do enjoy most of the stuff regardless how seemingly inane.

My point is, I'm looking for some Cristmas Ale recipies, so If anyone would care to send me some suggestions, I would greatly appreciate it.

My email is: BRUCE@ARVAX.SYNTEX.COM

Thanks much, and Happy Brewing!

BG
:)

| |)
|__|

Date: Tue, 5 Oct 1993 11:57:20 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Barely Wine ferment

<From: npyle@n33.stortek.com
<Subject: Barley Wine fermentation schedule?

<My latest brew is an all-grain barley wine, on the weak side. The OG was
<around 1.085 (boiled for many many hours!)

<Anyway, I used a 1 pint starter from Wyeast London Ale yeast, which was
<possibly a bit past high krausen, in a 5 gallon batch. The start of
<obvious
<fermentation took over 24 hours, so I suspect I underpitched
<considerably.
<Thanks,
<norm

A timely post since I just finished my first BW (fourth edition of
Woblin'
Goblin' Barley Wine) that actually fermented down to 4 degrees Plato! IT
is
also timely in that there is a pretty good article in the latest New
Brewer
by J. Maier of the Rogue Brewery in Newport, OR on just this subject. You
might recall that John is known for his BW, and makes a darn good version
called Old Crustaceon. Basically, John points out that he max's out his
mash tun to get the highest OG, oxygenates well, pitches *THREE* times
his normal amount of yeast, and ferments 10F higher (70F) than his
regular
ales. Primary for him is 2 weeks, followed by one in secondary and crash
cooling to drop yeast, and kegging with the residual yeast. I basically
did the same thing. I maxed out my mash and lauter tuns, actually
exceeding
their capacity, adding the extra mashed grains once i pulled some wort
off,
and the bed began to compact (be careful not to compact too much). I
reduced my yield by about 15% into the fermenter as a method of keeping
the OG up, but still *only* achieved 1.092 (~23 P). I also continued
to sparge the grains, yielding a Bitter of 1.043. I counterflowed
chilled
the BW to about 70F, hooked up a airstone to bottled O2 and let the
oxygen
bubble through the wort for a few hours. I pitched lots and lots, 2lbs?
?
of really healthy Dominion Ale Yeast slurry at the start of filling the
fermenter. The ensuing fermentation was impressive, blowing lots of
thick
krausen out the lid of my open fermenter, despite the 15% extra head
space
than normal. I was expecting a quick ferment (for a BW), but on day 4
the SG was around 1.045. The ferment was still quite active, but had
lost its high krausen mode. Just to be sure, I added another 1/2 lb or
so of yeast slurry on day 6 and left town for some Dead shows and brew-
pubbin' in Boston. Upon my return, on day 10, the SG was around 1.025
and the yeast was still in suspension and active. I waited until day 13
to keg, and the SG had dropped to around 1.016/4P. This can be compared
to a 4 day ferment of an ordinary ale (1.052-1.012). I did measure my
ferment temp during high krausen and it was 80F!! This is really too
high, and I am looking into a chilled water unit to attemperate the

ferments, but I have found that enough hops can mask some of the high temp ferment problems. Two of the kegs were cask hopped with one oz each of Centennial (same that John used).

None of my previous BWs have finished below 1.024/6P. I feel the O2 and the quantity of yeast is the difference.

Norm, I have let Bws sit in the secondary for 6 months, shaking the carboy to rouse the yeast. I also had a BW that I had to kick start with a single cell culture of Red Star Champagne yeast, and it worked. Good luck,

Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Tue, 5 Oct 93 10:35:21 EDT
From: sdlsb.dnet!73410%sdicc@swlvx2.msdlcc.com (Omega)
Subject: chilling wort

(John Pavao writes in HBD#1239:)

> (snip)

> I am wondering if I would be better or worse off if I chilled the
> concentrated wort before adding it to the cold water in the carboy.

I would say chill your concentrate first since it will be easier to do. For my first several batches I added the hot partial wort to the cold water in the fermenter a la Papazian, but in view of the recent warnings about HSA I went for chilling the partial boil (in my case about 2 gallons) to pitching temperature before adding it to the carboy for my latest batch. This took placing my kettle in a sink full of cold water and changing the water three times over 45 minutes. On adding hot concentrate it took seven hours for the batch to cool to pitching temp on its own, and a kitchen sink full of cold water had no noticeable effect. An immersion chiller would likely be more effective, but I have not yet made one. BTW, I tried sending this by private email but it bounced.

Happy Brewing,
Carl Howes

Date: Tue, 5 Oct 1993 17:05:55 +0100 (MET)
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>
Subject: SPGRAV: program to perform hydrometer corrections at any base

Someone somewhere sometime somehow posted a nawk script that performed hydrometers corrections to 600F based upon a order 3 polynomial fit of corrections calculated from water densities. I have modified this script to:

```
0 Be metric - welcome to the 18th century!  
0 Perform corrections for _ a_ n_ y hydrometer calibration.
```

The program is based upon a 3rd order polynomial fit of water density. It assumes that the hydrometer is calibrated to 200C but can accept any reasonable temperature. It would be quite simple to modify this to accept temperatures in other, historic scales. Here comes the code:

```
#!/bin/sh  
# This is a shell archive. Remove anything before the "#!/bin/sh" line  
# then unpack it by saving it in a file and typing "sh file"  
# (Files unpacked will be owned by you and have default permissions).  
# This archive contains the following files:  
# ./spgrav  
#  
if `test ! -s ./spgrav`  
then  
echo "writing ./spgrav"  
cat > ./spgrav << '____END_OF_THIS_FILE'  
#!/bin/nawk -f  
#  
# spgrav - calculates specific gravity of beer wort  
#at any temperature  
# usage: spgrav <gravity temperature>  
#  
# Original author: unknown  
# Current author: Kurt Swanson (kurt@dna.lth.se)  
#  
# Version 1.0  
# Date 10/05/93  
#
```

```
BEGIN [  
if (ARGC != 3 && ARGC != 4) [  
print "spgrav: convert specific gravity to correct reading based upon"  
print " hydrometer calibration. Calibration is assumed to 20/260C"  
print "usage: spgrav <gravity measured-temp [base-temp]>"  
print "example: spgrav 1.038 35"  
] # end if  
else [  
  
gravity=ARGV[1]  
temp=ARGV[2]  
  
if (ARGC == 3) [  
tempc=20  
]  
else [  
tempc=ARGV[3]  
]  
]
```



```

if (gravity > 2 || temp < 0 || temp > 100 || tempc < 0 || tempc > 100) [
  print "error reading input: out of useful bounds"
  print "example: spgrav 1.038 35"
] # end if

else [

temp2=temp*temp
temp3=temp*temp*temp
tempc2=tempc*tempc
tempc3=tempc*tempc*tempc
newspgrav = 0.0000162860587*(tempc-temp) - 0.00000584994855*(tempc2-
temp2) + /
  0.0000000153243635*(tempc3-temp3)

  print
  print "specific gravity of " gravity " at " temp "/260C ="
  printf("%s %5.4f %s/n/n", "specific gravity of", /
    gravity + newspgrav, /
    "at " tempc "/260C.");

] # end else

] # end else

] # end BEGIN
__END_OF_THIS_FILE
else
  echo "will not over write ./spgrav"
fi
echo "Finished archive 1 of 1"
# if you want to concatenate archives, remove anything after this line
exit

```

Date: Tue, 5 Oct 93 09:39:55 PDT
From: sc@vcc.com (Steve Casselman)
Subject: Room-mate for GABF 93

Being a member of the Board of Advisors for the
AHA I get some off the wall requests. So's here
is one: Richard Wong is going to the Great American
Beer Fest and wants to know if he can get a room
mate or crash at someones pad. His number is
1-209-477-7748

Steve Casselman

Date: Tue, 5 Oct 1993 09:37:22 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Dry hop "bitterness", Fermentation hop utilization

I also have experienced the dry hop "bitterness" in some of my pale ales as both Kelly Jones and Darryl Richman noted. In my tasting notes I described it as an "astringent harshness" not really a bitterness, and in going over my brewing records I find a correlation between this dry hop harshness and the sulfate content of my brewing water. In both cases, I had hit the gypsum and/or epsom rather hard. The good news is that in all cases this harshness was gone with 4-6 weeks bottle conditioning. An interesting "powdery" palate is imparted (I think) by the high sulfates. It's a front of the mouth "roughness" vaguely similar to the mouthfeel of spinach.

Mark Garetz writes in #1240 that hop utilization rates are related not to the boil gravity but to the starting fermentation gravity. What? I don't quite understand what is meant by "fermentation utilization". Boiling hops is an extraction technique, I assume that "fermentation utilization" refers to a breakdown effect. Mark if you could clarify this I would appreciate it. Also, maybe you could speculate on why boiling volume affects utilization rate (saturated solution of alpha acids?).

Thanks.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Tue, 5 Oct 93 12:47 CDT
From: korz@iepubj.att.com
Subject: High-gravity ferments

Norm writes:

>My latest brew is an all-grain barley wine, on the weak side. The OG was around 1.085 (boiled for many many hours!).
<snip>
>Anyway, I used a 1 pint starter from Wyeast London Ale yeast, which was possibly a bit past high krauesen, in a 5 gallon batch. The start of obvious fermentation took over 24 hours, so I suspect I underpitched considerably.
>Aeration was done with a venturi tube apperatus...
<snip>
>After another week, 2 weeks total in the primary, I did a gravity reading and subsequent tasting. The gravity was 1.055!!! The taste was (obviously) still very sweet...

I had a similar experience with Wyeast London Ale (#1028), but my OG was 1120 and my FG was 1050. When I serve this undercarbonated, too-sweet but still very potent Imperial Stout, I boast that the FG of this beer is higher than the OG of Budweiser! I'm afraid I can't answer Norm's question, but I have a few more points to add to the discussion. I hope that someone who has sucessfully gotten a high-gravity ferment to *complete* with London Ale yeast will post. My datapoints:

1. I believe that the Best-of-Show beer at the 1992 BOSS Competition was Brian and Linda North's Barleywine (if not, it was runner up for BOS). I judged Barleywines and really liked the flavor and balance of this beer, so much so, that I wrote down the yeast they used: Wyeast London Ale.
No mention of other yeasts, like Pasteur Champagne (available from Wyeast in liquid form also, by the way).
2. I'm quite sure that my Imperial Stout's OG was quite a bit higher than Brian and Linda's, so perhaps I was foolish for trying to get it to ferment out without help from a more alcohol-tolerant yeast like Pasteur Champagne.
1120 -> 1050 is 58% apparent attenuation, which is nowhere near the expected apparent attenuation of London Ale yeast (73-77%). This is why I suspect that the alcohol killed most of the yeast. At high kraeusen, this batch foamed a good 3 quarts of beer out of the fermenter, so it seems like the activity was quite a bit greater than Norm's batch. The fermentation temp was about 68-70F and lasted about three weeks.
3. I've read that alcohol-tolerance is related to oxygenation, but Norm seems to have covered that area quite well, so that's not the problem -- also, Norm's was an allgrain batch (mine was extract+specialty), so I'm quite sure there were plenty of nutrients in his Barleywine wort.

I'd really like to find out how to get London Ale yeast to do high-gravity brews -- I'll definately ask Brian or Linda when I see them next. Perhaps a incremental-feeding starter (where you start with a low-gravity starter, but then step-up to higher and higher gravity worts)?

Al.

Date: Tue, 5 Oct 93 13:01 CDT
From: korz@iepubj.att.com
Subject: PU help

Carl writes (about trying to make a Pilsner Urquell clone):
>5# Briess light malt syrup
>1.75# Briess Gold dry malt extract
>15.5 AAU Saaz
>Wyeast #2007 into 26 oz. ~1.040 starter 48 hours before pitching
>
>Added 1/3 of the hops at 60, 30, and 10 minutes. Chilled the
concentrated
>wort (2 gallons) to 70F, added to 2.5 gal. of 70F water, pitched entire
>starter (made from more of the Breiss Gold) and topped off to 5 gal.
with
>more 70F water. Swirled to mix. O.G. 1.026, when I expected closer to
>1.050. This is the first time I have used a hydrometer (out of five
>batches). I did correct for temperature. What am I missing here?

You didn't swirl enough. The heavy, high-OG wort sank to the bottom
and it will take a lot of swirling to mix it up. Don't worry, the
yeast will do it for you, but you can throw out that 1026 OG reading.

Another comment is on the use of Wyeast #2007 in trying to make a Pilsner
Urquell clone. Despite the fact that it's called "Pilsen" lager, it's
really "St. Louis" lager (as in Bud)! What you might try next time, is
Wyeast #2278, "Czech" lager, which should be available in about three
weeks.

Al.

Date: Tue, 5 Oct 93 13:20 CDT
From: korz@iepubj.att.com
Subject: Hop utilization VS. Boil gravity

Mark writes:

>To summarize, then, it appears that low boil volume (regardless
>of the SG) gives less utilization, but *boil* gravity has no effect.

WRONG! PERIOD!

I have a two brewing logbooks (with my respective tasting notes) and a
file
folder full of BJCP judges' comments that contradict Mark's contention.
I've
been using a slight variation on Jackie Rager's article in the Hops
Special
Issue of Zymurgy (adding 10% for leaf hops and another 10% for a hop
boiling
bag) and my IBU levels appear to be right on target. Hundreds of BJCP
judges
agree. If only I could control my maltiness with the same precision I
control
my bitterness!

> Suggestions?

Yes. I suggest you shelve your book project till you have more than
TWO years of brewing experience.

Al.

Date: Tue, 5 Oct 93 14:22:28 EDT
From: mwithers@hannibal.ATL.GE.COM (W. Mark Witherspoon)
Subject: HELP!!

HELP!!!

I have a problem that came up about a brew I just started. Here is the recipe:

2 lbs of pale malt
1 lbs of flaked corn
1 lbs of crystal malt (about 50 l)
4 lbs of Alexanders Pale Malt

1 oz of Tettanger Hops (3.8%) (boil @ 45 min)
1 oz of Liberty Hops (3.2%) (half and half boil/finish)

Whitbread ale yeast

OG = 1.052

I am attempting to make a "Rusty Cream Ale". But here is the problem. I was following the "directions" by Dave Miller in his book - he recommended 8-12 hours after pitching to rack to a secondary. I couldn't do it that soon. So I did rack at about 24 hours. Almost immediately the head foamed up and blew the airlock off the carboy. Since I was there to watch it. I quickly hot water rinsed the original fermenting bucket out (it was full of spent hops and trub) and resiphoned it back into it. With in 10 minutes of doing this the head was just about a thick as it was before I started originally.

Question: Have I just killed this brew...???? I expected problems since this was my first attempt at using grains (partial mash).

Comment: The hardest part of doing this was knowing when to stop sparging the mash. The mash water was the sweetest thing that I had ever tasted - that wasn't pure sugar. I watched my mash temp very carefully, not to get it over 150 F and let it go about 2 hours since I wasn't sure about my grinding technique.

Please send replies by e-mail since our our news feed of r.c.b. and r.c.w. have been cut off.

Mark Witherspoon

| / / | W. Mark Witherspoon | The opions expressed are of my
| / / | mwithers@hannibal.ATL.GE.COM | own not of my employer...
| / / | ATL (609)866-6672 | This sig will self destruct...*

Date: Tue, 5 Oct 93 14:22:47 EDT
From: GEORGE SMITH <smith@zeke.enet.dec.com>
Subject: Spice/pumpkin flavors & yeast reuse ????

I must admit all this talk of pumpkin beer had me making funny faces.
But, after trying a glass at Boston Beer Works saturday night I am
impressed.
I'm getting ready to make a batch for a Thanksgiving/Christmas ale.

Now for the ?????

Being as cheap as I am I reuse my favorite yeast slurry (Wyeast 1056
american)
I generally rack to the secondary when the primary starts to slow down,
usually
2-3 days after pitching. Then reuse the yeast slurry from the secondary
in my
future batches.

Seeing how this pumpkin ale will have so many unusuall ingredients
and
spices in it. I was wondering if anyone has had any of these flovors
carry
over to future batches reusing the yeast??? Esp- if I taste at racking
to
the secondary and decide to add more pumkin &/or spices to the
secondary.

Thanks for any/all input.
George

Date: Tue, 05 Oct 1993 13:41:10 -0600 (MDT)

From: COYOTE <SLK6P@cc.usu.edu>

Subject: Corning Glasses

Just a quickie to say thanx for the tip of the Yards and what-not. I called them up- told them what I wanted gave 'em my card number and they said- "OK fine". Then asked, "Did you hear about this on some network kindof thingy" I said- proudly- YES! (Quoted the HBD- hope that ain't no breach of net protocol!

They had received a flood of orders- or calls at least- and were quite pleased with the attention, and were content to ship glass items, they just had to look for a box big enough for the carboy. Even with shipping it as cheaper than buying one in town!

Thanx for the tips. Always good to find nice bargains.
Can's wait to fill up my foot with a righteous Oktoberfest!

J. Wyllie

Date: Tue, 5 Oct 1993 14:48:21 -0500 (CDT)
From: Steve Seaney <seaney@ie.engr.wisc.edu>
Subject: Cheap Carboy Source in Madison, WI

Hello,

Can anyone recommend a cheap carboy source in Madison, WI. The brew shop's prices are quite ugly.

Thanks,
Steve

- - -

Steve Seaney: 608/262-5328: seaney@engr.wisc.edu

Date: Tue, 5 Oct 93 16:24:43 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: dryhopping rate (more)

I said about Young's SLA: It tastes about the same as my IPA with 2 oz E.Kent Goldings hop plugs in 5 gallons.

I was wrong. It's got more dry hops than that. Maybe twice as much?

=S

Date: Tue, 5 Oct 1993 13:58:51 -0800 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: yeast pitching rates

In HBD 1238 George Fix gives numbers for recommended pitching rates. The calculations in terms of weight of yeast solids is interesting, but I would like ballpark figures to go on, rather than go to all the trouble of separating and weighing starters.

If I start with a packet of WYEAST, what is the weight/cell count of the resulting sludge if I put it into (a) one pint and (b) one quart of 1.020 wort and let it ferment to completion?

In other words, how much build-up do I really need?

Further to the "use once" approach, if I put the WYEAST into a quart of wort, let it ferment out, split this 3 ways for storage, then take one of the thirds and put IT into a pint of wort, letting it ferment out, what yeast population/weight do I end up with? This is my current procedure and I get reasonable starts, but I'd like to know if I'm really underpitching.

Peter

Date: Tue, 5 Oct 93 15:48 CDT
From: korz@iepubj.att.com
Subject: Chillhaze/Proteins/Tannins

A while ago, there was this question:

>This conversation between Al and Scott has me confused. They talk about chill
>haze and tannins as being related. I thought tannins were to be avoided
>because of an astringent flavor component, rather than anything to do with
>haze. Are tannins protein based? I too have had a chill haze problem with
>a recent batch and was surprised to hear talk about acidifying sparge water
>as a cure.

Chill haze and tannins *are* related. Chill haze is caused by the interaction of tannins and large proteins which stay in solution at warmer temperatures, but precipitate into a haze at cooler temperature... hence: chill haze.

How to avoid chill haze? Well, there are many ways to do this. Note that almost all of this applies to extract brewers as well as allgrain brewers, just use the parts that make sense in your procedure. I suggest that you try all the easy (procedural) ones first and then try the clarifying agents if you still have chillhaze.

1. IN THE MASH

In the mash, you should make sure that your pH is not too high (not too alkaline) so that you minimize tannin extraction from the grain husks. If you are using less-modified grain or something with a lot of protein in it, like wheat malt or raw wheat, you should use a protein rest to break the big proteins down to amino acids and small proteins. These small proteins are essential to head retention and body. The amino acids are used by the yeast for nutrition.

2. AT MASHOUT

Make sure your mashout temperature doesn't go too much over 168F to again minimize tannin extraction from the grain husks. I believe the 168F temperature is related more to ungelatinized starch extraction, but reducing tannin extraction is another reason to avoid too high a mashout temperature.

3. SPARGING

Don't use too hot a sparge water (see #2) or let the pH of the sparge water get too high (see #1). You should treat your sparge water the same way you treated your mash (Gypsum, Lactic acid, etc.) -- it's going to the same grain bed and will be similarly acidified by the grain, so I think it's better to use a proportionally equivalent acidification of your sparge water rather than to simply acidify your sparge water to a particular pH.

4. BOIL

Make sure you have a good rolling boil for at least an hour so you get a good hot break. Hot break is basically cooked proteins. You can also use 1/4 to 1/2 teaspoon of Irish Moss in the boil (flaked appears to be the best), but too much Irish Moss can *increase* chill haze (see Beer and Brewing 1989 or 1990, I forget which). Also, I've found empirically, that too much Irish Moss can take out much of the smaller proteins, thereby reducing head retention.

5. CHILLING

Chill as suddenly as you can -- the more sudden the cooling, the better the cold break (again, coagulated proteins). Note that counterflow or plate chillers cause a more sudden chilling than immersion chillers (but I still favor immersion chillers for a variety of other reasons).

6. AFTER FERMENTATION BUT BEFORE BOTTLING

There are a number of things you can do after fermentation is over, but before you bottle:

lager - lagering (long storage at cold temperatures) will cause the chillhaze to form and settle out. Lagering a beer made with ale yeast can kill it leading to difficulty in bottle carbonation.

add papain - papain, an enzyme made from papaya, can be added to break down bigger proteins that have made it to the fermenter; I'm not sure, but there's chance that papain could reduce head retention and body, since small proteins are primarily what give beer head retention and body.

PVP (Polyclar AT) - PVP, trade name Polyclar AT, is a plastic which when added to the fermenter, will electrostatically attract tannins as it sinks down to the bottom of the fermenter, only to be left behind at bottling with the dead yeast and break.

silica gel - silica gel, not currently available to homebrewers, but used commercially to work similarly to PVP, but it operates on proteins instead. Just as with papain, it could reduce head retention and body.

bentonite - works similarly to silica gel. Same (head retention & body) warning applies.

gelatin - primarily works to speed the settling out of yeast, but also works similarly to silica gel in settling out proteins. Same warning applies.

isinglass - as far as I know, does little for protein or tannin reduction, but noted here for completeness -- added to the fermenter or to the keg to speed the yeast settling. I'd like to add the Greg Noonan says that isinglass should not be used for lagers, but doesn't explain why -- I don't see any reason why it can't be used for lagers as effectively as for ales.

filtering - cold filtering, to be exact. Cold filtering reduces chillhaze by first creating the chillhaze (the cooling) and then filtering out the coagulated protein/tannin chains.

Filtering out chillhaze but leaving some head retention and body is difficult. There's a lot of debate on what the correct pore size is and you can easily overfilter your beer.

7. AFTER BOTTLING

If you've already bottled a beer and it exhibits chillhaze, you can completely eliminate chillhaze at serving time by utilizing a non-transparent drinking vessel.

So there you have it. You don't have to do all these things to avoid getting chillhaze. As I said before, first try the procedural ways and then move on to the clarifying agents if you still have chillhaze. If you must resort to clarifying agents, first try PVP since it leaves those essential proteins in your beer. Personally, I would rather tolerate a little haze rather than filter my beer, but that's me.

Al.

Date: Tue, 5 Oct 1993 16:06:58 -0700 (PDT)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: Legality of mailing homebrew

U.S. Postal Service Domestic Mail Manual (DMM) section C021.2.0
INTOXICATING LIQUORS reads: "Potable beverages of .5% or more alcoholic
content by weight, which are taxable under Chapter 51, Internal Revenue
Service Code, are nonmailable. If the product conforms to applicable
requirements of the Internal Revenue Service and Food and Drug
Administration and is neither an alcoholic beverage, poisonous, nor
flammable, it may be mailed."

Under Chapter 51 of the Internal Revenue Code (26 U.S.C. sec. 5053(e))
"Beer for personal or family use" is tax exempt (up to certain volume
limitations).

It is my belief that the Postal Service has yet to catch up with the law
that made homebrewing legal which essentially freed the homebrewer from
the tax burden placed on commercial brewers. My interpretation of the
first sentence of C021.20 is that we can mail homebrew because it is not
subject to taxation. However the second sentence contradicts the first.
The "product" does conform to IRS requirements but is still an alcoholic
beverage. I don't know whom to contact regarding this apparent
contradiction in the USPS rules although an address for comments on the
DMM is provided:

Mailing Standards
US Postal Service
475 L'Enfant Plaza SW, RM 8430
Washington DC 20260-2419

On another note, I'm heading off for a weekend on the Mendocino coast.
Between home and the coast I know of both the Hopland (Mendocino) Brewery
and Anderson Valley in Boonville. Any recommendations along the coast, I
thought there was something in the town of Mendocino would be
appreciated.
Looking for quality beery spots of all type (pubs, brewpubs, etc) TIA.

OBTW, I'm a librarian (and homebrewer, of course), not a lawyer, so
please
don't take my interpretations of laws and regulations as legal advice, I
don't give legal advice.

Eric Wade<ericwade@class.org>

Date: Tue, 05 Oct 93 19:25 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Thanks & Smokey Mnts.

Thanks to all the respondents of my Sapporo bottle and yankee yeast queries.
Got some good advice and am looking forward to less & less bottling.

To the fortunate person who is to trave the hills of my home, I hope you have a great trip through the Smokeys. In reference to you requests for beer in the Appalachian highlands, I know of only one place close to a brew pub. Sorry to say I have vever been to this place and I don't know if it is still open or standing. North of Gatlinburg TN, in Cosby TN there is/was a place some buddies of mine called Fort Marx...Two double wides pushed together with a gravel parking lot. Inside you'd find Herr & Frau Marx and their brew-trailer-diner. Herr Marx brews beer and distills liquors and Frau Marx works wonders with potatoes and sausages. I don't know how long the've been in Cosby much less the US but everytime I hear a Fort Marx story, the place grows more and more surreal.

Asheville, NC may have some unique places...can't say from experience. I do know of some good places in my old stomp of Knoxville, TN. If you are traveling that far west out of the mountains I could give you some particulars on Knoxville or some other places you may be looking into.

Tennessee may have alcohol/beer licensing laws similar to Texas. Depending on how near to a town you are, you may have to settle for McDonalds & Bud. And there are still dry towns & counties around. You may wish to stock up for your trip.

Let me know if I can be of any help & happy trails,

David Atkins
UW-Madison--it's flat but nice
atkins@macc.wisc.edu

End of HOMEBREW Digest #1241, 10/06/93

Date: Wed, 6 Oct 93 7:56 EDT
From: Gerald_Wirtz@vos.stratus.com
Subject: Montreal brewpubs/watering holes info wanted.

I'll be heading to Montreal this weekend and would appreciate any information on and good brewpubs/watering holes in the area.

Direct replies appreciated.

Date: Wed, 6 Oct 93 09:23:03 -0400
From: Daniel McMahon <dmcMahon@blanche.acq.osd.mil>
Subject: Montreal brewpubs/watering holes info wanted.
From: dmcMahon
Full-Name: Daniel McMahon@pr
Subject: 5 Ltr Mini Kegs
To: homebrew@hpfcmi.fc.hp.com

I'm looking for some feedback on the pros and cons of using 5 liter "mini kegs", as opposed to bottling. I can get them empty for ~\$5 at my local homebrew supply store (or buy them full of Dinkelacker or Grolsch and drink that first) and buy a CO2 tap for ~\$35 to use with them.

Anyone have any good/bad experiences with these mini kegs? I intend some day to step up to 5 gallon Cornelius kegs, but currently:
(1) I don't have another refrigerator to dedicate to brewing and
(2) The total costs for fridge, CO2 tank and connections, and kegs are prohibitive. Is this interim step worthwhile? It seems to be convenient by saving time and space at minimal initial cost.

Any and all input is appreciated!

Dan McMahon

Date: Wed, 06 Oct 1993 09:30:54 EDT
From: Matthew Evans <matt@cadif.cornell.edu>
Subject: Lambic Beers and U.S. Microbreweries

I've got a couple questions, hopefully someone out there knows the answer to these questions:

- 1) Is there any U.S. brewery producing a true lambic beer (besides the Cranberry Lambic from the Boston Brewing Co)? If not, why not?
- 2) I've read before that the various yeasts and bacteria needed for lambic beers are available in the US, but where is a good commercial source (or free source) of these microorganisms?
- 3) Has anyone tried making a homebrewed lambic in small batches. If you have I would really like to talk to you about the process, as Kriek Lambic is my favorite beer and I would like to duplicate the sour bite found only in lambic beers.
- 4) Are there any good publications about microbreweries? Particularly I'm interested in getting some start up information for an Entrepreneurial Business class at school.
- 5) Finally, in this long list of questions, does anyone have the number for the Celis brewery in Texas that makes Belgian style beers?

Thanks for your help in advance. Please send responses to me at mcel@cornell.edu. Thanks and happy brewing!!!

Date: Wed, 6 Oct 93 10:01:36 EDT
From: lyons%adcl@swlvx2.msd.ray.com
Subject: Fast cooling of high gravity boils.

(John Pavao writes in HBD#1239:)

>> (snip)
>> I am wondering if I would be better or worse off if I chilled the
>> concentrated wort before adding it to the cold water in the carboy.

(Carl Howes writes in HBD#1241:)

>I would say chill your concentrate first since it will be easier to do.
>For my first several batches I added the hot partial wort to the cold
>water in the fermenter a la Papazian, but in view of the recent warnings
>about HSA I went for chilling the partial boil (in my case about 2
>gallons) to pitching temperature before adding it to the carboy for my
>latest batch. This took placing my kettle in a sink full of cold water
>and changing the water three times over 45 minutes. On adding hot
>concentrate it took seven hours for the batch to cool to pitching temp
>on
>its own, and a kitchen sink full of cold water had no noticeable effect.
>An immersion chiller would likely be more effective, but I have not yet
>made one. BTW, I tried sending this by private email but it bounced.

I'm one of those who believe it is important to cool the wort ASAP after boiling is complete (limit DMS). Keeping this in mind, I add two large blocks of ice. This quickly brings the temperature down for pitching the yeast (yes, ice at 32F will provide more cooling than water at 32F). If you believe adding tap water does not create a problem, then ice blocks made of tap water will not cause a problem and will cool even faster. The important thing in making the ice blocks is not to introduce any wild yeasts. In other words, the water which is to become ice should be placed in a previously sanitized container which can be completely CLOSED from the environment (the freezer is teeming with nasty guys that like to spoil beer). I use one gallon plastic milk containers and fill them half way (just below the handle). They are easily cut with a knife and the ice block extracted. If you are one of those concerned with using tap water, then pre-boil the water first (and remember, boiled water will freeze faster than unboiled water ... less O2). I think the addition of ice blocks is a better technique than using an immersion chiller when doing high gravity boils (which are diluted to final volume after the boil). The immersion chiller is the correct choice for full volume boils, since you do not want to dilute the wort of a full volume boil.

Chris

Date: Wed, 6 Oct 1993 10:41:32 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: RE: crush off/hop util/S. Adams

I read with interest the ongoing comparisons between mills. I am more interested in the comparisons of extract efficiency from the test brews. I know that my extract went down when I switched from pre ground Briess to corona ground, then the extract returned to the preground equivalent with the adjustable MaltMill. Any results from the test, or were they all the same in the end??

With respect to Mark's comments on hop utilization and the lack of professional journals reports on the subject, I believe it is covered in Malting & Brewing Science, by Hough et al (not sure as I dont own this excellent set) but it is certainly covered in the German literature by Dr. Narziss, of the Weihenstephan institute, in Freising. At any rate, the correlation between high OG and hop utilization is well known and accepted by the pro brewers I hang out with.

A while back I posted a bit about Mr. Kochs Jamaica Plains brewery but had not actually been there. I was there the Saturday before last, and the Sudhaus is indeed impressive, dual 15 BBl decoction kettles, each with a grain feed, and water spray. The guides were a bit annoying, especially with respect to comments like "everyone knows no good hops are grown in the US" . I just couldnt let this one pass, so I pointed out that if one sampled a Petes Wicked Lager, the US grown Liberty hops could be compared to the German equivalent. Needless to say, they were not pleased to hear the words "Petes.." spoken in the hallowed grounds of Sam Adams.....:-)

Good brewing,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Wed, 06 Oct 93 09:46 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: chilling extract brew

I too do that extract brew. Here's how I chill.

My method involves a carboy primary--5, 6.5 or 7 gal size.

My primary is a 7 gal carboy...I don't know if I'll ever use a bucket again.

I chill the boil pot in a sink of cold water for a few minutes...ice and those refreezable faux-ice packets work well in the bath. Placing about 1.5 gals of cold water into the carboy, I funnel my extract into the container then fill up to 5 gals with a heady stream of cold water. I find that the heady stream 1) aid aeration and 2) cools wort not just by heat exchange with the water but with heat exchange with the air...get's real frothy.

Once filled, I bung the carboy shut and for 10 - 20 minutes I prop carboy on edge of sink and gentle wash the carboy with cold water. If you don't have one of those built in sink spray nozzles (like me) use those cheap faucet-shower attachment hoses you can find at a drug or discount store (a 2-3 feet length of rubber hose with an exceedingly simple adapter on one end and a shower head on the other; the shower head is removeable) I use the hose in cleaning as well as wort chilling and carboy filling--remember to sanitize though.

While chilling the carboy, rotating it slightly from time to time, I take the opportunity to shake the container, further aerating the wort. From the start of chill to the yeast pitch takes 20-30 minutes.

If you would like info on finding 6-7 gals carboys let me know. I do business with a good supplier. They don't know me, just my credit card number (read as disclaimer).

Take care,
David Atkins
UW-Madison-Where every morning, leaving the house is its own cold break
atkins@macc.wisc.edu

Date: Wed, 6 Oct 1993 7:51:33 -0700 (MST)
From: Jim Liddil <JLIDDIL@AZCC.Arizona.EDU>
Subject: Hop Utilization and Gravity

%
% Date: Mon, 4 Oct 93 21:59:59 PDT
% From: Mark Garetz <mgaretz@hoptech.com>
% Subject: Two Hop Topics

%
% There has been a bit of discussion here lately about two hop
% topics: gravity vs. utilization and dry hop bitterness.

% Gravity vs. Utilization:

%
% In the research for my book, I have tried to verify the common
% homebrew wisdom that high gravity *boils* make a difference in
% the hop utilization by attempting to find references in the
% commercial brewing literature. I have not been able to find *any*
% mention that wort *boil* gravity makes any difference in hop
% utilization. The gravity at the start of *fermentation* does make
% a difference, meaning that low gravity beers get better utilization
% than high gravity beers. Note that this is a fermentation effect,
% not a boil gravity effect, and varies depending on the fermentation
% technique. Anyway, the *volume* of the boil *will* make a
% difference, which may explain Norm's comments about needing less
% hops when switching to all grain (full volume) boils.

I suggest you get a copy of Malting and Brewing Science by JS Hough and
read
the hop chapter and the wort boiling chapters. Then I think you will see
that
indeed wort gravity does affect hop utilization.

%
% I asked Gail Nickerson this question ("Does boil gravity affect
% utilization?") and she said (paraphrasing), "No. Not unless you
% were boiling a syrup or something of that consistency. And if it
% did, it would be known because the big boys are all using high
% gravity brewing techniques these days."

%
Can she provide a reasearch reference for this statement? As we say in
rearch
land "If it isn't published it didn't happen"

% To summarize, then, it appears that low boil volume (regardless
% of the SG) gives less utilization, but *boil* gravity has no effect.

Wrong!

% But as the gravity of the *fermenting* wort increases, utilization
% decreases - the amount depends on your fermenting methods.

What does volume have to do with it? If alpha acids are in to high a
concentration then utilization goes down due to solubility issues. But
rather
than quote chapter and verse from M and B Science I suggest you read it
and
then repost.

%

Date: Wed, 6 Oct 93 10:58:22 EDT

From: Spencer.W.Thomas@med.umich.edu

Subject: SPGRAV: program to perform hydrometer corrections at any base

This polynomial is much better than the previous one that was posted. However, why not just go to the source? The CRC Handbook of Chemistry and Physics lists the S.G. of water at various temperatures, and these correspond exactly to the correction factors that come with the hydrometer, except they go up to 100C. Of course, there's still the complicating factor of the sugar in solution to contend with, but I haven't found any source for this. A quick experiment I did with some 1.032 sugar solution found that the table was still correct, within the resolution of my hydrometer, anyway. (Does anyone know of a source of S.G. tables for sugar solutions at various concentrations and temperatures?)

For those of us who don't have a computer sitting in our brewhouse, here's a table to print out and keep handy. The correction is computed by subtracting the table value for a given temperature from the table value for 15C (which is what MY hydrometer is calibrated for) and rounded to the nearest "SG point".

Temp C Correction Table SG

0	-1	999.87
5	-1	999.99
10	-1	999.73
150		999.13
201		998.23
252		997.07
303		995.67
355		994.06
407		992.24
459		990.25
50	11	988.07
55	13	985.73
60	16	983.24
65	19	980.59
70	21	977.81
75	24	974.89
80	27	971.83
85	30	968.65
90	34	965.34
95	37	961.92
100	41	958.38

Date: Wed, 6 Oct 1993 16:08:41 +0100 (MET)
From: Kurt Swanson <Kurt.Swanson@dna.lth.se>
Subject: Re: SPGRAV: program to perform hydrometer corrections at any base

Spencer W. Thomas (Spencer.W.Thomas@med.umich.edu) in this HBD writes:

>
> This polynomial is much better than the previous one that was posted.
> However, why not just go to the source? The CRC Handbook of Chemistry
> and Physics lists the S.G. of water at various temperatures, and these
> correspond exactly to the correction factors that come with the
> hydrometer, except they go up to 100C.

How do you think I got the polynomial. SPGRAV works with very high accuracy from 00C to 1000C... The polynomial is needed instead of the table because most people make temperature measurements with greater than 50C accuracy...

- - -

Kurt Swanson, Dept. of Computer Science,
Lunds universitet. Kurt.Swanson@dna.lth.se

Date: Wed, 6 Oct 1993 08:16:50 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Hop substitutions, cheap carboys

I'm still trying to perfect that Fuller's clone and I am looking for a good substitution for British Northdown hops. I've used Cluster in the past but I'm underwhelmed by the flavor contribution of Cluster.

How about Styrian Goldings, or Pride of Ringwood? Both of which are available locally (Seattle). Kent Goldings? Fuggles/Willamette?

How about substitutions for Challenger and Target too?

Since I have never encountered Northdown, Challenger, or Target I'm working in the dark on substitutions. Can anyone recommend a good book on hop characteristics. Gardening info is wasted pages.

Whoever was looking for cheap carboys in HBD #1241,

St. Patrick's of Texas Brewers Supply
12922 Staton Drive
Austin, TX 78727
(512) 832-9045

7 gallon carboys - \$12 - shipped in styrofoam eggs (really cool)
They take about a #6.5 stopper, not the #7 or #7.5 listed in St. Pat's catalog. The necks are threaded and included is the original plastic cap. The only thing "wrong" with these carboys is that you can't use those nifty orange carboy cap things with the two tubes. On the other hand trying to get a 5 gallon all-grain batch into a 5 gallon carboy can be quite a trick.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Tue, 5 Oct 1993 23:46:25 -0800
From: scott@fm.gi.alaska.edu (Scott Stihler (USGS analyst))
Subject: Flavor and aroma hops

Greetings all,

I have a question regarding hops. A friend of mine took the AHA beer judge certification test last April and one of the question he had was "What is the difference between flavor and aroma hops and give examples?" This question confuses me. I was under the impression that they are both the same. I thought the volatile hop oils which are responsible for aroma are also responsible for hop flavor. Does anybody know the correct answer to the AHA question and if I'm totally off base could ya straighten me out?

Cheers,

Scott

Date: Wed, 6 Oct 1993 08:53:14 -0800
From: "John C. Post" <jpost@llnl.gov>
Subject: Comments on Molasses

A few notes on Molasses in Beer...

1) DON'T use sulphured molasses. Yuck!

2) Molasses takes a *long* time to ferment out completely, not as long as honey, but much longer than malt.

3) If you have time to wait until 2) is complete, it can be a wonderful accoutrement (College Word!) to the right recipe...I like it best with some zippy hops, such as Saazer or a nice fresh Cascade.

You might try some Black Treacle for an interesting flavour kick. You can usually get it at those expensive gourmet stores (Williams-Sonoma comes to mind...)

john

Date: Wed, 6 Oct 1993 09:59:44 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Re: Barleywine ferment/Dryhopping

npyle@n33.stortek.com

> Subject: Barley Wine fermentation schedule?

>

>

> Anyway, I used a 1 pint starter from Wyeast London Ale yeast, which was
> possibly a bit past high krauesen, in a 5 gallon batch. The start of
obvious
> fermentation took over 24 hours, so I suspect I underpitched
considerably.

Bing, bing, bing. You win the \$64,000 question. Your very slow (and possibly incomplete) fermentation is almost certainly a result of underpitching. A one-pint starter (presumably stepped up only once from the Wyeast package) is OK (tho not great) for a "normal" OG, but high gravity worts require WAY more yeast. It's not out of the question at this point for you to make a quickie batch of more normal ale, collect a couple of pints of furiously fermenting wort, and bung that into your barleywine. It worked for me years ago, although it was a little earlier in the barleywine's life.

garetz@hoptech.com>

> Subject: Two Hop Topics

>

> There has been a bit of discussion here lately about two hop
> topics: gravity vs. utilization and dry hop bitterness.

>

> Gravity vs. Utilization:

>

> In the research for my book, I have tried to verify the common
> homebrew wisdom that high gravity *boils* make a difference in
> the hop utilization by attempting to find references in the
> commercial brewing literature. I have not been able to find *any*
> mention that wort *boil* gravity makes any difference in hop
> utilization.

As a datapoint, your text research bears out my own experience with hopping rates. High gravity worts generally require higher hopping rates, but it's because they need higher bitterness levels to balance the greater body and sweetness of the beer.

>

> Bitterness from Dry Hopping

>

> I am at loss on this one. I, for one, have never noticed it. A
> lot of brewers report a pronounced *astringency* but not bitterness.
> This will go away in few weeks. It is possible that some of the
> alpha acids in the hops had been converted to iso-alphas, but I
> think this is unlikely. The hops would have gone "cheesy" long
> before there was significant conversion from ambient heat, etc.

I have never experienced either effect in one of my dry-hopped beers. I leave the hops in the kegs for many weeks without getting any "cheesy" quality -- probably because cheesiness is a property of oxidation -- and I've never noticed any additional bitterness even though I dry-hop pretty heavily.

On the other hand: I was present at a tasting at UC Davis, of various

beers that had been hopped at varying times. You should talk to Michael Lewis about this, since he ran the program, but he, his students and those of us in the class who were actually brewers, were all surprised at the discernible bitterness in the one beer that had only been dry-hopped -- NO bittering hops or aroma hops in the boil. And, believe me, in case you don't know Michael Lewis, the QC around this issue was very high and the hopping rates were pretty damn low.

Me, I have to assume the problems homebrewers are having is Pilot Error, and has almost nothing to do with dry-hopping. Just a guess.

- --Jeff Frane

Date: Wed, 6 Oct 93 13:33:22 -0400
From: edo@marcam.com (Ed Oriordan)
Subject: First all grain: the procedure

I am preparing for my first all grain attempt in the next couple of weekends. This is what I am planning on doing. At the end I have some questions, that I would appreciate if anybody could respond to.

Also, if anything looks strange, and you are wondering why I'm doing it, I probably don't know, so let me know.

My equipment for brewing will be as follows

36 qt cooler
1/2" Slotted copper pipe manifold sparger to 3/8" reducer
10 gallon enamel pot
gas cooker burner type thing
chiller
7 gallon glass primary fermenter with blow-off
5 gallon glass secondary fermenter with air lock

- 1) Grind grains the night before.
- 2) Heat 1 qt water per lb grain to 168F. Add some gypsum (2 Tbl.?) to lower pH.
- 3) Preheat Cooler with hot water.
- 4) Add grain and water to mash tun (cooler) on top of manifold. Stir.
- 5) Check mash temp, adjust as needed to around 154F.
- 6) Close cooler for 1 hour.
- 7) Open cooler do Iodine test for conversion. If not converted close up longer.
- 8) Add crystal, chocolate and cara-pils (all specialty grains).
- 9) Raise temp to 170F (mashout) by adding near boiling (200F) water.
- 10) Stir till 170F is hit. Close cooler let sit 15 minutes.
- 11) Hook 3/8" clear tubing to manifold. Backflush with some near boiling water
- 12) Sprinkle 4 galons 180F sparge water (add gypsum to get pH 5 - 5.5) in cooler.
- 13) Start siphon, keep putting liquid back in cooler till get clear run off.
Siphon into brew kettle. Try for no aeration.
- 14) From here on I assume it is same as extract, but with more volume (note: I already use a cooling coil).

Q1 - Equip - Is 36 qt cooler ok for size (5 gallon batches)? 11.25 lbs grain.

Q2 - Step 7 - If not converted and temp is lower than 154F should I adjust it back up? Should I check every 15 minutes or leave closed?

Q3 - Step 8 - Is this the correct time to add specialty grains? Why?

Q4 - Step 10 - Is it ok to stir? Is 15 minutes good?

Q5 - Step 12 - Should I sprinkle it all in at once or just enough to cover

grain bed and then continue adding so that I maintain a level 2 inches above

the bed? I have a feeling the latter is correct, why? Stuck sparge?

Q6 - Step 13 - I am nervous about the sparge, I hear stories of it taking a

long time. Using the manifold will I get a continuous siphon or will I have to restart it periodically? How fast should I siphon? Will I have to slow the siphon down? This step is somewhat of a mystery as to how it actually will go so some help would be appreciated? I know I'm washing the sugars off the grain. What about astringency? How do I know when I've gone long enough? How long will this step take (approximately)?
Q7 - All this talk of oxidation. Where do I have to worry about it? In the past the only place I have airated was going into the primary, and the only place I have specifically not airated is after the yeast kicks in through bottling.

Thanks a lot

Ed O'

edo@marcam.com

Date: Wed, 6 Oct 93 12:20:07 EDT
From: wslack.UUCP!wrs@mv.MV.COM (Bill Slack)
Subject: Re: Krush-Off

Phil Miller asks if the crush evaluation was blind at the Boston Wort Processor Krush-Off.

No, each crush was identified to the Krush Kommittee. A quart jar was filled from each crush and was used for evaluation. Evaluations were made as the crush became available. All samples were kept and referred to by the committee when establishing relative quality of crush. I far as I know, no one on the committee had any favorite mill or predetermined expectations. I use a Corona, Bob Gorman ordered a Glatt Mill (don't know if this was before or after the test) and I don't know what Scott Keohane uses. We all watched the various tests as they took place. It was all pretty open and there were lots of opinions expressed by all present. In my opinion, the tests and evaluations were conducted in a fair and complete manner. A lot of people put in a lot of effort to pull this off and I think they succeeded.

Bill

wrs@gozer.mv.com (Bill Slack)

Date: Wed, 06 Oct 93 14:14:05 EDT

From: rick621@aol.com

Subject: Maple syrup/sap

Hi all, I'm new to the digest and enjoy reading the thoughts and ideas posted here. I have been brewing extracts for a few years and now want to try something different. I also make my own Maple syrup. I have heard of people using this in beer and also using the uncooked sap instead of water. If anyone has a receipe, and/or experience with using syrup or sap I would appreciate your thoughts on the subject. You can post it on the digest or E-mail me at Rick621@aol.com

Thanks

Date: Wed, 6 Oct 93 13:06 CDT
From: korz@iepubj.att.com
Subject: Milling about

Gang--

Before another flame war ensues regarding commercialism on the HBD, I'd like to say that Jack has done homebrewing a great service in providing an affordable (to most) alternative to the Corona and for doing a great deal of research on the crushing of grain. I've seen no less than 8 different designs of MaltMills, each design (usually) better than the last. He has shown me grain crushed by various designs and asked me to choose which samples appeared to be the best crush. I'm told he has used my opinions as well as the evaluations of other homebrewers and experts at the Siebel Institute of Brewing to improve the design of the MaltMill. His mill has set a high standard for other mills that have followed. Granted, Jack has a financial interest in having his mill represented well in the HBD, but then again, if you re-read his latest post, you'll see that there is a lot of good, mill-independent information in there. I, for one, appreciate him sharing this information openly.

Al.

Disclaimer: I own a retail store and currently sell three of the mills in the Krush-off and plan to sell one more of them soon. I've done evaluations myself of all but the antique mill in the Krush-off and have only chosen to not stock one of them due to what I deemed a poor crush (this was NOT one of the mills that is commercially built as a homebrewing malt mill).

Date: Wed, 06 Oct 1993 14:08:58 EDT
From: "Marlene Spears" <hopfen!marlene@uunet.UU.NET>
Subject: NO POPCORN, PLEASE!

In HBD #1240, brewerbob@aol.com wrote about using *real* popcorn as packing material for shipping homebrew to competitions. Please cease and desist! Don't send popcorn unless you're shipping to a friend who doesn't mind receiving it!

When the 1st Round AHA Nats were held in Boston, I was one of the lucky unpackers. Over the four sessions, I found *all* sorts of packing material, including -- oh, ye gods and little fishes! -- *battered*, *salted* popcorn, which greased up the bottles, the labels, the entry forms, the checks, and my hands. It was really gross, kiddies. And if it wasn't salted and buttered, at least the popcorn was stale and at worst it was moldy. NO WAY was I about to ingest any of the stuff. I'm glad I didn't find any bugs or rodents in the boxes!

I only wanted to get the bottles unpacked, tagged, and sorted so I could dig into the goodies Bill Murphy (site coordinator) had bought -- with his own funds, since the AHA wasn't reimbursing. And even parsimonious and uncooperative Smadams let us have draft brew. I hear Anchor is more generous.

If you want to be kind to the unpackers, use shredded newspaper. It doesn't have the static electricity problems like styrofoam "popcorn". After that, make sure your bottles are blank, with the proper labels attached by rubber bands, with blacked out caps, and without incised lettering; then make sure your entry forms and payment are included, and have the box blessed so the UPS box gremlins don't screw it up.

- - -
- - - - -

marlene@hopfen.rsi.com

Date: Wed, 6 Oct 1993 11:20:41 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

Subject: Mash out necessary?

After drilling into my right knee, steeping my feet in hot wort, melting the kitchen floor, and nearly removing the tip of my left index and middle

fingers (I am NOT a klutz), I have decided to set aside my "Zap-pap" food bucket lauter tun and try sparging with a copper manifold. The situation is this: I have a 10 gallon stainless brew kettle and any number

of plastic food buckets, and good warm boxes. If I mash in a food bucket in a warm box then I can preheat the sparge water in the brew kettle, but then have no way to mash out without transferring water and mash all over the place. Now, Miller (TCBoHB) is adamant that mash out is absolutely necessary. Others are less certain. Hey, it's going to be boiling in a few minutes anyway. What are the opinions from HBD land? Is it more of a

factor with lauter tun sparges rather than manifold sparges?

Thanks in advance.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Wed, 6 Oct 93 14:32:10 EDT
From: pgs@ai.mit.edu (Patrick Sobalvarro)
Subject: Krush Off Kwestion

Date: Tue, 5 Oct 93 08:09:50 CDT
From: pmiller@mmm.com (Philip . Miller)

Many thanks to the Boston Wort Processors et al for the interesting post on mills. Just a quick question: was it a blind judging? (I.e., did the judges know which mill ground the grains they were judging?)

The judging was not blind; the judges did know which mill ground the grains they were judging. In fact, they watched the grinding take place, and some of them even went so far as to make fun of the operators of the mills. And, frankly, I noticed that a couple of them drank a pretty fair amount of beer as the afternoon wore on. They're kind of shifty characters to begin with, actually.

-P.

Date: Wed, 06 Oct 93 15:00:04 EDT
From: Aaron Morris <SYSAM@ALBANY.ALBANY.EDU>
Subject: Cut rate glassware

Not wishing to travel to Chicago for carboys, I went to a local Corning outlet and was ecstatic to find 5 gallon carboys for \$8.99, less than three miles from my home! That was the good news. The bad news was that the local Corning outlet only had 5 gallon carboys and I was looking for six and three gallon carboys. The less-than-pleasant sales person informed me that in no way, shape or form does Corning make or market anything other than 5 gallon carboys and there was no way in the world that she could procure for me 6 or 3 gallon carboys. This doesn't ring right to me. Does the outlet in Chicago have 3 and 65 gallon carboys? Unfortunately, I didn't save the address for the Corning outlet in Chicago. If they do have 3 and 6 gallon carboys available for shipping, would some kind soul please mail to me the address/phone number of that outlet. Thanks in advance!

Aaron Morris (SYSAM@ALBNYVM1)

Date: Wed, 6 Oct 93 14:47:23 CDT
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>
Subject: Pumpkin Ale Recipe

Because of the number of requests for Pumpkin Ale I have seen on the HBD recently, here is one that I particularly enjoy:

Barefoot Pumpkin Ale

Bring to a boil 1qt water. Add 1 29oz can of pumpkin (I recommend Libby's because it is 100% pumpkin. So are most other brands, but make sure before you use it.) Stir. Add 1 3.3 lb can of DMS Malt extract. Stir. The temp should come to about 152 F. Hold at this temp for 40 mins. While this is going on you can get the rest of the ingredients to a boil in your brewpot:

1 gallon water
3.3 lbs NW (Briess) Amber malt

Add pumpkin mash (mush?) to the brewpot and bring to a boil. Add 1 oz German Hallertauer pellets and 1 oz Hersbrucker plugs. Boil 45 mins. Add 1 oz Hallertauer pellets, 2 cinnamon sticks (about 2-2.5 inches long), 1 tsp ground cardamom, 2 tsp whole cloves, 1 tsp + 1 shake of nutmeg, 1 tsp ground allspice, 1 tbsp ground ginger, and 1 Tbsp Irish Moss flakes. Let boil 10 mins. Add 0.5 oz Saaz pellets. Reduce (turn off heat) and cover brewpot and let steep for 5 mins.

As I recall, sparging this mess to the fermenter was a problem because the pumpkin is a real fine mush. I think I just added all of it to my primary and topped it off to about 5 or 5.5 gals, let it cool and racked away from the mush that settled out. This leaves a lot behind. When I make this again, I will do a full volume boil and use a wort chiller and this should cause most of the stuff to drop out.

Yeast: Whitbread Ale Yeast
OG = 1.040
Racked to secondary @ 1.010
FG = ca. 1.006-8

Tasting notes: Real nice spice/hops balance. Good color and very clear. I would enter this in a contest, but I bottled it entirely into large bottles. :)

Comments/suggestions/criticisms(constructive) should be emailed direct to:

anthony@chemsun.chem.umn.edu

Date: Wed, 6 Oct 1993 16:28:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: Re: Chilling Wort

I don't bother trying to chill my wort, instead I make sure that the water in the fermenter is as cold as I can possibly get it. I either put it in a spare refrigerator (alas a luxury) the night before I brew or in the winter I put it out on the porch until it's cold. Depending upon how cold the water in the primary is, after I pour boiling wort into it, it's down to anywhere between 65-80F immediately. If I wind up having to wait to pitch, it's usually less than an hour.

Good Luck!

pam

Date: Wed, 06 Oct 1993 17:51:14 -0500
From: Chris McDermott <mcdermott@draper.com>
Subject: Victorian Ales

Victorian Ales

What exactly is a Victorian Ale (besides a the obvious: an ale brewed during the victorian period)?

I'm trying to find information describing this style and the procedures to used to brew it, but I haven't had much luck. Can anyone out there help. A pointer to a source of literature would be great. Personal experience would be even better.

Thanks,

Chris McDermott Send mail for PGP public key
mcdermott@draper.com* * *
617.258.2362 *****
617.381.9768 * * * *****
*** **

Date: 06 Oct 1993 14:43:14 PST
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>
Subject: spiced beer

Hi all.. I'm contemplating a spiced X-mas ale for this weekend and would like some opinions on the quantities and procedures for adding spices. My recipe is as follows for 5 gal

10 lbs Hugh-Baird pale malt
1 lb Hugh-Baird 80L Crystal mash at 158 for 60 min
1 oz Kent Goldings (60 min
1/2 oz Centenials (20 min
Wyeast 1098 (expecting SG of 1060.. no clue where it might finish
spices ?? cinomon, nutmeg, vanilla

Does using whole vs powdered spices like cinomon and nutmeg make a difference
What about vanilla extract vs. beans.
When to add them ? at the end of the boil or with priming sugar
Quantities of each spice. I'm also asuming no finishing hops as that would interfere with spice flavors. Any and all opinioons appreciated.

Don't anthropomorphize computers... They don't like it.
JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG)

Date: Wed, 6 Oct 93 22:10:35 PDT
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Rager Number Error

A while ago someone sent me email about the 7462 error in Rager's numbers that all of us have taken for granted as being correct, but is in fact off (this is the metric to avoir. conversion constant). I have inadvertently erased the note, so if whoever it was could send it again, I would be grateful.

Mark

Date: Wed, 6 Oct 93 22:07:21 PDT
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Hops (what else?)

Domenick Venezia asked me to clarify my comments on "fermentation utilization" and says something to the effect of "huh? this is an extraction technique". (Forgive me for not being able to pull the comments directly, but I'm not on a system for the next two weeks that allows that.)

The extraction of hop alpha acids and their subsequent conversion into iso-alpha acids is only one part of the equation. There are many post boil events that affect the final amount of iso-alphas in the finished beer. Some are: Yeast type and flocculation characteristics, fermentation time and temperature, wort gravity, how much the wort pH drops as it ferments, fermentation methods, lagering or not, filtration or not, and more. All of these can combine to make big differences in the amount of iso-alpha acids left in the beer by the time it reaches your lips, as opposed to simply the amount extracted by the boil into the sweet wort.

I also noticed when reading my own post, that I said something like "as the gravity of the fermenting wort rises..." and I realized that some might have thought that I was implying that wort gravity rises as it ferments. Of course it drops, but I should have said "the higher the starting gravity of the wort is at the time you begin fermentation, the lower your utilization will be."

Interesting to note that Kelly Jones reported that his bitterness has gone away almost entirely, as I had reported that other brewers had noted.

Finally, I'll deal with Al's comments off-line.

Mark

End of HOMEBREW Digest #1242, 10/07/93

Date: Thu, 7 Oct 93 10:35:34 BST
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: A couple of proposed experiments

Here's some easy experiments for some intrepid soul to perform in order to sort out two current controversies:

On the 'dry hopping causing bitterness' thing, I occasionally make test brews that involve pouring boiling water onto a mixture of extract and pellets in a 1L, pre-heated glass bottle. This mix is then fermented, naturally enough with the hops left in, and definitely turns out bitter. The hot wort spends about 10 mins cooling down from something like 85C to 60C, which theoretically should cause little isomerisation. Experiment - do the same, but filter the hops out prior to fermentation, and note the difference.

Experiment 2:

> The perfect grist for mashing would be molecule sized particles of malt from
> which all the husk has been removed. It would wet perfectly, dissolve
> instantly and produce 100% yield of crystal clear wort.

Get hold of some wheat malt (which is husk-free) and pulverise it to flour. Use this exclusively in the mash, and note its suitability.

- - -

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Leicestershire LE11 3TU e-mail - (Janet):C.V.Copas@uk.ac.lut
G Britain (Internet):C.V.Copas@lut.ac.uk

Date: Thu, 7 Oct 93 8:13:38 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: chill concentrated wort

Sorry to take so long to get back to this but in HBD #1239 (Monday's issue) John Pavao asks whether it is worthwhile to chill concentrated wort before diluting it with a carboy of 3.5 gal of cold water.

I brewed for a couple of years this way before going to full batch boils and I personally liked it. For me it took out the worry of oxidation and the task of getting the cold water cold enough that I would be sure that the mixture would be at yeast pitching temps. In addition, transferring chilled wort is a great opportunity to aerate the wort rather than worry about oxidation.

I made an immersion chiller from 50' of copper tubing and some siphon tubing and some random fittings all for about \$30. I used 50' because some of the plans I had seen called for 40' and 50' was cheaper than 40'. Furthermore, I had no idea what else I would use the extra 10' for and figured it could only help. I know that there have been great debates on the optimal length and I have reached no conclusion myself.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Thu, 07 Oct 93 07:48:00 PDT
From: "Moore, Brian" <Moorebw@hvsmtpl.mdc.com>
Subject: Oxidation Problems

Hello all,

I recently entered my first Homebrew competition (the Mid-South Fair in Memphis, TN). I entered an extract based dry stout. It finished second with a score of 32. The main problem that the judges noted was that it had an oxidized aroma. I'm trying to figure out where this oxidation came from. Since this was an extract brew we did nothing I can think of which would introduce HSA. Our brewing procedure was as follows:

1. Put 8 gallon pot on burner, fill with about 6 gallons of water.
2. Started burner and add specialty grains (in grain bag).
3. Remove grain bag when the water is at about 180 or 190 F.
4. When water boils, add the extract (Briess liquid) and the hops.
5. Boil for 45-60 minutes. Insert immersion chiller for the last 5 minutes.
6. Cool to about 75-80 F.
7. Rack the cool wort into the carboy.
8. Shake the **** out of it to aerate it.
9. Pitch the yeast.
10. After about a week, rack it to the secondary (being careful not to splash).
11. For bottling, rack it to a bottling bucket, add priming sugar and bottle.

Our bottle filler is one of those clear plastic tubes with the spring loaded white thingy on the end (another version of the clear tube with the spring loaded orange thingy on the end, I guess). This thing does cause the beer to foam a little on it's way into the bottle.

My questions are these:

1. Is my bottle filler the culprit in my oxidation problems? If so, is there something better out there?
2. Has anyone out there ever used those oxygen absorbing bottle caps?
3. Is it possible that some extract manufacturers have HSA problems in the manufacture of the extracts?

TIA,
Brian Moore
<moorebw@hvsmtpl.mdc.com>

Date: Thu, 7 Oct 93 10:49:14 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Lambic Beers and U.S. Microbreweries

Matthew Evans writes:

> 1) Is there any U.S. brewery producing a true lambic beer (besides
the
> Cranberry Lambic from the Boston Brewing Co)? If not, why not?

No, because the only way to produce a true lambic beer is to do it in
the right part of Belgium. The local microflora(fauna?) just aren't
right anywhere else in the world. Now, Jackson mentions a few
breweries who have experimented with "spontaneously fermented" beers
in the Lambic chapters of The Great Beers of Belgium and The Beer
Companion, but I don't at the moment recall if any are in the U.S.
One was in Britain.

> 2) I've read before that the various yeasts and bacteria needed for
lambic
> beers are available in the US, but where is a good commercial source
(or
> free source) of these microorganisms?

Yes, no, maybe. The *Brettanomyces* cultures are available from G.W.
Kent, which is a wholesaler, so you have to get your local HB supplier
to order them. Sheaf & Vine (email to Al Korzonas
(korz@iepubj.att.com)) also has some cultures (Brett and Pedio).
Nobody seems to have the appropriate *Lactobacillus* cultures, unless
you can get it from a fellower HBer.

For doing it yourself, the first thing you should do is to run out and
buy a copy of Lambic from the Classic Beer Styles series. If it's
not at your local HB store, pick up any issue of *Zymurgy*, you'll find
a publications catalog in the center.

> 4) Are there any good publications about microbreweries? Particularly
I'm
> interested in getting some start up information for an Entrepreneurial
> Business class at school.

Call the AAB (Association of Brewers). They have a number of
publications directed at microbrewers (for a fee, of course). Also
listed in the catalog in *Zymurgy*.

=S

Date: Thu, 7 Oct 1993 09:55:37 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: AHA Styles and Reality

I've recently gotten hold of the Zymurgy Special Issue on Traditional Beer Styles, and I've got a couple of questions or comments or something. 8-)

I like to make a brown ale, patterned after Pete's. I've made three batches, #2 being the most successful, so far as taste is concerned. The grist was as follows:

7#	DeWolf Ale	8L	56L
1#	DeWolf Munich	3L	3L
1#	CaraVienne	22L	22L
1#	CaraMunich	72L	72L
6oz	Chocolate	498L	174L

	327L	/	5.75 gallons = 56.9L

In a 5.75 gallon batch, the color is 57L. Note that the Chocolate is about 3.5% of the grist, and provides about half of the color. The OG = 1060. It seems to me that this brew was indeed a lot like Pete's.

The AHA style guideline says OG 1040 - 1055, and color 15 - 22 SRM. My understanding is that SRM approximately equals Lovibond. In the text describing the American Brown Ale style, it says that up to 5% of the grist can be Chocolate. Well folks, if you do that, you'll blow the color every time. Observe:

10#	DeWolf Ale	8L	80L
.1#	Chocolate	498L	50L (1%)

	130L	/	5.75 gallons = 23L

That's as light as I can make it, there's no crystal, and it's still too dark for the guidelines (OK, just barely, but I think the point is made). I don't think this brew would be very much like any American Brown Ale I've ever tried. If you use 5% Chocolate, you'll end up quite dark at 57L, but you'll still not have any crystal.

In the back of the same special issue, there are recipes for the competition winners. I made a rough calculation of the color the Brown Ale category winner came out, and I came up with 35L, too dark for the style guidelines. His OG was reported as 1062. So, here we have a national competition *winner* falling well outside the guidelines. What gives?? Are the AHA guidelines reliable? And if you can win an AHA competition without coming particularly close to the guidelines, why have them in the first place?

Part of my reason for asking is that I might like to enter competitions

myself, and I may also be interested in the AHA BJCP. But observations like this make me wonder whether it would be worthwhile. If the goal of the competition is to demonstrate brewing prowess, independent of whether the brew actually pleases anyone, well, then the style parameters make some sense. But in that case, you wouldn't even classify a beer into a category when its missed color, gravity, or IBUs specified for the category. In other words, the competition coordinator looks at the stated parameters and says "this can't be considered Brown Ale, so it won't even be entered into competition." and the judges would never taste it (no matter how good it might be). In an ideal world, the physical characteristics would actually be measured at the competition site, but I guess its hard to borrow an HPLC from the lab for the weekend 8-)

If the point is to look for the beer that is most pleasing, then I think the distinctions are too fine, and the parameters too narrow. If there's a third possibility, I'm not sure what it would be. Anyway, what I'm getting at is the guidelines and the brew that won (in that category, that year) seem to be at odds. And I'm sure that if I look, I'll find more examples. Can we generate some discussion on this topic? I think it'd be very helpful...

t

```
=====
=====
Tom Leith InterNet:   trl@wuerl.WUstl.EDU
4434 Dewey Ave.      CompuServe:   70441,3536
St. Louis, Missouri 63116
    "Tho' I could not caution all
314/362-6965 - Office   I still might warn a few:
314/362-6971 - Office Fax   Don't lend your hand
314/481-2512 - Home + Infernal Machine to raise no flag
    atop no Ship of Fools"
=====
=====
```

Date: 6 Oct 93 16:35:15-0400
From: MATTHEW.BOHNE@sprint.sprint.com
Subject: IMPERIAL STOUT

DOES ANYONE HAVE A GOOD RECIPE FOR IMPERIAL STOUT ? I TRIED THE ONE IN
THE
"BREWERS BIBLE" BUT IT turned out rather bitter... Any suggestions? I
would
love to brew some Moss Stout (brewed in Seattle) any ideas?

Carboy Dieum (G)

Matthew

Date: Thu, 7 Oct 1993 10:15:56 -0600 (CST)
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Low alcohol/near beer

Does anyone have a procedure for producing low or no alcohol carbonated malt beverages?

My intial thought is to:

- 1) brew in the normal fashion
- 2) heat to evaporate the alcohol
- 3) cool
- 4) add priming sugar and fresh yeast
- 5) bottle

Is this reasonable? Has anyone tried this? Did it work?

Sante' WAK

Date: Thu, 07 Oct 93 10:26:00 PDT
From: "Moore, Brian" <Moorebw@hvsmtpl.mdc.com>
Subject: Really Cool Cooling

Well here goes,

I've been reading the cooling debate in the previous few HBD's with much interest. Everyone seems to be on the wort chiller path. Has anyone ever tried just dropping a chunk (golf-ball sized maybe?) of dry ice into their hot wort? I've never tried it but have often contemplated it. There seems to be a veritable plethora of benefits:

1. Quick cooling
2. Cheap
3. All natural CO2 (?)
4. If it works anything like dry ice does in punch, maybe all of the break material would freeze into a big ball around the dry ice and you could just lift it out.

Obviously you would want to aerate the wort with an airstone or something to get oxygen back in for the yeast. Is commercial dry ice pure CO2 or are there other nasties in there? On the surface, this seems to be a neat idea so please don't flame me too badly. I'd like to try this but I'm afraid to ruin a batch of beer. Maybe if somebody else already has, they could stop me.

Thanks,
Brian Moore

Date: Thu, 7 Oct 1993 07:56:56 -0700 (PDT)
From: John Brooks <jbrooks@u.washington.edu>
Subject: Beer Bennies/Pyramid Yeast?

The following was reported in the Seattle Times, entitled "Beer Bennies":

"Oh, to work for Hale's Ales. The company, with breweries in Kirkland and Spokane, is preparing to take all its employees on three week "education tours" of European suds makers.

This Mother of All Bennies marks the firm's 10th anniversary. Mike Hale produced his first ale in Colville, and he now markets 13 draft ales throughout Washington.

The firm will take two groups of seven employees on tours of English, Belgian and German breweries. One stop: Gales Ales in Horndean, England, where Hale worked in 1982 before starting his business.

Of course, the trip coincides with Munich's Oktoberfest. Hale dryly notes in a press release that the tours `won't be work.'"

By the way, Hale's makes excellent products, especially their rich, biting

"Moss Bay Extra." They also have a great T-shirt with their mallard duck logo.

On another Northwest related subject, Pyramid Ales of Kalama, Washington, perhaps best known for its "Wheaten (tm) Ale," makes a large number of other superior beers including a double-yeasted Hefeweisen. One of my favorites is their "Wheaten Bock Ale" (O.G. 1.061) which is made with five

malted grains and Mt. Hood Hops. I am going to try a clone and through some rather involved reconnaissance have managed to come up with a close approximation of the grain mix.

My missing link is the yeast. Pyramid claims to use the same "proprietary" ale yeast on all of their brews (the Hefeweisen is filtered before undergoing a secondary fermentation with a Danish lager yeast, which settles in the bottle). My initial impulse was to try Wyeast chico/american (1056) or german alt (1007).

I recall reading "net lore" that Sierra Nevada probably got their yeast from Anchor, that Pete's probably got their yeast from Sierra Nevada, etc.

Does anyone know about the source of the Pyramid strain or have an educated guess as to a suitable substitute? Replies by private e-mail or postings both OK.

John Brooks
University of Washington
(206) 543-9149

P.S. - I have an acquaintance who works for a door and window distributor called Reeb Distributing, Inc. Their motto (which is on his business card and their logo jackets) is: "REEB - we're BEER spelled backwards."

Date: Thu, 7 Oct 1993 08:12:45 -0700 (PDT)
From: Paul deArmond <paulf@henson.cc.wvu.edu>
Subject: Re: Victorian Ales

Victorian Ales flourished during the last century, rising to prominence in the 1830's and dying off in 1900, when they were replaced by the Edwardian Ales (a much rowdier and less inhibited ale.) The Victorian Ales maintained a world-wide Empire. Indeed, it was said that the sun never set on a Victorian Ale. Two of the largest Imperial colonies, India and Canada, developed their own ales. Several other areas under the influence of Victorian Ales were quite important to trade, but never established their own brewing recognition. Two of the most notable brewing failures were Crimean Ale (very bitter and with an indecisive finish, but notable for the Charge of the Light Beergade, of which it was said, "It's magnificent, but it's not beer.") and the First and Second Afghan Brews (of which the first was a complete disaster.)

One of the notable and lasting characteristics of the Victorian Ales was their curious moral double-standard. While being very ostentatious in church-going, psalm-singing, founding societies for the reformation of fallen brews, establishing the Boy Stouts, and declaiming on the "Pale Ale's Burden", the Victorian Ales were not above mistreating natives (leading in India to the Carboy Rebellion), visiting child brothels or being whipped to a frothy head with birches.

The original Victorian Ale was blended with the lesser known Albertian Ale, which was of German origin. One of the results of this marriage was the Edwardian Ale mentioned above. The Albertian Ales never really caught on, but their influence may be seen in the current British Lagers.

for more information on the Victorian Ales, refer to the Flashman books by George MacDonald Fraser....

Date: Thu, 7 Oct 93 11:37:01 EDT
From: wslack.UUCP!wrs@mv.MV.COM (Bill Slack)
Subject: Re: Krush-Off extract

Jim Busch asks about the extract efficiency from the various mills at the Krush-Off:

Unfortunately, the crushes were not individually mashed. About 16 pounds of the Krush-Off residue was mashed in one batch with 2# crystal and 1# Cra-Pils and after a 75 minute infusion at 154F, a fifteen minute mashout and a normal sparge, it yielded an eleven gallon wort of 1.048 starting gravity. So I guess you could figure the_average_ extract efficiency. ;-)

Doing a club brew-in from the contest remains was as much fun as the contest itself. We made three batches using Young's ale yeast, a Weihenstephan Alt yeast and some of the new, improved Red Star (one gallon test batch). Haven't tasted them yet.

Bill

—
wrs@gozer.mv.com (Bill Slack)

Date: Thu, 7 Oct 1993 12:19:05 -0500 (CDT)
From: Robert Jordan <JORDAN@ANLBEM.BIM.ANL.GOV>
Subject: Request for homebrew suppliers

I've been reading the homebrew digest for several months now, and have been gathering as much information on homebrewing as I can. So I'm ready to take the plunge as it were and get started. However, I'm having trouble finding a good list of mail-order homebrew suppliers. I would appreciate anyone sending me the address and/or number of the supply places they use.

Private replies are fine.

Thanks in advance--

Robert Jordan
jordan@anlbem.bim.anl.gov

Date: Thu, 7 Oct 1993 13:14:33 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: malt mills

Thanks to the Boston homebrewers for their work. With all respect,
for those doing comparisons, I suggest evaluating the crush blind
and using a series of screens. If you don't have the screens, it
makes for a good club project.

Date: Thu, 7 Oct 93 14:25:37 -0400
From: oldforg4@nysernet.ORG
Subject: homebrew

To whomever is listening:

 Please send me any info. you can about homebrew and or homebrewDigest.
 Just found you while surfing and am very interested. Any help you
could
 give would be greatly appreciated. Thanks.

Ken D.
oldforg4@nysernet.org

Date: Thu, 7 Oct 93 12:46 CDT
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: Is mashing-out necessary?

> Subject: Mash out necessary?
>
> Now, Miller (TCBoHB) is adamant that mash out is absolutely
> necessary. Others are less certain. Hey, it's going to be
> boiling in a few minutes anyway. What are the opinions from HBD
> land?
>
> Domenick Venezia
>

YES! ROO-ROO-ROO. Stand back! Make Way! Spread out! Free-
thinker comin' through here!

I hereby nominate Mr. Domenick Venezia to be considered for
acceptance into the Brotherhood Of Question Authority Types. It's
heartening to see someone question The Word.

It is my personal opinion that there are WAY too many homebrewing
books, written by fornicating self-proclaimed experts, and not
enough . . . oh never mind. Suffice to say I'm one homebrewer who
has yet to be convinced that mashing-out is necessary. In fact, I
think that mash-outs are an unnecessary step.

Oh sure, I here the sniveling arguments of the imprisoned. They
usually fall into one of two categories: "You have to stop enzyme
activity" -or- "it allows you to obtain consistent results".

Oh PUH-leez. If you skip mash-out, how much extra starch
conversion actually takes place while you sparge? Is it
noticeable? And if this additional conversion IS noticeable then
wouldn't you welcome the extra extract? Consistent results? Huh?
Just how does mashing-out produce consistent results.

Go ahead and throw stones. Me and Dom think the Emperor's new
clothes suck. We're standing-up and farting in the general
direction of homebrewing dogma. Well, at least I am. Dom?

chris campanelli

Date: Thu, 7 Oct 93 13:46 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: Crushoff/Extraction Rate

More on bodymen.....

Jim Bush suggests that it would be nice to know the extraction rates of the various test brews and I suggest that it may be nice but not terribly useful unless they were conducted under controlled conditions.

He also points out that his rate of extraction went down when he switched from commercially milled grain to a Corona and back up again when he started using a MM.

That warms the cockles of my heart but I have long felt that extraction rate has far more to do with the equipment and process following milling than with the milling itself.

I am in the midst of running controlled experiments to once again test extraction efficiency as a function of the grist. It has always been my opinion that a properly designed mill with fixed roller spacing will provide the same extract efficiency as an adjustable one set up to produce an industry standard type of grist. I offer an adjustable mill as an option because people think they need it. I don't doubt that, in large commercial batches, with the equipment they are stuck with using, that grist will have an effect on yield but on small batches the difference falls within the measurement error.

I run these tests on my one gallon pilot system and when using one lb of malt, the gravity for one gallon reads directly in pts/lb/gal.

The three tests just concluded, used 1 lb of Belgian Pils malt and the following mash schedule:

doughin 2000 ml water at 110F for 15 minutes
mash at 155F for 45 min
mashout at 170F for 10 min
sparge to one gallon with 180F water

The first two tests were on a fixed mill and an adjustable, set to provide industry standard grist.

The results were within the measurement error. The fixed mill sample read 1.031 and the adjustable may have been 1 point higher but on a hydrometer

with a resolution of 2 points per division, I would call it a draw.

The next test was inspired by Jim's comments on the Corona and I ran a test

on the grist from my Corona. However, ignoring all the wisdom of the Corona

fans, I set the mill to produce flour. The rotating plate pressed against

the fixed plate hard enough to require considerable force to turn with no

grain in the mill. It required a great deal of effort to crank with grain in

it and I am glad I only had to do one pound. The grist looked like coarse

flour with some recognizable husk material but it was just random slivers.

I ran the sample through the same process as above and got exactly the same

results. 31 pts/lb/gal. This did not surprise me but I had to do it to prove

the point to the skeptical. What did surprise me, was the fact that, of the

three jugs of wort produced, the Corona produced the most transparent. The

very fine husk material, did indeed do a better job of filtering.

So, whence the bogymen?

It is my contention that the bogymen is in the mash/lauter tun and not the

grain mill. Fortunately, I also sell the mash/lauter tun that makes all this

possible.

But back to mills, buy the one that turns you on, forget the "crush-offs" and

give some serious thought to pushing beyond the traditional plastic buckets

and picnic coolers.

js

Date: Thu, 7 Oct 93 11:29:09 PDT
From: kdamrow@Thomas.COM (Kip Damrow)
Subject: specialty items question

Hi there,
Does anyone know of any catalogs for specialty items such as:
glassware, unique bottles, microbrewery stuff, brewery related clothing.
(BTW, I'm not looking for brewing supplies)

Thanks,
Kip

Date: Thu, 7 Oct 93 15:40:47 CDT
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: cleaning tips repost

Just a quick note relating responses to my cleaning tips question, here are a few ideas which may help some of you make your brewing (cleaning) process a little more painless (note, these are ideas used by those who submitted them, not just crazy ramblings)

- one idea: use plastic buckets for primary and rack off the trub into a carboy for the secondary - this leaves most of the gunk in an easy to reach place.

- use an immersible pump to drive sanitizing solution into bottles with a hose, use same pump out of water to drive air in...use low concentration iodophor which need not be rinsed

- put clean bottles in dishwasher for *sterilization*, use a little bleach and heat drying (I assume rinsing in the dishwasher will get rid of the bleach), Also, open dishwasher and bottle on the door, all spillage goes in the washer (note: this is not to remove labels etc.)

- one reply suggested the popular spray bottle washers available, or the construction of a homemade carboy washer from a plugged up section of garden hose with holes punched in the end near the plug (use bolt as plug)

- when draining bottles and carboys, turn the container over and give a little clockwise twirl and the water will drain out in a vortex, allowing air in and giving a faster drain (assumes northern hemisphere :))

Thanks to Jack, Drew, Norm, and Chris for their responses, any others who wish to add their \$.02 are greatly encouraged to do so to the address below.

Chris

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=====
|Chris Pencischips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |
=====
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Date: Thu, 7 Oct 93 14:09:02 PDT
From: msharp@Synopsys.COM
Subject: Lambic beers & U.S. Microbreweries

- ----- Begin Included Message -----

Matthew Evans <matt@cadif.cornell.edu> writes:
> Subject: Lambic Beers and U.S. Microbreweries
>
> I've got a couple questions, hopefully someone out there knows the
answer
> to these questions:
Content-Length: 3703

In general, the best place for lambic questions is the lambic digest.
Subscription requests can be sent to:
lambic-request@longs.lance.colostate.edu

> 1) Is there any U.S. brewery producing a true lambic beer (besides the
> Cranberry Lambic from the Boston Brewing Co)?

To the best of my knowledge no U.S. brewery is producing anything
close to a traditional lambic.

I have just started to work with a very well known/respected pub brewer
on making a pseudo-lambic as a specialty beer. Don't expect to see it
anytime soon. Also, don't bother asking me who 'cause I'm not going to
say until he announces the batch publicly.

> Why not?

Assuming for a minute that you mean a pseudo-lambic (real lambics can
only be made just outside of Belgium due to the necessary wild
fermentation),

the first reasons that come to mind are:

- o lambics are made using wild yeasts and bacterias that
will most likely cause endless problems with 'regular'
batches
- o lambics must be aged for considerably long periods of time
resulting in high cost and low throughput
- o most pub-goers are content to drink whatever piss flows out
of the tap as it is (though there are some very good pubs
there are a few in my geographic area that amaze me as far as their
ability to stay in business for so long with such sh*t products)
so why waste time & money on an expensive and difficult style
when you can cut corners, and make sh*t and money at the same
time? (no, I'm not naming names, but I bet some can guess)
- o nobody really knows how to make a lambic outside of Brussels.
everything done by the readership of the lambic digest is just
experimentation and has hardly scratched the surface of the
knowledge necessary to brew such a beer commercially with
any guarantee of success and repeatability.
- o lambics require (traditionally) cooperage & thats not cheap
- o lots of other issues I'll just let pass so this isn't a whole
digest in itself.

> 2) I've read before that the various yeasts and bacteria needed for
lambic

> beers are available in the US, but where is a good commercial source
(or

> free source) of these microorganisms?

Cultures are easiest to find by special order from G.W.Kent through your local retailer. You must be patient when ordering, there are occasionally cycles [like now] when the cultures are backordered.

> 3) Has anyone tried making a homebrewed lambic in small batches. If you
> have I would really like to talk to you about the process, as Kriek Lambic is
> my favorite beer and I would like to duplicate the sour bite found only in
> lambic beers.

See the comment on the lambic digest above, "Lambic" by J-X Guinard (Classic Beer Styles #3), and the paper Martin Lodahl & I wrote for Beer+Brewing for the Milwaukee Conference (sorry, don't remember the volume #).

> 4) Are there any good publications about microbreweries? Particularly I'm
> interested in getting some start up information for an Entrepreneurial
> Business class at school.

>
> 5) Finally, in this long list of questions, does anyone have the number for
> the Celis brewery in Texas that makes Belgian style beers?
These two have me confused... Are you trying to open a lambic pub/micro brewery?

If so we should talk off line 'cause you need a reality check with respect to markets and how quickly you'll be out of business. (yes, I know that sounds harsh, but better to hear it now than find out later)

If you're really just confused about lambics vs. Belgian Wits (Celis) than you should get onto the lambic mailing list because we're having a discussion about Belgian Wits right now.

--Mike (your friendly lambic digest coordinator/founder)

- ----- End Included Message -----

Date: Fri, 8 Oct 1993 00:05:27 -0400
From: patterso@mason1.gmu.edu (F. G. Patterson Jr.)
Subject: dry hopping bitterness / Holiday Ale

Kelly Jones <k-jones@ee.utah.edu> writes:

>
>Recently, I tried my first dry hop, ... and found a very pronounced
>excess
>bitterness. I compared this to the other half of the batch, which had
>not been dry hopped, and which did not have this bitterness. So, the
>bitterness was a result of the dryhopping.
>
>Questions:
>Is this simply a temporary bitterness that will soon mellow? Or can
>dry hopping really add noticeable bitterness? Did I over dryhop?
>How many IBU's can/should dry hops introduce?

I read that your batch mellowed (lost bitterness) in 8 days. My batch did not. I dry hopped a batch of pale ale with Hallertau hops (actually I added the hops immediately at the end of the boil after turning off the fire). The result is the first batch of beer in 15 years of brewing that is so bad that I am actually pouring it down the drain. (I should save the drain and pour it directly into the sewer.) It is severely bitter and, frankly, the aroma is not all that great. The hops were allowed to remain in the wort for 7 days.

BRUCE@ARVAX.Syntex.Com writes:

>Subject: Christmas Ale Recipies?
>
>Greetings!
>
>Looks like it's about time to start those Christmas Ales
>My point is, I'm looking for some Cristmas Ale recipies

Don't overlook the Cat's Meow recipes, especially the one that I have copied below. I substituted 1 oz of Hallertau Hops for the extra hops in the recipe; also I added an ADDITIONAL 1 teaspoon of GROUND Cinnamon, and I used only 3 cloves in all. This recipe turned out to be superb! I made it 4 weeks ago for Thanksgiving, and it is half gone already. Note that it makes only 4-5 six-packs of ale.

> Quick & Easy Spiced Brown Ale
>
> Source: Jeff Benjamin (benji@hpfcbg.fc.hp.com)
> Issue #985, 10/7/92
>
> Ingredients:
>
> MountMellick Brown Ale Kit
> 3-4 whole cloves
> 3 whole cinnamon sticks
> 1/4 teaspoon, nutmeg
> 4 oranges
> 1/8 cup, fresh Hallertau hops (leaf)
>
> Procedure:
>
> Simmer spices, hops, and zest of 1 orange in 1 quart water for 30-

> minutes. Make brown ale according to 3.6 gallon recipe. Add
spice
> mixture (do not strain) and zest of other three oranges to
wort.
> Ferment, strain, and bottle according to kit instructions.
>
> Comments:
>
> Since everyone is gearing up to make Xmas brews (including me),
here's
> an easy recipe that turns out extremely good. I'm normally an all-
grain
> brewer, but it's easier to make large quantities of extract brews
for
> parties and things, and the spices tend to cover up some of the
extract
> qualities. Of course, you could use the same spicing technique for
an
> all-grain batch, too.
>
> Remember to go easy on the spices. The flaw with a lot of
commercial
> Xmas brews is that the spices overwhelm the flavor of the beer
rather
> than complement it.
>
> The flavors balance very nicely after only a short aging time, but
it
> gets better after a couple of months. An excellent holiday beer.

PAT PATTERSON
Fairfax, Virginia

End of HOMEBREW Digest #1243, 10/08/93

Date: Fri, 8 Oct 93 10:04:50 -0400
From: djt2@po.cwru.edu (Dennis J. Templeton)
Subject: Dry Ice cooling NOT!

Someone asked about using dry ice for cooling their wort.

Since dry ice liberates humungous amounts of gas you had better be prepared for a huge overflow of sticky bubbling (and still hot) wort, like a krausen from hell.

I have tried this for other purposes and it was **definitely** not worth the trouble. Note that those of you who put dry ice in your college punch had a more controlled reaction since the punch was not boiling hot.

Try a cooling coil.

dennis

Date: Fri, 8 Oct 93 09:06:00 CST
From: Montgomery_John@lanmail.ncsc.navy.mil
Subject: India Pale Ale request

This question is directed in particular to kindred brewers in the beautiful Pacific Northwest.

I recently spent an extended amount of time in the Seattle area - particularly Silverdale/Poulsbo. While there, my buddy and I ran across a little place that harbored some 30 microbrewed beers on their tap wall. Now, coming from a "microbrew" wasteland (panhandle Fl) I was awestruck (but that's another soapbox).

This place had an India Pale Ale on tap at the time that I was quite impressed with. I think the brewer was Deschutes(sp?). Is anyone familiar with this beer and, if so, do you have any all-grain recipes that attempt to clone this fine brew? I would love to produce some of that Pac.N.W. finery here in the Southeast.

Thanks a million,

john m.
<montgomery_john@lanmail.ncsc.navy.mil>

Date: Fri, 8 Oct 93 08:54:47 CDT
From: wood@ranger.rtsg.mot.com (Dan Wood)
Subject: Removing Foil Labels, Bottle Filling

I'm setting up a homebrewing "kit" for a friend for Christmas, including two cases of M*ller longnecks in the waxed cardboard cases. I'd like to minimize the time/effort in removing the foil labels. In the past I've tried a variety of solvents, boiling water, wire brush, razor blade, etc. but never found a combination that worked well. Anyone have any tricks for this? Please don't suggest other bottle types, I already have the empties, and I'm a big fan of clear bottles.

I used the spring type bottle filler for many batches until I tried a simple hose clamp. I bought one of the 69 cent white plastic clamps, the kind with the ratcheting latch. I bent the teeth of the latch out of the way, and simply use hand pressure to shutoff the flow between bottles. It is faster, cleaner (no foaming), and probably minimizes aeration. Try it, you'll like it.

PS: Anyone tried making a grape mead? I've had good luck with cherry and cranberry juice, but I'm leery of making alcoholic grape koolaid. I've got a gallon of concentrated juice from homegrown grapes (big and blue, concord maybe?) that I figure would flavor about 4 gallons of mead. However, the wife would kill me if the mead didn't turn out: she wants to waste it on jam. Any thoughts or experiences are appreciated.

Worry if you must, but by all means, have a homebrew!

Dan Wood, Motorola Inc. My thoughts, not Moto's
wood@rtsg.mot.com

Date: Fri, 8 Oct 93 8:42:28 MDT
From: npyle@n33.stortek.com
Subject: Hop substitutions

Domenick asks about hop substitutions:

>I'm still trying to perfect that Fuller's clone and I am looking for a
good
>substitution for British Northdown hops. I've used Cluster in the past
>but I'm underwhelmed by the flavor contribution of Cluster.
>
>How about Styrian Goldings, or Pride of Ringwood? Both of which are
>available locally (Seattle). Kent Goldings? Fuggles/Willamette?
>
>How about substitutions for Challenger and Target too?
>
>Since I have never encountered Northdown, Challenger, or Target I'm
>working in the dark on substitutions. Can anyone recommend a good book
>on hop characteristics. Gardening info is wasted pages.

Domenick, I've been working on the hops faq and I'm starting to come to
the
conclusion that there are no hop substitutions. There are many hops
grown to
be genetically similar (Hallertau Mittelfruh being the most copied), and
some
of the "copies" are good, and some are bad. I suppose these copies can
be
called substitutes, but its a personal choice. There is also very little
(read
"zero") literature describing flavor profiles of hops. Unfortunately, we
are
all working in the dark until we taste/smell the actual hops, which is
why I'm
looking for commercial examples of each hop for the faq (its a tough job
but
someone has to do it; I'm hoping this weekends GABF will help!). BTW,
many of
the hops you mention are fairly rare in the US (Northdown, POR) so even
less
information is available on them. So, the news is bad, but I'll wish you
good
luck in your search. Keep us informed.

Cheers,
Norm

Date: Fri, 08 Oct 93 11:15:22 EDT

From: rgsimms@aol.com

Subject: Cider making equipment

Like most newcomers to the HBD, I am looking for information. Does anyone have any information on cider making equipment (i.e. crushers and presses)? How about plans to build one? I have info from Happy Valley Ranch but don't want to spend that much. Please send info to RGSimms@aol.com or post here. Thanks in advance.

Bob

Date: Fri, 8 Oct 1993 10:46:44 CST
From: "Dennis Lewis" <DLEWIS%jscdh6@jesnic.jsc.nasa.gov>
Subject: Mashing out

Thanks, chris and Dom for the refreshing look at what's really necessary. For those of you who require the opinion of published brewing experts, Terry Foster Pale Ales says that a mash out is unnecessary for most ales. Great news for the mash/lauter tun crowd. He says the only reasons you need to do a mashout is for a high viscosity wort or for a mash that has been decocted and some of the filtering properties fo the husks is diminished. The higher "mash-out" temps will get the sweet liquor to flow better thru a less than ideal grain bed.

As far as I recall, there was no mention of denaturing enzymes, completing reactions, etc. I'm going to try it today with my new mash/lauter.

Dennis Lewis<dlewis%jscdh6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Fri, 8 Oct 1993 11:46:31 -0400 (EDT)
From: Scott Benton <sbenton@telerama.pgh.pa.us>
Subject: Re: Yeast query

In HBD1239 David Atkins <ATKINS@macc.wisc.edu> wrote

>YeastLabs American Ale:

> I recall someone asking for any experiences or reactions to this strain. I
>have 5 gals of pale ale (og 40) in a secondary and the yeast head has yet to
>drop. I racked from underneath the primary's yeast head and a new one grew in
>the secondary carboy.It has diminished some but this is my first experience w/
>the yeast and since it has been fermenting for a week, I just want to know what
>might be happening. This batch got off on a rollicking start...I had signs o'
>fermentation within 3 hours and a yeast top-layer in about 7-8 hours (the power
>of aeration and 4 cups starter). In sunny Madison, the tilt of the earth has
>lower the ambient temp. of my basement to 60-63 F. Could the lower temp result
>in such a slowing of fermentation. Before I could ferment for 1 week to 9 days
>and have clear beer to bottle....but that was before this yeast and temp change
>and recipe.

This is the first time I used this yeast. My OG is about 55. The main thing I noticed about this strain is its creaminess. With other yeasts, I usually had a lot of bubbles, that died down relatively quickly. With this yeast the krausen was dense, creamy, and still there when I racked to the carboy. The head built up somewhat in the carboy, but is now dying down.

Time in primary: 4 days
Time in carboy: 5 days so far

I'm fermenting at about 68F, and I'd say that the fermentation is going more slowly than I typically see.

BTW, my supplier now only carries Yeast Lab liquid yeasts. Is the American Ale yeast the same as the Wyeast??

Scott D. Benton sbenton@telerama.pgh.pa.us

Date: Fri, 8 Oct 1993 09:06:02 -0700 (PDT)
From: Paul deArmond <paulf@henson.cc.wvu.edu>
Subject: Re: Mashout Heresy

Amen! I say !Amen! Brother Chris.

Consistency is doing things the same. Not mashing-out (in a consistent manner) is consistent.

[alternately]

"Consistency! We don't need to show you no steeking consistency!"

[or from another point of view]

"Conversion is conversion is conversion"
- Gertrude Beerstein

[finally]

Always killing a chicken at dawn on brewing days would be consistent too.

[coals to Newcastle, or heresy to Worms]

Let's go after the Porter category definition again....

Har de har har,

Paul de Armond

"Monism either exists or it doesn't"
-- Rev. Perry 10X Mills _An essay against Dualism, Part 1 of 2_
(unpublished)

Date: Fri, 8 Oct 93 12:25:42 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: IMPERIAL STOUT

Bitterness in stout comes from two sources: the hops, and the dark grains. There are a number of things you can do to reduce it:

1. Cut down the hopping rate. (Most likely cause of overbitterness.)
2. Use less dark malt.
3. Don't heat your dark grains to boiling (and DON'T boil them), just steep them for 30 minutes in 160F water, then strain the liquid into your boiling pot.

You can also add unfermentable sugars, which will make the beer sweeter and reduce its apparent bitterness by:

1. Add more crystal malt. Again, steep it in a sufficient quantity of 160F water (2 quarts water/lb of grain).
2. Add lactose. I've never done this, so I can't recommend amounts.

That all said, Imperial Stout is a fairly bitter style. I think a typical one will come in at about 50-80IBUs. It's also very sweet. Try Samuel Smith's for a classic example.

Date: 8 Oct 93 18:02:54 GMT
From: GANDE@slims.attmail.com
Subject: Is Mashing out necessary

Stellar responses from Chris Campenelli re: mashing out and is it necessary. By golly I don't do it either! For that matter I don't even adjust my hydrometer readings for temperature variances. I can't imagine the havoc being played with thoses OG's being off by a point or 2. Come to think of it, I don't always use a secondary fermentation. Nor will I bow to the ever gracious concept that one must recirculate for clear wort. Won't decoct, protein rest, or upward step infuse, either. Use a Corona not a roller mill and add an extra handful of grain to make up for the lost extraction. Sparge by dumping the water on the grain bed, not sprinkled with delicate droplets, each 0.25ML in size. X:-O

I get 33 Points extraction, consistantly, from Domestic 2 row, and my beer is consistantly very good based on the lineup consistantly at the door!

Then again, if you enjoy doing all these things, brew away!!!

....
+-----+
| Internet: gande@slims.attmail.com |
| Glenn Anderson |
| Manager, Telecom. Facilities |
| Sun Life of Canada |
+-----+

Date: Fri, 8 Oct 93 12:54 CDT

From: korz@iepubj.att.com

Subject: oxidation/recipe woes/mashout/tun design vs. crush/Brussels?!?

Brian writes:

>Memphis, TN). I entered an extract based dry stout. It finished second with
>a score of 32. The main problem that the judges noted was that it had an
>oxidized aroma. I'm trying to figure out where this oxidation came from.

<procedure deleted, looked fine to me>

>Our bottle filler is one of those clear plastic tubes with the spring
loaded
>white thingy on the end (another version of the clear tube with the
spring
>loaded orange thingy on the end, I guess). This thing does cause the
beer to
>foam a little on it's way into the bottle.

1. Is my bottle filler the culprit in my oxidation problems? If so, is there something better out there?

This could be the problem, you could try raising up the bottle to just below the level of the beer in the priming tank so your siphon runs slower until the tip of the filler is covered in beer. That's what I do.

2. Has anyone out there ever used those oxygen absorbing bottle caps?

Yes, but I've only noticed them increasing the life of my hop nose and increasing the general shelf-live of the beer.

3. Is it possible that some extract manufacturers have HSA problems in the manufacture of the extracts?

Yes, but it could also be the age of the extract and the storage temperature.

I know that extract syrup tends to darken as it ages and I'll bet that this is partly caused by oxidation.

Tom writes:

>Part of my reason for asking is that I might like to enter competitions
>myself, and I may also be interested in the AHA BJCP. But observations like

>this make me wonder whether it would be worthwhile. If the goal of the
>competition is to demonstrate brewing prowess, independent of whether the

>brew actually pleases anyone, well, then the style parameters make some
>sense. But in that case, you wouldn't even classify a beer into a category

>when its missed color, gravity, or IBUs specified for the category. In other

>words, the competition coordinator looks at the stated parameters and says

>"this can't be considered Brown Ale, so it won't even be entered into

>competition." and the judges would never taste it (no matter how good it
>might be). In an ideal world, the physical characteristics would
actually be
>measured at the competition site, but I guess its hard to borrow an HPLC
from
>the lab for the weekend 8-)

I have never been involved in a competition (nor would I ever tolerate
one)
in which beers were excluded from judging. This just doesn't happen. As
far as I know, there are only two reasons for recipe forms:

1. publication of winning recipes, as in the case of the AHA Nationals,
and
2. to try to prevent ringers, i.e. if an entry appears to have been a
re-packaged commercial beer, the competition organizers could check to
see
if perhaps the recipe proves that the beer should be disqualified -- an
expert
brewer can tell if a recipe and a beer really could match or not. This
is
not an easy task and I've yet to see anyone attempt it at a competition.

Chris writes:

>enough . . . oh never mind. Suffice to say I'm one homebrewer who
>has yet to be convinced that mashing-out is necessary. In fact, I
>think that mash-outs are an unnecessary step.

>

>Oh sure, I here the sniveling arguments of the imprisoned. They
>usually fall into one of two categories: "You have to stop enzyme
>activity" -or- "it allows you to obtain consistent results".

>

>Oh PUH-leez. If you skip mash-out, how much extra starch
>conversion actually takes place while you sparge? Is it
>noticeable? And if this additional conversion IS noticeable then
>wouldn't you welcome the extra extract? Consistent results? Huh?
>Just how does mashing-out produce consistent results.

There, now that Chris and Dom's vapors have dissipated, we can get
on with the mash at hand. Chris mentioned one of the benefits
of mashout (the debated one), but failed to mention the one on which
most of us agree, namely mashing out raises the temperature of the
mash much quicker than simply pouring sparge water and therefore
more quickly decreases the viscosity of the runnings. Runnier runnings
mean faster sparging (without a loss of extract efficiency), less chance
of a set mash (stuck runoff) and more efficient extraction of sugars.
Remember, warm honey pours easier than cold honey.

Jack writes:

It is my contention that the bogyman is in the mash/lauter tun and not
the
grain mill. Fortunately, I also sell the mash/lauter tun that makes all
this
possible.

I think you mean boogyman, but in any event, I must agree that the crush
and the lautering system are interrelated. If you have a very fine
lautering
screen (like the [Eelasy[Mmlasher]), a finer grist is better, whereas if
you

have a coarse lautering screen (like the Zapap) you need something more like the "textbook" crush. The "textbook" crush (which has been posted here before) has a wide distribution of particle sizes. Actually, I feel that only the husk pieces need to be of various size, that the starch particles of the grain can be of a consistent (and small) size. Remember that with a fine lautering screen, you don't really need to rely on the husks to create your filter bed. With a coarse lautering screen, the filter bed must first be established (before which you would be recirculating your runnings). The establishment of the filter bed is basically the setting up of a network of husk particles where the large ones (the ones that do not fit through the lautering screen) are at the bottom, and on top of this lattice of large husks you trap the smaller husks.

So why then not use a very small screen and crush the dickens out of the malt? There's one piece of information that is missing, namely that Jack uses a very thin mash. This is important because a stiff (thick) mash would just sit there and not make it through the lautering screen. You can carry porridge in a sieve, right?

So why not just use a thin mash all the time? Well, this is up for debate. In some cases, it's not possible due to equipment constraints (high-gravity beers, etc.). I've read (in Noonan, I believe) that a stiffer mash favors Beta over Alpha Amylase (could someone check this - I might have it backwards).

Finally, a fine lautering screen would increase the importance of breaking down the really gummy components of some mashes (like all the beta-glucans in an Oatmeal Stout, for example). If you don't do the protein rest correctly, you can try to make a really thin oatmeal-containing mash, but still have a glob of barley-flavored oatmeal with some amber water on top, that will sit in your lauter tun till it turns to cement.

Mike writes:

> o nobody really knows how to make a lambic outside of Brussels.

Woah Mike, surely you mean outside the Zenne Valley! Frank Boon brews some very traditional lambieks in the town of Lembeek.

Al.

Date: Fri, 8 Oct 93 11:08:49 PST
From: "Taylor Standlee" <standlee@humanitas.ucsb.edu>
Subject: Fermentables/volume, what is reasonable?

Can anyone give me some advice concerning brewing from high gravity worts.
I prefer like to brew full bodied brew and have been brewing extract/
small scale mash beer. If I were to brew using 8 lbs of Light Syrup and a mash of 3 lbs of Pale Malt, 1/2 lb of Dextrine Malt, 1 lb of Amber Crystal Malt and 1 lb of Dark Crystal Malt, fermented with Wyeast's Chico/California Ale Yeast for 5 gallons would I run into problems with off-flavors from too much fermentable sugar or "other problems".

What are the some good parameters for brewing 5 gallon batches in terms of the amount of fermentables for use with Ale yeasts?

Please reply by e-mail to me directly or via HBD. THANKS

Taylor Standlee
standlee@humanitas.ucsb.edu

Department of Germanic & Slavic Languages & Literatures
Phone: (805)-893-2131 FAX: (805)-893-2374

Date: 8 Oct 93 14:16:04-0400
From: MATTHEW.BOHNE@sprint.sprint.com
Subject: STRAINING YOUR BREW

I have one of those handy brew kits you get for Christmas with the 6 gal. carboy. I realized after my 1st batch that I was getting a lot of haze in my beer so I thought I might strain it prior to bottling. What I came up with has

been REALLY NICE! I used one of those reusable GOLD plated coffee filters (you can get them at any fancy coffee shop). I setup my 2nd carboy underneath the 1st and placed the filter inside of a funnel (perfect fit) and drained off the beer from the top, up to the last inch of trub. The filter is coarse enough that the beer gets through but fine enough that it catches all the crud that's still floating about. Since I've gone to this, I have truly had nothing but crystal clear beer!

carboy diem

Date: Fri, 8 Oct 93 13:24 CDT
From: arf@genesis.mcs.com (Jack Schmidling)
Subject: JUDGING

>From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
>Subject: AHA Styles and Reality

>Part of my reason for asking is that I might like to enter competitions myself, and I may also be interested in the AHA BJCP. But observations like this make me wonder whether it would be worthwhile.

Your comments provide the incentive to post my observations on the same subject. Last weekend, my wife and I had the pleasure of serving as apprentice judges in a local competition. I went with an attitude inclined toward becoming a qualified judge and wanted to learn what it was all about. We came home totally convinced that it is not our cup of tea for two reasons.

First of all, it demands a great deal of time, is a lot of work, most of which is very boring and unenlightening. We did however, gain a very healthy sense of gratitude for those dedicated individuals who are far less selfish of their time and make competitions possible.

The real objection however, is based on the program and not the people or the results of the judging.

It is preposterous to think that one can become a qualified judge of the very large number of official styles, with the time and qualifications required by the current program. It is designed to create Jacks of all Trades and Masters of none.

The only way one should be qualified to act as a judge of other people's beers is if he or she is truly an expert in the style. The only way one can become an expert in a style is to live with it for a significant period of time. Brew it, taste a wide range of commercial and homebrew versions and essentially do nothing else for months. At that point, the candidate should be evaluated by another qualified expert in that style and this should include the ability to identify a recognized sample of that style in a blind tasting of mixed/similar styles. Only then should that person be certified to judge that style and only that style.

This may sound like a lot of trouble and hassle but I humbly suggest that it would be much more personally satisfying. I would far rather be recognized as an expert in a style than have the dubious honor of being a certified

judge. I suspect many judges have done what I suggested but one never knows who they are because they are all treated equally.

It may also create problems with judging styles for which no qualified judge happens to be present but the fallback position would be noting that point on the score sheet.

Like I said earlier, it's not the people or the results that bother me. Our light lager came in 2nd place and 4th best of show. The problem is I don't know what it means. Last year we came in first, in the same category with a much inferior beer.

>From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)

>Oh PUH-leez. If you skip mash-out, how much extra starch conversion actually takes place while you sparge? Is it noticeable? And if this additional conversion IS noticeable then wouldn't you welcome the extra extract? Consistent results? Huh? Just how does mashing-out produce consistent results.

I agree that the reasons you quoted are not very rational reasons for doing a mashout but there is one reason that I think is a good one. By raising the whole mash 20 degrees or so, you stand a far better chance of keeping it in the optimum range during the lautering process.

It's easy enough to do for those who kettle mash but it is probably not worth the trouble for the bucket infusers.

js

Date: Fri, 8 Oct 1993 11:35:41 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: BOQAT, farting, stoned, fashion, mash out, and farkleberries.

In HBD 1243 Chris Campanelli wrote:

> I hereby nominate Mr. Domenick Venezia to be considered for
> acceptance into the Brotherhood Of Question Authority Types. It's
> heartening to see someone question The Word.

I of course would welcome acceptance into the esteemed BOQAT, but really, I feel the nomination is honor enough. And I would like to state here, while

I have your attention and the pulpit, that although I have worked hard though the years questioning what little authority I did not ignore, I am at heart just a little person, a regular guy, who has no wish to become a cultural icon and no wish to find the Emperor and/or his/her minions on my

doorstep late some rainy night in Seattle. Also, my father is "Mr." Domenick Venezia, I'm just Domenick, Dom, Demonick, or Wop-man.

> Go ahead and throw stones. Me and Dom think the Emperor's new
> clothes suck. We're standing-up and farting in the general
> direction of homebrewing dogma. Well, at least I am. Dom?

In all modesty I must admit to being an accomplished stone thrower myself, and in my time have let rip with a world-class fart or two, though not in mixed company, and certainly, as far as I could control it, not in anyone's general direction, and never, never, never into the wind. My fashion sense, much to my parent's chagrin, leans toward the jeans and a tee-shirt look (kinda Joe Coolish B-), so I wouldn't feign to comment on the Emperor's new clothes except to say that s/he seems to like them and a lot of people follow her/his lead. Really, I just want to brew a Fuller's ESB clone, the easiest way possible and if that means no mash out, then by god, that's what I'll do. Or rather not do. Mash out I mean. Not do one.

And a heartfelt thanks to Chris Campanelli (Happy Columbus Day, Paisano) for the nomination, and without whom none of this would have been possible.

And finally, while looking up "feign" I came across -- well, anyone have a recipe for farkleberry beer?

Should I apologize about the bandwidth?

Domenick Venezia B->
ZymoGenetics, Inc.
venezia@zgi.com

Date: Fri, 8 Oct 93 14:19:11 CDT
From: jay marshall <marshall@pat.mdc.com>
Subject: Re: Hop substitutions

Domenick Venezia writes:

>I'm still trying to perfect that Fuller's clone and I am looking for a
good
>substitution for British Northdown hops. I've used Cluster in the past
>but I'm underwhelmed by the flavor contribution of Cluster.
>
>How about Styrian Goldings, or Pride of Ringwood? Both of which are
>available locally (Seattle). Kent Goldings? Fuggles/Willamette?
>
>How about substitutions for Challenger and Target too?

One of my local brewing supply places, DeFalco's Home Wine and Beer
Supply
in Houston, has (or at least used to have) a "British Blend" which is
made
of... you guessed it! Northdown, Target, and Challenger! Pellets only,
though.

Their phone number is (713) 523-8154. They do mail order (with minimums,
I believe), and they may have an 800 # now.

- --
Jay
marshall@pat.mdc.com

Date: Fri, 8 Oct 93 14:28:04 CDT
From: jay marshall <marshall@pat.mdc.com>
Subject: Re: cheap carboys

Domenick Venezia writes:

(referring to St Pat's 7 gallon carboys)

>The only thing "wrong" with these carboys is that you can't use
>those nifty orange carboy cap things with the two tubes.

I've got one, and the other thing that gives me problems sometimes is
the fact that it is much bigger around than a 5 gallon carboy. This
means
that I can't leave a keg in my fridge while the 7 gal carboy is in there.
A buddy of mine has a 6.5 gallon carboy that is taller than a 5 gallon,
but
about the same diameter. That would work much better for me at times.

- - -

Jay
marshall@pat.mdc.com

Date: Fri, 08 Oct 1993 14:43:24 -0500 (CDT)

From: Paul Boor <PBOOR@BEACH.UTMB.EDU>

Subject: smash the mash balderdash

Hoorah for Domenick Venezia and Chris Campanelli (is this an Italian thing?)!!

I agree the Emperor's butt is showing; we have accessible now such nice grains

that anyone can go to Kmart, buy themselves a cooler (mein GOTT!) and mash.

And they can omit about 24 of the 28 steps proposed by the Emperor's. The point to get across to extract brewers is that it's really pretty easy; sure

it's magical (rather than scientific, which it ain't), but that don't make it difficult.

Paul Boor
Charter Member, EasyMasher Society

Date: 8 Oct 1993 12:56:46 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: Science and Hops Utilization 1/2

I realize this is a lot of post, but its only 1 day. Can't be that much of a problem.

Use of Design-of-Experiments Techniques to Determine Controlling Factors Affecting Hops Utilization and Resulting Charactor.

- - - - -

Fellow Brewing Scientists:

The recent discussions concerning which factors are most significant to the final Hop Charactor of the beer and how they can be manipulated by the homebrewer has brought to mind a company sponsered class I took recently, "Design of Experiments" (DOE). The methods taught in this class are used by industry and researchers to better define a process, by isolating and ranking the controlling factors that make up the process. These methods can also identify significant interactions between factors, such as Time and Temperature acceleration. The beauty of using DOE is that it allows significance and relationships of process factors to be determined with far fewer experiments than standard experimentation and scientific method. For example, let's say a process was made up of 4 variables and 2 values of each variable were to be tested. This would require 2 to-the 4th power or 16 experiments to examine each possibility. Using DOE, as many as 7 variables at two values could be examined simultaneously with only 8 experiments! Statistics allows the significance and relationships of the variables to be determined.

What I propose to do here is list the methods and tables necessary to perform 3 sets of DOE:

1. Determine factors for Alpha Acid Utilization during the Boil.
2. Determine factors that affect Alpha Acids during Fermentation.
3. Determine factors for Hop Oil Utilization during Dry Hopping in the Secondary.

The data measured from these experiments would be the parts per million (ppm) of the Alpha Acids or Hop Oils as determined by Liquid/Gas Chromatography. Since this equipment is not readily available, this work would need to be carried out at a University with the participation of an enthusiastic Homebrew club. Perhaps Michael Lewis' class(es) at UC Davis would be interested.

DOE #1 - Utilization Factors During the Boil

- - - - -

Factors to be evaluated:

- A. Wort Gravity
- B. Wort Volume
- C. Time of Boil
- D. Wort pH
- E. % Alpha Acids of Hop
- F. Amount of Hop
- G. Interaction of Wort Gravity to Wort Volume

Two values would be tested for each of these factors. The test table will look like this (below) where Experiment Number is on the left, and Factors are across the top. The plus 1, minus 1 indicate which value (high or low) for that factor will be used in that test. The table is rigid, interchange anything and it will throw the statistical analysis off. The Factor Columns are identified by the letters given to the Factors listed above.

	A	B	G	C	E	F	D
1)	-1	-1	1	-1	1	1	-1
2)	-1	-1	1	1	-1	-1	1
3)	-1	1	-1	-1	1	-1	1
4)	-1	1	-1	1	-1	1	-1
5)	1	-1	-1	-1	-1	1	1
6)	1	-1	-1	1	1	-1	-1
7)	1	1	1	-1	-1	-1	-1
8)	1	1	1	1	1	1	1

Part I- Process Mean

Each test batch will be concocted by using a high or low level of the factor as the table dictates. Once the data (Alpha Acid ppm) is collected for each test, the data is averaged in the following manner:

1. Each Test that used the (low) value of Factor (A) would be averaged together to yield (Aavg(-1)). In this case, the data for Tests 1-4 would be used. Likewise, each Test that used the (high) value of factor (A) would be averaged to yield (Aavg(+1)). This would be tests 5-8. The other Factors would be averaged the same way. Ex. (Cavg(+1)) would be tests 2, 4, 6 and 8.
2. If two (or more) samples are tested from each batch, all of that data would be accounted for in the average. Ex. If three samples are analyzed from each Test Run (batch), then those values for Test run (7) would be averaged, i.e. $((7a + 7b + 7c) / 3)$ and that average would be used to determine the overall average for that factor(value), as described in Step 1.
3. Also, determine the Total data average for all the test runs. EVERYTHINGavg This will be used in the prediction equation later.
4. Next, for each factor, determine the DELTA between the averages of the High value and the Low value. Ex. $(Aavg(+1)) - (Aavg(-1)) = \Delta$. Include the negative sign if High minus Low gives a negative number. Calculate deltas for the other Factors, also. This info would be used later in the Prediction Equation in Part III.
5. OPTIONAL STEP: Divide those deltas by two. This permits easier analysis if the numbers are large, that's all. It doesn't change the analysis results and may not be necessary depending on your numbers.

Example:

run	ABCM1M2Mavg
1	-1 -11203025
21	-1 -19 1110
3	-11 -1262425
411115	510
Mavg(+)	10 17.5 17.5
Mavg(-)	25 17.5 17.5
Delta	1500
Delta/2	7.5 00

6. Next, the Averages for each Factor(value) will be plotted as below. This allows the analyst to determine relative significance. I will plot a generic example, since we don't have any real numbers and the last example doesn't use enough factors. I WILL use this plot later to illustrate the analysis.

```

100 !#Plot 1#
    !
    !*
    ! /
    !   * *
50  !/
    ! * /
    ! / *---*/(first rate
    ! * / plot, eh?)
    ! *
0   !
    A-  A+  B-  B+  C-  C+  D-  D+  etc...

```

What this tells the analyst is that the data average moved positively for an increase to Factor A; negatively for Factor B; unchanged for Factor C; and very positively for Factor D. Factor C would seem to be insignificant to the process.

Date: 8 Oct 1993 13:02:17 U
 From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
 Subject: Science and Hops Utilization 2/2

Use of Design-of-Experiments Techniques to Determine
 Controlling Factors Affecting Hops Utilization and Resulting
 Character.

 Part II- Process Variability.

The next part of the analysis determines the Factors influence
 on Variability. The plot above, of course, looks at influence
 on Mean.

To perform the variability analysis, several trials of each
 experiment run would need to be performed, the data averaged,
 and a standard deviation for those trials of that run
 calculated. In this project, the extra data could be obtained
 by measuring several samples of the same batch of wort, or by
 preparing a few batches of each test run and testing each. The
 latter would be more statistically significant.

Here is an example data table for 3 factors tested at two
 values. M# refers to Measurement result. S is standard
 deviation of M1 and M2 of that run. Remember, the plus 1, minus
 1 only indicates whether a high or low value for that factor
 was tested.

run	A	B	C	M1	M2	Mavg	S
1	-1	-1	1	20	30	25	7.071
21	-1	-1	9	11	10	1.414	
3	-1	1	-1	26	24	25	1.414
41	1	1	15	5	10	7.071	

1. For each factor, the natural log of the standard deviation
 will be used in the following equation. A value will be
 calculated for each Factor(value) by using each run where that
 Factor(value) was used.

$$2. \text{Avg ln}(S A(+1)) = [\ln(S \text{ run}2) + \ln(S \text{ run}4)] / 2$$

$$= [\ln(1.414) + \ln(7.071)] / 2 = 1.15$$

$$\text{Avg ln}(S A(-1)) = [\ln(S \text{ run}1) + \ln(S \text{ run}3)] / 2$$

$$= [\ln(7.071) + \ln(1.414)] / 2 = 1.15$$

(the simplicity and symmetry of the numbers of this example make this
 confusing, but bear with me)

3. Do this calculation for the other Factor(values) and
 generate the following table: where Avg Delta = Avg ln(S A(+1))
 - Avg ln(S A(-1))

A	B	C
Avg (+)	1.15	1.15
Avg (-)	1.15	1.15
Avg Delta	0	0.6

4. These results tell the analyst that Factors A and B have no
 effect on process variability, but that Factor C does have a
 significant effect. In other cases, Avg Delta for A and B may
 have been small- 0.2 and 0.6, let's say. Factor C would still
 be dominant at 1.6, but Factor B may also be significant to the
 process variability at 0.6.

5. IMPORTANT: If a factor's Mean analysis shows no significance

(as in Factor C of Plot 1, a horizontal line) or small significance, it still may have High significance to process variability. Therefore, when optimizing the process, the value of that factor which gave the least variability should be used. In the case of the table above, (for Factor C) the Avg(-) value should be used, as it is the smaller number (smaller deviation) of the two for that factor. Thus Factor C should be utilized at the lower value in the process.

Part III - Prediction Equation.

The prediction equation allows you to predict the response of the process from a given combination of factors and values. Only the factors that have been shown to be significant (either process Mean or Variability) are used. Values for the Factors can be chosen to either Minimize, Maximize or Target the response of the process.

Let's say we want to Maximize the response, get the best utilization from the boil. Going back to Part I, chose the values of the factors that gave the highest data average. In this case: A+, B-, D+, etc. Furthermore, let's assume that after doing the analysis per Part II, that Factor C (of the example in Part I) was shown to be significant to process variability and that value for least variability was C+. This would also be used in the following Prediction Equation. (use the hypothetical Mean values of Plot 1: A+ = 40, B+ = 60, C+ = 32, D+ = 60; A- = 20, B- = 80, C- = 29, D- = 10) (Also note that for math example neatness, Factor C (line) is no longer horizontal, but slightly positive.)

$$\begin{aligned}
 & \text{Aavg}(+) - \text{Aavg}(-) \\
 \text{Best} = & \text{EVERYTHINGavg} + \frac{\text{Aavg}(+) - \text{Aavg}(-)}{2} [\text{A+/-}] + \\
 & \frac{\text{Aavg}(+) - \text{Aavg}(-)}{22} [\text{B+/-}] + \frac{\text{Aavg}(+) - \text{Aavg}(-)}{22} [\text{C+/-}] + \\
 & \frac{\text{Aavg}(+) - \text{Aavg}(-)}{2} [\text{D+/-}] = 41.25 + \frac{40 - 20}{2} [1] + \frac{60 - 80}{2} [-1] \\
 & + \frac{32 - 29}{22} [1] + \frac{60 - 10}{22} [1] = \\
 = & 41.25 + 10[1] + (-10)[-1] + 1.5[1] + 25[1] = 87.75 \quad *DONE*
 \end{aligned}$$

FINAL NOTE:

Design of Experiments is rather complicated. What I have presented here is a basic use of the system. In the interest of bandwidth, I will not present the other two experiments for Primary and Secondary Fermentations. What would be done after all three phases of investigation were completed; each phase of Utilization- Boil, Primary and Secondary, would be compared to determine greatest significance to overall hop character. Indeed, another DOE could be run at that point to determine that relationship. If any Homebrew Clubs are up to the challenge, you can contact me by email for the rest of the info. Furthermore, I will enlist the help of the guy that actually taught the class, so that all your questions about applying DOE to this much debated problem can be better answered and investigated. Thank you for your patience, John

palmer#d#john.ssd-hb_#l#15&22#r#@ssdgwy.mdc.com

"I'm an engineer, Captain, I canna help myself..." -Scotty

Date: Fri, 8 Oct 1993 15:22:22 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: calculating beer color

In a recent hbd, Tom Leith made a number of points on brewing to style. I want to comment on one aspect of his comments, namely, calculating the color of beer. To wit: the linear math that we use to calculate the "expected" color of beer is wrong. This point is made by George Fix in George and Laurie Fix's "Vienna" book.

As an example, Fix points out that Bass Ale is 10 Lovibond and Michelob Dark is 17 Lovibond. Thus, these two beers serve as benchmarks for evaluating the color range from amber to dark copper, say.

Suppose we look at a Vienna grain bill for a 5-gallon batch and its expected color:

9 pounds pilsner malt (1.78 L)	3.29
6 ounces crystal 10L	0.75
6 ounces crystal 60L	4.5
6 ounces crystal 120L	9

Total = 17.54L as the expected color. Now, as a matter of fact, the above grain bill will produce a beer close to Bass Ale in color. The linear color math is wrong, and overstates the expected color of the beer.

For light beers, linear color math is a useful approximation; for dark beers, it's more or less irrelevant; and for amber beers, it's wrong enough to matter.

As for the grain bill of brown ales, surely crystal malt should be featured for its color and flavor contributions. Some chocolate malt, up to a level of a few ounces, would probably be okay.

End of HOMEBREW Digest #1244, 10/11/93

Date: Fri, 8 Oct 93 14:40:32 CDT
From: hplabs!mcdcup!tellabs.com!don
Subject: Kegging systems

For anyone who might be interested, I recently put together a kegging system for a very reasonable amount. First I orders three soda kegs from DeFalco's in Texas for 35.00 plus shipping. I believe they sell both pin and ball locks. You can also buy them individually for 15.00 each. I also ordered a set of O-rings for each keg. Then, I called up BCI Industries and ordered a used, steel, co2 cylinder for 35.00 plus shipping. I sorta know this guy who cleaned beer taps at a local bar I frequent and he was kind enough to give me a ton of assorted clamps, fittings, bar faucet, sankey tap and a cleaning brush. He also gave me some 5/16 gas tubing and 3/16 product line with it. In that box was also some special tools to crush the clamps and a special wrench to tighten fittings on the bar tap. All this and two 8 gallon wine kegs for 30 bucks... not bad. I bought a picnic faucet at the local brewstore for about 5 bucks and wala... now I have a kegging system. In the process, I also aquired two SS half barrels. The half barrels, I know what I can do with :-) but anyone know what I could use the 8 gallon SS wine kegs for??? Be NICE !!!! They have a single sanke fitting on top just like the half barrels do.

Below are the names and numbers of those who helped me:

DeFalco's Of Houston
713-523-8154 (Conrad)

BCI
1-800-284-9410 (Chuck)

Both numbers as well as others I called were gleened off the HBD, many thanks to those who posted them. I have no affiliation with either of these companys other than being a satisfied customer. After kegging and force carbonating two brews - believe you me -- I'm satisfied. Bottling is a drag!! Does anyone know where to get a good counter pressure bottle filler??? :-)

good luck!
don

Date: Fri, 8 Oct 93 16:52:54 CDT
From: jay marshall <marshall@pat.mdc.com>
Subject: extra copper tubing (was Re: chill concentrated wort)

Jim Grady writes:

>I made an immersion chiller from 50' of copper tubing and some siphon
>tubing and some random fittings all for about \$30. I used 50' because
>some of the plans I had seen called for 40' and 50' was cheaper than
>40'. Furthermore, I had no idea what else I would use the extra 10' for

>and figured it could only help.

I used my extra 10' to cool the water going into the immersion chiller.
This
was to deal with the 85 degree "cold" water temp coming out of the tap
here
in Houston during the summer. I fill the sink up with ice water, and run
water from the tap, through the 10' length in the ice bath, and from
there
into the immersion chiller.

- --
Jay
marshall@pat.mdc.com

Date: Fri, 8 Oct 1993 20:37:05 -0700
From: b_regent@holonet.net
Subject: Re:Rager Number Error

In response to Mark Garetz on Rager's Number Error;

In looking at the conversion between metric and english units, there does appear to be an error with the conversion factor of 7462. To my best calculation, this factor should be 7490. In reality, the difference between these numbers means nothing in any practical sense to the homebrewer, as they are so slight. The error probably occurred in the rounding of either Grams to OZ or liters to gallons.

b_regent@holonet.net (bob)

- - - -

~ KingQWK 1.05 ~

Date: Sat, 09 Oct 1993 10:57:53 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: beer soup

Awhile back, someone was asking about cardamom, so when I saw this recipe in the "Old Depot Mail Car" (the newsletter of the Old Depot pub/restaurant & Dallas County Brewing Company in Adel, Iowa), I couldn't resist posting it.

SWEDISH BEER SOUP

12 oz Old Depot Ale
2 qts. milk
1/2 cup flour
1/2 cup molasses
1/4 tsp ginger
10-12 whole cardamom seeds

Rinse kettle in cold water to prevent milk from scorching. Pour 6 cups of milk into kettle and bring to a boil, stirring frequently. Blend the rest of the milk with the flour to make a smooth, thin paste - add to the boiling milk stirring briskly to avoid lumps. Reduce heat and let the soup simmer ten minutes. In another pan, bring the Ale, molasses and condiments to a boil. Combine the two mixtures while beating vigorously with an eggbeater. Taste for additional sweetness [but it doesn't say what to do about this].
Serve frothing in soup plates with gingersnaps as a complement. Serves eight.

Note: This is a pungent, sweet soup which is served in Sweden as a dessert. According to old-country custom, it is frequently the Good Friday dessert. It is one of those dishes you either like very much or not at all. The woody covering of cardamom seeds have a peculiarly pleasing aroma in this combination.

* * * * *

For the record, the Old Depot Ale is light in color and fairly bland (i.e., it's purportedly dry-hopped, but it must be at an extremely low rate as it's not even noticeable, especially by left-coast standards, and it's not very estery either... to my admittedly undereducated palate it could pass for a well-made but not very interesting lager -- now the Old Depot Porter, on the other hand, is quite flavorful, by I don't imagine it would be very good in this soup).

Another note on cardamom is that there is some lore floating around that

holds cardamom to be one of the "secret" ingredients in Anchor Christmas Ale, although since it's a different recipe every year, I don't know how reliable that rumor may be. Personally, I would try it in beer but haven't yet.

Jonathan Knight
Grinnell, Iowa

Date: Sat, 09 Oct 1993 12:18:59 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: underpitching

The recent thread on pitching rates is of interest to me. I have been plagued for the last few batches not so much by long lag times, but by awfully "gentle" (i.e., not anything remotely deserving the description "explosive") and sometimes rather l o n g fermentations, often with slightly high terminal gravities (mid-teens on O.G.'s in the low 40's).

Could this be a function of underpitching? It has occurred to me that it could be under-aerating as well, or perhaps both.

For better aeration, I plan to make a "carburetor" out of a plastic tube as has been described here many times. I have thought I might also try boosting my starters a little more. This would make some sense for me as I have lately taken to splitting my Wyeast package into several bottled cultures which are held in the fridge until I re-start them with fresh wort prior to pitching.

My typical procedure is to boil up one cup of D.M.E. in a solution which, after some evaporation, turns out around 750-800 ml. Should I use more D.M.E. in the first place? Or should I step-up the first starter into a second? If I do that, do I make a stronger solution the second time (as in more extract per volume of water)? I'd love to hear from anyone who wishes to share their experience and expertise on this subject as a fellow-chronically-underpitching-homebrewer.

Jonathan Knight
Grinnell, Iowa

Date: Sat, 9 Oct 93 16:40:18 EST
From: Ulick Stafford <ulick@chopin.helios.nd.edu>
Subject: Mash out

I would be very curious to see Chris Campanelli attempt to brew, let's say, a wheat beer with 70%+ wheat malt without a mash out (was his post tongue in cheek or not?). I know from experience attempting to sparge after forgetting to mashout, or attempting to remove a lauter decoction through a false bottom, that any mash with a significant protein content will cause a stuck sparge without a mash out. The point of a mash out is to denature all proteins, not just enzymes. The viscosity really decreases as well, and I suspect that extract efficiency improves due to the greater solubility at higher temperatures.

I am sure that it may be possible to sparge a 100% barley malt mash without a mashout but I would suspect that the extra time the sparge would take would be greater than the time saved by omitting the mash-out, and perhaps efficiency would be less.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Sat, 9 Oct 93 14:50:50 PDT
From: rush@xanadu.llnl.gov (Alan Edwards)
Subject: Hop Utilization

Mark Garetz writes (in HBD #1240):

| To summarize, then, it appears that low boil volume (regardless
| of the SG) gives less utilization, but *boil* gravity has no effect.

Al Korzonas replies (in HBD #1241):

| WRONG! PERIOD!

| I have a two brewing logbooks (with my respective tasting notes) and a
file
| folder full of BJCP judges' comments that contradict Mark's contention.

Mark Garetz replies (in HBD #1242):

| Finally, I'll deal with Al's comments off-line.

Please, don't take it off-line! I am very interested in getting to the truth on the subject of bitterness utilization. There are a few contradictions between Mark's research and other brewers' experience, not to mention "conventional wisdom". I don't know who to beleive.

Rager's article is clearly in question. Does anyone know where he got his utilization numbers? Where did all those formulae dome from?

Back in June, Glenn Tinseth reported that he was working on a research project to settle some of these issues scientifically. He was doing experiments in a reputable Oregon hop lab. Whatever came of that? Is Glenn still around?

Please, let's get to the bottom of this.

-Alan

Date: Sun, 10 Oct 93 11:01:38 EDT
From: adempr@sn520.utica.ge.com (Michael P. Rausch)
Subject: hopfest '94

This is an item that is mostly a concern to central New Yorkers but here it is anyway:

The Madison County Historical Society is planning a Hopfest for 1994.

There will a planning meeting on:
Thursday Oct. 14, 1993 at 7:00 PM ET at:
Madison County Historical Society
Cottage Lawn
435 Main St.
Oneida, NY 13421
Phone Barb Evans at 315-363-4136, Tues-Fri 1:00-5:00 pm for further details.

Oneida and Madison Counties (Central New York state) were once a major hop growing region. There is some question as to the hop varieties that were grown here. The Historical Society maintains some hop vines and is harvesting a crop this year. Some of these hops may be available to brew with. There may be a homebrew contest associated with the hopfest (maybe Nov. 1994).

I expect people from all over the country to attend this colossal event so get your plane tickets right away. :-)Thanks.

mike r.

Date: Sun, 10 Oct 93 19:15:00 EDT

From: roberts735@aol.com

Subject: Yeast Question

I have been following the More-Yeast-Is -Better yeast discussion and have a question.

Last batch I pitched 3X my normal, and had a great start, but a very fast finish. The questions are.. If normal fermentation ends when the sugar is converted, then the time to completion can be reduced with more yeast... true? if so, what is the practical limit to this? is faster always better? can there be too fast?

RobertS735@aol.com

Date: Sun, 10 Oct 93 23:40:20 -0400

From: <geotex@engin.umich.edu>

Subject: funny fermentation

Okay, I am having a problem with my fermentation. I am brewing an Old Ale. I did my primary in a 6 gallon glass carboy. At about 2 days after fermentation started, (it took a little long to start) I racked to my 5 gallon glass secondary. It was chugging along at about 1 bubble every 10 seconds or so. I did not have time to bottle right away so it sat in the secondary 2-3 weeks. Last night, when I decide to bottle, I opened up my closet and POW! it was fermenting again at a pretty rigorous level. I had to replace the airlock with a blowoff tube.

So my question is: Is this somewhat common? It sounds like it could be an infection to me, but I am not sure. There are no off aromas pouring out. At this point, I guess I can only let it continue to ferment and hopefully it will stop in the next week or so.

Please e-mail me with a reply (if you have one). I am not sure how to proceed.

Thanks

Alex

geotex@engin.umich.edu

Date: Mon, 11 Oct 93 09:05:08 EDT
From: Bob_McIlvaine@keyfile.com
Subject: Mashout & Algebra

Well, with all the controversy on mash-out and algebra that's been flying around I decided to put in my \$.02. I think we should try to remember that most of us got into home brewing because we wanted a better beer and wanted to have some getting it. I don't use a mash out, I figure it'll be hot real soon anyway. Then again, (as most of my cohorts in BFD will tell you) I'm a tech-no weeny and have an overkill gravity fed, multi-burner, IC controlled re-circ mashing pico-brewery in my garage. I built it from scratch, not because it was required to produce better brew, but because it was fun, for me at least. Beer making has been going on for centuries, without algebra and statistically designed experiments. But if you enjoy making your beer and having fun with numbers or you feel mash-out is the Way, so be it. Just enjoy your art.

Date: Mon, 11 Oct 93 15:18 BST
From: AGENT COOPER <CENSWM@vaxa.hw.ac.uk>
Subject: Brewing Equipment suppliers (UK)

Hi,

First time on this list, but a BIG question (to me anyway)

I've been making my own beer for a few years in 5 gallon batches, using a burco type boiler etc.

I want to move up in scale a bit and have often wondered about starting my own micro brewery. But where to start? Does anyone know of some good reference material/ books on starting a brewing business (small scale, brew pub etc) Where would I find out about suppliers of hardware etc, I just cant find much info in the home brew magazines I've been looking at, but I may be looking at the wrong ones.

What sort of capacity do the brew pubs in the 'States have like, how many gallons a week etc?

Any general advice welcome.

Stuart

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Stuart Munn
Heriot-Watt University
Edinburgh
Scotland, EH14 4AS
031 451-3265
031 451-3261 FAX
E-Mail censwm@UK.AC.HW.CLUST

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Date: Mon, 11 Oct 1993 10:27:51 -0400 (EDT)
From: drose@husc.harvard.edu
Subject: SLOW counterflow

Greetings:

Well, after 7+ years of cooling my wort in the bathtub, I finally decided to make a wort chiller. I decided on a counterflow design because it is supposed to be more efficient and because I cant imagine it is really as hard to sterilize as some maintain. I had a design for one from one of the zymurgy special issues (all grain brewing?) and it looked straightforward. One question I had was what is the optimal length for the thing? Zymurgy says 20 ft in their article. Dave Miller in his book says it must be at least 40 ft. I looked into prices for copper tubing, etc, and determined that, economies of scale being what they are, it was worth it to build a longer one. I bought 50ft of garden hose (a lot cheaper than tygon tubing), 50 ft of 1/4" copper tubing, and built a 40 ft chiller (10 feet of the hose going to the connecting lines).

Well, I used the contraption a few days later. It certainly did a fine job of cooling the wort, but it is SLOOOOOW. It took about 50 minutes for 5 gallons of wort to pass through this baby! This is not much faster than my bathtub method (although I recognize that each little bit of wort cools down very fast indeed, contributing to a good cold break). All the while the water is running and I am feeling guilty about wasting so much, and besides I hoped that building this thing would save me some time.

One possibility that I am considering is that the thing is a lot longer than it has to be; could i cut it in half and make two chillers, each of which would run considerably faster? Or is this slow speed pretty much the norm for these things? If so I am seriously considering "downgrading" to an immersion chiller.

Another general question that I have is how do people direct the wort into their counterflow chillers. In the past I always imagined that i would just hook it up in series with my hopback, but recent talk about the evils of hot-side aeration have spooked me on this idea. The alternative is to siphon directly from the brew kettle, but this has its own problems (the old mouth-on-the-siphon-hose conundrum, and the problem of hops clogging the chiller (yes, I know about the chore boy solution but

it seems to me that that is going to leave a lot of hard-earned wort in the kettle)). So, what do people do about that?

Any and all information would be appreciated. So far, I am looking back longingly on my inefficient but simple bathtub...

Dave.

Date: Mon, 11 Oct 93 10:17:03 EDT
From: mferts@taec.com (Mike Fertsch)
Subject: Schmidling Rebuttal (was JUDGING)

arf@genesis.mcs.com (Jack Schmidling) talks about Subject: JUDGING

>Last weekend, my wife and I had the pleasure of serving as apprentice
>judges in a local competition... First of all, it demands a great deal
of
>time, is a lot of work, most of which is very boring and unenlightening.

I find that judging helps me learn a lot about brewing and tasting. I
learn
what makes a good example of a style and what makes a bad example. By
critically evaluating lots of beers (good and bad), I learn how to make
my beer better. I owe a lot of my brewing success on judging at
competitions.
It is neither boring nor unenlightening.

> The only way one should be qualified to act as a judge of other
> people's beers is if he or she is truly an expert in the style. The
> only way one can become an expert in a style is to live with it for a
> significant period of time. Brew it, taste a wide range of commercial
and
> homebrew versions and essentially do nothing else for months.

Ideally, judges ARE experts in the styles they are judging. This is
particularly important in BIG competitions where the judge needs to split
the finer hairs, determining which of several remarkable, in-style beers
match a) the published style descriptions, and/or b) the commercial
beers of particular geographical regions.

In most smaller competitions, most entries are not remarkable
reproductions of the world-class beers. Experts with months of
intensive training are not needed to judge these. Every judge in the
program knows broadly what pilsners are supposed to taste like. If a
sour, amber, flat, fruity beer is served to the judge, he/she can
comment on it without living and drinking in Pilsen for months. Judges
need to know what certain defects taste like, and they need to broadly
know what each style can and can not have in its flavor/appearance
profiles.

> At that point, the candidate should be evaluated by another qualified
> expert in that style and this should include the ability to identify a
> recognized sample of that style in a blind tasting of mixed/similar
> styles.

Many homebrew judges can do this exact thing. In our club, we often
get together to judge homebrews in a particular style. We always throw
commercial ringers in the flight. Served blind, we have several judges
who can a) pick the ringers (usually not too difficult), and b)
identify which specific commercial beers the ringers are. We had a
specialty beer contest yesterday, and we included an old bottle of
Anchor Christmas beer. One judged identified it as an Anchor Christmas
Ale, and when asked for the year, said "Tastes like a 1986". Bingo.
Not bad for a judge that admittedly does not like Anchor Christmas
Ales.

My point here is that certain judges are EXPERTS, and can pick beers out
of a lineup. These judges are those who have high levels in the BJCP
program, and are often called to judge big competitions and best-of-show

competitions. Other judges have broad knowledge of the styles, are familiar with good and bad tastes, and know what the words on the style descriptions mean. A broad knowledge of styles, a good palate, and a good understanding of what can go wrong in beers is more than adequate for judging almost all competitions. This is what the BJCP fosters.

> Like I said earlier, it's not the people or the results that bother
> me. Our light lager came in 2nd place and 4th best of show. The
> problem is I don't know what it means. Last year we came in first, in
> the same category with a much inferior beer.

What did the judges say on their evaluation sheets? Every year, the quality of homebrews improves markedly. Winners of competitions a few years ago would not get a second thought if judged today. If you want to keep winning, you have to keep improving.

How was this competition run? How many entries? Most competitions have one entry from each style in the best-of-show round. A second place light lager is normally not judged in the best-of-show, and would never be "4th best of show".

Mike Fertsch

Date: Mon, 11 Oct 93 07:58:15 PDT
From: Going to England/Scotland/Ireland 11-Oct-1993 1053 -0400
<ferguson@zendia.enet.dec.com>
Subject: brew sights in England/Scotland/Ireland

Hi folks,

I'm heading off to Ireland, England and Scotland for 3+ weeks of holiday (vacation). I've been to the Emerald Isle twice before on business, so this time I'll have some time to play.

I'm interested in noteworthy places in these 3 countries in the beer business. I'd like to do maybe 2-3 brewery tours (if you recommend one, please give me all the info on it yo know). I'd like to go to some pubs known for serving the best brew, etc.

We're country folk, so we'll be spending much of the time out of the cities. I know this probably doesn't go well with going to the best pubs, but, I digress... I'd still like to hear about the good pubs, even if they're in the city.

Please direct your responses to: ferguson@zendia.enet.dec.com

JC FERGUSON

DIGITAL
Littleton MA USA

Date: Mon, 11 Oct 93 10:53:10 EDT
From: andrewb6@aol.com
Subject: Regulators, Beer mix, and enamel pots.

Recently I acquired (read: given by good friend) a two guage oxygen regulator that had previously been used for welding purposes. One guage reads from 0 to 90lbs, while the other reads from 0 to about 3000lbs as I recall (actually, the high pressure side has a dual scale and reads gas flow and/or pressure). I realize that the part that fits onto the tank may have the incorrect thread, however this piece is removeable and I'm sure I can find a new fitting to match the tank. Would this regulator be suitable for kegging purposes? Can I expect any noticeable off flavors, or contamination problems due to the fact that this has been used for welding?

I believe the beer mix is a nitrogen and CO2 mix, and will reduce the problems with over carbonation of beer, if the keg is kept on tap for a prolonged period. This sounds great, as I prefer my beers with little carbonation anyway, (I am a native Briton after all). However, are there any disadvantages to using a Nitrogen/CO2 mix.

Has anyone tried mounting a "Slotted T drain" in an enamel-on-steel pot? Obviously welding is out of the question, and I imagine that chipping/splintering of the enamel would be a problem too, but are there any fittings (perhaps an o-ring or a compression type) that will be strong, seal well, and still hold up to the rigors of boiling wort?

Thanks in Advance:

Andrew Baird
AndrewB6@aol.com
(A good pilot is one who's made the same number of landings as take-offs!)

Date: Mon, 11 Oct 93 11:15:53 EDT
From: gorman@aol.com
Subject: GABF Denver

FYI to all attending future Great American Beer Festivals.

The members only tasting on Saturday afternoon at the GABF was definitely the place to be. Uncrowded conditions allowed relaxed tasting and conversation with the brewers. By comparison, Saturday night was a zoo.

Did anyone go on Friday night? What was it like then?

P.S. for Denver-area brewers. The Corning outlet at Castle Rock (off I-25) has 5 gal carboys for \$8.99.

Bill Gorman

Date: Mon, 11 Oct 93 11:36:00 -0400
From: edo@marcam.com (Ed Oriordan)
Subject: **Guarenteed Easiest Label Remover**

To remove labels from bottles. I fill a bucket full of really hot water and then dump in about half a bottle of ammonia. Then I put the bottles in the bucket, and let sit for about 1/2 hour. After they have been sitting the labels just about fall off (some actually do). I then use one of those scotch bright pads to clean off the remaining glue, while rinsing.

DO NOT - NEVER EVER - MIX chlorine bleach and ammonia. It produces a toxic gas.

Ed O'

Date: Mon, 11 Oct 93 11:20 CDT
From: arf@mcs.com (Jack Schmidling)
Subject: Booby vs Bogy

mailx -s "Boogy vs Bogy homebrew@hpfcmi.fc.hp.com

>From: korz@iepubj.att.com

>I think you mean boogyman, but in any event.....

Funny you should mention that because I researched the word which I am using in the title of an article I am writing. "Boogy" is a musical term and refers to a type of jazz and a "boogyman" would be someone who plays or dances to it although no such word is described in my dictionary.

"Bogy" is a type of gremlin, hobgoblin or other bad actor who keeps throwing wrenches into gear boxes. It is also the term adopted by fighter pilots to identify an enemy plane. It is pronounced with a long "o" but I find no reference to a "bogyman" in my dictionary either. It seems to be redundant corruption and although I try to change people's brewing habits, I don't have time to change the American language.

Unless someone comes up with something convincing, I will stick with bogyman.

>If you have a very fine lautering screen (like the [Ee]asy[Mm]asher), a finer grist is better, whereas if you have a coarse lautering screen (like the Zapap) you need something more like the "textbook" crush.

This is a common misconception of the filtering process as regards lautering of mash.

ALL of the filtering is done by the husk material and the only purpose for the screen or false bottom is to keep the big chunks from clogging up the spigot while the filter bed is establishing itself. Once the bed is established and the wort runs clear, it serves no purpose whatever.

If one were to rely on the screen to do the filtering, it would have to be huge (about the size [volume] of the grain bed) to avoid getting hopelessly clogged in a very short time. This would be particularly true if it were fine enough to provide clear wort by itself.

>There's one piece of information that is missing, namely that Jack uses a very thin mash. This is important because a stiff (thick) mash would just sit there and not make it through the lautering screen.

I can't speak for other methods but the one I champion happens to incorporate kettle mashing on the stove top. This allows a mashout step that greatly facilitates thick mashes and minimizes the viscosity by assuring that it is at the maximum temperature consistent with good brewing practice. There is no mash consistency that will not properly flow through the em if at a reasonable temperature.

>You can carry porridge in a sieve, right?

I think we are debating an issue here, the resolution of which is as near as your store room. Why don't you brew up a batch in the EM I gave you and report back on what you find instead of guessing or creating bogymen?

js

Date: Mon, 11 Oct 93 09:33:56 TZ
From: Darryl Richman <darrylri@microsoft.com>
Subject: re: Calculating Beer Color

The discussion regarding beer color has now passed through a number of different fora, and I'd like to get my reply spread back. Perhaps we ought to try to keep the predictive and measurement discussion in HBD, and the elements that affect judging in the Judge Net.

In HBD #1244, Tony makes a number of salient points.

tony@spss.com (Tony Babinec 312 329-3570) writes:
> linear math that we use to calculate the "expected" color of
> beer is wrong. This point is made by George Fix in George
> and Laurie Fix's "Vienna" book.

The original article that the Vienna book quotes is Zymurgy Fall 1988 (v11, #3), if you'd like to read the whole thing.

And his conclusion is right on:

> For light beers, linear color math is a useful approximation;
> for dark beers, it's more or less irrelevant; and for amber
> beers, it's wrong enough to matter.

To go a step further, I have a (complicated) algorithm for predicting beer color that I feel is ball park accurate for darker beers. I wrote about this in the Judge Net (#637, 10/9/93), and which I will restate below. However, this algorithm only accounts for malt colors and whatever additional coloring went on in the brewing processes that George Fix carried out in writing his article, which I assume (without any basis in fact) are purely "normal".

DSR> In my commercially available computer program, The Brewer's Planner
DSR> (shameless plug), I use a different technique based upon the curve
DSR> presented in Fix's article. The basic idea of this algorithm is to
DSR> determine how big a batch would be required to make a proposed grist
DSR> produce a 2-4 SRM beer (where the lb. * lov. / gal. formula is
DSR> expected
DSR> to work) and then move backwards along Fix's dilution curve to
DSR> determine the antidilution represented by the actual batch size. It
DSR> gives much better approximations of color, up to the 17 SRM limit of
DSR> that curve.

I will add to this that the published descriptive words I've seen applied, both from Fix's article and in Eckhardt's "The Essentials of Beer Style", do not match as the color numbers go up. I would really like to know absolutely what 20 and 30 SRM looks like in a beer.

--Darryl Richman

Date: Mon, 11 Oct 1993 09:45:01 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Judges & Competence

In respect to Jack Schmidling's comments on homebrew judging, certification, etc.: Well, yeah, that's probably true.

But, on the other hand...

People involved with the Beer Judge Certification Program, the national competition, etc. are conscious of problems with the program and with the whole concept of "qualification." Ideally, as Jack suggests, a judge would be competent to evaluate a certain style because he/she had "lived" it. Ideally, all weizenbier judges should be visiting Bavarians and all lambic judges should come from Payottenland. But, the idea of the certification program is to help competitions provide judges with a good, broad understanding of beerstyles -- there are necessarily going to be some holes.

In an attempt to patch over those holes, there is a movement afoot to develop a specific style certification in addition to the BJCP certification. In other words, not only would judge A be a BJCP judge, but he/she would also have demonstrated specific, enhanced understanding of, say, barleywines. The trick, of course, is to develop a program that assures that such a specific certification would be justified, that the judges *really* knows what a barleywine is, or can be, or might be, not simply what one author somewhere said it was. Not an easy assignment.

But at least it's being worked on.

- --Jeff

Date: Mon, 11 Oct 93 12:49:32 EDT
From: Ed.Green@sunpix.East.Sun.COM (Ed Green - Pixel Cruncher)
Subject: Winemaking books?

Homebrewing has really become popular lately... all the bookstores have at least one book on it. I haven't been able to find anything on wine, though. Anybody have any particular favorite titles on the topic. Something with an overview, discussion of absolutely necessary (and optional) equipment and supplies, and a few good recipes?

Thanks,
-Ed

Date: Mon, 11 Oct 93 11:31:10 MST
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: Questions: Sparging/H2S/milk stout

A few unrelated questions:

1) Is a continuous sparge really necessary? Has anyone tried just draining all of the mash liquor out of the tun, refilling with the sparge water all at once, letting it sit, and then draining it? Since I use a easymasher of the Schmidling design, re-establishing the filter bed would not really be a problem. This seems to me to be much easier than monitoring the flow from my sparge vessel into the mash for half an hour.

2) What is it that causes yeast to produce a rotten egg smell during fermentation? I recently had a fermentation using Wyeast Chico Ale which generated a lot of this smell in the primary. I tasted the beer when I transferred to the secondary, and it tasted OK, actually very good, so I am not too worried, just curious. This is the first time in maybe 8 batches using this yeast that I ever had this bad smell. FYI, I used 8 lbs pale malt, and fermented at 65 F.

3) Stupid question: If one really wants lactose in their stout, why not add skim milk to the boil? Seems to me the protein will precipitate out in the boil, leaving lactose behind.

Thanks for your help.

Joel Birkeland
Motorola SPS

Date: Mon, 11 Oct 1993 15:33:38 -0500 (CDT)
From: "Andy Schultz @1490" <ASCHULTZ@MADMAX.MPR.ORG>
Subject: Brewpubs in Cape Cod area?

Hi all - This is yet another request for brewpub info. I'll be off in Boston and Cape Cod next week. Someone a while back posted a listing of some brewpubs in Boston, so I'll check those pubs out there. Does anyone know any places of interest in the Cape Cod area? I'll be staying near Hyannis, but anything in the area would be fine. Sending mail directly to me is not 100 percent reliable, so sending to the list might be better if bandwidth allows. Hey, Boston's already taken care of!
Thanks in advance - andy

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|  
|   Andy SchultzInternet: ASCHULTZ@MPR.ORG   |  
|   Minnesota Public Radio   Phone: 612-290-1490   |  
|  
|   'You can play sharp or flat in tune' : Ornette Coleman   |  
|   'It was when I found out I could make mistakes that I knew I was |  
|   onto something' : Ornette Coleman (works for beer too....) |  
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Date: Mon, 11 Oct 93 16:12:03 -0500
From: Mike Westra <root@hpuspma.stpaul.msr.hp.com>
Subject: Brewpubs in Cape Cod area?
Subject: Wyeast Munich Lager Yeast

Greetings from the Twin Cities:

I am about to attempt my first true lager... using a ferm-fridge and liquid lager yeast (Wyeast Munich Lager - I don't have the number with me right now). Can anybody help me...?

I took the yeast out of the fridge without realizing that you have to wait for a couple of days before the packet swells up so you can make a starter. I broke the inner vessel, mixed it all up and let it sit for about an hour before I realized that it was going to take a few days. I had to leave for a business trip in two days so I decided to delay the brew session. So I put the yeast packet back in the fridge.

It is now 2 weeks later. The yeast packet has really swollen up. I put it in an extra bag in case it explodes. The question:

Can I still use this yeast? (by just letting it warm up and then making a starter with it?)

Or should I bite the bullet - truck all the way over to the homebrew store and buy some new yeast?

Any suggestions....? Please reply to mwestra@stpaul.msr.hp.com

Cheers,
Mike Westra
mwestra@stpaul.msr.hp.com

Date: Mon, 11 Oct 93 14:15:11 MDT
From: npyle@n33.stortek.com
Subject: GABF Summary

Here's my short? summary of the GABF for those of you interested in going in the coming years:

Highlights: The winners were announced during Saturday afternoon's special AHA tasting. Most of the people who care about this are there in the afternoon. And this year, we could actually hear them! I saw the Celis crew when one of them brought up the Gold Medal and they took pictures. It was a fun moment.

Lowlights: Two frat boys doing their best imitation of wine snobs: "It has a wonderful bouquet, not presumptuous". Gag. Most of the crowd was great.

Interesting (to me) medal winners:

American Pale/Amber Ale:

Gold - Sierra Nevada Pale Ale, Sierra Nevada Brewing Co., Chico CA (the "blinde" part of the judging must be lost when a beer this indentifyable is served)

Traditional Bitter:

Gold - None

(I disagree with this practice)

Silver - Boulder Amber, Rockies Brewing Co., Boulder, CO

Barley Wine:

Gold - Old Crustacean, Rogue Ales, Newport, OR

Silver - Old Bawdy Barley Wine, Pike Place Brewery, Seattle, WA

Bronze - Old Woolly, Big Time Brewing Co., Seattle, WA

Hon. Mention - Barley Wine, HOPS! Bistro & Brewery, Scottsdale AZ

- Sierra Nevada Bigfoot Barleywine, Sierra Nevada Brewing Co., Chico CA

- Hercules Strong Ale, Slesar Bros. Brewing Co., d/b/a Boston Beer Works, Boston, MA

(Lots of great barley wines...)

Herb, Spice:

Gold - Celis White, Celis Brewery, Austin, TX

(Any doubt?)

Specialty:

Gold - Abbey Trappist Style Ale, New Belgium Brewing Company, Fort Collins, CO

Silver - Winterfest, Coors Brewing Company, Golden, CO

(interesting category to have these two together)

Bock:

Gold - None

(!)

Silver - Bock, Stoudt Brewing Co., Adamstown, PA

Bronze - Samuel Adams Double Bock, Boston Beer Company, Boston, MA

(I can't wait to see the commercials: "The third best bock in America, just two steps below nothing!". Maybe not)

For those of you keeping count (like the Olympics!):

Other US - 39 medals

CA - 26

CO - 13

WI - 7

OR - 6

The big boys did not fair well, even in the "American Lager", "American Light Lager", and "American Dry Lager" categories. Sell your stock. BBC (tm) won a silver and a bronze; maybe they'll quiet down a little about the GABF. I doubt it. I suppose I ought to mention a brewing related topic: There was a vendor there selling a RIMS system built from reconditioned kegs. It was pretty interesting, with a uP controlled gas burner to heat the recirculating wort. It consisted of the mash/lauter tun, a sparge water tank and a boiler on a steel frame with interconnecting pipes and pumps. He claimed the mash efficiency was 30% higher than with a normal infusion mash. Hmmm \$3000 dollars (really!) to save \$4 per batch (this is a 5 gallon system, BTW). That would mean I'd break even in 2056, assuming I could get 0% interest if I left the money in the bank. I put my credit card in my underwear for safe keeping.

Cheers,
norm

Oh yeah, apologies for the bandwidth. That seems to be a new rule around here.

Date: Mon, 11 Oct 1993 15:24:20 -0700 (PDT)
From: John Brooks <jbrooks@u.washington.edu>
Subject: More on Pyramid Yeast

Last week, I posted a request for information about the ale yeast used by Hart Brewing (Kalama, Washington) for its Pyramid Ales. Nobody responded, so I called their microbiologist. I asked whether their proprietary strain was closer to Wyeast's London (1028) or American (1056). He said that theirs was "very attenuative" and implied that it was more like a Young's.

After reviewing the recent yeast FAQ (which IMHO is a great resource), I note that Wyeast London, American and British (1098) are all listed with 73-77% apparent attenuation. My questions for today are:

- is 73-77% considered highly attenuative?
- between the 1028 and 1098, which is (a) more attenuative? (b) more like Young's.
- since my goal is to clone Pyramid's Wheaten Bock Ale (O.G. 1.061), any educated opinions out there as to which yeast strain would be best for this style?

Posts or private e-mail replies both OK; TIA!

John Brooks
University of Washington
ph: (206) 543-9149
fx: (206) 543-7654

End of HOMEBREW Digest #1245, 10/12/93

Date: 12 Oct 93 01:13:37 MDT (Tue)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: carboy handles (summary of [mostly non]responses)

A while back, I asked for first-hand negative experiences with "carboy handles" (the plastic-cushioned wire-loop handles that attach to the necks of carboys). Put simply, "Has anyone ever seen one of these suckers snap the neck off a carboy?"

The answer seems to be "no". I'm sure a lot of us have heard some anecdotal, urban-legend, FoaF horror stories, but I've heard no direct accounts of failures.

I have to qualify that slightly: I did hear from one person who had put a carboy handle on a 25-liter (6.5 gallon) carboy, and had seen some (my interpretation) crazing around the neck. It didn't actually break off, but he was (justifiably) scared away from using it. The reason I discount this one data point is that the carboy handles are not designed to fit that size of carboy. Obviously they weigh more, but the main issue is that the neck diameter is different.

5-gallon (and 3-gallon) carboys, the ones I've been able to check, are 2" diameter (50-51 mm if you will) within about a mm. The carboy handles are designed to fit this; the point is that they need to fit snugly, but not tightly, so that they hold a circle around the neck without generating any local points of high stress. (It's like picking up the carboy by the neck with your thumb and index finger forming a circle.) This requires that they match the neck. A 25 liter carboy has a neck diameter more like 59-60 mm, which is way more than a standard carboy handle can accommodate; if you try to force it on, you'll probably end up overtightening it and cracking the neck.

Summary:

- This is reality. I'm reporting results, not telling you what to do. If lawyers must be uncaged, they should be on a short leash. All I'm saying is that nobody who responded had any failures with the handles on 3 and 5 gallon carboys.
- A full carboy weighs a bunch; *any* sharp shock--regardless of whether a handle is involved--can break it. They are sturdy but not indestructible, so be careful but not paranoid.
- Remember, Mother Nature bats last.

If anyone has any useful evidence to add to this, I'll be glad to accumulate it and report back. ("It works for me" is not useful at this point...because basically, they work for everyone so far.)

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: 12 Oct 93 01:49:17 MDT (Tue)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: re: Maple syrup/sap

> ...I have been brewing extracts for a few years and now want to try
> something different. I also make my own Maple syrup...

Hmmm...I think I'd be willing to trade either mead or barleywine for
maple
syrup, even (1:1 vol)!

>...I have heard of people
> using this in beer and also using the uncooked sap instead of water...

I have had a maple-syrup mead that was nothing short of remarkable. It
was
one of those things where the mead-maker offered it tentatively, as "you
may find this a bit unusual but I think it's interesting"...I liked it
enough that the next time there was a general mead-tasting among friends,
I said "Be SURE you invite <Z> and tell him to bring a bottle of the
maple!!!"

It does seem to be one of those things that you either like or don't, no
middle ground. If you don't like real maple syrup, you probably won't
like
it. (If you've grown up with imitation maple, you may well not like it.
)
My wife is a Brit; she doesn't care for this mead at all. But she looks
askance at various other new-world foods.

There's the usual mead-maker's dilemma, applying equally to beer here:
"What will this incredibly-sweet raw substance taste like after there's
NO
sugar left in it?"

I'd think the raw sap wouldn't do much. Isn't the ratio for boiling-
down
substantial, like more than >>5 (that is, 2^5)? This mead I'm talking
about used syrup at a rate somewhere between >>3 and >>4, so you wouldn't
get that sort of taste level using sap even if you used sap to replace
ALL
of the brew water. (I'm not sure how the difference between mead and
beer
affects the situation here...some factors say you'd want more maple
flavor
in beer, some say less.)

Maple in beer is obviously an idea with merit, worth exploring, but also
one that will require experimentation to figure out what works. It seems
you'd want a relatively light (*not* lite!) beer, probably with more malt
and less hops than average, to let the tang of the maple come through
with-
out getting swamped by the hops, and let the maple-sugar be accented by
the malt sweetness. Add a fair bit of crystal? Probably no really dark
grains. This is intuition speaking--not direct experience, just back-
ground.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Tue, 12 Oct 93 07:54:18 -0500
From: zentner@ecn.purdue.edu (Mike Zentner)
Subject: Re: SLOW counterflow

Dave (drose@husc.harvard.edu) wrote:

>the thing? Zymurgy says 20 ft in their article. Dave Miller in his
book
>says it must be at least 40 ft. I looked into prices for copper tubing,

40 feet is excessive, 20 is minimal. If you go with my suggestion here,
that is, use 3/8 " tubing NOT 1/4, I have had good success with 30 feet.
Length isn't the only important variable, you also have to consider the
diameters of your inner and outer tubing, flow-rates, cold water
temperature,
and so on. Point is, you could probably get by with 10' if you really
cranked up your cold water flow. If you start going with too long of a
tube,
though, some of the crud from the cold break can "gel" in your tubing and
really slow down the rate (recent potato and rye brews demonstrated this
to me).

>worth it to build a longer one. I bought 50ft of garden hose (a lot
>cheaper than tygon tubing), 50 ft of 1/4" copper tubing, and built a 40
ft
>chiller (10 feet of the hose going to the connecting lines).

I did the exact same thing on my FIRST try, without reading anything
about
how to build one, etc... It was a miserable failure, so I upped the
diameter
of tubing from 1/4 to 3/8, and it works greaat.

As Usual:

- 1) Make sure the inside of your tubing is free of machine oils
(mine was not)
- 2) I will supply free my online plans for building a wort chiller to
anyone who asks.

Mike Zentner zentner@ecn.purdue.edu

Date: Tue, 12 Oct 1993 08:24:21 -0500 (CDT)
From: "Robert K. Toutkoushian" <TOUTKOUS@vx.cis.umn.edu>
Subject: Boiling wort question

Hello:

I have a question concerning how to properly boil wort. I have noticed that often my O.G.'s are considerably lower than what are listed in similar recipes, even though I have been using the same quantity of fermentibles, and was wondering if I could be "overcooking" the wort.

When I first started out, I would combine my extracts & water, bring to a boil, and leave on low heat for 1 hour. Lately, I have been bringing the water to a boil first, then adding my extracts, returning to boil, and then continue boiling on high for 1 hour. What leads me to think that I could be overboiling the wort is that (1) I tend to get a lot of gunk (i.e. extracts and malts) sticking to the bottom of the boiling pot, even with frequent stirring, and (2) after 1 hour, the level of the wort seems a bit lower than the starting level, and I tend to get about 44 bottles out of a supposedly five gallon batch.

My question to the wise homebrewers out there is this: once you bring the wort to a boil, do you reduce the heat to keep it at a low boil, or do you continue to go full blast on high heat? Also, does it help to bring the water to a boil before adding the extracts, etc.? As I noted above, the O.G. for my last batch were about 0.020 below what I thought it should have been, and while fermentation took place and all, the gravity fell from 1.030 to 1.010, which means that the alcohol content is also a bit lower than I had expected for this particular batch.

Thanks in advance for any help. The books that I have seen usually say something along the lines of "continue boiling for 1 hour," but I guess there could be degrees of boiling (no pun intended).

Rob Toutkoushian
University of Minnesota
INTERNET: toutkous@vx.cis.umn.edu

Date: Tue, 12 Oct 1993 07:59 -0600 (MDT)
From: Chris Seiders <SEIDERS@HANDI.MED.UTAH.EDU>
Subject: Stuck Fermentation? a Beginner's Question

ICAgICBTaW5jZSB0aGlzIGl1IG15IGZpcnN0IHBvc3QgdG8gdGhpcyBsaXN0LCBw
bGVhc2UgYmVhcnB3aXR0IGl1LiAgSSBhbSBuZXcncmF0IGJyZXdpbmcsIGFuZCB0
YXZlIHJlY2VudGx5IHN0YXJ0ZWQgbXkgc2Vjb25kIGJhdGNoIG9mIGJyZXcuICBJ
IGhhdmcUNCMVUy291bnRlcmVkaHNvbWUgdGhpbmdzIHdoawNoIEkgaGF2ZW4ndCB1
bmNvdW50ZXJlZCBiZWZvcuUgKG5vdCBzdXJwcm1zaW5nIG9uZQpvbm5IHRoZSBz
ZWNvbmcQgYmF0Y2g2pIGFuZCBhbSBsb29raW5nIGZvc1Bzb21lIHdvcuRzIG9mIGFk
dmljZS9lbnNvdXJhZ2VtZW50Lg0KSSBzdGFydGVkIGFuIGFsbC1leHRyYWN0IEJy
b3duIE5ldCBbbGUgb24gU2F0LiBBZnRlciBib21saW5nIHRoZSBleHRyYWN0IGZv
cg0KMSBociBJIGFkZGVkIGl0IHRvIG15IDUgZ2FsbG9uIGdsYXNzIGNhcmJveSBh
bmQgYnJvdWdodCBpdCB1cCB0byAlIGdhdGxvbnMNCndpdGggd2F0ZXIuICBJIHRo
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dCBjb29sZWQgdG8NCjc2+EYgYXQgd2hpY2ggcG9pbmQgSSBoeWRyYXRlZCB0aGUg
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b29yIGFsb25nIHdpdGggc29tZSBtYW51YWwg2hha2luZy4gIEkkgdGh1biByZWh5
ZmJhdGVkIG15IHllYXN0DQooMTRnKSBpb1AxLzIyY3VwIG9mIDkw+EYgd2F0ZXIu
Zm9yIGVlIGl1pb1BiZWZvcuUgYWRkaW5nIHRvIHRoZSB3b3J0Lg0KRmVybWVudGF0
aW9uIGJlZ2FuIHF1aWNRbHkgKHdpdGhpb1AzIGhvdXJzKSBhbmcQgYXxvdCBvZiBj
cmFwIGJzZXcgb3V0IG9mIG15DQoxIiBibG93b2ZmIHR1YmUgKGFwcHJveCAyIHF1
YXJ0cyBibG93b2ZmKS4NCg0KTm93IHRoZSBwcm9ibGVtOg0KICAgICBJIG5vdG1j
ZWQgdGhhdCB0aGUgYmxvd29mZiBzdGFuZSB0YWQgcHJldHR5IG11Y2ggc3RvcHB1
ZCBhcyBvZiBzYXN0DQpuaWdodCAoTW9uLikuIEkkgcmVwbGFjZWQgdGh1IGJsb3dv
ZmYgdHViZSB3aXR0IGEGZmVybWVudGF0aW9uIGxvY2ssIGJldCBpdA0Kbm93IGFw
cGVhcnMgYXMGaWYgZmVybWVudGF0aW9uIGhcyBzdG9wcGVkIGNvbXBsZXR1bHks
IGl1IEkkgZG9uJ3Qgc2VlIGJlYmJsZXNMcNvbWluZyB0aHJvdWdoIHRoZSBsb2Nr
LiAgTXkgcHJldmlvdXMgYmF0Y2ggd2FzIGEGc3RvdXQga2l0IGFuZCBmZXJtZW50
YXRpb24NCnNlZW1lZCB0byBjb250aW51ZSB0aHJvdWdoIHRoZSBsb2NrIGZvc1Bh
dCBsZWZzdCBhIGdv2Qgd2VlayBhZnRlciByZW1vdmluZw0KdGh1IGJsb3dvZmYu
IE15IGNhcmJveSBpcyBsb2NhdGVkIGluIGEGY2xvc2V0IHdoawNoIGt1ZXBzIGl0
IGF0IGFib3V0IDc0+EYudQpJcyB0aGlzIG5vcmlhbD8gIFNob3VsZCBJIHdhaXQg
YmVmb3JlIGJvdHRsaW5nIG9yIGdvIGFoZWZkIGlmIHRoZQ0KZmVybWVudGF0aW9u
IGhcyBzdG9wcGVkPyAgQWZ0ZXIgb25seSAzIGRheXM/ICBQbGVhc2UsIG9oIHZl
dGVyYW5zIG9mDQpob211YnJldywgcGFzcyBkb3duIGFueSB3aXNkb20geW91IG1h
eSB0YXZlIG9uIHRoaXMgc3ViamVjdC4gSSBhbSBiZWVvbWluZw0KcXVpdGUgY29u
ZnVzZWQvZnJlc3RyYXRlZCBzaW5jZSBjIGZlZWwgbGlrZSBjIGFtIHN0aWxsIHNo
b290aW5nIGluIHRoZSBkYXJrDQp3aXR0IGVhY2ggc3Rlc4gVGHbmtzIQ0KDQpD
aHJpcyBTZWlkZXJzIChtRU1ERVJTEhBTkRjLk1FRC5VVEFILLkVEVskNCg0K

Date: Tue, 12 Oct 93 09:51
From: TODDJ.SRVRHOST@test.readmore.com (Todd Jennings)
Subject: William Younger #3

From: toddj@readmore.com (Todd Jennings)

I have heard of a brew by the name of WILLIAM YOUNGER #3; read about it in a soccer magazine, actually. In the mag article, the brew is described as "the ruin of a good many young men". The article goes on to refer to the beer as the preferred brew of LAGER LOUTS, the British football hooligans we hear so much about.

Is there anyone who can tell me what the story is with this apparently British beer, i.e. what is the style, and where can one get it here in the States(if anywhere)? I assume it's a bitter ale, but perhaps I am off the track here. Can't wait to find out!!

-Todd Jennings-****
|> Cheers!
|_

Date: Tue, 12 Oct 93 10:15:41 EDT
From: sims@pdesds1.scra.org (Jim Sims)
Subject: beer & statistics

>>From: Bob_McIlvaine@keyfile.com
>>Subject: Mashout & Algebra
>>
>>most of us got into home brewing because we
>>wanted a better beer and wanted to have some FUN
>>getting it.

YUP

>>Beer making has been going on for centuries,
>>without algebra and statistically designed
>>experiments.

But statistics was INVENTED by a brewer, if memory serves, trying to
produce consistent brew. I'm not sure if that's something to be proud
of or not ;-)

jim

Date: Tue, 12 Oct 1993 10:01:17 -0400 (EDT)
From: Kieran O'Connor <koconnor@mailbox.syr.edu>
Subject: COPS--again!

Well--it happened again. in the Syracuse area, WSYT, the local Fox affiliate showed the infamous COPS episode with the guy with Homebrewing equipment. Anyone got those addresses available--and did it run in other areas? This show was on at 10 PM monday nite.

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu
Syracuse, N.Y. USA

Date: Tue, 12 Oct 93 9:40:57 CDT
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: GABF results

Thanks to Norm for the interesting post on the GABF...one thing, is this sort of the AHA nationals for breweries? Is there an AHA nationals for brewers? Could someone please take the time and post info on winners in all categories or e-mail me or perhaps just regular mail me a list of winners? I'd like to know these things so I could have a good reference list of just what is a good old amber, barleywine, specialty etc. so I can better develop my palate. Any other palate development techniques other than birth and drinking lots of different beers? Thanks again, email address below. Actually there's a fax # here so if anyone doesn't want to write or already has the info on paper....

Thanks - Chris

=====
|Chris Pencis|chips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |
=====

Date: Tue, 12 Oct 1993 10:02:40 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: UK hops

J.S. Hough ("Biotechnology of Malting and Brewing") lists a few hops used in the UK. I don't have access to them and haven't used them.

alpha

Target 11.5
Northdown 11.2 (seedless)
Yeoman 11.0
Challenger 9.8 (seedless)
Zenith 9.0

These hops are all modern hybrids developed at Wye College in Kent. Fuller's ESB uses a blend of a number of them. One reason for the blend might be that these hops vary in their resistance to diseases such as wilt, downy mildew, and powdery mildew.

Date: 12 Oct 93 10:57:17 EDT
From: "James Spence/Am. Hmbwrs. Assoc." <70740.1107@CompuServe.COM>
Subject: GABF XII Winners

Okay, here they are. The winners of the Great American Beer Festival.
Cheers!

If there is not a medal listed in a category, it means that the missing
medal
was not awarded in the category.

BREWERY, LOCATION, MEDAL, CATEGORY, BEER NAME
Holy Cow! Casino Cafe Brewery, Las Vegas, Nev., Gold, Classic English
Pale Ale,
Holy Cow! Pale Ale
Great Lakes Brewing Co., Cleveland, OH, Silver, Classic English Pale Ale,
Burning River Ale
Pike Place Brewery, Seattle, Wash., Bronze, Classic English Pale Ale,
Pike
Place Pale Ale

High Country Brewery, Boulder, Colo., Gold, India Pale Ale, Renegade Red
Anchor Brewing Co., San Fransisco, Calif., Silver, India Pale Ale,
Liberty Ale
CooperSmith's Pub & Brewing Co., Fort Collins, Colo., Bronze, India Pale
Ale,
Punjabi Pale Ale

Sierra Nevada Brewing Co., Chico, Calif., Gold, American Pale/Amber Ale,
Sierra
Nevada Pale Ale
Humbolt Brewery, Arcata, Calif., Silver, American Pale/Amber Ale, Red
Nectar
Heritage Brewing Co., Dana Point, Calif., Bronze, American Pale/Amber
Ale, Red
Fox

Rockies Brewing Co., Boulder, Colo., Silver, Traditional Bitter, Boulder
Amber
Steelhead Brewery & Cafe, Eugene, Ore., Bronze, Traditional Bitter,
Emerald
Special Bitter

Rockies Brewing Co., Boulder, Colo., Gold, Scottish Ale, Wrigley Red
Golden Pacific Brewing Co., Inc., Emeryville, Calif., Silver, Scottish
Ale,
Golden Gate Red Ale
Dempsey's Sonoma Brewing Co., Petaluma, Calif., Bronze, Scottish Ale,
Sonoma
Irish Ale

Big Time Brewing Co., Seattle, Wash., Gold, Blonde Ale, Prime Time
Tied House Cafe & Brewery, Alameda, Calif., Silver, Blonde Ale, Alpine
Pearl
Pale
Alaskan Brewing Co., Douglas, Alaska, Bronze, Blonde Ale, Alaskan Pale
Ale

Great Lakes Brewing Co., Cleveland, Ohio, Gold, Porter, Edmund Fitzgerald
Porter
Marin Brewing Co., Larkspur, Calif., Silver, Porter, Pt. Reyes Porter

Butterfield Brewing Co., Fresno, Calif., Bronze, Porter, Tower Dark Ale

Dempsey's Sonoma Brewing Co., Petaluma, Calif., Gold, Dry Stout, Ugly Dog Stout

North Coast Brewing Co., Ft. Bragg, Calif., Silver, Dry Stout, Old No. 38 Stout

Jones Street Brewery, Omaha, Neb., Bronze, Dry Stout, Ryan's Irish Stout

Seabright Brewery Pub & Restaurant, Santa Cruz, Calif., Gold, Sweet Stout,

Seabright Oatmeal Stout

Oasis Brewery, Boulder, Colo., Silver, Sweet Stout, Zoser Stout

San Diego's Riptide Brewery, San Diego, Calif., Bronze, Sweet Stout, Oatmeal

Stout

Vermont Pub & Brewery, Burlington, Vt., Gold, Strong Ale, Auld Tartan Wee Heavy

Pacific Coast Brewing Co., Oakland, Calif., Silver, Strong Ale, Imperial Stout

Pizza Deli and Brewery, Cave Junction, Ore., Bronze, Strong Ale, Steelhead Snug

Harbor Old Ale

Rogue Ales, Newport, Ore., Gold, Barley Wine, Old Crustacean

Pike Place Brewery, Seattle, Wash., Silver, Barley Wine, Old Bawdy Barley Wine

Big Time Brewing Co., Seattle, Wash., Bronze, Barley Wine, Old Wooly

Marin Brewing Co., Larkspur, Calif., Gold, Fruit, Vegetable, Bluebeery Ale

Tied House Cafe & Brewery, Alameda, Cal., Silver, Fruit, Vegetable, Passion

Pale

Eske's Brew Pub/Sangre De Cristo Brewing Inc., Taos, N.M., Bronze, Fruit, Vegetable, Taos Green Chile Beer

Celis Brewery, Austin, Texas, Gold, Herb, Spice, Celis White

Silo Brew Pub, Louisville, Ky., Silver, Herb, Spice, Yuletide Ale

Anchor Brewing Co., San Francisco, Calif., Bronze, Herb, Spice, Our Special Ale

New Belgium Brewing Co., Fort Collins, Colo., Gold, Specialty, Abbey Trappist

Style Ale

Coors Brewing Co., Golden, Colo., Silver, Specialty, Winterfest

Spanish Peaks Brewing Co. LTD, Bozeman, Mont., Bronze, Specialty,

Raspberry

Honey

Alaskan Brewing Co., Douglas, Alaska, Gold, Smoke Flavored, Alaskan Smoked

Porter

Rogue Ales, Newport, Ore., Silver, Smoke Flavored, Welkommen

Stoudt Brewing Co., Adamstown, Pa., Silver, Bock, Bock

Boston Beer Co., Boston, Mass., Bronze, Bock, Samuel Adams Double Bock

Florida Beer Brands, Orlando, Fla., Gold, Amber Lager, Old West Amber

Boston Beer Co., Boston, Mass., Silver, Amber Lager, Samuel Adams

Octoberfest

Rhomberg Brewing Co., Davenport, Iowa, Bronze, Amber Lager, Rhomberg Classic

Amber

Miller Brewing Co., Milwaukee, Wis., Gold, Dark Lager, Lowenbrau Dark
Joseph Huber Brewing Co., Inc., Monroe, Wis., Silver, Dark Lager,
Berghoff Dark
Blitz-Weinhard's Brewing Company, Portland, Ore., Bronze, Dark Lager,
Henry
Weinhard's Dark Beer

Pennsylvania Brewing Co., Pittsburgh, Pa., Gold, Munchner Helles &
Dortmunder
Export, Penn Light Lager
Los Gatos Brewing Co., Los Gatos, Calif., Silver, Munchner Helles &
Dortmunder
Export, Los Gatos Lager

Stoudt Brewing Co., Adamstown, Pa., Gold, European Pilsner, Pilsener
Sudwerk, Privatbrauerei Hubsch, Davis, Calif., Silver, European Pilsner,
Hubsch
Brau Pilsner
Riverside Brewing Co., Riverside, Calif., Bronze, European Pilsner,
Golden
Spike Pilsner

Evansville Brewing Co., Inc., Evansville, Ind., Gold, American Lager,
Drummond
Bros.
Lone Star Brewing Co., San Antonio, Texas, Silver, American Lager, Lone
Star
Brewski Brewing Co., San Diego, Calif., Bronze, American Lager, Brewski
Brew
Pub Classic

G. Heileman Brewing Co., La Crosse, Wis., Gold, American Light Lager,
Special
Export Light
Lone Star Brewing Co., San Antonio, Texas, Silver, American Light Lager,
Lone
Star Light
Brewski Brewing Co., San Diego, Calif., Bronze, American Light Lager,
Brewski
Brew Pub Light

Jacob Leinenkugel Brewing Co., Chippewa Falls, Wis., Gold, American
Premium
Lager, Leinenkugel's Limited
Anheuser-Busch, St. Louis, Mo., Silver, American Premium Lager, Budweiser
Stevens Point Brewery, Steven Point, Wis., Bronze, American Premium
Lager,
Point Special

Pabst Brewing Co.-Tumwater, Milwaukee, Wis., Gold, American Dry Lager,
Olympia
Dry
Jones Brewing Co., Smithton, Pa., Silver, American Dry Lager, Esquire
Extra Dry

G. Heileman Brewing Co., La Crosse, Wis., Gold, American Malt Liquor,
Mickey's
Malt Liquor
Miller Brewing Co., Milwaukee, Wis., Silver, American Malt Liquor, Magnum
Anheuser-Busch, St. Louis, Mo., Bronze, American Malt Liquor, King Cobra

New England Brewing Co., Norwalk, Conn., Gold, Dusseldorf Altbier,
Atlantic

Amber
William & Scott Brewing Co., Culver City, Calif., Silver, Dusseldorf
Altbier,
Rhino Chasers
North Coast Brewing Co., Ft. Bragg, Calif., Bronze, Dusseldorf Altbier,
Alt
Nouveau

Lonetree Brewing, LTD, Denver, Colo., Gold, American Lager/Ale-Cream Ale,
Country Cream Ale
Genesee Brewing Co., Inc., Rochester, N.Y., Silver, American Lager/Ale-
Cream
Ale, Genesee Cream Ale
Minnesota Brewing Co., St. Paul, Minn., Bronze, American Lager/Ale-Cream
Ale,
McMahon's Potato Ale

Heavenly Daze Brewery & Grill, Steamboat Springs, Colo., Gold, German
Wheat,
Heavenly Hefe Weizen
August Schell Brewing Co., New Ulm, Minn., Silver, German Wheat, August
Schell
Weizen
HOPS! Bistro & Brewery, Scottsdale, Ariz., Bronze, German Wheat, HOPS!
Hefe-Weizen

Odell Brewing Co., Ft. Collins, Colo., Gold, American Wheat, Easy Street
Wheat
H.C. Berger Brewing Co., Ft. Collins, Colo., Silver, American Wheat,
Whistlepin
Wheat
Marin Brewing Co., Larkspur, Calif., Bronze, American Wheat, Marin Hefe
Weiss

Champion Brewing Co., Denver, Colo., Gold, English Brown Ale, Home Run
Ale
Deschutes Brewery, Bend, Ore., Silver, English Brown Ale, Bond Street
Brown Ale
Coyote Springs Brewing Co. & Cafe, Phoenix, Ariz., Bronze, English Brown
Ale,
Bison Brown Ale

Walnut Brewery, Boulder, Colo., Gold, American Brown Ale, Old Elk Brown
Ale
Butterfield Brewing Co., Fresno, Calif., Silver, American Brown Ale,
Brown Ale
Lost Coast Brewery & Cafe, Eureka, Calif., Bronze, American Brown Ale,
Downtown
Brown

Evansville Brewing Co., Inc., Evansville, Ind., Gold, Non-Alcoholic,
Birell
N.A.
Anheuser-Busch, St. Louis, Mo., Silver, Non-Alcoholic, O'Doul's
Pearl Brewing Co., San Antonio, Texas, Bronze, Non-Alcoholic, Pabst
Non-Alcoholic

Date: Tue, 12 Oct 1993 10:26:09 -0500 (CDT)

From: Paul Boor <PBOOR@BEACH.UTMB.EDU>

Subject: will the real bogeyman please stand up

The American Heritage Dictionary of the English Language (3rd Edition) defines

bogeyman or variants bogyman, boogeyman or boogyman or boogieman, as a terrifying specter; a hobgoblin.

Jack Schmidling ought to get himself a decent dictionary, especially for those

words he intends to use in the titles of his articles.

Date: 12 Oct 93 08:26:42 MST
From: "Cisco" <FRANCISCO@osmo.CCIT.Arizona.EDU>
Subject: Beer Mix, Smoked Porter

Andrew Baird says:

>

> I believe the beer mix is a nitrogen and CO2 mix, and will reduce the
> problems with over carbonation of beer, if the keg is kept on tap for a
> prolonged period. This sounds great, as I prefer my beers with little
> carbonation anyway, (I am a native Briton after all). However, are
there any
> disadvantages to using a Nitrogen/CO2 mix.

>

You are correct about the gas mixture of the "beer mix" sold at
refill stores. It definitely cures the well known problem of eventual
overcarbonation when kegs are kept online for extended periods. I also
prefer the English ales and don't like the amount of carbonation that
is so common for American beers. The only drawback to the "beer mix"
is that you can't force carbonate your kegs. I have found that I
prefer to let my ales naturally carbonate, usually takes about 3
weeks, the gas bubbles in solution are very tiny and give a great
long lasting creamy head. I have found over the years that the
addition of 4oz of wheat malt to all my brews gives great head
retention. I'm never in need of having to wait for carbonation
to complete because I always have two kegs on tap with at least
2 kegs waiting to go on tap so my ales are always nicely aged by the
time they finally go on tap.

Smoked Ales:

I recently made a Pecan smoked porter that has turned out wonderful!
I have a real smoker - where the fire pit sits off to the side of the
smoke chamber- and I smoked 2 pounds of Belgian Bisquit malt for one
hour. The temperature remained 110-120 F. I started 8 charcoal
briquets and when they formed a white ash layer I arranged them in a
double row and placed a one foot piece of pecan wood on top (be sure
that when you smoke anything that the wood does not have ANY remaining
bark attached as this will impart a very bitter flavor). I adjusted
my flues to maintain the temperature for one hour. The grain was then
removed and put into a bowl and covered until the next day when I
ground all the grain. The smoked flavor is not too subtle and not too
overpowering and blends very well with the recipe of my favorite
porter. I just kegged it so it will be awhile before it gets rotated
in line to the taps, there are two kegs ahead of it - one is a
raspberry ale using the extract from Hoptech.

John Francisco (Cisco)

Date: Tue, 12 Oct 93 9:52:20 MDT
From: npyle@n33.stortek.com
Subject: SLOW counterflow

Dave says about his new counterflow wort chiller:

> Well, after 7+ years of cooling my wort in the bathtub, I finally
>decided to make a wort chiller. I decided on a counterflow design
because
>it is supposed to be more efficient and because I cant imagine it is
>really as hard to sterilize as some maintain. I had a design for one
from
>one of the zymurgy special issues (all grain brewing?) and it looked
>straightforward. One question I had was what is the optimal length for
>the thing? Zymurgy says 20 ft in their article. Dave Miller in his
book
>says it must be at least 40 ft. I looked into prices for copper tubing,
>etc, and determined that, economies of scale being what they are, it was
>worth it to build a longer one. I bought 50ft of garden hose (a lot
>cheaper than tygon tubing), 50 ft of 1/4" copper tubing, and built a 40
ft
>chiller (10 feet of the hose going to the connecting lines).
> Well, I used the contraption a few days later. It certainly did a
>fine job of cooling the wort, but it is SLOOOOOW. It took about 50
>minutes for 5 gallons of wort to pass through this baby! This is not
much
>faster than my bathtub method (although I recognize that each little bit
>of wort cools down very fast indeed, contributing to a good cold break)
. .
>All the while the water is running and I am feeling guilty about wasting
>so much, and besides I hoped that building this thing would save me some
time.

Well Dave my counterflow chiller (about a month old) is only slow when my
choreboy (in the kettle) gets clogged with hops (I'm going to shy away
from
pellets whenever I can in the future). The normal, unclogged rate is
about 5
gallons in 25 minutes, if memory serves. The difference is that mine is
made
with 3/8" copper tubing, not 1/4". This is considerable. When mine
slows
down (choreboy clogage), I turn the cooling water down to a trickle. The
last time this happened ittook less than 10 gallons of water to cool 5
gallons of wort to pitching temperature (but it took over an hour). Oh,
mine
is only 30 feet long and it does a wonderful job. I suspect I could get
away
with a shorter one. I suggest one of three routes: 1) take it apart and
replace the 1/4" tubing with 3/8" tubing, 2) cut it in half to make two
chillers in parallel, or 3) change it to an immersion chiller (these work
very
nicely). The problem with 2) is that the plumbing is guaranteed to get
real
interesting.

Dave goes on talk about other chiller hurdles:

> Another general question that I have is how do people direct the
>wort into their counterflow chillers. In the past I always imagined
that

>i would just hook it up in series with my hopback, but recent talk about
>the evils of hot-side aeration have spooked me on this idea. The
>alternative is to siphon directly from the brew kettle, but this has its
>own problems (the old mouth-on-the-siphon-hose conundrum, and the
problem
>of hops clogging the chiller (yes, I know about the chore boy solution
but
>it seems to me that that is going to leave a lot of hard-earned wort in
>the kettle)). So, what do people do about that?

I don't have a hop-back but my kettle has a ball valve mounted at the
bottom.
I have copper tubing compression fittings to attach my chiller directly
out
of the bottom of the kettle. Since my kettle tap is not exactly at the
bottom
of the kettle I use a small brass elbow on the inside of the kettle and
it
takes wort almost directly off the bottom of the kettle (very little
losses).
Anyway, it is all gravity fed and works like a charm. I don't know about
hop-backs and such, I'm a low tech (in this respect) dry-hopper.

Joel asks about draining the first runnings, adding sparge water, and
draining
again to simplify his sparge. This works fine, Joel. If it is easy for
you,
do it. You might even try 3 of these "batch sparges" for more
efficiency. The
only drawback I can think of is that you are losing the original runnings
right
away, which help buffer the goods. It is possible your pH will drop more
quickly during the subsequent sparges, requiring acidification of the
sparge
water to avoid tannin extraction. I've never really had a problem with
it
(i.e. no astringent beers) but I don't take my sparges too far. I
usually get
25-27 points which indicates there is a fair amount of sugar and other
stuff
left in the grist, which I presume maintains the pH (not a lot of
measuring
going on).

good luck,
norm

Date: Tue, 12 Oct 93 11:39:59 EST
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>
Subject: Batch Sparging

Joel Birkeland in 1245 asks about batch sparging. It is my understanding that this is the old fashioned way of doing it. In past times the first runnings would make a big beer, the second runnings (after resuspending the mash) a normal beer, and the third runnings - a mediaeval version of Bud Light.

The reason for continuous sparging is that it is more efficient, and doesn't have the problem of resetting the bed, but for homebrew purposes I am sure there would be little problem. Or alternately get a big picnic cooler that you can fill with all of your sparge water.

Re Hydrogen sulfide - this is a normal breakdown product when protein amino acids containing sulphur are decayed - and well, fermentation is really controlled food decay.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Tue, 12 Oct 93 11:50 CDT
From: arf@mcs.com (Jack Schmidling)
Subject: Judging

From: mferts@taec.com (Mike Fertsch)

>It is neither boring nor unenlightening.

I simply stated my opinion about much of the drudgery that necessarily goes along with a competition. You are entitled to yours.

>Ideally, judges ARE experts in the styles they are judging.

That's nice but the real world is NOT ideal.

> Every judge in the program knows broadly what pilsners are supposed to taste like.

"Every" and "broadly" are the key words here and I won't argue with them but my point was that I would rather have my beer judged by an expert in that category.

>My point here is that certain judges are EXPERTS, and can pick beers out of a lineup.

I already acknowledged that presumption. The problem arises from the fact that many can not.

> A broad knowledge of styles, a good palate, and a good understanding of what can go wrong in beers is more than adequate for judging almost all competitors. This is what the BJCP fosters.

Fostering doth not equate to create. The key here is palate. The other aspects can be memorized in a few hours but palate takes years to develop and

my guess is that very few judges have it to a confident degree of certainty.

This is obvious from the "negotiating" that goes on AFTER they have arrived at their own opinion.

>How was this competition run? How many entries?.....

You seemed to have missed the whole point of my posting. It was run competently, professionally and in a friendly manner that made it a memorable experience.

I simply proposed a system of judge qualification that would be more satisfying to me both as a competitor and as a judge.

>From: gummitch@techbook.com (Jeff Frane)

>In an attempt to patch over those holes, there is a movement afoot to develop a specific style certification in addition to the BJCP

certification.

Sounds like I hit a nerve. That's certainly a step in the right direction but it seems like putting the cart before the horse. It would be just as rational to qualify experts up front of the overall certification and it would fill the ranks of experts much faster.

>From: andrewb6@aol.com
>Subject: Regulators, Beer mix, and enamel pots.

>Has anyone tried mounting a "Slotted T drain" in an enamel-on-steel pot?
Obviously welding is out of the question, and I imagine that chipping/splintering of the enamel would be a problem too, but are there any fittings (perhaps an o-ring or a compression type) that will be strong, seal well, and still hold up to the rigors of boiling wort?

Not sure what a "Slotted T drain" is but if you use a spigot with a male thread and a female connector on the inside, you can make a leakproof compression fit. The only hooker is you have to rethread them with straight threads as they are normally supplied with tapered pipe threads.

Drilling holes without chipping is not a problem as long as a small pilot hole is drilled first.

>From: birkelan@adtaz.sps.mot.com (Joel Birkeland)

>1) Is a continuous sparge really necessary? Has anyone tried just draining all of the mash liquor out of the tun, refilling with the sparge water all at once, letting it sit, and then draining it? Since I use a easymasher of the Schmidling design, re-establishing the filter bed would not really be a problem. This seems to me to be much easier than monitoring the flow from my sparge vessel into the mash for half an hour.

What seems intuitive is not always so. Someone posted an article a year or so ago that explained it in terms so simple, that even I could understand, why this is not so.

It has to do with the gradual dilution effect and that the grain is always meeting up with a differential between it's remaining sugar and the dissolved sugar in the sparge water. The greater this differential is, the more sugar will be removed.

It is also easy to see that in the last batch, after stirring the water and mash, the whole liquid will arrive at some gravity. When the liquid is drained, the liquid held by the grain will be that gravity and that sugar is lost. By continually sparging, the gravity of the liquid left in the grain will be that of the last running and of no interest.

js

Date: Tue, 12 Oct 93 12:53:08 -0400
From: polstra!larryba@uunet.UU.NET
Subject: Re: Wort Processors Mill Evaluation

In HBD #1241, Jack writes about mill issue:

>
> Sounds like a fun time was had by all and the context and tone of the report
> indicate that it does not require much serious debate. However, there are a

Actually, it sounds like all the mills, with the exception of the original corona were more than acceptable. Price, availability and the volume of grain to be crushed seemed like the decision points - not crush quality.
> ...
> First of all, the MM used in the evaluation does not represent current design
> which will indeed crush one lb of malt in under 14 seconds with a hand crank
> and 5 lbs per minute with a motor is like falling off a log.

I can vouch for the speed and quality of the current MM design, having purchased one of the first with the knurled roller. I am sure one can crush 1lb in 14 seconds with the hand crank, but my arm falls off when doing 20lb crushes and I take much longer, say 30 sec/lb.
>...
> Finally, a note on crush quality....
>
> The most misunderstood aspect of the grist resulting from milling of malt for brewing is the boggyman known variously as flour, dust, fine particles, powder etc. I would rank the need for unscathed husks as number two. The emphasis on both of these results from the problems created by crude grain grinders combined with poorly designed and/or operated mash/lauter tuns.

I agree that grit size and uniformity is more important than husk damage. this is most true about modern 2-row grains. I have personally used two lauter designs: a perforated false bottom and a slotted copper manifold.

In both cases too fine a grind is a disaster regardless of the quality of the husks. The problems are two fold. First the flour tends to ball up and make a dough that is dry inside. This occurs during mash in and is a royal pain to get rid off. I have seen folks try to avoid this by mashing in a little grain at a time, stirring vigorously between additions. Still when fully mashed in, those pesky balls of dough continue to float to the surface. Second problem is the stuck sparge. I had never seen one until I used a roller mill that was set way too close (.025") and the sparge locked up after a couple quarts. No dribble, nothing. Just like the valve had been closed.

The malt mill I have produces a course crush (e.g. looks like cornmeal) with pretty much intact husks. I have lautered a 15.5 lb mash and recovered 11.5 gallons of 1.046 wort in 20 minutes. That is .034pt/lb/gal for you guys interested in the efficiency game. Since it was a pils, using only pils malt, the number wasn't too unexpected.

I guess my point is that with modern, fully modified malts (Please, can anyone point me to a commercially available malt that isn't?) fine crushes DON'T GAIN YOU ANYTHING but problems. Look at malt specifications: they describe the difference between course and fine crush extract yeilds. typically the difference is 2% or less. Smaller numbers are indicators of higher quality (and degree of modification).

So, to summarize: any of the mills mentioned in the Crush off should work fine. I have used homemade roller mills, coronas, corona knockoffs the malt mill and converted coffee grinders. The only one that was consistently bad was the coffee grinder. All others could be adjusted to produce great crushes fast lauters and excellent extracts.

>
> The perfect grist for mashing would be molecule sized particles of malt from
> which all the husk has been removed. It would wet perfectly, dissolve
> instantly and produce 100% yield of crystal clear wort.

This is a gross simplification. Malt contains more than husk, starch and enzymes. All the gums, protein, cellulose, etc. are best left in matrix rather than trying to filter them out.

- - -
Larry Barello uunet!polstra!larryba

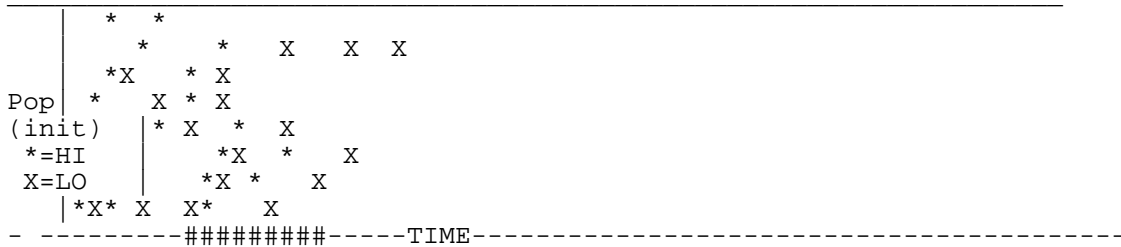
Date: Tue, 12 Oct 1993 11:15:51 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: Yeast Growth/ Starter Size

>Jonathan Knight
>Grinnell, Iowa

*Jonathan asked about slow starts and long ferments...
>My typical procedure is to boil up one cup of D.M.E. in a solution
which,
>after some evaporation, turns out around 750-800 ml. Should I use more
>D.M.E. in the first place? Or should I step-up the first starter into a
>second? If I do that, do I make a stronger solution the second time (as
in
>more extract per volume of water)? I'd love to hear from anyone who
wishes
>to share their experience and expertise on this subject as a fellow-
>chronically-underpitching-homebrewer.>>
>

Just a little primer on yeast growth and metabolism:

Growth vs. Time (low and high starting populations)



This is only a cartoon. Had this been a real graph there might be data to support it. Take it as you will- can you speak "hypothetical?"

With a low starting population the lag time before exponential growth is lengthened. It is during this period that the greatest danger of infection exists. A high starting population will result in a narrower growth curve, whereas the smaller pop. will grow slower, for a longer time. It is reasonable to believe that the small init. pop will never achieve the maximum population of the high start.

There are definite benefits to a high starting population, and definite disadvantages to a slow start. I can't imagine you could "overpitch" a wort- unless you collected the yeast from ten brews and added inadequate fermentables to make them live. If the yeast run out of nutrients they may turn to unfavorable metabolic pathways. But I'd be inclined to think that if you supply a full bodied wort and sufficient aeration to the number of yeast collected from as much as a 1 gallon starter will do no harm.

A good process for growing up a starter- I use a 200 ml starter of about 020 sp gr. for a colony from a plate. For a liquid yeast- say a 500ml initial starter. Same sp. gr. Grow this for a day or two. Let settle- Collect yeast sediment, add to a fresh wort of a slightly higher sp. gr. say 030 in a larger volume-

500 ml (culture), 800 ml (liquid). Grow up 1 day. Till active ferment.
Brew Day: Take some of the wort from the sparge and boil quickly. Cool
and combine starter with equal volume of fresh wort. By the time the
boil
and cool are done this will be active. Cool wort and pitch. You should
get a good start.
Stepping up the volume and strength of the starters will allow the yeast
to both increase in number and acclimatize to the brew gravity.

G'luck. Hope this helps. John (The Coyote) Wyllie SLK6P@cc.usu.
edu

Date: Tue, 12 Oct 93 13:34:08 EDT
From: Bob_McIlvaine@keyfile.com
Subject: bogy vs boogy

I believe both definitions that Jack mentioned in previous postings are correct at the correct point in history. I also won't attempt to dispute the the spelling in either case. But...I have it on rather good authority that before both of the definitions mentioned, the phrase "Don't let the boogy man get you!" was coined. The tribal pirates of the south sea islands whose commodities included un-willing slaves (read kidnapped young'ins) were called Boogymen.

End of HOMEBREW Digest #1246, 10/13/93

Date: Tue, 12 Oct 93 13:05 CDT
From: korz@iepubj.att.com
Subject: RE: STRAINING YOUR BREW

Matthew writes:

>I have one of those handy brew kits you get for Christmas with the 6 gal.
>carboy. I realized after my 1st batch that I was getting a lot of haze in my
>beer so I thought I might strain it prior to bottling. What I came up with has
>been REALLY NICE! I used one of those reusable GOLD plated coffee filters
>(you can get them at any fancy coffee shop). I setup my 2nd carboy underneath
>the 1st and placed the filter inside of a funnel (perfect fit) and drained off
>the beer from the top, up to the last inch of trub. The filter is coarse
>enough that the beer gets through but fine enough that it catches all the crud
>that's still floating about. Since I've gone to this, I have truly had nothing
>but crystal clear beer!

Crystal clear maybe, but probably quite oxidized. Does your beer have a sherry-like aroma? I think you may want to try to find the source of your haze (perhaps you are just not waiting for the yeast to settle -- some strains take quite a while -- maybe just try a different strain). As the fermented-out beer falls from the funnel into the 2nd carboy, you are going to introduce a lot of oxygen (unless you purge the carboy with CO2, perhaps) and this will give your resulting beer sherry-like or wet-cardboard aromas.
Al.

Date: Tue, 12 Oct 93 14:47 CDT
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: mashout

Ulick Stafford writes:

>
> I would be very curious to see Chris Campanelli attempt to brew,
> let's say, a wheat beer with 70%+ wheat malt without a mash out
>

A very good point. The recipes that I have been referring to have little or no wheat malt. A clarification is needed in this robust discussion. We should limit the playing field to mashes which have little or no wheat malt.

For the record, I am a zealous believer in temperature steps for mashes that contain a high-percentage of wheat for reasons explained in Eric Warner's book.

Having narrowed the breadth of definition, I continue to maintain that a mashout is unnecessary and await rebuttal.

chris campanelli

Date: 12 Oct 93 15:34:00 EST
From: "Anderso_A" <Anderso_A@hq.navy.mil>
Subject: GABF

The following attachments were included with this message:

TYPE: FILE
NAME: AA

>From: gorman@aol.com
>Subject: GABF Denver

>FYI to all attending future Great American Beer Festivals.

>The members only tasting on Saturday afternoon at the GABF was definitely
>the place to be. Uncrowded conditions allowed relaxed tasting and
>conversation with the brewers.

It was an extremely relaxed session (as compared to the 2 night sessions, but it also had an annoying aspect as well. The majority of the brewers were out accepting their awards and only volunteers were manning the taps.

I received an "I don't know." to the majority of questions I asked during the AHA-only tasting. At night, while it was more crowded, at least I could speak with the brewers.

FWIW, I'm not a member of AHA, so I had to "sneak" into the elitist society function. I had so much fun that I might even join next year. Nahh! That would take all the fun out of it.

>By comparison, Saturday night was a zoo.
>Did anyone go on Friday night? What was it like then?

Friday night was quite crowded, but no where near as crowded as Saturday.

To all the AHA duly-appointed royalty. Why not have more food stands? With all that beer and so little food available, I found it to be more expedient to leave Currigan Hall and go to the local Burger King as opposed to waiting in that one horrific food line.

Cheers,
Andy A

Date: Tue, 12 Oct 1993 16:26:44 -0400 (EDT)
From: William Pemberton <wfp5p@holmes.acc.virginia.edu>
Subject: Re: Slow Counterflow

Dave writes:

> fine job of cooling the wort, but it is SLOOOOOW. It took about 50
> minutes for 5 gallons of wort to pass through this baby! This is not
much
> faster than my bathtub method (although I recognize that each little
bit
> of wort cools down very fast indeed, contributing to a good cold break)
. .
> All the while the water is running and I am feeling guilty about
wasting
> so much, and besides I hoped that building this thing would save me
some time.
> One possibility that I am considering is that the thing is a lot
> longer than it has to be; could i cut it in half and make two chillers,
> each of which would run considerably faster? Or is this slow speed
pretty
> much the norm for these things? If so I am seriously considering
> "downgrading" to an immersion chiller.

You don't mention the diameter of the copper tubing that you used. I
made a counterflow chiller out of garden hose and 20 feet of 3/8 inch
copper tubing (I think that was the size, it was the largest I could find
that was still flexible enough to work with.) This cooler works well and
works fast. The way my brewing is set up, it is about a 15 foot drop
from
the boiler to the fermenter. This cooler takes in from boiling to tap
water
cold. Total siphon time is about 5 minutes for 5 gallons.

> Another general question that I have is how do people direct the
> wort into their counterflow chillers. In the past I always imagined
that
> i would just hook it up in series with my hopback, but recent talk
about
> the evils of hot-side aeration have spooked me on this idea. The
> alternative is to siphon directly from the brew kettle, but this has
its
> own problems (the old mouth-on-the-siphon-hose conundrum, and the
problem
> of hops clogging the chiller (yes, I know about the chore boy solution
but
> it seems to me that that is going to leave a lot of hard-earned wort in
> the kettle)). So, what do people do about that?

I've not settled on a method for this. I've used the chore boy method,
but I've had problems getting a decent flow. I usually just try to
work around the hops. Fortunately, I haven't had many problems with
clogging.

--
Bill

Date: Tue, 12 Oct 1993 16:01:49 -0400 (EDT)
From: "Christopher V. Sack" <cvsack@mailbox.syr.edu>
Subject: Gas Regulators, from HBD #1245 (October 12, 1993)

On Tue, 12 Oct 1993, Andrew Baird wrote:

>
> Recently I acquired (read: given by good friend) a two guage oxygen
regulator
> that had previously been used for welding purposes. One guage reads
from 0
> to 90lbs, while the other reads from 0 to about 3000lbs as I recall
> (actually, the high pressure side has a dual scale and reads gas flow
and/or
> pressure). I realize that the part that fits onto the tank may have
the
> incorrect thread, however this piece is removeable and I'm sure I can
find a
> new fitting to match the tank. Would this regulator be suitable for
kegging
> purposes? Can I expect any noticeable off flavors, or contamination
problems
> due to the fact that this has been used for welding?
>
You would have a regulator that is rated for "non-corrosive gases".
These gases would include: oxygen, hydrogen, methane, ethylene, ethane,
carbon monoxide, nitrous oxide, and carbon dioxide. The difference, as
Andrew suspected, is in the connector between the regulator and the tank.
The oxygen would use a CGA 540 connector and the carbon dioxide would use
an CGA 320 connector. I would also recommend swapping the 0 - 90 psi
guage
for a 0 - 40 psi guage, because for beer, one rarely needs more than 25
psi for the carbonation.

You should be able to get the proper connector from a welding supply
shop. Most welding suppliers also sell regulators and the associated
connectors. If they don't have it, try a compressed gas vendor.

> I believe the beer mix is a nitrogen and CO2 mix, and will reduce the
> problems with over carbonation of beer, if the keg is kept on tap for a
> prolonged period. This sounds great, as I prefer my beers with little
> carbonation anyway, (I am a native Briton after all). However, are
there any
> disadvantages to using a Nitrogen/CO2 mix.

>
I don't know about this mixture. I have not seen it in the compressed
gas
catalog of our local gas vendor (I work part time in the chemistry stock
room), but any gas vendor will mix it up for you, for a price. Stick to
pure CO2 and use a pressure that provides 1 - 1.5 volumes of dissolved
CO2. (Most beers contain 2 - 2.5 volumes of CO2) I have seen a
dissolved gas vs. pressure/temp. table on the HBD, but I don't know when
it was.

Chris

-----+
| Christopher V. Sack |
/)	/ /)	Graduate Student	
/ /	/ ()		Dept. of Chemistry
/ /	/) /)	/ State Univ. of N.Y.	
/ /	/ / / /	/ Syracuse, NY 13210	

| (____/* |/* (____/ (____/ (____/ | / / <cvssack@lor.syr.edu> |
+-----+

Date: Tue, 12 Oct 93 16:53:11 EDT
From: Bob_McIlvaine@keyfile.com
Subject: picobrew to Mike Schrempp

I know HBD isn't for person to person communication, but due to a glitch in my internet software I can't send a response to Mike Schrempp cause my software won't let me use an internet address as long as his. So...

Mike, if you read this, send me mail with your phone# and I'll call you about my pico brewery.

Date: Tue, 12 Oct 1993 16:37:13 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: startup brewing

startup brewing
I'm about to take to plunge and start brewing. I have read the NCJHB, the latest Zymurgy, and been reading this digest for some time now.

I'd like to know the following things:

what equipment should I start out with?
plastic vs glass fermenters.
extract 'kits': good ones, bad ones
about how much \$\$\$ for equipment?
how much \$\$\$ for a 5 gallon batch?
can I brew 1/2 a recipe by cutting the ingredients?

Thanks...looking forward to your kind replies.

george

Date: 12 Oct 1993 14:54:27 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: Metric to Avoirdupois Conv.

Talk about deja vu. I had just sent the revised Rager Constant to Mark Garetz

yesterday. For everyone's benefit, I will include the derivation for it here.

What Regent said about the accuracy not being terribly significant to the results is true, but I'm perspicacious. (yeah, that's it)

$$\begin{array}{rcl} 28.3495 \text{ grams/oz} & \text{gram gal} & \\ 1000 \times \text{-----} & = 7489.1689 \text{ -----} & \\ 3.7854 \text{ liter/gal} & \text{liter oz} & \end{array}$$

The numbers are correct to four significant digits. Round all you want. The factor of 1000 is from the fact that SI units are based on Kilograms.

John Palmer

PS. I have received favorable response regarding the DOE posting, so I will post specifics for the next two experiments in the near future.

- --Since toast always lands butter-side down, and a cat always lands on its feet, what would happen if you strapped toast to the cat's back and dropped it?

Date: Tue, 12 Oct 1993 17:32:58 -0600
From: feldman@hal9k.csc.cxo.dec.com (james feldman)
Subject: GABF

A few thoughts on the GABF

I went there Saturday evening. HUGE line to get in, but it moved reasonably fast. The size of the hall was nice in that I wasn't jostled as often. Interesting toys, like the hi-tech, computer controlled home brew workstation ;'[]], and the party pigs (a 2 1/4 gallon fermenter/server). The popcorn was TERRIBLE and had this mutant yellow color. I ended up buying the soft pretzils to clear the different beer tastes. A couple more wash stations would of been nice too.

Given the larger area, greater number of people and displayers, I would of appreciated more time to browse the beers. I guess that's a good reason to join AHA, so I could of got in that afternoon. I was on a "rare" bear style hunt (smoked, alt, oatmeal stouts, fruits). Liked most of what I had, but some people seem to think that stout=burnt. The Cherry Rail was my favorite fruit beer. Blue Tail Ale from a Ca. micro was one of my favorites, but it's not bottled (waaaa!) Sierra Nevada's Summerfest was a good one too.

I've rambled enough
jim feldman

Date: Tue, 12 Oct 93 19:34:03 EDT
From: sean v. taylor <sean@chemres.tn.cornell.edu>
Subject: Beer Drinks

Greetings,

I was roaming around an old bookstore the other day and I came across a book on cooking with beer (can't remember the title, and didn't buy the book). In the back, there was a section on beer drinks. I also don't remember many specific recipes, but most them looked like they treated beer as a regular liquor.

Anyways, I wondered if other people had heard about making drinks with beer? Now, I've heard of adding some woodruff or raspberry liqueur to a Berliner Weiss, a lemon to hefeweizen, and even mixing fermented apple cider to ale, but I've never heard of beer being used as merely an additive in some drink concoction. Has anybody else?

Quite frankly, I thought beer was a finished beverage, whereas hard liquor needed "diluted" by mixing with something else.

On a similar note, Is something considered part of the beer if it is added post fermentation? Or is it more or less a "beer drink"?

Just wondering,
Sean Taylor

Date: Tue, 12 Oct 93 18:49 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Carboy Source/John Pavao

Hello Readers,

Upon receiving 1) many queries for a 7 gal carboy supplier and 2) getting my PC finally reconnected to the Internet, here's the address for a brew supply supplier.

James Page Brewery & Beermaking Supplies
1300 Quincy ST. NE
Minneapolis MN, 55413-1541
1-800-347-4042

You can use this 1-800 # to place orders or request a catalog. They ship UPS so

I assume Cal. money is as good as WI money.

I'm but a lowly graduate student and profit not from this, much less any other, professional relationship (disclaimer). Speaking of disclaimers, how come we list disclaimers when we post supplier info and not when we expouse the virtues of a commercially micro-brewed beer?

Page sold a 7 gal. in lieu of 6.5 which had sold out. As posted in an earlier HBList, the openings of the 7 gal are too narrow to use a carboy cap in starting a siphon.

In reply to John Pavao's request...

The 7 gal and perhaps (help me out here people) 6.5 gal carboys have enough head space to use as a primary fermenter w/o a blowtube. I use an airlock. The above supplier also carries long racking canes which will fit 7 gal carboys.

Sorry to take up the extra bandwidth...couldn't get my message directly to John.

David Atkins
UW-Madison
atkins@macc.wisc.edu

Date: Tue, 12 Oct 93 20:29:28 -0400
From: Eric M. Mrozek <mrozek@horowitz.eecs.umich.edu>
Subject: Idophor question

I just recieved this message from a friend of mine in Los Angeles:

> I just finished a batch of spiced ale. Actually it started as a Belgian Brown

> ale, but I used Idophor(sp?) to clean with and found that I can not tolerate

> Idophor. This stuff is the stuff that gave the flavor to the keg beers at the

> Maltose Falcons meetings that you and I could not stand. So I added lots of

> spices and dry hopped to save the batch (it seems to have worked except that

> the dry hops increased the profile of the allspice and it is taking a while

> to mellow out.

Since I'm in Michigan now, I couldn't taste the original beer, but I remember

very well the oftaste that he's referring to. I have always disliked the idea

of using Cornelius kegs because every kegged beer I tasted seemed to have a

similar background unpleasentness (which I assumed was due to metal leaching or

"unnatural" CO2 impregnation).

Could someone comment on the use of Idophor (flavor characteristics, threshold

of dection, poison rating, personal experiences, etc.)? I know he rinses

thouroughly, so it's not sloppy technique. In the past we have always sanitized

with bleach with resonable results.

Eric

Date: Tue, 12 Oct 1993 17:15:12 -0700 (PDT)
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>
Subject: Brewpub review

The following reviews represent my opinions only. You can judge for yourself what they are worth.

The rise in popularity of microbrewing and specifically brewpubs is beginning to develope and ugly side, and I have recently seen this side in the form of the Belmont Brewing Company of Belmont Shores, California.

I guess it should come as no suprise that as brewpubs are becoming more and more trendy, there will be some designed especially to appeal to the yuppy set. This is not to say that there is anything at wrong with the growing popularity of brewpubs. Being a very frequent patron of any brewpub within reach, I find the growing numbers to be very reasuring. However, my experience with Belmont Brewing Company indicates that pubs that cater specifically to trend followers can lack a certain amount of quality.

While the pub is in an outstanding location and the interior seems well-designed, with plenty of seating (actually, quite a lot of seating) and the staff (well some of the staff) is friendly and attentive, the food lacks the care and quality one expects in a brewpub. This is especially irritating when you consider the high prices.

But on to the most important part, the beer. The best way to sum up my impression is this: If you enjoy the over-powering taste and smell of yeast, combined with an almost total lack of any hoppy taste, aroma or bitterness, this is the beer for you. The following beers were sampled:

Beer Name:	Official Description:
Marathon	"Light bodied ale. Low bitterness. Hint of Aroma"
Strawberry Blond	"Just a hint of fruit. Light in body. Low bitterness.
Long Beach Crude	"For beer lovers who enjoy full flavor. A hint of bitterness and chocolate"

The description of the Marathon Ale is pretty accurate, except that it is wildely understated. The strawberry flavor in the Strawberry Blond was about as subtle as a strawberrypie in the face. Not unpleasant, but very overpowering. Mixed with the heavy taste of yeast makes for a bad combination.

The L.B. Crude was the best of those sampled. Really a light stout. Good flavor with a lighter body. Very tasty chilled. Could be a very good warm weather stout if it wasn't for the ever-present yeast taste and smell. Unfortunately, the taste and smell get worse as you continue to drink.

I can't really describe the brewing setup as I didn't have opportunity to check it out, but from across the resturant it looked nice.

Another review of yet another L.A. area brewpub will follow shortly.

I used to be disgusted, now I try to be amused.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

Date: Tue, 12 Oct 1993 18:20:52 -0800

From: ulrich@sfu.ca

Subject: Boogymen and bogymen

korz and arf have been debating the spelling and pronunciation of bo(o)gyman. The American Heritage Dictionary has an entry for "boogieman" (pronounced either with the vowel of "book" or with the vowel of "boot")

,
under which they say "Also boogyman, boogeyman, bogyman, bogeyman" (the last two pronounced with the vowel of "boat"). All of these refer to a hobgoblin, as does the word "bogy" (also bogey, bogie). (The spelling they prefer for the golf and military terms is "bogey".)

In addition to all the above forms, I have heard "boogerman" (with the vowel of "book" again). Note also that "booger" and "boogie" are both attested as count nouns corresponding to the mass noun "snot".

Other related words are "bogle", "bugaboo", and "bugbear". All of these words were borrowed from some Celtic language, either Scottish, Welsh, or Cornish.

To sum up, there's a lot of dialect variation here and there's no one "correct" form.

Now excuse me, I need a homebrew.

Charles Ulrich

Date: Tue, 12 Oct 93 18:48:44 PDT
From: dbell@cup.portal.com
Subject: Re: Booby/Boogy/Bogyman!

Jack Schmidling posted:

>>From: korz@iepubj.att.com

>>I think you mean boogyman, but in any event.....

>Funny you should mention that because I researched the word which I am using
>in the title of an article I am writing. "Boogy" is a musical term and
>refers to a type of jazz and a "boogyman" would be someone who plays or
>dances to it although no such word is described in my dictionary.

>"Bogy" is a type of gremlin, hobgoblin or other bad actor who keeps
throwing
>wrenches into gear boxes. It is also the term adopted by fighter pilots
to
>identify an enemy plane. It is pronounced with a long "o" but I find
no
>reference to a "bogyman" in my dictionary either. It seems to be
redundant
>corruption and although I try to change people's brewing habits, I don't
have
>time to change the American language.

>Unless someone comes up with something convincing, I will stick with
bogyman.

Well, Jack, I hope this is convincing - to others!
Retrieved from the Webster server at chem.ucsd.edu:

boogyman
No definition for 'boogyman'. Maybe you mean:
1. bogyman 2. boogeyman

Word: boogeyman
boo-gey-man /'bu.g-eE-,man, 'b:u-geE-/
also boog-er-man /'bu-g-er- n
[boogey, alter. of booger + man]
(ca. 1850)
:BOGEYMAN

Word: boogerman
boo-gey-man /'bu.g-eE-,man, 'b:u-geE-/
also boog-er-man /'bu-g-er- n
[boogey, alter. of booger + man]
(ca. 1850)
:BOGEYMAN

Word: bogyman
bo-gey-man
also bo-gy-man /'bu-g-eE-,man, 'boE-geE-, 'b:u-geE-, 'bu-g-er- n
(ca. 1890)
1: a monstrous imaginary figure used in threatening children
2: a terrifying or dreaded person or thing: BUGBEAR

Looks clear to me... And all these years I was spelling it -oo-

Dave
dbell@cup.portal.com

Date: Tue, 12 Oct 93 20:37:02 -0600
From: John Adams <j_adams@hpfcjca.sde.hp.com>
Subject: GABF Denver

I attended the GABF on Friday evening, the members-only tasting on Saturday, and an "Evening with Michael Jackson" at the Wynkoop Brewing Co. on Sunday.

Friday Night:

What a zoo, but that's what I expected. Actually I believe it to be a little better than last year simply because Currigan Hall is larger.

Personal Favorites:

Santa Rosa Brewing Companies Cascades IPA.

Excellent hop nose and taste. The perfect amount of bittering hops. The best IPA I tried at the fest.

Dixie Brewing Companies White Moose.

A white chocolate beer with an incredible chocolate aroma and light chocolate taste that's not overpowering.

Alaskan Brewing Companies Smoked Porter.

Has always been one of my favorites. Although last year's batch was better this is still the best smoked beer at the fest.

Vermont Pub and Breweries Smoked Porter.

A very close second to Alaskan's.

Spring Street Brewing Companies WIT.

A Belgium white with orange and coriander, very interesting.

Saturday Afternoon:

I went in prepared with a list of various styles I wished to try. I was interesting in the many pumpkin and certain fruit beers, IPA's and Imperial Stouts.

Personal Favorites:

Adler Brau's Great Pumpkin Spice.

This is by far the best pumpkin beer I've ever tried. It had a very nice pumpkin taste with the perfect spices. The only thing it lacked was the whipped cream.

Hubcap Breweries Killer Bee Honey Ale.

More of a light mead than an ale. Not as overpowering as most meads but a very light, honey taste.

Marin Brewing Companies Blueberry Ale.

A very nice blueberry nose and taste. I was enjoying this one when it took the gold and everyone raised their glasses in salute!

Pacific Coast Breweries Imperial Stout

A slightly sweet but full bodied Imperial Stout.

Vermont Pub and Breweries Avid Tartan Wee Heavy.

A nice sweet and strong Scottish Ale.

Sunday Evening:

Michael Jackson presented a tasting of "For The Love Of Good Beer:
Denver

Against The World." Michael gave an one hour biography and history of
beer followed by a tasting of 4 "World" beers and 4 "Denver" beers:

Pilsener Urquell(Czech Republic)

Bass Ale (England)

Paulaner Oktoberfest (Germany)

Guinness Stout (Ireland)

Home Run Ale (Champion Brewing Company)

Altman Amber Ale(Rockbottom Brewery)

India Pale Ale (Breckenridge Brewery)

Churchyard Ale (Wynkoop Brewing Company)

Date: Tue, 12 Oct 93 20:25:17 PDT
From: Ken Miller <KCMILLER%SJSUVM1.BITNET@cmsa.Berkeley.EDU>
Subject: Bogymen/Boogymen/Lactic Acid/Low-Alcohol Beer

Many and multifarious are the ways of the English language. Webster's Ninth New Collegiate lists all of the following: bogeyman (preferred), bogyman, boogymen, and buggerman (all with the same meaning); also bogey, bogy, and bogie (without the -man suffix). So everyone was right (until they started dissing each other) and we can move on to another topic...unless maybe someone wants to pronounce it with an umlaut? :^)

Phil Brushaber solicits non-basic information:

> A brewing friend suggested using Lactic Acid. Got a bottle
>of Kent brand 88% Lactic Acid. I could use a suggestion from you
>Brewing Chemist types....

I'm not a Brewing Chemist...but I play one on TV (not!)

> Any guess on how much of this 88% Lactic Acid I might use
>to adjust the PH in 5 gallons? You know something like: "1 tsp of
>88% Lactic acid should lower 5 gallons of liquid by .4 PH degrees".
>I could use trial and error but I've got a hunch that someone
>out there may have the answer or be familiar with this stuff.

Sorry, it isn't that simple. pH is a logarithmic scale, and the degree of lowering will depend on both the volume and pH of both the liquid and the acid. If you know the exact pH of your water, it is possible to calculate the amount of lactic acid needed to lower 5 gallons of it to a specified pH. (When I get my hands on a Merck Index, I'll post the equation.)

In practice, it's probably easier to use trial and error, since tap water pH can vary from brewing to brewing (mine varies from 7.2-7.9, according to the water report) and the amount of lactic acid needed is usually quite small (on the order of < 2 tablespoons). Dave Miller (in TCHOHB) recommends diluting the lactic acid first, using a ratio of 3 cups water to 2 tsp lactic acid; this is not strictly necessary but makes over-acidifying by accident less likely. I usually wind up using about 2 cups of diluted acid (i.e. about 1+ tsp of 88% concentrated acid) to lower about six gallons of water to a pH of 5.7 (your mileage will vary).

Bill Kitch speculates:

>Does anyone have a procedure for producing low or no alcohol
>carbonated malt beverages?

>
>My intial thought is to:
> 1) brew in the normal fashion
> 2) heat to evaporate the alcohol
> 3) cool
> 4) add priming sugar and fresh yeast
> 5) bottle
>

>Is this reasonable? Has anyone tried this? Did it work?

Gee, I hate to be so negative today, but I don't think you'd be very happy with the brew so produced. The problem is with step 2. The heat that drives off the alcohol will also drive off

other volatile flavor components, leaving your brew poorer for the experience. Also--and this is pure speculation on my part--since heat increases the speed of most chemical reactions, certain reactions (e.g. oxidation reactions) which don't occur at fermentation/storage temperature might occur rather quickly at alcohol evaporation temperature. Whatever this does to your beer, it's not likely to have a positive effect....

As I recall, one of the methods commercial breweries use to produce no-alcohol beer is a variation on this technique in which the evaporation is done in a partial vacuum, which allows the evaporation to occur at lower temperatures. Perhaps one of the numerous engineer-types on this forum can send you plans for a vacuum distillation device....

BTW, if you do try this method, be sure not to condense or in any other way keep the evaporated alcohol...producing distilled alcohol without the proper paperwork is literally a Federal offense. :^(

Ken Miller (a.k.a. the Library Gnome)
who thinks that "low alcohol" beer is anything with an S.G. < 1.070
kcmiller@sjsuvm1.sjsu.edu

Date: Wed, 13 Oct 93 08:07:17 EDT
From: poconnor@lager.tn.cornell.edu (Peter OConnor)
Subject: removing beer labels

A couple of days ago, it was suggested here that beer labels come off easily after a half hour soak in ammonia and hot water. I tried it last night and it works great. Just be sure to let the bottles soak long enough.

-pete

Date: Wed, 13 Oct 1993 08:07:47 -0400
From: Michael D. Galloway <mgx@ornl.gov>
Subject: Bacterial Cultures/COPS

hey ...

I've not seen a lot of traffic on the digest regarding the culturing of and pitching volumes of Brettanomyces cultures. I've got cultures of both B. Labicus and B. Bruxellancis (forgive the spelling, I'm a physicist, not a microbiologist) on slants. What should I do to prepare them to pitch. I'm comfortable culturing up yeasts from slants to pitching volumes, if that helps. Also, what are the appropriate methods of sanitation to use after using the bacterial cultures.

>
>Well--it happened again. in the Syracuse area, WSYT, the local Fox
>affiliate showed the infamous COPS episode with the guy with Homebrewing
>equipment. Anyone got those addresses available--and did it run in other
>areas? This show was on at 10 PM monday nite.
>

Yeah, it aired in Knoxville TN on fox the other night too, at 6:30 pm.
Pure
trash.

Thanks, michael

Date: Wed, 13 Oct 93 08:33:08 EDT
From: Bob_McIlvaine@keyfile.com
Subject: Maple Brews

Read the post about maple beers.
I have a friend who makes maple syrup
up in Maine. Recently, he attended a
maple festival and returned with a
cookbook of maple recipes from the
1800's. In the book are two recipes
for maple brews. The recipes include
such ingredients as checkerberries,
pah-sis-o-wah (both members
of the wintergreen family which are
native to New England) and, believe
it or not, hemlock tips (I'm going to
substitute spruce, I think it'll be safer).
Since I missed the checkerberry season
this year, I'll try it next year.

Date: 13 Oct 93 09:12:09-0400
From: MATTHEW.BOHNE@sprint.sprint.com
Subject: Compare Contrast Kits vs Scratch

I have made beer both by kit, and by scratch, and I have had mixed results. I have used the "Malt Extracts" in the orange cans and I have used the Coopers Ale Malt Extracts (\$15.00 a can, Expensive!). I have made ok beer with the Orange cans and made a pretty acceptable Oz lager with the other. I tried a batch from scratch (Imperial stout) and It came out bitter, not to mention I now have beer all up inside my stove after it over boiled... I followed the directions provided in my Beer Bible but, I guess things went south somewhere. What I really would like to do is brew a beer that is similar to the great beers of Austria (St Augustiner Brau - brewed by Trappist monks in Salzburg not that crap you get in the bottle imported from Germany). I have also been contemplating a Heife Wiezen. My problem is this, what would be better:

Brew using a kit? If so:
which one is best(brewform,Orange, etc)?
Is it better to buy kits from mail order (cheaper,better quality) ?
If so who, in your experience has been the best to deal with?
Any recipes?

Brew from scratch?
to boil or not to boil?
Strain vs grain bag
Note worthy recipes?
Brew kits are much more expensive, but for their ease are they worth it?
Is their quality better than what most can create?

I would really appreciate everyone's input on this, as I would like(as well as many others out there) a little wisdom from some of you who have been brewing for a while.

Carboy Dieum

Thanks,
Matthew Bohne

Date: Wed, 13 Oct 1993 09:22:22 EDT
From: Matthew Evans <matt@cadif.cornell.edu>
Subject: Re:Carboy handles: A Better Solution?

I haven't actually tried the carboy handles that were described, but I think I lucked out and found a better way to move carboys. The carboy that I conveniently "found" was an old glass spring water bottle. But what made this carboy even better was that it had its own wooden crate that provides a great way to lift the carboy when full. The way the thing is built it also protects it from being banged around when moving (this carboy has moved over 1000 miles without any special padding).

You still wind up lifting the carboy from the sides, but you still are a lot better off than hugging your beer (although I guess there is something to be said for that too!) to move a full carboy. If you would like more info, or dimensions send me a message. Good luck.

- --Matt Evans

Date: Wed, 13 Oct 93 09:25:45 EDT

From: pblshr@aol.com

Subject: Re: Kegging Systems

In the October 12 issue, someone was kind enough to publish the phone numbers of two keg sources. I copied them to my clipboard... forgetting I already had some other junk on it.

Now I can't retrieve the issue again. If you copied the numbers... or if you posted the numbers, please send them to me, Tom Finan. My address is PBLSHR@aol.com

Date: Tue, 12 Oct 1993 19:48:19 UTC+0100
From: "David S. Reher" <soso203@sis.ucm.es>
Subject: Spain.

Is there anyone on the list interested in homebrewing that lives in Spain?
I am looking for a homebrewing accesory outlet in Spain. Does anybody know of one? Thanks.

Antonio S. Reher
soso203@sis.ucm.es

Date: Sat, 9 Oct 1993 16:49:53 UTC+0100
From: "David S. Reher" <soso203@sis.ucm.es>
Subject: Spain.

Is there anyone on the list interested in homebrewing that lives in Spain?
I am looking for a homebrewing accesory outlet in Spain. Does anybody know of one? Thanks.

Antonio S. Reher
soso203@sis.ucm.es

Date: Wed, 13 Oct 93 08:51:00 CST
From: Montgomery_John@lanmail.ncsc.navy.mil
Subject: smokin' grains

Reading the past couple of articles regarding smoked porters has peaked my interest. I'm considering trying a batch of this stuff.

The one brewer mentioned he had a real pit smoker (smoke area off to the side of the pit fire). I, on the other hand, have one of the tower type smokers. Has anyone smoked grains in one of these things? What are any special tricks to getting the most out of the smoking? I'm wondering if the temp gets too hot in these that one ends up burning the grains before achieving smoke flavor in the grain.

You may email me directly and I'll be glad to post a summary of responses (if I get any :)). Thanks...

jm
montgomery_john@lanmail.ncsc.navy.mil

Date: Wed, 13 Oct 93 10:05:39 -0400
From: Jim Frost <jimf@centerline.com>
Subject: Rolling Rock Boch

Anyone else try Rolling Rock Boch yet? If not, do so -- nice color,
taste and aftertaste.

jim frost
jimf@centerline.com

Date: Wed, 13 Oct 1993 09:08:33 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: younger's no. 3

In Scotland, McEwan's has an ale known as 80 Shilling or IPA, with a gravity of 1042. In England -- spotted in London in The Sun -- you'll find Younger No. 3, a cask-conditioned ale of SG 1043. Think of this as an example of AHA Scottish Export. In the US, you'll find the bottled counterparts to these two beers. The IPA goes by the same name, and I don't remember the name of the other beer, but it might be McEwan's Export. In some parts of the U.S. you might find McEwan's Scotch Ale, but at SG 1088, this is a much stronger beer. If anyone has access to the Scotch Ale, send me one :-).

Date: Wed, 13 Oct 93 08:43:16 -0600
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: Reply to Chris Seiders' question

In HBD#1246, Chris Seiders <SEIDERS@HANDI.MED.UTAH.EDU>
writes:
>Subject: Stuck Fermentation? a Beginner's Question

>ICAgICBTaW5jZSB0aGlzIGl1IGl1IG15IGZpcnN0IHBvc3QgdG8gdGhpcyBsaXN0LCBw
>bGVhc2UgYmVhcnB3aXR0IGl1LiAgSSBhbSBuZXcNCmF0IGJyZXdpbmcsIGFuZCBo
>YXZlIHJlY2VudGx5IHN0YXJ0ZWQgbXkgc2Vjb25kIGJhdGNoIG9mIGJyZXcuICBJ

Yes, I've had this problem myself.

>IGhhdmUNCmVuY291bnRlcmVkJHNvbWUgdGhpbmdzIHdoawNoIEkgaGF2ZW4ndCB1
>bmNvdW50ZXJlZCBiZWZvcmlzaW5nIG9uQpvmx5IHRoZSBz
>ZWNvbmQgYmF0Y2gpIGFuZCBhbSBsb29raW5nIGZvciBzb21lIHdvcmlzaW5nIGFk
>dmljZS91bnNvdXJhZ2VtZW50Lg0KSSBzdGFydGVkIGFuIGFsbC1leHRYWYN0IEJy

Fortunately, the solution to this is very easy: just Relax, Don't
Worry, and Have a Homebrew!!

>b3duIE51dCBBbGUgb24gU2F0LiBBZnRlciBib2lsaW5nIHRoZSBleHRYWYN0IGZv
>cg0KMSBociBJIGFkZGVkIGl0IHRvIG15IDUgZ2FsbG9uIGdsYXNzIGNhcmJveSBh

This is pure Hogwash! Don't believe everything Jack tells you!!

>bmQgYnJvdWdodCBpdCB1cCB0byAlIGdhdGxvbnMNCndpdGggd2F0ZXIuICBJIHRo
>ZW4gY29vbGVkIHRoZSBjYXJib3kgaW4gYSB3YXRlci9pY2UgYmF0aCB1bnRpbCBp

Ouch!! Trying using more Vaseline next time!

>dCBjb29sZWQgdG8NCjc2+EYgYXQgd2hpY2ggcG9pbmQgSSBoeWRyYXRlZCB0aGUg

You're welcome!

Kelly

Date: Wed, 13 Oct 1993 09:55:00 -0400 (EDT)
From: ERIC FERIS 703-308--8048 <FERIS.ERIC@epamail.epa.gov>
Subject: new at all grain - how 2 make tuns?

In the last week or so I've been reading this, it's like I've stumbled on a treasure trove of brewing knowledge here. You guys are some serious brewers -- just the type of forum I need to learn the finer points of making excellent brew.

I've been brewing with concentrated worts from extracts using some grain supplements for a few months and I'm ready to make the leap to all-grain brewing. I'd rather make my own equipment whenever possible as much of the ready-made stuff is much more pricey than the sum of its parts. I am wondering about the best way to go about making a mash tun and a lauter tun. I have only seen them vaguely described, and never seen a detailed diagram of how they are built. I would prefer to avoid the food bucket route as it seems they are a bit on the small side. I understand you can make a mash tun out of a big picnic cooler. Is that right? If so, how does the heating system work without burning the cooler? Also, how do you keep the heating element from burning the grain?

Thanks for your feedback - it sure is nice to be able to ask real experts about this!

Regards,
Eric

Date: Wed, 13 Oct 1993 09:43:43 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: starter gravity

Many thanks to the Coyote for addressing my yeast population concerns in Wednesday's HBD.

Rather than doing this privately, I shall expose my shameful ignorance to all, thinking that having this question answered on-line may be helpful to those who are either newbies or are like me (want to make better beer but hate math).

SO: how much extract do I add to how much water to get SG 1020, 1030, etc?
Inquiring minds want to know.

Jonathan Knight
Grinnell, Iowa

Date: Wed, 13 Oct 93 11:04:04 EDT
From: Lee=A.=Menegoni@necotech.com
Subject: Beer color and competition

RE: A recent HBD post about beer color and competition.
Color is a minor factor in the total score. It accounts for a maximum
of 2 of 50 points.

Date: Wed, 13 Oct 93 10:14 CDT
From: arf@mcs.com (Jack Schmidling)
Subject: Milling and Mashing

>From: polstra!larryba@uunet.UU.NET
>Subject: Re: Wort Processors Mill Evaluation

>I agree that grit size and uniformity is more important than husk damage.
this is most true about modern 2-row grains. I have personally used two lauter designs: a perforated false bottom and a slotted copper manifold.
In both cases too fine a grind is a disaster regardless of the quality of the husks.

My recently posted tests results with flour made from a Corona indicate that a third lauter design is worth looking into.

> The problems are two fold. First the flour tends to ball up and make a dough that is dry inside. This occurs during mash in and is a royal pain to get rid off.

That is most absurdly so and the only problem I had with the Corona flour.
I can imagine what a real pain it would have been in a full sized batch.

>Second problem is the stuck sparge. I had never seen one until I used a roller mill that was set way too close (.025") and the sparge locked up after a couple quarts. No dribble, nothing. Just like the valve had been closed.

Not so with the easymasher. The flow with the flour was no different than with a "normal" crush.

>The malt mill I have produces a course crush (e.g. looks like cornmeal) with pretty much intact husks. I have lautered a 15.5 lb mash and recovered 11.5 pretty much intact husks. I have lautered a 15.5 lb mash and recovered 11.5 gallons of 1.046 wort in 20 minutes. That is .034pt/lb/gal for you guys interested in the efficiency game. Since it was a pils, using only pils malt, the number wasn't too unexpected.

Just for the record, Larry's mill is a fixed spacing model and makes a good case for my contention that adjustability of spacing, on a well designed roller mill, is of no real value to the home brewer. It is offered as an option because people think they need it and the customer is always right.

js

Date: Wed, 13 Oct 1993 07:52:13 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Over boiling

Rob Toutkoushian asks in #1246 if his low S.G.s could be caused by "over boiling" his extract based wort. He further explains that he gets a lot of "gunk" on the bottom of the brew kettle.

Given that you are indeed following the recipe, and I assume you are doing a high gravity boil, then perhaps you are burning the wort. As you vigorously stir you simply allow fresh wort in contact with the too hot kettle bottom and burn more of the fermentables to the bottom of the pot. I don't know your boiling set up but if it's an electric stove you may be forced to use the highest setting (cherry red) just to get a boil. Since you are not boiling to reduce your wort volume perhaps you could cover or partially cover the kettle (WATCH FOR BOIL OVER) and this might allow you to turn down the heat. Also thin bottom pots tend to get hot spots, so switching to a thicker bottomed kettle may help, though this may not be financially possible.

Also 44 12 oz bottles, with head space accounted for, is exactly 4 gallons, and in my experience an uncovered good rolling boil evaporates just about 1 gal/hour.

Good luck, keep us informed.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

End of HOMEBREW Digest #1247, 10/14/93

Date: Wed, 13 Oct 1993 09:25 -0600 (MDT)
From: Chris Seiders <SEIDERS@HANDI.MED.UTAH.EDU>
Subject: Stuck Fermentation?

ICAgICBTaW5jZSB0aGlzIGlzig15IGZpcnN0IHBvc3QgdG8gdGhpcyBsaXN0LCBw
bGVhc2UgYmVhciB3aXRoIGl1LiAgSSBhbSBuZXcncmF0IGJyZXdpbmcsIGFuZCBo
YXZlIHJlY2VudGx5IHN0YXJ0ZWQgbXkgc2Vjb25kIGJhdGNoIG9mIGJyZXcuICBJ
IGHhdmUNCmVuY291bnRlcmVkaHNvbWUgdGhpbmdzIHdoawNoIEkgaGF2ZW4ndCB1
bmNvdW50ZXJlZCBiZWZvcuUgKG5vdCBzdXJwcm1zaW5nIG9uIQpvmx5IHRoZSBz
ZWNvbmcQgYmF0Y2g2pIGFuZCBhbSBsb29raW5nIGZvciBzb21lIHdvcuRzIG9mIGFk
dmljZS9lbnNvdXJhZ2VtZW50Lg0KSSBzdGFydGVkIGFuIGFsbC1leHRyYWN0IEJy
b3duIE5ldCBbbGUgb24gU2F0LiBBZnRlciBib21saW5nIHRoZSBleHRyYWN0IGZv
cg0KMSBociBjIGFkZGVkIGl0IHRvIG15IDUgZ2FsbG9uIGdsYXNzIGNhcmJveSBh
bmQgYnJvdWdodCBpdCB1cCB0byAlIGdhdGxvbnMNCndpdGggd2F0ZXIuICBJIHRo
ZW4gY29vbGVkIHRoZSBjYXJib3kgaW4gYSB3YXRlci9pY2UgYmF0aCB1bnRpbCBp
dCBjb29sZWQgdG8NCjc2+EYgYXQgd2hpY2ggcG9pbnQgSSBoeWRyYXRlZCB0aGUg
d29ydCBieSBYb2xsaW5nIHRoZSBjYXJib3kgYXxvbmcdGhldQpraXRjaGVuIGZs
b29yIGFsb25nIHdpdGggc29tZSBtYW51YWwg2hha2luZy4gIEkkgdGh1biByZWh5
ZmJhdGVkIG15IHllYXN0DQooMTRnKSBpb1AxLzIyY3VwIG9mIDkw+EYgd2F0ZXIu
Zm9yIGVlIGl1pb1BiZWZvcuUgYWRkaW5nIHRvIHRoZSB3b3J0Lg0KRmVybWVudGF0
aW9uIGJlZ2FuIHF1aWNrbHkgKHdpdGhpb1AzIGHvdXJzKSBhbmQgYXxvdCBvZiBj
cmFwIGJzZXcgb3V0IG9mIG15DQoxIiBibG93b2ZmIHR1YmUgKGFwcHJveCAyIHF1
YXJ0cyBibG93b2ZmKS4NCg0KTm93IHRoZSBwcm9ibGVtOg0KICAgICBJIG5vdG1j
ZWQgdGhhdCB0aGUgYmxvd29mZiBzdGFuZSB0YWQgcHJldHR5IG11Y2ggc3RvcHB1
ZCBhcyBvZiBzYXN0DQpuaWdodCAoTW9uLikuIEkkgcmVwbGFjZWQgdGh1IGJsb3dv
ZmYgdHVlZSB3aXRoIGEGZmVybWVudGF0aW9uIGxvY2ssIGJldCBpdA0Kbm93IGFw
cGVhcnMgYXMGaWYgZmVybWVudGF0aW9uIGhcyBzdG9wcGVkIGNvbXBsZXR1bHks
IGl1IEkkgZG9uJ3Qgc2VlIGJlYmJsZXNMcNvbWluZyB0aHJvdWdoIHRoZSBsb2Nr
LiAgTXkgcHJldmlvdXMgYmF0Y2ggd2FzIGEGc3RvdXQga2l0IGFuZCBmZXJtZW50
YXRpb24NCnNlZW1lZCB0byBjb250aW51ZSB0aHJvdWdoIHRoZSBsb2NrIGZvciBh
dCBsZWZzdCBhIGdv2Qgd2VlayBhZnRlciByZW1vdmluZw0KdGh1IGJsb3dvZmYu
IE15IGNhcmJveSBpcyBsb2NhdGVkIGluIGEGY2xvc2V0IHdoawNoIGt1ZXBzIGl0
IGF0IGFib3V0IDc0+EYudQpJcyB0aGlzIG5vcmlhbD8gIFNob3VsZCBJIHdhaXQg
YmVmb3JlIGJvdHRsaW5nIG9yIGdvIGFoZWZkIGlmIHRoZQ0KZmVybWVudGF0aW9u
IGhcyBzdG9wcGVkPyAgQWZ0ZXIgb25seSAzIGRheXM/ICBQbGVhc2UsIG9oIHZl
dGVyYW5zIG9mDQpob211YnJldywgcGFzcyBkb3duIGFueSB3aXNkb20geW91IG1h
eSB0YXZlIG9uIHRoaXMgc3ViamVjdC4gSSBhbSBiZWVvbWluZw0KcXVpdGUgY29u
ZnVzZWQvZnJlc3RyYXRlZCBzaW5jZSBjIGZlZWwgbGlrZSBjIGFtIHN0aWxsIHNo
b290aW5nIGluIHRoZSBkYXJrDQp3aXRoIGVhY2ggc3Rlc4gVGHhbmzIQ0KDQpD
aHJpcyBTZWlkZXJzIChtRU1ERVJTEhBTkRjLk1FRC5VVEFILLkVEVskNCg0K

Date: Wed, 13 Oct 93 11:19:41 EST
From: JIM MCNUTT <INJM%MCGILLB.BITNET@VM1.MCGILL.CA>
Subject: Beer in Anaheim, CA

I'll be attending a conference in Anaheim, CA during the middle of November. Does anyone have any suggestions for brew-pubs or good types of beer for that area. Please email directly to my email address. Thanks.
Jim McNutt

Date: Wed, 13 Oct 93 11:29:09 -0400
From: polstra!larryba@uunet.UU.NET
Subject: Fast, Cool Sparges and Malt Charactor

Folks following my postings (sparse as they are) will note that I am a proponent of fast sparges. I always let my sparges run as fast as they can and I typically get very good extract yields from my mashes. My second to last batch was 20 min for 11 gal at ~34 pt/lb/gal. I also typically skip mash out maybe heating the mash to 158-162 just to maintain a mash bed temp of 140-150 and to force conversion if the iodine test is not negative after 20-30 minutes.

Once, a year or two ago, I asked the forums if there were any negative issues w/regard to fast sparges. I got no responses. Well, at the last Seattle Brews Brothers meeting I was talking with a brewer about malt character and mashing techniques. Many brew brothers do decoction and modified decoction mashing claiming improved malt character. This guy's claim was that fast, cool sparges produce low malt character. He said that he always runs a very hot sparge (180 or higher) because that husky graininess makes for more malt character.

This guy also suggested an experiment for me to do to test out his ideas: next time I begin to lauter a 10 gal batch, to set aside 2 gallons of mash and bring it to a rolling boil before adding it back into the lauter tun. I guess this a way of simulating a decoction mash and the caramelization that occurs during the boils. He claimed that the change in malt and physical characteristics of the mash would be obvious as I brought the 2 gallons to a boil.

The question: What do folks think of this theory and the experiment? Am I likely to just end up with a bad starch haze and a puckery beer? Will I be safe from a starch haze due to the low temps of my lauter and the fact that I rarely mash for more than 40-50 minutes (two/three step infusion mash) there should be plenty of enzyme activity in the mash?

- Larry Barelo

Date: Wed, 13 Oct 1993 10:39:38 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: rotten egg smell in fermentation

This is approaching Frequently Asked Question status on HBD, so here's a brief explanation.

The rotten egg smell is hydrogen sulfide -- H₂S. Just-fermented green beer contains detectable levels of hydrogen sulfide, and the threshold value for this compound in beer is in the 5 - 10 ppb range. Hydrogen sulfide is present in wort, but is driven off during the kettle boil. Sulfur-containing volatiles, including hydrogen sulfide, are formed by some strains of yeast during primary fermentation. The level of hydrogen sulfide is reduced during beer maturation, and is presumed to take place as a result of the scrubbing action of carbon dioxide bubbles when produced in a beer fermentation. In conclusion, reduction of H₂S occurs during secondary fermentation, and is therefore one reason among many to consider doing a secondary fermentation.

Date: Wed, 13 Oct 93 9:40:38 MDT
From: npyle@n33.stortek.com
Subject: GABF Size

Chris asks whether the GABF equates to the AHA nationals for the pros. I don't know that much about the AHA, but I think the GABF is open to all professional brewers, regardless of affiliations. Many brewers there are Institute for Brewing Studies members, but not anywhere near all of them. This thing has gotten so big, though that it is difficult to get any idea of what's available.

I would like to see several regional ABF's and have the GABF an invitation-only affair. The invites would go to the regional winners in each category. That way the regionals would be of a more reasonable size and so would the GABF (used as a national run-off competition). I went to the Saturday afternoon tasting and back again Saturday night, and I don't think I made a dent in the total number of beers there (nor would I try). Does anyone else think this thing is a leviathan? Dr. Fix, I believe you had one of the judging jobs, which should give you some insight into the organization. Is my idea feasible, possible, or a pipe dream?

norm

Date: Wed, 13 Oct 93 12:16:00 EDT
From: andrewb6@aol.com
Subject: Re: William Younger's No. 3

Ah, that brew of brews, that nectar of nectars, that heavenly concoction worthy of any man's affection. No. 3 is the beer for which I yearn. You're right it is an British brew, made by William Younger which is part of the Scottish and Newcastle group. I believe it is still made in Edinburgh, Scotland, and is typically consumed only in Scotland and the North of England.

I must admit in my younger days (not too long ago) I consumed a cask or two of this beer, but as is typical of so many Britons, we spent many hours enjoying the brew and little time analyzing and pondering it's complexity. In other words I can't give you too much in the way of a description.

Commonly thought of as a bitter, it's somewhere between a bitter and a brown ale. At first glance it looks black, and when served properly it's topped by a thin layer of dense creamy head. However when held up to the light (even in it's customary pint glass) it reveals a beautiful rich, ruby red color.

It is certainly malty, but not sweet, and is balanced well by bitterness. As I recall it has an OG of about 1058. Michael Jackson gave it a poor review in his last book, and mentioned that it had a cult following. This last fact I can certainly attest to. Even the casual mention of it's name would cause a seasoned beer drinker to salivate and become glassy eyed (much as I am now). IMHO it's a fine beer and compliments William Younger's Scotch Ale and IPA. As far as alcohol content goes, maybe Jackson's book will tell you, but I can't put a number to it (but from experience, nine pints of No. 3 and you're really under the table).

I'm not so sure about your comments on "Lager Louts". This beer is as far from being a lager as budlite is from being full-bodied. But if a football hooligan did take to drinking this beer, I would have to consider it his one redeeming feature.

As far as finding it on this side of the pond--good luck. Unless things have changed in the last couple of years, No. 3 is only produced in cask form, and they don't ship it very far (in fact I've never seen it in the south of England). If you find out otherwise, let me know at

all-speed.
If you need to know more I'll gladly research it for you :-)
going --I'm
back home for Christmas.

Date:Wed, 13 Oct 1993 13:00:39 EST5EDT
From: TSAURET@Hermes.GC.PeachNet.EDU
Subject: Re: flaked Maize

Recently a I tried to add flaked maize to my wort, but I was unable to get the maize to pass the iodine test. I followed the instructions from THE JOY OF HOME BREWING, but after two hours gave up trying to pass the iodine test. The beer has been in the bottles a week now and evrything appears fine. Has anyone else run into this problem? What did I do wrong? Thanks, Tom Sauret

Date: Wed, 13 Oct 1993 14:08:21 -0500 (CDT)
From: tony@spss.com (Tony Babinec 312 329-3570)
Subject: beware of glycogen depletion

Intermittent posts to hbd have called attention to yeast pitching rate and the consequences of underpitching. A perhaps more serious concern is yeast vitality as measured by yeast glycogen content.

Glycogen depletion is a consequence of long storage times, warm storage temperatures, and number of other causes. Pitching glycogen-depleted yeast can result in problems with the primary fermentation and the finished beer:

- sluggish fermentation
- slow attenuation
- higher terminal gravity
- poor flocculation
- poor alcohol production
- high diacetyl
- high SO₂
- high acetaldehyde
- less flavor stability and shelf life.

All the more reason to build up yeast in some starter wort before pitching into your beer.

Date: Wed, 13 Oct 93 15:38:25 EDT
From: cmryglot@disney.CV.COM (Chuck Mryglot X6024)
Subject: filters

To those who filter:

Is a 5 micron filter small enough to bother with?
5 micron filters are ease to find but I can't seem to find any
that are smaller. Sears has 5 micron filters for \$4.00 each.

Is it best to use the fiber filter or the resin, or does it
matter? Also, does filtering have any effect on carbonation?

Thanks for your help.

cmryglot@aecmail.cv.com

Date: Wed, 13 Oct 1993 12:53:23 -0700
From: paul@rational.com (Paul Jasper)
Subject: Re: William Younger #3

On 12 Oct, 9:51, Todd Jennings wrote:

> Subject: William Younger #3

>

> I have heard of a brew by the name of WILLIAM YOUNGER #3; read about it
> in a soccer magazine, actually. In the mag article, the brew is
> described as "the ruin of a good many young men". The article goes on
to

> refer to the beer as the preferred brew of LAGER LOUTS, the British
> football hooligans we hear so much about.

>

> Is there anyone who can tell me what the story is with this apparently
> British beer, i.e. what is the style, and where can one get it here in
> the States(if anywhere)? I assume it's a bitter ale, but perhaps I am
> off the track here. Can't wait to find out!!

>

>-- End of excerpt from Todd Jennings

It doesn't seem very likely that "Lager Louts" would drink Youngers No. 3
(no # sign, since this meaning does not extend to the UK), it being a
dark ale. Football hooligans in general would be hard pressed to find it
outside of certain areas. It's made in Edinburgh by Scottish &
Newcastle,
one of the large national brewers, but isn't commonly available in their
pubs. S&N are the brewers of McEwans Export, widely available in the US,
but I doubt that they export a keg version of No. 3 (especially as I've
only seen it in cask-conditioned form).

No. 3 is fairly rich, a little stronger than ordinary ales at OG 1043,
and
if served with a head keeps it pretty well. In good condition it can be
quite delicious. I'm not sure what style I would attribute to it - it's
too strong for a dark mild and not as strongly flavored as a porter.

Bass have a range of strong canned Scottish beers popular with certain
types of soccer fan. They include Tennants Super (such beers are often
named like grades of gasoline), also known colloquially as "Doom". Since
this is also favored by drunks and winos as a quick and cheap way to get
blitzed, I wouldn't really recommend it as a fashionable new trend with
which to associate oneself. :^)

- --

- -- Paul Jasper
- -- RATIONAL
- -- Object-Oriented Products
- --

Date: Wed, 13 Oct 93 15:40:00 PDT
From: "Moore, Brian" <Moorebw@hvsmtpl.mdc.com>
Subject: Alcohol Percentages

Hello out there,

I've got a question not really about homebrew, but about beer in general. This originally started with my desire to get more exciting microbrewed beers here in the beer wasteland of Alabama. About the most exotic thing we can currently buy is the Samuel Adams Boston Lager. Figuring this was a (good) starting point, I called the local distributor and asked if they were planning to bring in any of the other Sam Adams beers. The distributor said they were working on getting another, the Octoberfest, but that there were some that they could never get (the Double Bock).

According to the distributor, all beers in the state of Alabama must be less than 4 percent alcohol (I'm not sure if this was buy weight or volume). We have Guinness, Bass, Hofbrau, etc. I thought that Guinness and some of the others would be higher than 4 percent.

This leads me to wonder if brewers brew different versions of beer for different states. Does anyone out there in HBD-land have any knowledge on this subject?

Brian Moore

Date: Wed, 13 Oct 93 15:47:00 PDT
From: "Goodman, John" <Goodmjo@hvsmtpl.mdc.com>
Subject: carboy disasters

Dick Dunn's summary of carboy handle experiences prompted me to send a warning/bit of painful advice to all of you brewers:

> - A full carboy weighs a bunch; *any* sharp shock--regardless of whether

> a handle is involved--can break it. They are sturdy but not indestruc-

> tible, so be careful but not paranoid.

ABSOLUTELY!!

When a carboy breaks, it tends to form some pretty large shards of glass that are capable of slashing through skin to the underlying bone quickly and

quite painlessly. Unfortunately, the repair (Read: Numerous stitches and probing for glass slivers) involves quite a bit of pain and downtime of the

limb. I never used a carboy handle or anything similar until after my accident a few weeks ago. Luckily, no beer was lost - just a 5 gal carboy.

Since then, I have kept my carboys in plastic milk crates - great for transporting the full ones around (especially when wet), and they fit nicely

in my wetbulb container and chest freezer.

Be careful, don't regress to plastic if you break one, and above all - NEVER

SHOW FEAR TOWARDS THE BEER.

John Goodman

Date: Wed, 13 Oct 1993 17:08:44 -0400 (EDT)
From: Kieran O'Connor <koconnor@mailbox.syr.edu>
Subject: Addresses for COPS

Here are addresses for COPS--one for the program creator, and one for the local affiliate in Syracuse, NY

COPS c/o STF Productions
P.O. Box 900
Beverly Hills, CA 90213

Jeryl Jonza
Program Director, WSYT - Channel 68
1000 James St.
Syracuse, NY 13203

Thanks for the info--Rick

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu
Syracuse, N.Y. USA

Date: Wed, 13 Oct 1993 16:16:07 -0500 (CDT)
From: "Robert K. Toutkoushian" <TOUTKOUS@vx.cis.umn.edu>
Subject: Re: low O.G. readings and boiling wort question

Hello again:

Thanks to everyone for the great suggestions concerning how to properly add extracts to water when boiling, and reasons why the O.G. readings I have been getting might be lower than expected. Let me pass along what I have learned:

I had a problem with adding extracts to my boil, in that I have been getting some of the extracts sticking to the bottom, despite stirring. Several people have suggested that one should (1) bring the water to a boil, (2) remove from heat, (3) add extracts, and (4) put back on high heat and bring to a boil once the extracts have dissolved. It is important to then keep on a high boil in order to bring out the proper flavors of the hops, etc. Previously, I had been bringing the water to a boil, and adding the extracts directly to the boiling water while the pot was still on the stove, hence the scorching and the "gunk".

Concerning the low O.G. readings, someone pointed out that if I was doing a partial boil, where I add the wort (extracts + 1.5 gallons water) to 3.5 gallons of water, then it is probable that the specific gravity of the wort at the top of the fermenter will be lower than the specific gravity at the bottom if the extracts settle to the bottom. (er, that word was supposed to be "specific").

Anyway, thanks to all again...I really appreciate the continued great advice of the subscribers here!

Rob Toutkoushian
University of Minnesota
INTERNET: toutkous@vx.cis.umn.edu

Date: Wed, 13 Oct 93 17:33:38 CDT
From: jay marshall <marshall@pat.mdc.com>
Subject: Re: counter pressure filler (was Kegging systems)

Don asked about counter pressure fillers:

I got a counter pressure filler from Benjamine Machine Products that seems to work well. I posted the same question to the net, also asking for comments on the Foxx CPF. The general consensus was that the Foxx product was not well made, and that the BMP CPF was a good buy. I got one, used it, and had a problem with it leaking when the liquid valve was closed. Made for quite a mess until I got the process down. I called

BMP and asked about it, and the guy said it was unusual, but not unheard of, to have a problem with the valve seat. He said to take it off, send it back, and if there was a problem with it he would replace it. When I went to take it off I found that it was loose to start with. I'm thinking

that this may have caused the problem, but I won't have a chance to check it out until next week. BTW, the BMP CPF was supposedly designed by Micah Millspaw who, if you are a long time reader of the HBD, you recognize

his name. If you don't, he was the source of some very good information and

is now the head brewer at some place in California (I think).

BMP has ads in most (including the latest) issues of Zymurgy. If you don't have access to it, let me know and I'll dig it up for you. Price was about \$55 with shipping.

BTW Don, I tried to email directly to you, but my mailer daemon doesn't recognize all those !'s in your address. If you have an address that is in internet format you might add it to your signature.

- - -

Jay
marshall@pat.mdc.com

Date: Wed, 13 Oct 1993 21:02:41 -0700
From: robl <ROBL@outside.com>
Subject: request

homebrew-request%hpfcmr@hplabs.hp.com
robl@outside.com
=====

Robert Linder
phone 206-487-3656 fax 206-487-3773

=====

Date: Wed, 13 Oct 93 09:31:03 EDT
From: Hal Laurent <laurent@tamrc.ENET.dec.com>
Subject: Handles for 6.5 gal carboys

>From: rcd@raven.eklektix.com (Dick Dunn)
>
> I have to qualify that slightly: I did hear from one person who had put
> a
> carboy handle on a 25-liter (6.5 gallon) carboy, and had seen some (my
> interpretation) crazing around the neck. It didn't actually break off,
> but
> he was (justifiably) scared away from using it. The reason I discount
> this
> one data point is that the carboy handles are not designed to fit that
> size
> of carboy. Obviously they weigh more, but the main issue is that the
> neck
> diameter is different.

Does anyone make carboy handles big enough to fit the 6.5 gallon carboys?
I would definitely buy one if I could find one.

Date: Thu, 14 Oct 1993 07:48:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: Hard Cider Recipe?

Hello All,

Does anyone out there have a good recipe for Hard Cider? A bunch of my homebrewing cohorts and I are going to make some (40 or so gallons between us) next weekend, if we live through the New England Brewer's Fall Festival that is. We plan on making the cider ourselves, as I have access to a cider press, so we don't have to worry about watered-down commercial cider. Any suggestions would be welcome.

Oh, BTW for all of you involved in the bogeyman/boogie man controversy, look up piss-ant in the dictionary. (hint: it has something to do with splitting hairs!)

Cheers!

Pam

Date: Thu, 14 Oct 1993 08:43:51 -0400
From: Kevin O'Connor <kocon@ctp.com>
Subject: Chris Seiders' article

This was Chris Seiders' article. It was base-64 encoded (a MIME encoding format). As he says, please bear with him.

Chris, try to tell your mail package to send mail to the digest in clear form.

The message:

Since this is my first post to this list, please bear with me. I am new at brewing, and have recently started my second batch of brew. I have encountered some things which I haven't encountered before (not surprising on only the second batch) and am looking for some words of advice/encouragement. I started an all-extract Brown Nut Ale on Sat. After boiling the extract for 1 hr I added it to my 5 gallon glass carboy and brought it up to 5 gallons with water. I then cooled the carboy in a water/ice bath until it cooled to 76xF at which point I hydrated the wort by rolling the carboy along the kitchen floor along with some manual shaking. I then rehydrated my yeast (14g) in 1/2 cup of 90xF water for 15 min before adding to the wort. Fermentation began quickly (within 3 hours) and alot of crap blew out of my 1" blowoff tube (approx 2 quarts blowoff).

Now the problem:

I noticed that the blowoff stage had pretty much stopped as of last night (Mon.). I replaced the blowoff tube with a fermentation lock, but it now appears as if fermentation has stopped completely, ie I don't see bubbles coming through the lock. My previous batch was a stout kit and fermentation seemed to continue through the lock for at least a good week after removing the blowoff. My carboy is located in a closet which keeps it at about 74xF. Is this normal? Should I wait before bottling or go ahead if the fermentation has stopped? After only 3 days? Please, oh veterans of homebrew, pass down any wisdom you may have on this subject. I am becoming quite confused/frustrated since I feel like I am still shooting in the dark with each step. Thanks!

Chris Seiders (SEIDERS@HANDI.MED.UTAH.EDU)

I have had an experience like this myself with an unbelievably fast (seeming) fermentation. Actually mine may have even been faster, 2 days if memory serves

me. Check your specific gravity. If you are down around 1010 or so for a brown ale, I would go ahead and bottle. It won't hurt to let it sit a bit too as long as there is still CO2 in the head space between the top of the carboy and the top of the fermenting beer.

The batch that fermented fast on me was good drinking, so hopefully yours will be too. Good luck!

~~~~~  
~~~~~  
| | Why we are here:
Kevin G. O'Connor | /// | To tremble at the terrible beauty
Cambridge Technology Partners | / /_./ | of the stars, to shed a tear at
kocon@ctp.com | / /./ | the perfection of Beethoven's
+1 617-374-8286 | /// | symphonies, and to crack a cold
| | one now and then. - D. Letterman
~~~~~

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Date: Thu, 14 Oct 93 07:59:06 -0500  
From: zentner@ecn.purdue.edu (Mike Zentner)  
Subject: Chullhee C Cho cho@MINERVA.cis.yale.edu

I tried to send you chiller plans, but your mail keeps bouncing with  
unknown QM user  
if you want these, send me your real email address.  
Mike Zentner zentner@ecn.purdue.edu

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Date: Thu, 14 Oct 1993 9:10:34 -0400 (EDT)  
From: Josh Stillerman <JAS@HARPO.PFC.MIT.EDU>  
Subject: Mini Kegs

Someone gave me a 5 Liter Co2 charged mini Keg recently.  
Only it did not come with any directions. (Like how full  
to make it, how to tap it, how to adjust the Co2, etc...)  
Has anyone used one of these beasts? Any sugestions would  
be greatly appreciated.  
josh

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Date: Thu, 14 Oct 1993 10:03:23 -0400 (EDT)  
From: R\_GELINAS@UNHH.UNH.EDU (Russ Gelinias)  
Subject: COPS and AHA

For you AHA people out there: Did your organization ever contact the producers of COPS, Fox channel 25, or the police department "featured" in that infamous homebrewing issue of the COPS show? Seems to me that the defense of the hobby of homebrewing, and the education of the general public about the hobby, should be among the highest of the AHA's priorities. Certainly the fact that the AHA's president's book (Complete Joy of Homebrewing) was shown in an extremely negative light on national television should warrant(!) some sort of response. Perhaps you could ask your membership for donations to be used for a 30 second TV ad:

"Hi, I'm Charlie Papazian, president of AHA and author of TCJOH. Perhaps you've seen my book featured in the back seat of a police car on the show COPS. While the AHA in no way condones any illegal activity, making beer and wine for personal consumption is legal in all 50 states. (ed. true yet?)

As in all hobbies, the advanced homebrewer requires specific equipment, much of which looks similar to that used in the illegal process of distillation. The AHA does not condone the production of distilled liquors. It is illegal and dangerous. But once again, the homebrewing of \*beer and wine\* \*is\* legal.

Homebrewing is an enjoyable and creative hobby...founding fathers brewed.. helps the economy....personal freedoms...for more info call..."

You get the idea.

Russell Gelinias  
esp/opal  
unh

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Date: Thu, 14 Oct 1993 10:31:02 -0500 (EDT)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: RE:iodophor & yuppies

In the last digest:

<Date: Tue, 12 Oct 93 20:29:28 -0400  
From: Eric M. Mrozek <mrozek@horowitz.eecs.umich.edu>  
Subject: Idophor question

<> I just finished a batch of spiced ale. Actually it started as a Belgian Brown > ale, but I used Iodophor(sp?) to clean with and found that I can not tolerat

Watch those line lengths...

Iodophor is not to blame for a flavor defect in the beer. Look for changes in your technique. 1 oz iodophor per 10 gallons. I rinse my kegs even at this concentration. I do not rinse and rinse and rinse..just once or twice. Some dont rinse. I personaly like using Iodophor.

<Date: Tue, 12 Oct 1993 17:15:12 -0700 (PDT)  
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>  
Subject: Brewpub review

<The rise in popularity of microbrewing and specifically brewpubs is beginning to develope and ugly side, and I have recently seen this side in the form of the Belmont Brewing Company of Belmont Shores, California.

<I guess it should come as no suprise that as brewpubs are becoming more and more trendy, there will be some designed especially to appeal to the yuppy set.

While I can be critical of many breweries and dont object to Mark being critical of the beers at this brewery, I do feel Mark is being a bit naive in his critisim of any establishment targeting certain individuals/groups of consumers. This is after all a buisness. This buisness requires a hefty capital investment. People expect a reasonable return on investment, in a reasonable timeframe. Is it really suprising that a brewpub in southern California is targeting the yuppy audience? Whats wrong with this? Dont these people have the liquid assets to pay off the breweries debt? How many other towns have brewpubs oriented to this segment of society? Gorden Biersch is one of the most successful brewpubs ever and the Palo Alto location has consistently been bashed for this "yuppy thing". As Dan prepares to open his fourth brewery, he's laughing all the way to the bank.

Good brewing,  
Jim Busch



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Date: Thu, 14 Oct 1993 09:26:44 -0500 (UTC -05:00)

From: ROWLEY@kuhub.cc.ukans.edu

Subject: The Great Boogy Conundrum

Ulrich, korz and arf commnet on the correct spelling of [boogy]. Well, the sociolinguist side of me wants to say that all dialectical variants are equally valid, but the frosted wheat side agrees with the idea that you all should consult a good dictionary. The use of American Heritage and Webster's should be avoided at all times. Both of these companies are so popular because of cheapness and self-censorship. They both got contracts in primary and secondary schools nation-wide by kow-towing to "concerned parents' groups" which objected to inclusion of certain words and ideas. Instead get ye to an OED, an Oxford unabridged or a Random House. After seven years in the book biz, I should know. Let's leave it at that and get back to some brewing :\*) (Tip O'Neil nose)

Matthew Rowley  
Dept of Anthropology  
University of Kansas

rowley@kuhub.cc.ukans.edu

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Date: 14 Oct 93 10:10:00 EST  
From: "CANNON\_TOM" <CANNON\_TOM@hq.navsea.navy.mil>  
Subject: More on the GABF

Message Creation Date was at 14-OCT-1993 10:10:00

I just got back from my first trip to Denver and my first GABF. First, let me say it was a great experience. I went to all three sessions, and despite the crowds on Friday and Saturday nights, I got to taste any beer I wanted with minimal difficulty. Concur completely with the Alaskan Brewing Company's Smoked Porter and the Vermont Pub and Brewery's Tartan Wee Heavy. Both deserved their gold medals. Also, any visitor to Denver must spend adequate time at The Wynkoop (adequate means as much time as possible). Great beer, great brewpub.

That said, I was wondering if anybody out there who doesn't live in eastern Colorado is happy about the GABF always being held in Denver? This includes brewers and potential attendees. Why not move the thing around the country so more people have the chance to go to and participate in the event? I'm sure Denver is convenient to the guys who run the festival, but there are beer lovers across the country who deserve a chance to try the beers. It is, after all, the Great AMERICAN Beer Festival, so let's send it all over America. I'm sure Charlie P. will appreciate any input.

Tom Cannon  
DH Brewery  
Fairfax/Annandale VA

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Date: Thu, 14 Oct 93 10:15:48 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: Subject: Mashout revisited and pH

After reading all the accounts of mash out free sparges, and in need of doing a quick lager batch so I'd have krausen for 2 batches that had been hanging around for a while I tried a quickie brew - not my usual decoction effort. I mashed in at 124 (still nervous about

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Date: Thu, 14 Oct 93 11:30:29 EDT  
From: garti@mrg.xyplex.com (Mark Garti)  
Subject: gravity change for 1 pound dme in 6 gallons

to what extent will 1 pound of dme change the gravity of  
6 gallons of water (or 1032 wort at 65C-70C).  
mrgarti@eng.xyplex.com

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Date: Thu, 14 Oct 93 10:37:39 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: Mashout revisited and pH

After reading all the accounts of mash out free sparges, and in need of doing a quick lager batch so I'd have krausen for 2 batches that had been hanging around for a while I tried a quickie brew - not my usual decoction effort. I mashed in at 124 (still nervous about omitting the protein rest) by adding the grain (9lb 2 row, 1/2 Cara, 1/2 crystal) to 136F water in my cooler with copper manifold false bottom. After 1/2 hour infused boiling water to 146, and after another 1/2 hour infused water to 155. After an hour total I attempted a runoff with no mashout and ran into difficulites. Part of the problem was stuff coming through somehow - maybe due to mashing in the lauter tun, but it wasn't long before the runoff died a death. Naturally I cursed all those on hbd who said mashout weren't necessary, and cursed my bad judgement against going against a procedure that worked well for me. Eventually I started to sparge after recirculating much cloudy reheated runoff, and managed to free up the sparge with a knife quite well so that the total time was only slightly longer than it would have been if I'd mashed out and sparged. It would be fair to note that the problem may have been a very thin mash (after all the infusions) which compacted the bed. I may try again sometime, but in meantime will stick to tried and trusted procedures.

Ken Miller incorrectly states that the amount of acid to be added is dependent on the pH. It is dependent on the buffering capacity of the water - basically the amount of carbonates. A water with a very high pH >9 may be so because it is so soft, and may require no acid for a mash to reach the right range. If the water is fairly hard acid is needed except for the blackest stouts and porters. I suggest the original questioner get pH papers and add conservatively the first time till the right range is reached. Thereafter it is much easier.

I am sure it would be possible to do it without indication by getting a water analysis and working out stoichiometrically how much acid is needed to neutralize most of the carbonate and then carefully measuring out that correct amount of acid - carefully noting the concentration and density of the acid when doing so. A micropipetter would be needed unless the acid was diluted, and in the absense of an accurate guage conversion factors to tablespoons would be needed. It probably wouldn't be too gruesome, and I may even do it as an excercise some time - for 100 ppm carbonate per 5 gallon add 2 tablespoons of lactic acid diluted 1-10, unless there is chocolate malt in the grist, add 2.3 that amount and when the moon is full...

---

'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.

Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@darwin.cc.nd.edu

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Date: Wed, 13 Oct 1993 23:43:49 -0800  
From: scott@fm.gi.alaska.edu (Scott Stihler (USGS analyst))  
Subject: Eisbock

Greetings,

Living in Fairbanks, Alaska what could be a better beer to brew than an Eisbock.

Does anybody out there have experience making Eisbocks? If so can you give me some advice? What is the best way to rack the beer off once ice crystals form?

In terms of IBU's what range is appropriate to the style? I know from Micheal Jackson's book that the original gravity should be around 1.096 but that's about all I know. If anybody has more information regarding this style I'd like to check it out.

Cheers,

Scott

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Date: Thu, 14 Oct 1993 08:57:02 -0700 (PDT)  
From: Shawn Nunley@Novell.COM (Shawn Nunley)  
Subject: Re: Beer Drinks

Sean Taylor asked about Beer Drinks, so here is one that can be fun...

Flaming Dr. Pepper from Hell

This drink requires a shot glass and a tumbler style glass. Fill the shot glass with Amerretto (sp?) and the tumbler half full with beer. The idea is to have just enough beer to cover the shot glass when you drop it in the tumbler. Now, light the Ameretto (2nd try at spelling) and let it get pretty warm, not too hot. When the time is right, drop the shot glass in the tumbler. That's right, drop the whole shot glass in the tumbler so that it is standing up on the bottom of the glass. Now drink the whole thing as fast as you can. The Ameretto will pour out with the beer yet will remain kind of seperated. The resulting taste is remarkably close to a Dr. Pepper. This is a fast drunk, BTW. Hangover City too.

Shawn

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Date: Thu, 14 Oct 93 10:14 CDT  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: mashout

Tallying the responses from both HBD and email, it appears that there are quite a few homebrewers out there who do not perform a mash-out. More so than I imagined. And of course, there were the traditionalists who tried to defend the mash-out ceremony. Homebrewing makes for strange bedfellows.

> Chris mentioned one of the benefits of mashout (the debated  
> one), but failed to mention the one on which most of us agree,  
> namely mashing out raises the temperature of the mash much  
> quicker than simply pouring sparge water and therefore more  
> quickly decreases the viscosity of the runnings. Runnier  
> runnings mean faster sparging (without a loss of extract  
> efficiency), less chance of a set mash (stuck runoff) and more  
> efficient extraction of sugars. Remember, warm honey pours  
> easier than cold honey.

>  
> Al

Ok I'll bite. Where's the dividing line between "warm honey" and "cold honey" i.e. at what point do wort sugars flow and not flow? I skip the mash-out and sparge with 170-180 F water. I usually sparge 5 gallons of water in 30-45 minutes. My mashing efficiencies are consistently over 80%. Given these facts I think it's safe to assume that wort sugars flow without a mash-out.

> I agree that the reasons you quoted are not very rational  
> reasons for doing a mashout but there is one reason that I think  
> is a good one. By raising the whole mash 20 degrees or so, you  
> stand a far better chance of keeping it in the optimum range  
> during the lautering process. It's easy enough to do for those  
> who kettle mash but it is probably not worth the trouble for the  
> bucket infusers.

>  
> js

Ouch. An idol's dagger plunges the deepest. You assume that we all agree there is an optimum range and that thus there is a need to be within that range. I do not support such assumptions. I skip the mash-out and consistently get good yields. It should also be noted that I use a picnic cooler and never perform a protein rest (Belgian malts). I won't tell you how I grind my malt because I'll be forced to use the "C" word.

Looks like Godzilla and Mothra have teamed-up to combat the onslaught from BOQAT. So far BOQAT remains unscathed. Can Tokyo withstand another melee? Tune in tomorrow. Egg rolls served during the matinee.

chris campanelli

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Date: Thu, 14 Oct 93 13:00:54 EDT  
From: andrewb6@aol.com  
Subject: re: William Younger's No.3 (again)

In 1247 re: Younger's No. 3, Tony Babinec writes:

>In Scotland, McEwan's has an ale known as 80 Shilling or IPA, with a gravity of 1042. In England -- spotted in London in The Sun -- you'll find Younger No. 3, a cask-conditioned ale of SG 1043. Think of this as an example of AHA Scottish Export. In the US, you'll find the bottled counterparts to these two beers. The IPA goes by the same name, and I don't remember the name of the other beer, but it might be McEwan's Export. In some parts of the U.S. you might find McEwan's Scotch Ale, but at SG 1088, this is a much stronger beer. If anyone has access to the Scotch Ale, send me one :-).

Perhaps I misinterpreted, but it seems that you're implying that McEwan's 80 shilling and/or IPA are the Scottish version of Younger's No.

3. Not True!

Both t

he 80 shilling (written 80/-, and often referred to as 80 bob) and Younger's

are available in the north of England. While it is true that No.3 is a cask

conditioned ale and 80/ is served from a keg with a higher level of carbonation, these are two separate beers (not the same beer dispensed differently). No. 3 is darker and to my recollection much more malty. In my earlier post (which will probably appear in

this issue) I suggested that No.3 has a gravity in the 50's. I think perhaps my thirst was impairing my memory--1043 sounds right.

Incidentally, S&N make scotch ales under the names of McEwan and Wm. Younger. Here again, Younger's is cask conditioned and McEwan's is

not. As to wheth

er they are the same beer masquerading in different containers, I can't really say, but I suspect not. I have not seen the IPA over here, but you

are right that the 80/- is sold as McEwans Export. Incidentally, the canned

version is sold under the name of McEwans Export in Britain, too -- but of

course they're bigger cans : - )

Not a flame, just a clarification (I hope).

\*\*\*\*\*  
\*\*\*\*\*

\*Andrew Baird \* A good pilot is one who's made the same number of  
\*

\*AndrewB6@aol.com \* landings as take-offs!  
\*

\*\*\*\*\*  
\*\*\*\*\*

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Date: Thu, 14 Oct 93 12:21 CDT  
From: David Atkins <ATKINS@macc.wisc.edu>  
Subject: hemlock and cranberries

Hello readers.

I recall someone not wanting to use hemlock in a brew recipe. The hemlock mentioned in the recipe is not the weed that took Socrates out of circulation. The non-toxic hemlock is a coniferous tree and harmful only if it falls on you (confermation for an authority knowledgeable person would be appreciated).

Of course, since I'm not a toxicologist or forestry prof. or Ewel Gibbons I don't condone or encourage the consumption of this or any other sylvia. I had some spring water once that poured over the fallen trunk of a hemlock...if beer could ever taste that good.

Also, I'm going to skin the cat's meow in search of extract recipes utilizing cranberries...'tis the cranberry season. If anyone has any other experiences/favorites, I would eagerly read them.

Thanks,  
David Atkins  
atkins@macc.wisc.edu

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End of HOMEBREW Digest #1248, 10/15/93  
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Date: Thu, 14 Oct 93 13:20 CDT  
From: arf@mcs.com (Jack Schmidling)  
Subject: Just the Facts, Please

>From: Kelly Jones <k-jones@ee.utah.edu>

>In HBD#1246, Chris Seiders <SEIDERS@HANDI.MED.UTAH.EDU>  
writes:

>>b3duIE51dCBBbGUgb24gU2F0LiBBZnRlciBib2lsaW5nIHRoZSBleHRYYWN0IGZv  
>>cg0KMSBociBJIGFkZGVkIGl0IHRvIG15IDUgZ2FsbG9uIGdsYXNzIGNhcmJveSBh

>This is pure Hogwash! Don't believe everything Jack tells you!!

Learn how to read! It was Korzonas who said:

>>  
oaWNoIEkgaGF2ZW4ndCB1bmNvdW50ZXJlZCBiZWZvcmlzaW5nIG9uDQpvbm  
>>x5IHRoZSBzZWNvbmQgYmF0Y2gpIGFuZCBhbSBsb29raW5nIGZvciBz

I said:

>>>mUNCmVuY291bnRlcmVkJHNvbWUgdGhpbmZlIHdoWNoIEkgaGF2ZW4ndCB1  
>>>bmNvdW50ZXJlZCBiZWZvcmlzaW5nIG9uDQpvbmx5IHRoZSBz  
>>>ZWNvbmQgYmF0Y2gpIGFuZCBhbSBsb29raW5nIGZvciBzZ21lIHdvcmlzaW5nIGFk  
>>>dmljZ

And if either of you knew what you were talking about you wouldn't say  
such  
silly things.

js

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Date: 14 Oct 93 20:03:20 GMT  
From: GANDE@slims.attmail.com  
Subject: Last Year's Hops

It's past harvest time for most hop growers and the '93 crop is available for purchase at most locations. It seems that one can still get '92 hops at a really good price since most vendors want to unload them.

Would anyone know what percent of Alpha Acid has been lost in the 1992 crop, assuming they were stored under optimum conditions? I just purchased about a pound and would like to adjust my recipes.

TIA....Glenn Anderson

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
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Date: Thu, 14 Oct 1993 14:41:00 +0000  
From: "Rick (R.) Cavasin" <cav@bnr.ca>  
Subject: re:Maple syrup/sap

I believe it's the Niagara Brewing Co. of Niagara Falls, Ontario that brews a 'Maple Wheat' beer. It's around 8 percent alcohol by volume (if memory serves). This may be to ensure some residual sweetness. The maple flavour is definitely subdued, and mostly detected in the finish. A nice enough beer, but not something I'd go out of my way for (it's fairly pricey too), but then I've never been big on strong beers. Perhaps I should get a bottle to refresh my memory re: specifics of its flavour, etc.  
Cheers, Rick C.

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Date: Thu, 14 Oct 93 14:12:15 CDT  
From: hplabs!mcdcup!tellabs.com!don  
Subject: Bottle labels

> I'm setting up a homebrewing "kit" for a friend for Christmas,  
> including two cases of M\*ller longnecks in the waxed cardboard  
> cases. I'd like to minimize the time/effort in removing the  
> foil labels. In the past I've tried a variety of solvents, boiling  
> water, wire brush, razor blade, etc. but never found a combination  
> that worked well. Anyone have any tricks for this? Please don't  
> suggest other bottle types, I already have the empties, and I'm  
> a big fan of clear bottles.  
I've had good luck using a mix of bleach and TSP to clean real grungy  
bottles. Make some with real hot water and soak overnight. By morning  
most of the labels usually fall off. Some bottles are real tough though  
namely, Legacy lager. They get real slimy.

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Date: Thu, 14 Oct 1993 12:43:34 -0700  
From: paul@rational.com (Paul Jasper)  
Subject: Re: younger's no. 3

On 13 Oct, 9:08, Tony Babinec 312 329-3570 wrote:

> Subject: younger's no. 3

>

> In Scotland, McEwan's has an ale known as 80 Shilling or IPA, with  
> a gravity of 1042. In England -- spotted in London in The Sun --  
you'll

> find Younger No. 3, a cask-conditioned ale of SG 1043. Think of this  
> as an example of AHA Scottish Export.

Pardon? Unless the AHA styles are even more bizarre than I recall,  
Younger's No. 3 is nowhere close to a Scottish Export. It's more like  
a strongish dark mild or a mildish/sweetish porter.

> In the US, you'll find the

> bottled counterparts to these two beers. The IPA goes by the same  
> name, and I don't remember the name of the other beer, but it might  
> be McEwan's Export.

McEwan's Export definitely isn't the same beer as Younger's No. 3.  
Although they're both brewed by Scottish & Newcastle in Edinburgh,  
the former has OG 1046 and is a dark amber color, and the latter is  
OG 1043 and dark brown. Roasted barley vs. crystal malt, I'd say.

I don't know if the IPA is the same or not. I'm not very impressed  
by any of S&N's pasteurized products, so if I have seen the IPA  
around I probably just ignored it... :^)

> [...]

>-- End of excerpt from Tony Babinec 312 329-3570

- --  
- -- Paul Jasper  
- -- RATIONAL  
- -- Object-Oriented Products  
- --

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Date: 14 Oct 93 14:06:00 CST  
From: "DEV::SJK" <SJK%DEV.decnet@mdcgwy.mdc.com>  
Subject: Belmont Brewing Co.

I have to respond to Mark's comments about the Belmont Brewing Company. Let me first admit that while the BBC is one of my favorite brew pubs, it's mostly because of the location (which is ON the beach with a fabulous view) and the fact that it is only a 20 minute walk from my house ;-). In this light, I'd mostly just like to take the edge off of some of Mark's comments.

As far as the food is concerned, it's unfortunately very variable. The pizzas are all good as is the tortellini with sausage. The chicken and mushroom pasta is very bland. This regrettably leaves very few choices. The food, in my opinion, is the BBC's weakest link.

Now to the beer. Mark is essentially correct and the beer varies a little more in quality than it probably should. The Marathon is to be avoided. It is VERY light, and doesn't have enough body or taste to cover the minor errors which are obviously made with this beer. The Strawberry Blond is a Marathon with much too much strawberry flavor. Cut the berries back a little and you'd have a fine specialty beer, with the berries covering up some of the problems with the Marathon. Then again, they may just be making what people want. They sell a lot of it. Order a glass rather than a pint.

The Sail Ale (not mentioned by Mark) is excellent and is my favorite. It is described as a pale ale, but it's really more in the Blue Heron tradition (as opposed to Bass) and is almost, but not quite, an IPA. (BTW, I hear Bridgeport is thinking about maybe considering the possibility of sending some of their production from their new facilities to CA. Oh please, God, I'll do ANYTHING... Any real info on this out there?). The Crude is also very good, but could be a little more distinctive.

Also, I disagree with Mark in that I have always found the BBC's beer to be a little over-hopped. Haven't been in a month or so; maybe they're trying to widen their market by dropping their hop rate. I also haven't noticed excessive yeastiness, except maybe in the Marathon which is always cloudy.

Concerning prices, I think they are comparable to other restaurants in the area. After all, this is L.A. (more or less) and they are on the beach. I've always found the service to be better than average.

There are other points in the BBC's favor, but I think I'll just say that they've been very consistent, and gotten consistently better, since they opened. Two of their four beers are very good and the view is worth the trip. Don't write them off completely.

Mark made one comment that really didn't sit right with me, and that was his description of the BBC as trendy. I won't say that it isn't, because I'm not exactly sure what he means, but don't ALL brewpubs "cater specifically to trend followers"? At still less than 1% of the national beer market, I'd have to say that ALL brewpubs and micros could be said to fall into the "trend" category. And if fruit beers are a trend, then I'm all for being trendy. If the decor is what Mark meant by "trendy" (oak, brass, a few plants, fish tank), remember they have an ocean view and want to show it off. They necessarily have a lot of glass. A traditional English pub would be better off somewhere else.

Besides, who would begrudge a yuppie (do they still exist?) a good beer once and awhile? They're misguided maybe, but not evil. (Buttweiper is the ugly side of brewing, if you ask me.) I have a feeling I know what Mark's next L.A. area brewpub review is going to be like. No slam intended, I just don't think he's going to find what he's looking for.

Mark is really on pretty firm ground as I know others who don't care too much for the BBC. On the other hand, I know a lot more people that do. So, is the BBC worth the trip? I think so. Is it worth a repeat visit? That depends on how far you live from Hopland.

Scott Kaczorowski  
sjk%cl7fcs.decnet@mdcgwy.mdc.com

P.S. While I'm here, I'd like to make a request: No more b\*g\*yman, please. If we're going to split hairs, we should at least keep it in the area of brewing (trub, anyone?).

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Date: Thu, 14 Oct 93 17:07:58 EDT  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 14-Oct-1993 1706  
<macneal@pate.enet.dec.com>

**Subject: Maple in beer and wort chiller length**

For what it's worth, Sam Adams Cranberry Lambic claims to use maple syrup to balance the tartness of the cranberries.

Please, let's not start again with the Koch bashing. I'm simply passing on some info about the use of maple syrup in a commercial beer.

Someone asked about appropriate length for a wort chiller. When this was asked awhile ago, I dug out my copy of the Chemical Engineers' Handbook and posted some equations. You can probably find it in the HBD archives. You need to make some assumptions and decide on the maximum amount of time you want to spend in cooling the wort to come up with a length.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Thu, 14 Oct 93 14:17:09 -0700  
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
Subject: Oxidation and Filtering

>Date: Tue, 12 Oct 93 13:05 CDT  
>From: korz@iepubj.att.com  
>Subject: RE: STRAINING YOUR BREW

>  
>Matthew writes:  
>>I have one of those handy brew kits you get for Christmas with the 6 gal.  
>>carboy. I realized after my 1st batch that I was getting a lot of haze in my  
>>beer so I thought I might strain it prior to bottling. What I came up with has  
>>been REALLY NICE! I used one of those reusable GOLD plated coffee filters  
>>(you can get them at any fancy coffee shop). I setup my 2nd carboy underneath  
>>the 1st and placed the filter inside of a funnel (perfect fit) and drained off  
>>the beer from the top, up to the last inch of trub. The filter is coarse  
>>enough that the beer gets through but fine enough that it catches all the crud  
>>that's still floating about. Since I've gone to this, I have truly had nothing  
>>but crystal clear beer!  
>  
>Crystal clear maybe, but probably quite oxidized. Does your beer have a sherry-like aroma? I think you may want to try to find the source of your  
>haze (perhaps you are just not waiting for the yeast to settle -- some strains  
>take quite a while -- maybe just try a different strain). As the fermented-  
>out beer falls from the funnel into the 2nd carboy, you are going to introduce  
>a lot of oxygen (unless you purge the carboy with CO2, perhaps) and this will  
>give your resulting beer sherry-like or wet-cardboard aromas.  
>Al.

OK, I'll be the heretic. Hey, new brewers! DON'T worry about oxidation when transferring to secondary. The beer is cool and saturated (probably supersaturated) with CO2. If it foams a little when you transfer it there is virtually no way it will oxidize, because CO2 is coming out. If it doesn't foam when you transfer it it was probably in primary too long and you might as well bottle it. I can't see any harm in what is described here. Filtering hot wort is one thing, filtering cool fermenting beer is something entirely different.

Relax, have a homebrew, and shove that nasty ol' oxidation bogeyman back in the closet where it (usually) belongs.

- --arne

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Date: Thu, 14 Oct 93 15:02:50 PDT  
From: relay.hp.com!daver!nexgen!bart (Bart Thielges)  
Subject: hot priming

When I prime my fermented beer with corn sugar, I usually cool the priming solution to 70F with an ice bath before mixing with the beer. (Egads ! I've just publically admitted to both priming and use of corn sugar. There goes my chances of CamRA membership !)

I've always thought that this step is probably not necessary since the thermal mass of 1 pint of 200F sugar water is nothing compared with 5 gallons @ 70F. So what if I zap a few yeast cells on the initial contact ? They don't have very good lawyers anyway.

I've never had the guts to actually risk a batch with this hot combination experiment. Has anyone else done this successfully ? I'd like to simplify my process.

Thanks,  
Bart

Brewing equipment destroyed while typing this message : 0

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Date: Thu, 14 Oct 1993 18:02:37 -0400 (EDT)  
From: "Christopher V. Sack" <cvsack@mailbox.syr.edu>  
Subject: Adjusting water pH

On Thu, 14 Oct 1993, Ken Miller, responding to Phil Brushaber, wrote:

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> Phil Brushaber solicits non-basic information:
>
> ... Text deleted ...
> > Any guess on how much of this 88% Lactic Acid I might use
> >to adjust the PH in 5 gallons? You know something like: "1 tsp of
> >88% Lactic acid should lower 5 gallons of liquid by .4 PH degrees".
> >I could use trial and error but I've got a hunch that someone
> >out there may have the answer or be familiar with this stuff.
>
> Sorry, it isn't that simple. pH is a logarithmic scale, and the
> degree of lowering will depend on both the volume and pH of both
> the liquid and the acid. If you know the exact pH of your water, it
> is possible to calculate the amount of lactic acid needed to lower
> 5 gallons of it to a specified pH. (When I get my hands on a
> Merck Index, I'll post the equation.)
>
```

Sorry Ken, it isn't that simple. Not only is pH logarithmic, the change of pH depends on the composition of the solution to be adjusted. The information you get from Merck Index, Handbook of Chem & Physics etc. will all be for distilled water. The dissolved things in tap water (metals, salts, minerals, organics, etc.) may buffer the water to some extent. Buffering means that the pH is \*more resistant\* to change, ie. more acid is needed to effect a pH drop.

```
> In practice, it's probably easier to use trial and error, since
  ^^ ^^^^^^^^^^^ ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
> tap water pH can vary from brewing to brewing .....
> Dave Miller (in TCHOHB) recommends diluting the lactic acid first,
> using a ratio of 3 cups water to 2 tsp lactic acid; ....
>
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Both of Ken's statements make good chemical sense. Remember 88% lactic acid can cause \*serious\* burns if splashed on bare skin.

Chris  
Besides - "If I knew what I was doing, it wouldn't be research!" Anon.

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+-----+
|          Christopher V. Sack |
| / ) | / / ) | Graduate Student |
| / / | / / ( ) | Dept. of Chemistry |
| / / | / / ) | /State Univ. of N.Y. |
| / / | / / / / | Syracuse, NY 13210 |
| ( )/* | /* ( / ( / ( / | / / <cvsack@lor.syr.edu> |
+-----+
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Date: Thu, 14 Oct 93 22:32:49 EDT  
From: blazo@aol.com  
Subject: Making drinks with Beer?

In HBD #1247, sean v. taylor <sean@chemres.tn.cornell.edu>  
RE: Subject: Beer Drinks writes the following:

>Anyways, I wondered if other people had heard about making  
drinks with beer? Now, I've heard of adding some woodruff or  
raspberry liqueur to a Berliner Weiss, a lemon to hefeweizen, and even  
mixing  
fermented apple cider to ale, but I've never heard of beer  
being used as merely an additive in some drink concoction. Has  
anybody else?

In London, England they mix bitter orange soda with beer and call the  
resultant beverage "Shandy". In some parts of England this is called  
"Orange  
Shandy" and other soda beverages, Cherry, for instance, mixed with beer  
would  
be called "Cherry Shandy".

It is almost shameful to admit it but (shudder) Orange Shandy tastes  
pretty  
darn good as a "lawnmower style" malt beverage. I know that this  
probably  
offends the sensitivities of most of this audience, but, refuse to judge  
until you've tried it. Mix equal parts Schweppes Bitter Orange with  
Double  
Diamond and see what I mean!

-blazo

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Date: Thu, 14 Oct 93 16:46:11 MDT  
From: npyle@n33.stortek.com  
Subject: Jim Koch won't shut up!

Having visited the 1993 GABF, and enjoyed the news that Boston Beer Company did not win any gold medals, I was dismayed to read the following in "The Brew Review" (copied without permission, so sue me. No wait, how about 30 lashes with a siphon hose?):

"GABF CONTINUES NEGOTIATIONS WITH BOSTON BEER COMPANY"

"Boston Beer Co. has changed their promotional print and point of sales printed material to comply with the new GABF post-event publicity rules. However, Boston Beer Co. intends to continue its non-complying radio advertising, promoting its late 1980's wins in the Consumer Preference polls. For the purposes of avoiding litigation, the Rules Committee has voted to allow the Boston Beer Co. to participate in the 1993 Festival, in spite of its use of radio advertising statements regarding Consumer Preference poll awards that do not meet post-event publicity rules. The decision was made based on anticipated agreements and compliance in 1994. However, the Rules Committee continues to condition all brewery's participation, including the Boston Beer Co.'s, in the GABF on compliance with the post-event publicity rules with respect to any reference to Festival medal awards."

Unfortunately, it sounds like BBC's lawyers have won this round through coercion and the threat of lawsuits. Every brewery in the country appears to be complying with GABF rules except BBC. This hits me the wrong way. I have to admit I continued buying BBC products from time to time because I like the beer, though I always disliked the business practices (I'm so ashamed). This is the last straw, though, and I join the chorus here and now:

BOYCOTT BBC!!!

norm

Opinions expressed above are mine and mine alone. They do not represent the opinion of my employer in any way. (first time for that, sucks doesn't it?)

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Date: Thu, 14 Oct 93 10:03:19 MDT  
From: npyle@n33.stortek.com  
Subject: Re: beginning questions & begging all-grain questions

George Tempel asks:

>what equipment should I start out with?

You'll need:

3 gallon pot  
racking cane  
siphon hose, 6'  
ratcheting hose crimper  
air lock  
rubber stopper to fit your...  
fermenter  
bottles  
thermometer  
1" blowoff hose, 3'

>plastic vs glass fermenters.

I prefer glass.

>extract 'kits': good ones, bad ones

Pick a recipe from Charlie's book. Don't bother with kits.

>about how much \$\$\$ for equipment?

\$50 is a good guess.

>how much \$\$\$ for a 5 gallon batch?

\$20 is another good guess.

>can I brew 1/2 a recipe by cutting the ingredients?

Yes. Remember, George these are my own opinions and you could get a dozen answers to some of these questions. The equipment list I gave is a minimum. Things like a larger pot, a hydrometer, bottle washer, hop bags, etc. could be considered up front as well. If you get as hooked as the rest of us, you'll soon be buying more "stuff", which has been defined as anything you can use in homebrewing. "Junk" is defined as anything you thought could be used in homebrewing but can't. At least that's how I heard it.

\*\*\*

Matthew Bohne asks about using kits or not. I recommend you disregard brewing kits in general because there are so many good beginning recipes out there. They are easily done, and make better beer. TNCJHB and other books are loaded

with them. Boil or not? ALWAYS boil, just watch the boilovers. Don't boil grains, though, strain them out. BTW, Imperial Stouts are a fairly bitter product, with the alcohol bite, the dark grains, etc. (actually, I don't know if "bitter" is an accurate descriptor) Maybe you don't like Imperial Stouts.

\*\*\*

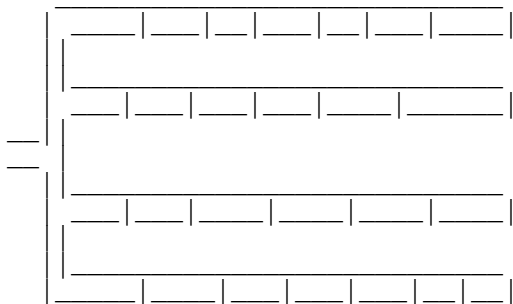
Kelly Jones forgot to mention:

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bmN(*&^(-- asdfDA;JFDV--9238VIJNCZ[CVZCXVHnIG9uDQpvbmx5IHRoZSBz
ZWNvbmQgYmF0Y2gpIGFuZCBh2-34798ADFVCV ;FD=GF9GUG SDFKJzIG9mIGFk
```

but otherwise his reply to Chris Seider was right on the money. (you can't remember everything, Kelly, especially after several homebrews!).

\*\*\*

Eric Feris asks about tun construction (but makes the mistake that he's talking to "experts" here). Eric, this is another place that you could get about 1735 different answers, depending on people's experiences, investments \$\$\$'s, time, etc. I use a 48 quart rectangular cooler as a mash / lauter tun. It has a copper manifold in the bottom which looks like this (bottom view):



There are numerous small slots cut into the pipe (1/2") with a hacksaw. The slots are on the bottom, away from the grain bed. The pipe drains out the hole in the cooler and makes a perfect fit with the gasket sold with the cooler.

Another way to do it is Jack's method, which is a single pipe with a piece of SS screen over the end to keep grain out of the pipe. In both cases the grain does the filtering, the "manifolds" only serve to pick up the liquid. One thing that needs clarification: if you build a mash/lauter tun from a cooler (an inexpensive option) you cannot add heat to it easily. Nobody I know has a heating element in their cooler tun, although its not impossible. Jack and some others mash in a kettle on the stove, which is handy for adding heat. A

large SS pot is way more expensive than a cooler, but a cheap canning pot could be used. For simple infusion mashes (one temperature) I don't need that capability. I add 1 quart of 170F water for each pound of grain in the cooler and it settles out around my mash temperature 152-154F. Here it is being used as a mash tun. After conversion, I start sparging and it is being used as a lauter tun. I see no need for separate tuns. Good luck in your tun construction; for me, it is almost as fun as brewing.

Cheers,  
norm

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Date: Fri, 15 Oct 93 00:22:50 PDT  
From: LIFE'S TOO SHORT TO DRINK CHEAP BEER <UNDERWOOD@INTEL7.intel.com>  
Subject: Info on Portland area

Hi all,

I will be up in the Portland, OR area this weekend and would appreciate any info on good brewpubs, micro tours, etc. (plus any other touristy things to do )

Thanks in advance,

Chuck

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Date: Fri, 15 Oct 93 10:40:33 +0100  
From: steve\_t@fleurie.inria.fr (Steven Tollefsrud)  
Subject: Raspberry or Peach beer...

I would like to try using raspberry or peach to flavor my next batch of beer, but I don't know what quantities to use. How should I vary the hopping levels when using these fruit adjuncts? Has anybody got a good recipe for an extract based peach or raspberry beer?

steve tollefsrud

e-mail: steve\_T@fleurie.compass.fr

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Date: Fri, 15 Oct 93 07:42:05 EDT  
From: pavao@ptsws1 (John D. Pavao)  
Subject: SPRUCE beer

Dear Homebrewers,

I am thinking about making an extract-based batch of spruce beer. I would be interested in comments about whether it's worth it, and if so, how much spruce should be used for a five gallon batch. Thanks in advance.

John  
pavao@ptsws1.npt.nuwc.navy.mil

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Date: Fri, 15 Oct 1993 07:18:17 -0500 (CDT)  
From: dspalme@mke.ab.com (Diane Palme x2617)  
Subject: Re: Stuck Fermentation?

Chris Seiders <SEIDERS@HANDI.MED.UTAH.EDU> writes:

>ICAgICBTaW5jZSB0aG1zIG1zIG15IGZpcnN0IHBvc3QgdG8gdGhpcyBsaXN0LCBw  
>bGVhc2UgYmVhciB3aXRoIG11LiAgSSBhbSBuZXcNCmF0IGJyZXdpbmcsIGFuZCBo  
>YXZlIHJlY2VudGx5IHN0YXJ0ZWQgbXkgc2Vjb25kIGJhdGNoIG9mIGJyZXcuICBJ  
>IGhhdmcUNCMVUy291bnRlcmVkJHNvbWUgdGhpbmdzIHdoawNoIEkgaGF2ZW4ndCB1  
>bmNvdW50ZXJlZCBiZWZvcuUgKG5vdCBzdXJwcm1zaW5nIG9uDQpvmx5IHRoZSBz

Well, I have found that TheosiEHRHWFnoierHeKehfdijef is of course the best solution to this problem.

>ZWNvbmQgYmF0Y2gpIGFuZCBhbSBsb29raW5nIGZvciBzb21lIHdvcuRzIG9mIGFk  
>dmljZS91bmNvdXJhZ2VtZW50Lg0KSSBzdGFydGVkIGFuIGFsbC1leHRyYWN0IEJy  
>b3duIE51dCBBBGUg24gU2F0LiBBZnRlciBib21saW5nIHRoZSBleHRyYWN0IGZv  
>cg0KMSBociBJIGFkZGVkIG10IHRvIG15IDUgZ2FsbG9uIGdsYXNzIGNhcmJveSBh

Hey! Didn't I see that on COPS last night?

>bmQgYnJvdWdodCBpdCB1cCB0byA1IGdhdGxvbnMNCndpdGggd2F0ZXIuICBJIHRo  
>ZW4gY29vbGVkIHRoZSBjYXJib3kgaW4gYSB3YXRlci9pY2UgYmF0aCB1bnRpbCBp  
>dCBjb29sZWQgdG8NCjc2+EYgYXQgd2hpY2ggcG9pbmQgSSBoeWRyYXRlZCB0aGUg  
>d29ydCBieSBYb2xsaW5nIHRoZSBjYXJib3kgaW4gYXVhcmVudGhldQpraXRjaGVuIGZs  
>b29yIGFsb25nIHdpdGggc29tZSBtYW51YWwg2hha2luZy4gIEkgdGh1biByZW55  
>ZHJhdGVkIG15IHllYXN0DQooMTRnKSBpbicAxLzIyY3VwIG9mIDkw+EYgd2F0ZXIu  
>Zm9yIDE1IG1pbiBiZWZvcuUgYWRkaW5nIHRvIHRoZSB3b3J0Lg0KRmVybWVudGF0  
>aW9uIGJlZ2FuIHF1aWNRbHkgKHdpdGhpbicAzIGhvdXJzKSBhbmQgYXVudCBvZiBj

Watch your language young man! I claim to be fairly thick-skinned but that's pushing it.

>cmFwIGJsZXcgb3V0IG9mIG15DQoxIiBibG93b2ZmIHR1YmUgKGFwchJveCAyIHF1  
>YXJ0cyBibG93b2ZmKS4NCg0KTm93IHRoZSBwcm9ibGVtOg0KICAgICBJIG5vdG1j  
>ZWQgdGhhdCB0aGUgYmxd29mZiBzdGFuZSB0YXVhcmVudGhldHR5IG11Y2ggc3RvcHBl  
>ZCBhcyBvZiBsaW5nIHRoZSBwcmVudGhldQpraXRjaGVuIGZsZm9yIGFsb25nIHdpdGggc29tZSBtYW51YWwg2hha2luZy4gIEkgdGh1biByZW55ZHJhdGVkIG15IHllYXN0DQooMTRnKSBpbicAxLzIyY3VwIG9mIDkw+EYgd2F0ZXIuZm9yIDE1IG1pbiBiZWZvcuUgYWRkaW5nIHRvIHRoZSB3b3J0Lg0KRmVybWVudGF0aW9uIGJlZ2FuIHF1aWNRbHkgKHdpdGhpbicAzIGhvdXJzKSBhbmQgYXVudCBvZiBj  
>dCBsZWZzdCBhIGdvb2Qgd2VlayBhZnRlciByZW1vdmluZw0KdGh1IGJsb2dvZmYu  
>IE15IGNhcmJveSBpcyBsb2NhdGVkIGluIGegY2xvc2V0IHdoawNoIGt1ZXBzIG10  
>IGF0IGFib3V0IDc0+EYuDQpJcyB0aG1zIG5vcmlhbD8gIFNob3VsZCBJIHdhaXQg  
>YmVmb3JlIGJvdHRsaW5nIG9yIGdvIGFoZWFKIGlmIHRoZQ0KZmVybWVudGF0aW9u  
>IGhcyBzdG9wcGVkPyAgQWZ0ZXIgb25seSAzIGRheXM/ICBQbGVhc2UsIG9oIHZl  
>dGVyYW5zIG9mDQpob211YnJldywgGFzcyBkb3duIGFueSB3aXNkb20geW91IG1h  
>eSBoYXZlIG9uIHRoawMgc3ViamVjdC4gSSBhbSBiZW5nIHRoZSBwcmVudGhldHR5IG11Y2ggc3RlcC4gVGh1bmtzIQ0KdQpD  
>b290aW5nIGluIHRoZSBkYXJrDQp3aXRoIGVhY2ggc3RlcC4gVGh1bmtzIQ0KdQpD  
>aHJpcyBTZWlkZXJzICHTRULERVJTEhBTkRjLk1FRC5VVEFILLkVEVSKNCg0K

Hmmm. This sounds like a good recipe. Maybe you should substitute 2 oz of ThoE RTOHosehqKJOHlke instead of 1 1/2 oz of YmVmb3JlIGJvdHRsaW5n as you mention above. Otherwise, I am really not sure what your problem is.

Good Luck! I look forward to more of your posts! ;-)

D.

- - -

Diane Palme  
Department Engineer, Central Inspection  
Allen-Bradley Co.  
(414) 382-2617  
dspalme@mke.ab.com

" I have found that it is much easier to fake an  
orgasm than to pretend to like basketball. "

Oh yeah, um, what I say is my opinion, um, what I think are my own ideas,  
uh,  
Allen-Bradley has nothing to do with them, uh, yeah. That's about it.

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Date: Fri, 15 Oct 93 06:45:04 PDT  
From: 15-Oct-1993 0941 -0400 <ferguson@zendia.enet.dec.com>  
Subject: Carboy "box" / Rock Bock

>Date: Wed, 13 Oct 1993 09:22:22 EDT  
>From: Matthew Evans <matt@cadif.cornell.edu>  
>Subject: Re:Carboy handles: A Better Solution?

>But what made this  
>carboy even better was that it had its own wooden crate that provides a  
great  
>way to lift the carboy when full. The way the thing is built it also  
protects

What I use is an old milk crate. This works nicely for handling full  
carboys  
and usually one get get milk crates for nuthin' if you look hard enough  
(or  
at Kmart for \$4).

>Date: Wed, 13 Oct 93 10:05:39 -0400  
>From: Jim Frost <jimf@centerline.com>  
>Subject: Rolling Rock Boch

>  
>Anyone else try Rolling Rock Boch yet? If not, do so -- nice color,  
>taste and aftertaste.

Yes, just tried it this past Tuesday night. Not bad stuff, IMO. To me,  
it  
tasted quite similar to Miller's answer to the Microbreweries (what was  
the  
name of that brew?). It hardly, IMO, qualifies as a Bock though!

- - - -  
JC ferguson  
Digital  
ferguson@zendia.dec.com

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Date: 15 Oct 93 09:49:37-0400  
From: ROBERT.URWILER@sprint.sprint.com  
Subject: Transporting Homebrew

I have recently bottled my first two batches of homebrew - one a light pilsner and the other a bitter ale. I would like to transport about a case of these bottles to Thanksgiving dinner (about a 7 1/2 hour car ride). Is there any danger in terms of exploding bottles during a long trip such as this? Also, assuming the sediment becomes disturbed during the ride, how long should I wait for settlement before opening?

Any tips for protection during transportation would be appreciated.

Thanks,

Robert Urwiler

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Date: Fri, 15 Oct 1993 09:25:17 -0500  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
**Subject: Not Legal Everywhere**

>making beer and wine for personal consumption is legal in all 50 states.  
>(ed. true yet?)

No, not true yet. In Missouri we are still dangerous criminals producing powerful, mood-altering drugs. Let's do keep our facts straight.

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Date: Fri, 15 Oct 1993 10:55:05 -0500 (EDT)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: 5 micron filters

> Date: Wed, 13 Oct 93 15:38:25 EDT  
> From: cmryglot@disney.CV.COM (Chuck Mryglot X6024)  
> Subject: filters  
>  
>  
> To those who filter:  
>  
>Is a 5 micron filter small enough to bother with?  
> 5 micron filters are ease to find but I can't seem to find any  
> that are smaller. Sears has 5 micron filters for \$4.00 each.  
>  
> Is it best to use the fiber filter or the resin, or does it  
> matter? Also, does filtering have any effect on carbonation?  
>

I have filtered a little bit of beer. I still dont filter most of my beer. Yeast cells are around 5-10 microns, so a 5 micron filter will remove most if not all of the yeast. I would avoid the filters sold in HW stores, they will be poor in efficiency, and basically become a \$4 one shot deal. I have used one as a one shot deal for a real coarse filtering to remove hop pellets. Invest in a reuseable 5 micron polypro filter from the filter store, 1-800-828-1494. Costs about \$25, good for at least 200 gallons. Filter flat beer, then force carbonate. Filtering has no effect on carbonation provided you use forced CO2.

If you want to remove protein haze, and reduce head retention, you can buy a sterile filter of .5microns, but it will cost ~\$32.

Good brewing,  
Jim Busch

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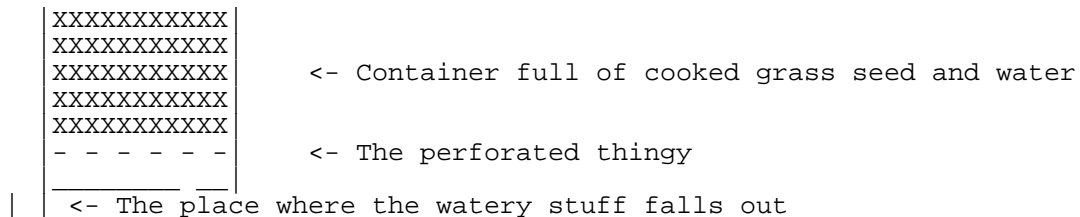
Date: Fri, 15 Oct 1993 06:49:34 -0700 (PDT)  
From: Paul deArmond <paulf@henson.cc.wvu.edu>  
Subject: Mashout

As I recall, the Great Mashout debate started with a question about the necessity of killing off enzymes at the end of mashing. It has now taken a turn into sparging technique.

I would most humbly and obsequiously submit that stuck sparges and denaturing enzymes are different critters.

How one handles their sparging is dependent on a large number of variables: types of grain, crush, mechanical details of the mash/lauter tun, even (yes) temperature. Of all of these, the mechanical details of the mash/lauter tun are probably going to be the most influential for beers made from mostly barley malt. High proportions of gooey, floury, pasty sticky grains will make the details of the sparging setup even more important.

At the risk of becoming highly technical, allow me to submit the following High-Tech (tm) illustration:



There are a great number of different sizes and shapes of containers to hold the cooked grass seed: garbage cans, Alaskan (and the smaller Texas-size) construction helmets, kitchen sinks, nail kegs, buckets, foot basins, Rhode Island swimming pools, water beds, etc. Likewise a great number of perforated thingies are also used: soil pipe, panty-hose (both used and new), buckets that have been used for target practice, hair-nets, old socks, venetian blinds, storm grates and clever specially designed appliances that are made in Mexican sweat-shops and then marketed here with cheesy little "Made in USA" stickers on them.

Most people use some kind of hose where the watery stuff falls out, though in very backward areas (such as Chicago and San Francisco), it is just allowed to fall on the floor. This "drop and mop" technique is claimed to yeild incredibly high extract rates.

Given the large range of equipment in use, it seems only reasonable to this author that there will be some variation in practice, including adjusting the temperature of the cooked grass seed before trying to get the watery stuff to fall out the hole in the bottom. What this has to do with killing off the enzymes (which look like little people in tights with Pac-Man heads according to one widely published work) continues to elude me. I personally don't like to do it, because their pitiful little screams upset me. Others with harder hearts may choose to do differently.



Paul de Armond

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Date: Fri, 15 Oct 93 11:15:03 EDT  
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)  
Subject: 7 gal carboys, racking canes, SG & DMEDME&SG

David Atkins writes:

>Page sold a 7 gal. in lieu of 6.5 which had sold out. As posted  
>in an earlier HBList, the opennings of the 7 gal are too narrow to use a  
carboy  
>cap in starting a siphon.

Although the orange carboy caps are too large for the 7 gallon  
carboy they can be made air-tight, to start a siphon, by wrapping duct  
tape tightly around them.

>airlock. The above supplier also carries long racking canes which will  
fit 7  
>gal carboys.

Another option here is to use the 3/8" coper tubing. It can be  
shaped, is nearly indestructable,  
sterilized by heat by baking in the oven, and is exactly the  
same size as the plastic ones sold in homebrew stores.

For those asking about DME effects on specific gravity, 1 pound of  
DME in 1 gallon of water yealds an SG of about 1.042. Therefore,  
for example 1 pound added to 6 gallons of water will increase the  
SG by  $.042 / 6 = .007$  points.

Bill Szymczak

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Date: Fri, 15 Oct 93 10:18 CDT  
From: David Atkins <ATKINS@macc.wisc.edu>  
Subject: bad COPS & bananas

Hello,

I missed the COPS episode ala Elliot Ness cracking down on the hapless homebrewer. I agree with Russell Gelinis that homebrewers should take an active role in educating whenever the opportunity arises, I question the practicality of a nationwide PR campaign. Perhaps, thinking globally and acting locally would serve the purpose better. Local brewclubs can advertise events in local media & maybe get some newspaper/tv exposé to boot. Clubs could draft letters or complaint to deliver to both the local station airing COPS and the shows producers. The AHA could do some PR work, having pr/information experts and spokespersons ready to field reporter queries or to provide talking head bites to local or national tv crews. But to publicize outside of addressing the producers of COPS and the local stations that televised the program could be misguided. How many people saw the show? How many people even remember seeing the show? Unless there is a groundswell of prohibitionist fervor threatening your home brewer or local supply store, any negative publicity or perputuated misunderstandings is probably over-rated.

Well, off my soap box and into the kitchen...Banana esters. I have a brown ale with slight banana esters (used Yeast Labs British Ale). Are these esters a regular characteritic of the yeast, a result fermentation at 69-73 F ambient, or both?

While I'm in the kitchen, is there any chance at all I could brew an extract dopplebock & lager it in a cool basement on a concrete floor? I want to make a dopplebock for a graduation party "The Matriculator" but I don't have a spare 'fridge to lager the bottled products. Has anyone tried this? Any minimum temps. I should pray for? The current temp. ranges from 59-62F and I it should get cooler as the sun wanes.

Thanks for any comments and advice concerning homebrew pr and bananas and dopplebock.

David Atkins  
UW-Madison  
atkins@macc.wisc.edu



Date: Fri, 15 Oct 93 11:47:18 -0400  
From: jclayton@TACOM-EMH1.Army.Mil (CLAYTON Joseph A Jr)  
Subject: formula request

Greetings,

I would like to second Jonathan Knight's request (HBD 1247) for a way to calculate the O.G. with malt extracts. As an avid user of equations and a terrible deriver of equations, I'd like to be able to solve for any one of the three factors, quantity of malt extract, volume of water, and O.G.

By the way, is there any NET consensus on the result of one pound of DME and LME in a gallon of water? I've seen a range of 1.035 to 1.045 for DMS and a range of 1.032 to 1.040 for LME. What's up?

Cheers,  
Joe

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Date: Fri, 15 Oct 93 09:04:53 MST  
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
Subject: rotten egg smell in fermentation

Tony wrote:

>This is approaching Frequently Asked Question status on HBD, so  
>here's a brief explanation.

(brief explanation deleted)

Thanks for the explanation, Tony. I appreciate your response, but I guess I mis-stated my question.

What I was interested in was why this particular batch should smell like H<sub>2</sub>S. I used Wyeast 1056, which is what I have used quite a bit in the past, without any H<sub>2</sub>S smell. The only thing I changed was the malt, which was DeWolf-Cosyns Pale malt. The yeast starter did not smell like H<sub>2</sub>S, but the primary fermentation did. This leads me to speculate that it is not the yeast, but rather something to do with the formulation of the wort.

Any takers?

Joel

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Date: Fri, 15 Oct 1993 09:20:22 -0700 (PDT)  
From: gummitch@techbook.com (Jeff Frane)  
Subject: Re: Flaked Maize

Tom Sauret writes:

>

>Recently a I tried to add flaked maize to my wort, but I was  
> unable to get the maize to pass the iodine test. I followed the  
> instructions from THE JOY OF HOME BREWING, but after two hours gave  
> up trying to pass the iodine test. The beer has been in the bottles  
> a week now and evrything appears fine. Has anyone else run into this  
> problem? What did I do wrong? Thanks, Tom Sauret

>

Without checking TJOHB for the reference, it sounds as though your  
problem was adding "flaked maize to my wort". Did you really add it to  
your wort? and when did you do an iodine test?

If you're adding flaked maize to an extract-based beer, try doing a  
little infusion before adding the syrup. Take your flaked maize, et al,  
put it in a cheesecloth bag and soak at about 150F for 1/2 hour or.  
Then rinse it with hot water, save the resulting liquor, and add your  
extract to that. Flaked maize shouldn't cause *\*any\** problems with  
starch; in fact, George Fix recommends adding it late during the mashing  
cycle in an all-grain beer.

How does Charlie phrase it? "Chill out and suck some brew"?

- --Jeff

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Date: Fri, 15 Oct 93 11:28:00 CST  
From: Montgomery\_John@lanmail.ncsc.navy.mil  
Subject: alcohol percentages, too

I have a question that is a tangent to Brian Moore's posting regarding varying alcohol percentages in beers distributed to different states.

If the maximum percentage of alcohol allowed in a beer distributed to my state is 3.5, for instance, what about the beer that might be produced in a brewpub in my state? Must they conform to the same percentages as the distributors or are there exceptions for an "on premises only" beer?

Just curious...

jm  
montgomery\_john@lanmail.ncsc.navy.mil

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Date: Fri, 15 Oct 93 13:22:59 EDT  
From: gorman@aol.com  
Subject: Flaming Dr. Pepper

Shawn Nunley writes:

>Flaming Dr. Pepper from Hell

>This drink requires a shot glass and a tumbler style glass. Fill the  
>shot glass with Amerretto (sp?) and the tumbler half full with beer. The  
>idea is to have just enough beer to cover the shot glass when you drop  
>it in the tumbler. Now, light the Ameretto (2nd try at spelling) and  
let  
>it get pretty warm, not too hot. When the time is right, drop the shot  
>glass in the tumbler. That's right, drop the whole shot glass in the  
tumbler  
>so that it is standing up on the bottom of the glass. Now drink the  
whole  
>thing as fast as you can. The Ameretto will pour out with the beer yet  
>will remain kind of seperated. The resulting taste is remarkably close  
to  
>a Dr. Pepper. This is a fast drunk, BTW. Hangover City too.

I'd always seen 151 rum added atop the Amaretto to aid lighting. And let  
me  
second the opinion of its similarity to Dr. Pepper in taste. Quite  
startling  
when you first have one. You'll definitely not want to waste any  
microbrewed  
beer on this though ;>

Bill Gorman

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End of HOMEBREW Digest #1249, 10/18/93  
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Date: Fri, 15 Oct 1993 11:52:46 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Mash & Lauter Tuns/ Yeast Starter Media

There seems to have been a number of questions recently regarding mash tuns/lauder tuns. I thought I'd chime in with a basic rundown on the varieties- and describe my modification to the copper tubing version. There are commercial versions out there- but I'll deal with the home-made varieties.

The most basic equipment needed for mashing is a LAUTER TUN. A vessel used to filter the grains out of the wort (sparging). I generally start my grain in my boiling pot (my grinder sits on top and grinds into the pot. The bottom is flat so I can use my paddle to mix in the hot tap water and thoroughly mix the grains with the water. I then add hot water to bring the temp up to mash-conversion and transfer the slop into my lauter tun. Some people will adjust their temps in the lauter tun. I know I risk HSA- but haven't observed problems with my approach. The temps are still WELL below boiling. One guy was concerned about how to apply heat to the mash tun- bring temps up with hot water. Unless you use a bru-heat type mash/lauder tun you don't need a heat source IN the tun. I used to apply direct heat- but it's SO easy to overshoot, or apply uneven heat.

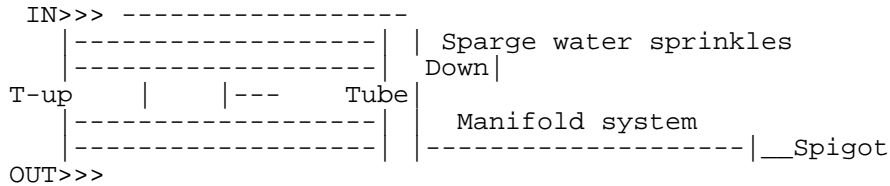
The concept is to establish a FILTER BED out of the grain husks. Big pieces at the bottom, small toward the top. This rests on some sort of filter mechanism-allowing the sweet wort to flow out, leaving the grain behind. Ideally the system will HOLD a fairly constant temperature for the duration of the conversion.

The common lauter tun approaches are:

1. Grain bag in a bucket with a spigot near the bottom of the bucket. Grain bag is held in place with elastic (bungee). Bag is mesh material. I used one of these for several years. Worked fine. Disadvantage: Size limitation, not insulated, unless you stick it in a box. Bag would slip sometimes.
2. Zapap: Bucket w/in a bucket. Upper has MANY holes in bottom. Drill zillions of 1/8 " holes. Spigot in bottom bucket. (3/8" MPT= male pipe thread, rubber gasket- into 1/2" OD hole CP) Sorta tried one of these once, but not really. Sould work fine. Insulation is again a problem. You can fashion a styrofoam lined "box" to contain it.
3. False bottom. Bucket or metal pot. Stainless steel plate full of holes like the zapap- is placed an inch off the bottom of a pot or bucket. For a pot this requires welding a spigot onto it. I never wanted to do this to my pot. I'd probably manage to break it off! (clutz) With a metal pot this would have the advantage of enabling direct heat application.
4. Copper tubing manifold. Can be holes, or slits drilled or cut into a network of copper tubing- which collects the wort and allows it to flow out into the boiling pot. Often set up in a cooler, either round, or rectangular will work (debate rages!), allowing temp. maintenance.

Ok now to attempt some ASCII diagrams- I know they've been done before...but

Top View: Side View:



I think we need a verbal description here too. I have a 48qt rectangular cooler. I removed the drain valve. Drilled a hole at the opposite top. Collected suitable hardware for threaded connections inside and outside the drain- attached a standard garden hose faucet outside the cooler. The manifold is made from 4 lengths of 3/8" tubing sawed through halfway (hack). Connected with T-pieces and small pieces as needed. The middle end pieces are T's. Drain side goes out, the opposite attaches to the Down tube. A T at the tops of the down tube exits the cooler through the hole drilled there, and also attaches to the Sparge Tube. This tube extends across the top of the cooler, and has holes drilled on both sides. The advantages of this tube and T are that I can place a bucket w/spigot above the cooler containing hot sparge water, and let it trickle onto the mash bed. I can control the in-flow rate to match the out-flow rate. Constant bed height. I can also remove the sparge tube, close that off and underlet water into the bed-or if necessary blow air into the downtube allowing me to RESET the grain bed. The original idea was to allow me to run water through the manifold to clear it. I also fashioned a metal screen to fit over the manifold- kinda like a false bottom to make a flatter surface for the grain bed (can you say "overkill"?). It keeps big grain bits away from the tubing- aiding the grain bed establishment, and makes it easier to lift the grain out of the cooler into my healthy compost pile. I don't know how clear this will be to everyone- but if you have questions drop me a line and I can elaborate- or snail mail you a hand drawing. As has been discussed- be sure to use LEAD-FREE solder for the tubing. I used a propane torch for heating the tubing, then sweated in the silver solder.

I fashioned mine such that the manifold is removable. A nice benefit for cleaning. I love the simplicity, and consistency I get. I have more than adequate space for as much as a 30# grain mash. The flow control is very nice. I don't cause any disturbance of the grain bed once set. and I don't have to stand over it once the flow rates are set. I don't lose temp over a 1-2 hour mash. It is very beneficial to add hot water to the tun first before adding the grains- preheats, and allows the grain bed to set better. Boy...makes me wanna go use it NOW!

Costs: I got the cooler for \$5 at a yard sale. Copper tubing was about the same. I bought a straight piece, 10' I think. Fittings connectors: maybe \$10-\$15 for solder and all. I could spend almost that much for a grain bag! I much prefer my newer system.

\*\*\*\*\*  
Another Note: Yeast Culturing: Someday (after I write my thesis) I plan to write a pamphlet on culturing for homebrewers (Al!). I have R. Leistad's, but find it lacking. No offense to Rog, it's a useful booklet, but he's not a microbiologist. That is clear. And the organization is a bit strange to me.

As for how much malt/sugar for specific specific gravity readings... I will do an empirical study and publish a table...BUT in the meantime ...Rog's recipe for a starter solution is 1 Tbsp malt (dry), 1/16 tsp yeast nutrient into 1 cup H2O. This translates to 1/4 cup

malt, 1/4 tsp YN per quart, or 1 cup malt, 1 tspYN/gallon. He does not state what sp.gr. that makes. I haven't checked. Paul Farnsworth suggests 8 tbsp dry malt or 10 tbsp syrup in 2 1/2 cups water. This is from the Zymurgy special issue on yeast. There are some good ideas in there, but they are rather scattered. FYI 1 quart ~= 1 liter. I'll publish conversion tables too!

Bandwidth- what bandwidth. I don't need no stinking bandwidth!

Brew On! John (The Coyote) Wyllie SLK6P@cc.usu.edu

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Date: Fri, 15 Oct 93 13:54:33 EDT  
From: LeRoy S. Strohl <lstrohl@s850.mwc.edu>  
Subject: Re: Catching up on mail

Sean Taylor asked about beer drinks in a recent HBD. Two which I have encountered are the Shandy and its cousin the Shandy Gaff: the Shandy is a mix of beer and lemonade (my favorite version of this was the Tiger-Tops that I had in HongKong in the early 1960's - Tiger is a pretty good lager made if memory serves in Singapore, and Tops was a lemon soda that was very popular with the British sailors I'd met) the Shandy Gaff is much the same except it is made with ginger ale. The best ratio for me was just a splash (how do you like that for accuracy) of either the lemonade or ginger ale. I guess if I were going to recommend these it would be that they be considered a summertime drink.

JM Montgomery asked about smoking grains - JM I have smoked grains using just a regular covered/kettle grill. Whatever grains you want to smoke can be placed in a pouch of aluminum foil, puncture it all over with a fork to make lots of little holes. Outside of the grill get two or three charcoal briquets to the point that they are covered with gray ash, place them on the coals rack and cover the briquets with a couple of handfuls of previously moistened peat moss. I usually leave them in the grill for at least 30 minutes. For my own purposes I think it adds a nice touch to a couple of my Scotch ale recipes. Hope this works.

Mark Nelson talked about the yuppification of the brewpub business. OK it seems that you would be wise to think of the business part of it first - the guy that is running this brewpub is in it for the money. Yuppies have disposable assets and the guy is glad to take it to pay his rent, grocery store, wait staff and grain bill. Second if his beer is not good one of two things will start to happen - people like yourself will tell him his beer leaves much to be desired and if he doesn't change you'll stop going to the restaurant and maybe others will too, and hey who knows, he may go out of business. However, there is a funny alternate scenario. Lets say he doesn't change his recipes, but the yuppies keep on coming, and they posture around with talk about hop bouquets, malt texture, mouth feel and yeast flavors. You probably don't want to hang out with this kind of crowd, and you'll have the satisfaction of knowing that a bunch of effete posers are drinking bad beer. Keep on making your own, it's probably better anyway.  
Roy

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Date: Fri, 15 Oct 1993 13:04:54 -0500 (CDT)  
From: Steve Seaney <seaney@ie.engr.wisc.edu>  
Subject: Amalyse Enzyme

I am a bit confused over the use of Amalyse Enzyme (I hope this is spelled correctly) when brewing all grain beer. My understanding is that it contains Alpha Amalyse.

My understanding is that Alpha Amalyse is denatured around 130 degF. If this is correct what good is the enzyme at mash temps above 140 degF?

I don't have my copy of Papazian or Miller at the moment. Can someone help out?

When should Alpha Amalyse be used?

Thanks,  
Steve

- - -

Steve Seaney: 608/265-3954: seaney@engr.wisc.edu

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Date: 15 Oct 93 14:08 EDT  
From: smennitt@oasys.dt.navy.mil (Stuart Mennitt)  
Subject: Wit and Brewing with Liquors (???)

I've just started a batch of Wit based loosely on Miller's recipe. I'm using 3.3 lbs M&F wheat syrup extract, 2 lbs M&F pale dry extract, 1.5 oz of 2.9% Hallertau hops, and 1 oz ground coriander seed. The yeast is Wyeast European Ale.

I'd like to add a slight orange flavor, and I was considering adding some triple sec liquor to the ferment. I've got some Bols brand that uses curacao and seville oranges for its flavor. Should this work?

Any idea how much triple sec to add?

I've also considered using a more "Belgian" yeast for this. Any suggestions here? Would it help to culture a Chimay or Duvel and repitch with some honey or corn sugar? Any other "Wit" style extract recipes out there? Am I asking too many questions? Thanks.

- --  
] Stu Mennitt smennitt@oasys.dt.navy.mil [   
] NavSurfWarCen, CarderockDivBethesda, Maryland [   
] was: David Taylor Research Center [   
]was: David Taylor Naval Ship R&D Center [   
~~~~~

- -----

Date: Fri, 15 Oct 1993 11:43:15 -0700
From: Ken Michael Johnson <kmj@leland.Stanford.EDU>
Subject: Budweiser wins an award?

I can't believe that Budweiser got an award at the GABF. I think that they should change the name of the American Premium Lager category to American Pisswater. Just a thought.

kj

Date: Fri, 15 Oct 93 14:44:00 -0400
From: Eric M. Mrozek <mrozek@horowitz.eecs.umich.edu>
Subject: Re: Iodophor summary

12345678901234567890123456789012345678901234567890123456789012345678
901234567890

> Watch those line lengths...

Please accept my sincerest apologies. The message appeared clean when I sent it. The digest software rejects postings with lines longer than 80 characters, so I didn't expect any problems.

Here's a summary of responses that I have recieved:

> Iodophor has a sort of metallic-chlorine-like taste ... It's less objectionable to me than chlorine itself, though. I think the key has to be to drain thoroughly after sanitizing with the stuff, and to use pretty low levels to start with. ... 12ppm is easily detectable. We could do an experiment...

> The advantage [of iodophor] over bleach is that chlorine in very dilute concentration combined with polyphenols in beer will easily generate chlorophenol compounds that have a taste perception threshold in the few parts per billion magnitude. If you're finding a harsh medicinal character in the beer, that's chlorophenolic. This can be cause by rinsing with city water with high amounts of chlorine, or can be present from the start if you brew with water out of the tap....

[This shouldn't be the problem. Our technique has avoided this in the past.]

> Iodophor is routinely used in restaurants as the final sanitizing rinse for dishes & glassware, which may be used immediately for food service. FDA considers 10ppm iodine safe for consumption, though iodophor solution also contains phosphoric acid and isn't very tasty by itself.

> You might want to verify that your friend rinsed out the iodophor. I frequently see one of its benefits listed as "no rinse required." They certainly tout this in its use in the food industry (from what I have seen in Superior Products' catalog and on the bottle I have). George Fix, in his book "Vienna," says that although no rinse is required he still recommends rinsing with cheap commercial beer ("Way waste our own.") - 12 oz. is good for rinsing a 5 gal container. Dr. Fix commented that amber and dark beers in particular are more apt to react to residual sanitizer giving it a flavor that can easily be mistaken as an infection. I guess all this is to say that it is probably no surprise that iodophor causes off-flavors and should indeed be rinsed...

[The original beer was a "Belgian" brown... I would describe the flavor as smoothly medicinal rather than infected]

Date: Fri, 15 Oct 93 15:52:38 EDT"
From: Gary S. Kuyat <gsk@sagan.bellcore.com>
Subject: 5/2/.5 micron filters
Full-Name: Gary S. Kuyat

After playing around with a couple of filtering systems, and counter-pressure filling bottles with force carbonated, filtered beer, I have these notes on different filter elements.

5 micron:

Takes out big chunks, like hop particles. No effect in flavor, no effect in body, no effect in chill haze. Other than as a pre-filter 5 mic. seems pretty useless.

2 micron:

This seems to be the best all around. Removes yeast. Some very slight loss of body. Clears and "crispens" beer taste. Almost have to say "why wouldn't you run all your beer through this?" (that is if you're kegging!) Don't try in-the-bottle carbonation with this, 'cause most all the yeast will be removed!

.5 micron

Removes yeast, some body and if your beer is very cold when you filter, this removes chill haze! Kinda leaves your beer with a "thin" mouth feel. If you are making lite beer (and I have) then this is the filter for you! Half micron filters are not cheap! Beer that is cold-filtered through a half micron really should be put in clear bottles (IMHO) to let your friends hold it up to the light and see. If you follow "better to look good than to..." this might just do the trick.

.1 micron

Removes beer...

- - -

-Gary Kuyat
gsk@sagan.bellcore.com

Date: Fri, 15 Oct 93 08:21:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: Alabama beer

In HBD 1248 Brian Moore <Moorebw@hvsmtpl.mdc.com> wrote:

CN> This originally started with my desire to get more exciting
CN> microbrewed beers here in the beer wasteland of Alabama. About
CN> the most exotic thing we can currently buy is the Samuel Adams
CN> Boston Lager. Figuring this was a (good) starting point, I
CN> called the local distributor and asked if they were planning to
CN> bring in any of the other Sam Adams beers. The distributor said
CN> they were working on getting another, the Octoberfest, but that
CN> there were some that they could never get (the Double Bock).

Sorry to say Brian, I got your SA Octoberfest, and it was delicious!
The first time I tried it, here in the Chicago 'burbs, the bottle
caps had the SA logo and "Alabama" printed on them.

Chuck

* RM 1.2 00946 * Death is not the end; there remains the litigation..

Date: Fri, 15 Oct 93 12:26 CDT
From: korz@iepubj.att.com
Subject: Pseudo-decoction experiment

Larry writes:

>character and mashing techniques. Many brew brothers do decoction and
>modified decoction mashing claiming improved malt character. This guy's
>claim was that fast, cool sparges produce low malt character. He said
>that he always runs a very hot sparge (180 or higher) because that
>husky graininess makes for more malt character.
>
>This guy also suggested an experiment for me to do to test out his
ideas:
>next time I begin to lauter a 10 gal batch, to set aside 2 gallons of
>mash and bring it to a rolling boil before adding it back into the
lauter
>tun. I guess this a way of simulating a decoction mash and the
carmelization
>that occurs during the boils. He claimed that the change in malt and
>physical characteristics of the mash would be obvious as I brought the 2
>gallons to a boil.

I think you will increase your chances of a starch haze. Depending on
your
crush, you will have some amount of unconverted starch hiding among the
husks. Bringing this to a rolling boil will gelatinize this hidden
starch
and give your beer a starch haze. Avoiding this problem is one of the
reasons that Noonan recommends taking only the thin portion of the mash
(just the liquid) for the final decoction (the one leading to mash-out).

Personally, I don't like a husky character in my beer. Malty is one
thing,
but husky is another. Consider the flavor of wort and the flavor of
spent
grains. Wort tastes malty, spent grain tastes husky. I prefer only the
former.

Al.

Date: Sat, 16 Oct 93 13:26 CDT
From: arf@mcs.com (Jack Schmidling)
Subject: Fast Spargeand Godzilla

>From: polstra!larryba@uunet.UU.NET

>My second to last batch was 20 min for 11 gal at ~34 pt/lb/gal
I also typically skip mash out maybe heating the mash to 158-162 just
to maintain a mash bed temp of 140-150 and to force conversion if the
iodine test is not negative after 20-30 minutes....Once, a year or two
ago, I
asked the forums if there were any negative issues w/regard to fast
sparges.
I got no responses.

I was so impressed and humbled by both postings that I had nothing to
say for
a change. When someone claims he can make a silk purse out of a sow's
ear
and backs it up with the numbers, it's tough to say something clever.

>This guy also suggested an experiment for me to do to test out his
ideas:
next time I begin to lauter a 10 gal batch, to set aside 2 gallons of
mash and bring it to a rolling boil before adding it back into the
lauter
tun.....

>The question: What do folks think of this theory and the experiment? Am
I
likely to just end up with a bad starch haze and a puckery beer?

Not sure the experiment makes any sense but mashout and hot sparges have
become a ritual with me. All you have to do is bring your mash to
mashout
temperature to realize that lots of stuff is going on here. The change
in
color, iodine reaction, viscosity and taste would indicate that the end
beer
ought to be effected. Whether this is good or bad is your call or the
competition judges.

I would suggest that a far more meaningful experiment is the obvious
one.
Brew up a batch using a simple decoction, i.e. boil a couple of gallons
after
the main mash reaches such temp and dump it in. Continue the mash as
usual
and mash out at the end. Sparge slowly with hot water and finish the
beer.
Then report back to us with the difference in your beer from previous
batches.

BTW, you "mash out" at 162F might be enough to get you over the hum. It
is
not exactly a cool mash and most infusions would be far cooler by the
time
sparging is begun.

>From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)

>Tallying the responses from both HBD and email, it appears that there are quite a few homebrewers out there who do not perform a mash-out. More so than I imagined.

As the vast majority of all grain brewers mash in plastic buckets of one sort or another by adding hot water to the grain, it is not surprising that the vast majority do not mash out.

> I agree that the reasons you quoted are not very rational reasons for doing a mashout but there is one reason that I think is a good one. By raising the whole mash 20 degrees or so, you stand a far better chance of keeping it in the optimum range during the lautering process. It's easy enough to do for those who kettle mash but it is probably not worth the trouble for the bucket infusers.
>
> js

<Ouch. An idol's dagger plunges the deepest. You assume that we all agree there is an optimum range and that thus there is a need to be within that range.

No! I assume that everything I say is taken as gospel and no further discussion is necessary.

> I do not support such assumptions. I skip the mash-out and consistently get good yields. It should also be noted that I use a picnic cooler and never perform a protein rest (Belgian malts).

Right! And there are those out there who claim they make REAL beer with extract. We AGS's just raise our collective noses higher at such nonsense.

> I won't tell you how I grind my malt because I'll be forced to use the "C" word.

I understand you once had a MM but traded it for a Corona because the grain kept coming out of the hopper when you turned the crank. The Corona has an arrow telling you how to turn the crank and I can understand how No-Mashout-Types (NMT's) feel more comfortable with it.

>Looks like Godzilla and Mothra have teamed-up to combat the onslaught from BOQAT.

Keep in mind that Godzilla is for real but the others are just just fictional characters.

I sometimes wonder why anyone else even bothers posting to this forum, anything other than questions. Unless it comes from me, one can never be certain that it is the truth.

js

Date: Sat, 16 Oct 1993 23:33:45 -0400 (EDT)
From: David J Mendonca <dm82+@andrew.cmu.edu>
Subject: help on yeast

I'm a novice brewer (second batch) who has now learned, don't throw away the labels to your mixes or yeasts! My question is about yeast. I brewed two days ago a hopped extract for a strong ale. Before adding the yeast to the (pre-)wort mix, I put it in water and warmed it. The wort was at 70 degrees when I added the yeast. Forty-eight hours later, there's been nary a bubble through my fermentation lock. Would overwarming have killed the yeast, or was it more likely something else? Has anyone ever added a second dose of yeast or does that do funky things to the batch? Any help anyone can offer would be much appreciated.

Thanks,

David
(e-mail dm82@andrew.cmu.edu)

Date: Sat, 16 Oct 1993 23:56:20 -0400 (EDT)
From: RADAMSON@delphi.com
Subject: 5 Liter Kegs

I've now read a couple new posts re: 5 liter kegs and being a 5 liter expert now, I thought I'd update a post I made from around then end O'March 93:

"I have received several inquiries regarding the 5 liter metal keg setups. Here are my datapoints:

The problem with getting Dink, Dab, et.al. cans from the stores is that the tap you get is a gravity tap that you insert in bung, flop the keg upside down and 'can-open' a hole in what was the bottom (and now on top). Certainly makes the vessel un reusable.

The solution is these bottom-feed CO2 cartridge taps made by Beer*King in Germany. I originally got my tap(s) from Hoster Brewery (brewpub) in Columbus, OH - but they no longer 'keg' into 5 liter cans (and, therefore, don't sell the taps anymore). Dock Street Brewery in Philly kegs into 5 liter cans, but I'm not sure about the type of tap they sell. Likewise with Stoudt's in Adamstown, PA.

A source that I do know of (and have no affiliation with) for both taps and new empty kegs is:

Randy Martin, Proprieter
Brew Ha Ha, Ltd.
209 High St
Pottstown, PA 19464
800-243-2620 (orders)
215-326-2620 (Dr. Brew)

Randy picked up a bunch of kegs from the now defunct Happy Valley Brewery (Penn State) and could probably set you up. [10/93 Note: These things went fast and I don't know about current stock.]

The tap has a central stem the height of the can which feeds brew from the bottom. There may be a small yeast burst in the first couple ounces of brew/foam when first tapping, but none whatsoever afterwards. The tap has an adjustable CO2 valve that I "tweak-up" a little at a time to introduce more gas - you can hear it enter and build up a bit, then back it off to zero. I put more gas on for overnight storage, haven't had any leaking. Also available are Whippets or N20 cartridges to power your creamy stouts! (I do notice "sweeter" ales when dispensed with nitrous). I guess you could also "try" force carbonating, but stock up well on CO2 carts.

As far as kegging these skippers, I usually fill 3 kegs and a dozen bottles per 5 gal batch. And to keep it simple, I still bulk prime as if doing bottles with either DME or Corn Sugar (.75 cup) and just fill the cans as I go along. I use a bottle filling wand that does not contain a spring - just gravity & pressure control. I just drop the wand in the keg and do a take-5 for a bit.

Use your own standard priming rate, mine are low-to-fair carbonation level (British Ales, mostly). Since the volume is larger than that of a bottle, the maturation time is increased (takes longer to reach carbonation), but is well worth it. I leave about 1" headspace on the kegs and have had no overcarbs. Handling and storage is the same as if they were bottles. The 5 liter is equivalent to about 14 12oz bottles - but it goes in the fridge better.

For Sanitizing, I just drop a few tbls of Bbrite in, fill and soak for a couple hours prior to kegging. So far the hardest part about these is forcing the bung in after I fill the keg."

[current post again]

About the only problem (sic) I've had is possible inappropriateness of 5 liters of some beers (at a time). Like, I made a great Raspberry Patch Brown Ale, but kegged it all. Its great to take or have for an event, but I do get my fill of raspberry fairly early. The beer is a perfect match for 22 oz brown or 25 oz champagne bottles. I will probably only fill 1 keg with my Pumpkin Patch Ale, the rest in bottles.

Date: Sun, 17 Oct 1993 09:51:35 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Yeast nutrients

What are the opinions on using yeast nutrients when preparing starters?

Chris Raymond, here at ZGI, has an experimental brew going in which he split the starter wort into 2 portions and added "Yeast Nitrogen Base" to one of them and did the other as normal. YNB is a commercial preparation of Ammonium nitrate, trace elements, and amino acids. It is added in the amount of about 7g/liter. Chris grew the starters under the same conditions then assayed them for total cell counts. The YNB starter had a cell density 10 times (!) of the other. The numbers worked out to 10×10^{10} cells/liter. I seem to remember an optimal pitch for 5 gallons is 4×10^{10} cells so using YNB you could pitch with a pint and get an optimal cell count.

Of course something could be wrong with this. Maybe happy yeast changes its flavor profile. Maybe it loses attenuative ability. Who knows? And that of course is the question. Who knows? If you do know or even have an opinion, let's hear it.

Chris is brewing a batch with both starters, so we should be able to do a side by side comparison of the results.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Sun, 17 Oct 1993 15:31:51 -0400
From: ukcy@sunyit.edu (Kevin Yager)
Subject: COPS: Distilling is dangerous??

On Oct 14, 10:03, Russ Gelinas wrote:
] Subject: COPS and AHA
] distillation. The AHA does not condone the production of distilled
] liquors. It is illegal and dangerous. But once again, the homebrewing
]
] Russell Gelinas
] esp/opal
] unh
]-- End of excerpt from Russ Gelinas

Why do you consider distilling to be dangerous? There is an element of
risk
involved with making anything. (including fried chicken) Distillers
simply
take a fermented product and evaporate and condense the alcohol.

Illegal? Yes. Dangerous? Hardly.

Kevin

Date: Mon, 11 Oct 93 14:50 CDT
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: mashout necessary?

Tallying the responses from both HBD and email, it appears that there are quite a few homebrewers out there who do not perform a mash-out. More so than I imagined. And of course, there were the traditionalists who tried to defend the mash-out ceremony. Homebrewing makes for strange bedfellows.

>
> Chris mentioned one of the benefits of mashout (the debated
> one), but failed to mention the one on which most of us agree,
> namely mashing out raises the temperature of the mash much
> quicker than simply pouring sparge water and therefore more
> quickly decreases the viscosity of the runnings. Runnier
> runnings mean faster sparging (without a loss of extract
> efficiency), less chance of a set mash (stuck runoff) and more
> efficient extraction of sugars. Remember, warm honey pours
> easier than cold honey.
>
> Al
>

Ok, I'll bite. Where's the dividing line between "warm honey" and "cold honey" i.e. at what point do wort sugars flow and not flow? I skip the mash-out and sparge with 170-180 F water. I usually sparge 5 gallons of water in 30-45 minutes. My mashing efficiencies are consistently over 80%. Given these facts is it safe to assume that wort sugars flow without a mash-out?

>
> I agree that the reasons you quoted are not very rational
> reasons for doing a mashout but there is one reason that I think
> is a good one. By raising the whole mash 20 degrees or so, you
> stand a far better chance of keeping it in the optimum range
> during the lautering process. It's easy enough to do for those
> who kettle mash but it is probably not worth the trouble for the
> bucket infusers.
>
> js
>

Ouch. An idol's dagger plunges the deepest. You assume that we all agree there is an optimum range and that there is a need to be within that range. I do not support such assumptions. I skip the mash-out and consistently get good yields. It should also be noted that I use a picnic cooler and never perform a protein rest (I use Belgian malts). I won't tell you how I grind my malt because I'll then be forced to use the "C" word.

Looks like Godzilla and Mothra have teamed-up to combat the onslaught from BOQAT. So far BOQAT remains unscathed. Can Tokyo withstand another melee? Tune in tomorrow. Egg rolls served during the matinee.

chris campanelli

Date: Mon, 18 Oct 93 05:48:02 EDT
From: DEC PHIGS development DTN 381-2275 18-Oct-1993 0550 -0400
<poegel@bgsdev.enet.dec.com>
Subject: Auto Reply from Watch_Mail for 15-OCT-1993 13:50 to 23-OCT-1993
00:00

I'm on vacation from October 16 to October 23, 1993.

I can be reached at

Dixie Landings
Walt Disney World
Lake Buene Vista, Florida

1-407-W-DISNEY (407-934-7639)

For DEC PHIGS issues, please contact Keith Comeford (BGSDEV::COMEFORD)
or Bob Crowling (BGSDEV::CROWLING).

Garry Poegel

Date: Mon, 18 Oct 93 12:05:01 +0100
From: james@sst.ph.ic.ac.uk (James Kew)
Subject: Re: Making drinks with Beer?

blazo@aol.com writes:

> In London, England they mix bitter orange soda with beer and call the
> resultant beverage "Shandy".

Do we? If you ask for a shandy in England you will get a half-beer
half-lemonade mixture. Works with both bitter and lager. Not too bad,
actually -- it's how I started getting into beer...

> In some parts of England this is called "Orange
> Shandy" and other soda beverages, Cherry, for instance, mixed with beer
would
> be called "Cherry Shandy".

I've never experienced these; not to say they don't exist though. Another
common thing to add to beer is blackcurrant cordial ("Guinness and
Black")
or lime cordial (Lager and Lime).

James Kew "This dog and I are incompatible. For a start I think he's
IC, London the wrong star sign..."Letter, TVQuick Problems Page

Date: Mon, 18 Oct 93 08:26:27 EDT
From: andrewb6@aol.com
Subject: RE: Shandy and making drinks with beer.

In HBD#1249, blazo@aol.com writes in RE: Making drinks with Beer?

>In London, England they mix bitter orange soda with beer and call the resultant beverage "Shandy". In some parts of England this is called "Orange Shandy" and other soda beverages, Cherry, for instance, mixed with beer would be called "Cherry Shandy".

>It is almost shameful to admit it but (shudder) Orange Shandy tastes pretty darn good as a "lawnmower style" malt beverage. I know that this probably offends the sensitivities of most of this audience, but, refuse to judge until you've tried it. Mix equal parts Schweppes Bitter Orange with Double Diamond and see what I mean!

I think it should definitely be referred to as "Orange Shandy". Traditionally, shandy is an even mix of beer and lemonade--where lemonade is something akin to 7-Up, not the type you find at a lemonade stand here in the US. I agree, shandy is not to be dismissed until you've tried it, and it's a great compromise if you've got to take it easy 'cos you're driving. I would avoid the premixed shandy though -- it's bad, very bad.

x
If you're in Britain and you've got an obliging landlord have him mix it with beer from the hand pump. You will probably have more luck with this in the south of England than in the north because (generally speaking) recirculating handpumps are more common in the north. The next customer wouldn't appreciate your lemonade in his best bitter.

Perhaps you may even want to try a "lager and lime" -- generally Rose's Lime Cordial. Or even lager and black (black currant cordial), or then again how about a Guinness and black.

BTW, shandy is indeed a traditional English mix. Invented by a famous big-game hunter (whose name eludes me for the moment, but I'll look it up), traveling in Africa. He found that the traditional English beer (presumably an IPA) was not as thirst quenching as it was in a more moderate climate, and started mixing it with other beverages. Like the man said, "lawnmower style."

* Andrew Baird * A good pilot is one who's made the same number of

*
* AndrewB6@aol.com * landings as take-offs!
*

Date: Mon, 18 Oct 1993 07:53:15 -0500 (CDT)
From: dspalme@mke.ab.com (Diane Palme x2617)
Subject: Re: Beer Drinks

In yesterday's HBD, blazo@aol.com writes:

>In London, England they mix bitter orange soda with beer and call the
>resultant beverage "Shandy". In some parts of England this is called
"Orange
>Shandy" and other soda beverages, Cherry, for instance, mixed with beer
would
>be called "Cherry Shandy".

>It is almost shameful to admit it but (shudder) Orange Shandy tastes
pretty
>darn good as a "lawnmower style" malt beverage. I know that this
probably
>offends the sensitivities of most of this audience, but, refuse to judge
>until you've tried it. Mix equal parts Schweppes Bitter Orange with
Double
>Diamond and see what I mean!

In Germany, people will mix a light-colored beer (insert Pilzen or Weiss
here) and mix it with the equivalent of Sprite (tm) and call it a
"Radler."

I believe it is done in a 50/50 ratio. It is quite tasty on those hot,
summer days and every now and then I will consider doing the same with
some
of the swill I see in my parent's 'fridge. Good stuff! I recommend it!
Be daring! Give it a try!

Just my \$0.02,

D.

Diane Palme
Department Engineer, Central Inspection
Allen-Bradley Co.
(414) 382-2617
dspalme@mkelan5.remnet.ab.com
dspalme@mke.ab.com

" I have found that it is much easier to fake an
orgasm than to pretend to like basketball. "

Oh yeah, um, what I say is my opinion, um, what I think are my own ideas,
uh,
Allen-Bradley has nothing to do with them, uh, yeah. That's about it.

Date: Mon, 18 Oct 93 09:15:49 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium: Introduction

Beer Hunting in Belgium

Introduction
(by Phil Seitz)

With this post I would like to introduce a seven-part series on beer and brewing in Belgium, based primarily on research conducted by Jim Bush and myself during a visit this past summer.

Our goal is to share as much of the beer and brewing information we collected as possible, and the final post will contain information on cafes, stores and other resources for future visitors. A few of the posts will go beyond brewing to offer a broader narrative, particularly in cases like our tour of the trappist brewery at Rochfort, where we were privileged to do something that others probably won't be able to. In these cases we'll try to offer a vicarious tour, but hopefully without tiresome comments about what a good time we had, etc.

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Part 1:Rochfort (Trappist brewing)
Part 2:Brasserie de Silenrieux (Brewing with spelt and buckwheat)
Part 3:Liefmans and oud bruins (Sour brown beers)
Part 4:Brasserie la Caracole (Running a very small brewery)
Part 5:Oud Beersel (Lambics)
Part 6:Aged beer tasting (25-year-old Orval and more)
Part 7:General information (Where to drink and shop)

This was my seventh trip to Belgium in six years. At this point my French is pretty functional, and I have a large number of friends and connections--many of them beer related. While I've been brewing for about 2 years, Jim has been doing so for much longer and has a much deeper understanding of the processes, equipment, and problems involved. So we teamed up, traveling the Belgian countryside, listening to Jim's substantial collection of Radiators tapes, and searching for good beer.

While I can therefore say that Jim and I brought a certain amount of experience to this task, we are painfully aware of all the questions we forgot to ask, or couldn't. You are welcome to write to either of us with inquiries about the material you'll be seeing over the next few days, and we'll try to answer as many as we can. Please try to be understanding if we fail you.

I plan to continue visiting Belgium on a regular basis and welcome suggestions for addition information that needs to be collected.

Apologies are also offered for all the typos, misspellings, and other editorial incongruities you'll undoubtedly find in the posts that follow. I've worked them over a bit, but decided that people would rather have the information now than wait until we could produce a more elegant piece of writing.

Above all, we hope the following posts will be informative and enjoyable to read.

Date: Mon, 18 Oct 93 09:15:49 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium: Introduction

Beer Hunting in Belgium

Introduction
(by Phil Seitz)

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End of HOMEBREW Digest #1250, 10/19/93

Date: Mon, 18 Oct 1993 09:43:32 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re:oxidation while racking

> Date: Thu, 14 Oct 93 14:17:09 -0700
> From: arne thormodsen <arnet@kaibutsu.cup.hp.com>
> Subject: Oxidation and Filtering
>
> OK, I'll be the heretic. Hey, new brewers! DON'T worry about
oxidation
> when transferring to secondary. The beer is cool and saturated
> (probably supersaturated) with CO2. If it foams a little when you
> transfer it there is virtually no way it will oxidize, because CO2 is
> coming out. If it doesn't foam when you transfer it it was probably in
> primary too long and you might as well bottle it. I can't see any harm
> in what is described here. Filtering hot wort is one thing, filtering
> cool fermenting beer is something entirely different.
>
> Relax, have a homebrew, and shove that nasty ol' oxidation bogeyman
back
> in the closet where it (usually) belongs.
>
> - --arne
>
Wow, supersaturated beer out of the primary?? How do you accomplish
this,
with a pressure tank, and bunging with 3+ Palto of residual extract? Wont
this cause the carboy to explode :-) Seriously, fermented beer when
young
will have around 1 atmosphere of CO2 in solution. While this will rise
out of solution as the beer is racked, the original posters experience
with a filter is certainly going to introduce some degree of oxidation.
A small degree of splashing into the secondary is OK, putting it through
a filter/funnel is sure disaster. Its just not worth it, or necessary.

Jim Busch

Date: Mon, 18 Oct 93 09:49:01 EDT
From: andrewb6@aol.com
Subject: Brass in the Boil

Ooops, I forgot to add this to my last post.

Are there any negative effects from using brass fittings in boiling wort?
I'm
thinking in particular of a brass Swagelok (sp?) bulkhead fitting.
(Thanks
Joel for the bulkhead tip)

Also, is it safe to assume that a ball valve attached directly to the
kettle
would be effectively sanitized by heat conducted from the kettle. I'm
thinking
of using an immersion chiller, so hopefully all I have to do to avoid
worrying
(heaven forbid) about infection is to attach a sanitized hose to the end
of
the ball valve and drain merrily into the fermenter.

Any comments?

Thanks in advance.

```
*****  
*****  
* Andrew Baird *      A good pilot is one who's made the same number of  
*  
* AndrewB6@aol.com *    landings as take-offs!  
*  
*****  
*****
```

Date: Mon, 18 Oct 1993 09:06:36 -0500
From: jmp@shoe.wustl.edu
Subject: Liquid Yeast: Friend or Fiend?

Greetings,

Long time listener, first time caller. I'm afraid that this will have to do with deep philosophical questions, and therefore I may later regret having brought it up at all. But here goes...

I usually ferment my wort with dry yeast, usually with good and reliable results. Periodically, I will use WYeast, particularly when I intend to make several consecutive batches of similar beers, as reusing the yeast slurry becomes economical. Such was the case over the weekend. I was to make a basic pale ale on Saturday morning. I had gotten a WYeast American Ale packet, and burst the inner packet on Thursday evening. Sure enough, by noon on Saturday it was nice and puffy. My 1043 wort was at 70F, and all was well with the world. So, I sanitize the yeast package in bleach water, rinse it off, cut it open, drop liquid into the wort, cap it and swirl it up. I then wait for fermentation to begin, but lo! nothing happens and keeps on not happening until Monday morning.

So far, a dull story. But the reason for the post is that this the third time in four instances of liquid yeast use that this happened to me. The questions I have are:

Why does this happen? Up until the instant that I introduce the yeast to the wort, it behaves as advertised. After pitching, it appears to literally die. I will note that all of the worts that have been victim to this behavior have been revived with dry yeast, and all were completely acceptable, at least to me.

Why does liquid yeast seem so my less robust than dry? This is the thing that I wonder most, since as noted above all of my liquid yeast failings have had dry yeast added and gone on to ferment properly. Also, I have never had a wort not ferment after I pitched dry yeast.

Should this happen when I use the liquid yeast as directed on the package? It's not as if I'm just dumping yeast straight from the fridge to the wort. I know the perceived wisdom hereabouts is to make a starter of some sort, but WYeast's package says that I should be able to do what I did and get fermentation.

Should I just admit abject failure and use dry yeasts exclusively? By extension, will I make a beer with "666" tattooed on its forehead if I reuse the slurry from a batch fermented with dry yeast?

Any suggestion is appreciated.

Jerome Peirick
jmp@shoe.wustl.edu

Date: Mon, 18 Oct 93 10:17:50 EDT
From: lyons%adc3@swlvx2.msdl.ray.com
Subject: Whitbread dry yeast availability.

I have not been able to purchase Whitbread dry ale yeast from my local distributors for some time. Is anyone aware of a supply problem with Whitbread?

Chris Lyons

Date: Mon, 18 Oct 93 10:39:02 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: GABF winners PostScript

I spent a while with Word and made a tabular version of the GABF results. Then I printed it into a PostScript file. I have placed it into the pub/incoming directory at sierra.stanford.edu; it probably won't migrate to the right place (pub/homebrew/docs) until late this week, as the archiver said he will be out of town.

=Spencer

Date: Mon, 18 Oct 93 10:36:32 EDT

From: gorman@aol.com

Subject: Carboy transport/storage

I've got a friend who took an old wooden swivel office chair with a wicker/cane seat that was broken and took out all the wicker in the seat.

An inverted carboy fits right through the seat, the back and arms cradle the carboy, and the casters on the legs allow convenient rolling around.

I'm still looking for one of my own.

Bill Gorman

Date: Mon, 18 Oct 1993 10:01:36 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Last Year's Hops

Glen Anderson asks:

>Would anyone know what percent of Alpha Acid has been lost in the
>1992 crop, assuming they were stored under optimum conditions? I just
>purchased about a pound and would like to adjust my recipes.

If I understand things right, essentially zero. No adjustments should be
necessary. Mark Garetz (our local Hop Expert) may wish to comment.

t

Date: Mon, 18 Oct 93 07:53:05 -0700
From: mchristy%spc.dnet@gpo.nsc.com (Mike Christy TEST SOFTWARE
AUTOMATION x8466)
Subject: re:Hard Cider Recipes

Since there have been a few inquiries about hard cider lately, here are some
cider making ideas from the northeast:

A friend of mine usually puts up a couple of 55 gallon wooden kegs each
fall with 40 lbs of brown sugar in each. I believe the sugar is dissolved
in a pan of warm cider then added to the keg. A rubber bung/ air lock is
inserted and he waits for spring. The slower it works off, the better. A
temp
of 55 to 40 is ideal.

Other traditional recipes use pears or raisins, or both. Basically you
can add
anything which will give the wild apple yeasties more to eat and impart a
flavor to the cider. You may opt to not add anything, which will render a
very
dry cider.

My method involves using green 1 gal wine/vinegar jugs. With these small
1 gal
amounts you can experiment and not worry about ruining a whole batch.
They also
work off quicker than larger batches. Check with local restaurants about
saving
you some. Sterilize, use a rubber stopper/air lock and keep out of
sunlight.

My favorite recipe uses 1 gal of cider with 1 rounded cup of brown sugar.
Place
in cool basement and wait 8-12 weeks. We've also used canned tropical
fruit,
molasses, raisins, white sugar, corn sugar, DME, frozen cranberry juice.
..
experiment!

Cider can be bottled in champagne bottles, Grolsh style bottles or plain
beer
bottles. If you bottle early, you can get a sparkling cider. We've used
cork
and regular bottle caps successfully. Dont disturb the sediment when
siphoning.

Then there's always the possibility of making apple-jack, which is
freezing
hard cider. The water solidifies around a core of alcohol, very potent
indeed.

One last note to those who may not know, its important to purchase cider
without any preservatives (pot sorb), or better yet go to a cider mill.
They
will usually charge less if you have you own container, and even less if
you
bring you own apples. Our local mill is cira 1905 and makes fine cider.

good luck, and watch out for those cida-ffects - mike

Date: Mon, 18 Oct 93 9:08:14 MDT

From: npyle@n33.stortek.com

Subject: Poly Hose

I just bought a thick-wall polyethylene hose to run from my lauter tun to my boiler. The hose I use now is a thin-wall vinyl hose which has a tendency to collapse when the hot liquor is flowing through it. Any experience with this PE hose? It is quite stiff, compared to the vinyl, translucent (similar to the vinyl after coming in contact with boiling wort), and has almost a waxy feel to it. Also, it is rated for a fair amount of pressure, but says nothing about temperature. Use it or lose it?

Thanks,
Norm

Date: Mon, 18 Oct 93 11:31:06 EDT

From: btalk@aol.com

Subject: Spruce Beer

John Pavao asked about Spruce Beer-

I followed Papazian's recipe using 1 oz Spruce essence.

This quickly became known as Pinesol Ale. It was AWFUL. Way too much Spruce,

you couldn't taste anything else. This is the only homebrew that mostly went

down the drain ...after I got as many people to try it as would dare.

Take it easy on the spruce. I would try maybe 1/3 to 1/2 oz essence in 5 gal

batch. good luck. Let me know how it comes out. Bob Talkiewicz

Date: Mon, 18 Oct 93 11:19:36 EDT
From: mferts@taec.com (Mike Fertsch)
Subject: re: Gravity Calculations

jclayton@TACOM-EMH1.Army.Mil (CLAYTON Joseph A Jr) asks about gravity equations:

>As an avid user of equations and a terrible deriver of equations, I'd
>like to be able to solve for any one of the three factors, quantity of
>malt extract, volume of water, and O.G.

My equation is $OG = 1 + \text{\#pounds of stuff} / \text{\#gallons of wort} * .042$ for dry extract, and

$OG = 1 + \text{\#pounds of stuff} / \text{\#gallons of wort} * .036$

for liquid extract.

The 0.42 and the 0.36 is the "extraction rate" of dry and liquid extracts.

This works backwards to get: $(OG-1)/.042 * \text{\#gallons} = \text{pounds of DME needed}$

For more complicated recipes, we can add the result of several factors:

$OG = 1 + (\text{\#pounds of material "a" * extraction rate of material "a" + \#pounds of material "b" * extraction rate of material "b" + \#pounds of material "c" * extraction rate of material "c" + ...}) / \text{\# of gallons}$

Thus, a recipe with 3.3# of syrup, 3# of dry extract, and 1# of corn sugar gives

$OG = 1 + (3.3*.036 + 3.0*.042 + 1.0*.044)/5 = 1.058$

>By the way, is there any NET consensus on the result of one pound of
>DME and LME in a gallon of water? I've seen a range of 1.035 to 1.045
>for DMS and a range of 1.032 to 1.040 for LME. What's up?

I use 0.42 for DME, 0.36 for syrups, .044 for sugar. Mashed grains work the same way except the extraction rates are lower (.028-.031). I rarely use DMS in my beer, and when I do, I keep them in the parts per million range. This does not effect wort gravity significantly! :-)

++++
Mike Fertsch

Work: 617-224-7298 mferts@taec.com Toshiba, Wakefield MA
Home: 617-932-0567 mikef@hopfen.rsi.com Home, Woburn MA

Date: Mon, 18 Oct 93 11:04:57 -0500
From: gjfix@utamat.uta.edu (George J Fix)
Subject: GABF

Norm writes in HBD#1248:

>Chris asks whether the GABF equates to the AHA nationals for the pros. I
don't
>know that much about the AHA, but I think the GABF is open to all
professional
>brewers, regardless of affiliations. Many brewers there are Institute
for
>Brewing Studies members, but not anywhere near all of them. This thing
has
>gotten so big, though that it is difficult to get any idea of what's
available.

This is absolutely correct. The only exceptions are breweries which
misuse
competition results in ad campaigns. Norm touched on this point in
HBD#1249,
and I am in complete agreement with him.

>I would like to see several regional ABF's and have the GABF an
invitation-only
>affair. The invites would go to the regional winners in each category.
That
>way the regionals would be of a more reasonable size and so would the
GABF
>(used as a national run-off competition). I went to the Saturday
afternoon
>tasting and back again Saturday night, and I don't think I made a dent
in the
>total number of beers there (nor would I try). Does anyone else think
this
>thing is a leviathan? Dr. Fix, I believe you had one of the judging
jobs,
>which should give you some insight into the organization. Is my idea
feasible,
>possible, or a pipe dream?

This is an excellent point. Both Laurie and I were on the professional
panel,
and it was our view that there were too many beers per judge, and not
enough
categories. In particular, there were over 900 beers entered which were
evaluated by ~40 judges in a 48 hour period. The panel itself had a good
mix of large industrial brewers, microbrewers, consultants, and misc.
academic
types. Many of the major brewing countries were represented including the
UK,
Germany, and Scandinavia, to cite but three examples. Nevertheless, the
work
load was higher than desirable. Of the 900 or so beers entered, only ~
150-200
were in serious contention for awards. This is why Norm's point is of
great
relevance. Had there been local screening a la AHA nationals, then a
better
and more complete evaluation could have been done at Denver. I felt

particularly frustrated by the time constraints, and the effect it had on the quality of feedback the brewers will be getting from the score sheets.

I usually like to write a couple of paragraphs, particularly with problem beers. Unfortunately, at the GABF time permitted only "one liners", something

I see as highly unsatisfactory.

To implement Norm's ideas one would need cooperation at the local level.

This, however, IMHO is exactly what the MBAA and the various small brewers associations should be doing.

I was also uneasy about the number of categories. In particular, there were no categories for Belgian styles. This forced Pierre Celis to enter both his white beer (which won) and Grand Cru in the same category, in spite of the fact that these two beers are dramatically different. In fact, the category in question, i.e., spices, vegetables, et al, seems to me to be ill defined, and as a result needs to be reorganized.

Both Laurie and I were upset about the merger of the Vienna and the Festbier categories. There were ~ 40 enties, 6 of which were world class (three of each of each type). The Viennas had OGs in the high 40s, while The Fest versions were all in the high 60s. I have found that when one is evaluating beer based on 1 oz. samples, there is a skew toward high gravity versions. This is indeed what happened, for the gold and silver metals went to Festbiers. At the private AHA tasting we rounded up as many homebrewers as we could find and tasted the six beers in question, this time with 8 oz. samples. There was general agreement that the two versions were sufficiently different to warrant separate categories, and that each of the 6 samples was worthy of an award. BTW the Viennas won the Gallo test in this informal evaluation, i.e., they were the beers which the evaluators drank the most of. This is not to say the Viennas were superior, but rather it underscores the importance in (amateur or commercial) competitions of not forcing judges to evaluate apples and oranges in the same category.

These comments are not to reflect negatively on the awards that were actually given. The silver went to the Festbier that Pittsburgh brewed for Jim Koch. Those who have read Laurie and my book on this style will know it has been a long favorite of ours, and this version was a good sample. The gold went to one of the best Festbiers I have ever tasted. Still we felt terrible about the 4th place entry (a Vienna brewed in Georgia) for it too was world class, yet it did not get an award.

George Fix

P.S. The judging was blind, and the entries were known to the judges by numbers. Brewers on the panel did not evaluate categories where they had entries. After the awards were announced, members of the panel were permitted to match up the numbers with breweries, to see how various operations came out. There were several samples where I thought I knew who brewed beer being evaluated, and even considered disqualifying myself from their evaluation. It turned out that I was right some of the time, but not in all cases. The biggest shock came from the American Light category, where some small operations blew versions from AB, Coors, and Miller out of the water. I judged this category, and at the end would have sworn that the winners were all from large industrial brewers. What a pleasant surprise!

Date: Mon, 18 Oct 1993 12:32:27 -0300
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: priming / banana esters

Bart Thielges writes:

>When I prime my fermented beer with corn sugar, I usually cool the priming
>solution to 70F with an ice bath before mixing with the beer.
>(Egads ! I've just publically admitted to both priming and use of
cornsugar.
>There goes my chances of CamRA membership !)

I understand many british cask conditioned ales are primed with sugar. You can relax, your CamRA membership is safe. I mean, Britain is not bound by the Reinheitsgebot, remember...

>I've always thought that this step is probably not necessary since the
>thermal mass of 1 pint of 200F sugar water is nothing compared with 5
>gallons @ 70F. So what if I zap a few yeast cells on the initial
contact ?
>They don't have very good lawyers anyway.
>
>I've never had the guts to actually risk a batch with this hot
combination
>experiment. Has anyone else done this successfully ? I'd like to

The only reason I cooled my boiled priming solution was I didn't want to dump boiling liquid into my carboy (I add the priming solution first then rack the beer into it). Priming in a keg, however, I have no qualms about dumping the hot priming solution staright into the keg (after flushing it with CO2 first...)

David Atkins writes:

>Well, off my soap box and into the kitchen...Banana esters. I have a brown ale
>with slight banana esters (used Yeast Labs British Ale). Are these esters a
esters a
>regular characteritic of the yeast, a result fermentation at 69-73 F ambient,
>or both?

A hint of banana creeping in under the hop nose is an acceptable part of british ale. The isoamyl acetate (banana ester) can be strong if the temperature is too high (73^F should be OK, but don't let it get higher), if there is insufficient oxygen in the wort, and if the yeast is underpitched. So, aerate that cool wort, pitch lots of yeast, and a whiff of banana (should not come through in the flavour) is acceptable, some might say desirable, from a british ale.

Ed Hitchcock ech@ac.dal.ca | "I'm not from outer space. I'm from Anatomy & Neurobiology | Iowa. I just work in outer space."
Dalhousie University, Halifax |- James T. Kirk
[Eschew racism. Drink beer from all nations]

Date: Mon, 18 Oct 93 13:06:47 EDT
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: Re: O.G. Formula

Joe writes:

>I would like to second Jonathan Knight's request (HBD 1247) for a way
>to calculate the O.G. with malt extracts. As an avid user of
>equations and a terrible deriver of equations, I'd like to be able to
>solve for any one of the three factors, quantity of malt extract,
>volume of water, and O.G.

I've used the formula

$$\text{O.G.} = 1.000 + \frac{[\#DME + 0.8\#LME + 0.7\#GRAINS]*0.042}{\text{gallons}}$$

where # means pounds. This formula uses 1.042 for a pound of DME (dry malt extract) in a gallon of water, about 1.034 for LME (liquid malt extract), and about 1.029 for speciality grains.

>By the way, is there any NET consensus on the result of one pound of
>DME and LME in a gallon of water? I've seen a range of 1.035 to 1.045
>for DMS and a range of 1.032 to 1.040 for LME. What's up?

I'm not sure where I've seen the 1.042 figure (probably Charlie P.'s book) and maybe a Zymurgy issue. The 0.8 factor represents an approximate average, and you'll find a variation probably between 0.75 and 0.85 depending on the manufacturer of the LME. The 0.7 factor is dependent on the grains, their crush, and your sparging (straining) technique. On the other hand, I've compared the above formula to measured O.G. values for over a dozen extract batches and have had an average error of about 1 point (0.1%), and a maximum of 4 points, on O.G.'s ranging from 1.026 to 1.057.

Bill Szymczak

Date: Mon, 18 Oct 1993 12:16:29 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: RE:Oxidtn/Shandy/Raspberry&Peach/Spruce/Legalities!

I think we all like to encourage the continuation of the art. Bad first attempts have put off more than one newbrewer! No harm in taking the trouble to drop a hose to the bottom of a secondary (or stuff one into the "out" end of a funnel) so we aren't SPLASHING brew from the top of a carboy. Fermented beer is a reactive shlew of chemicals. Alcohol being one of them! Not to mention that the yeast are quite comfortable in a relatively aerobic environment.

I would vote the claim that oxidation can and will happen upon sloppy transfers- it IS worth taking efforts to avoid it. Buy a longer hose if needed! The stuff's cheap. Cheap beer ain't...well...it is... but

Some IS GOING TO HAPPEN- in almost ANY system, but just keep it down to a managable amount. Unless you like chewing cardboard!!! :),

-blazo talks about how...

In London, England they mix bitter orange soda with beer and call the resultant beverage "Shandy". In some parts of England this is called "Orange Shandy" and other soda beverages, Cherry, for instance, mixed with beer would be called "Cherry Shandy".

*I was familiar with "shandy" being made with bitter lemon soda. A similar mix can be made with 7-up or the like. (the brittish soda has less sugar than our sodas). You could have flavor variants, but a lemon or lemon/lime was the basic.

It is almost shameful to admit it but (shudder) Orange Shandy tastes pretty darn good as a "lawnmower style" malt beverage. I know that this probably offends the sensitivities of most of this audience, but, refuse to judge until you've tried it. Mix equal parts Schweppes Bitter Orange with Double Diamond and see what I mean!

* It is a common afternoon drink, served frequently to kids (it is half as strong as a beer!). Squatters brewpub in Salt Lake serves one. It's ok. Good for the yuppies at luncheon business meetings! I've made 'em. Even with my own homebrew. I had to do something with that 5 gallons of slice I had in the keg I purchased! Too sugary though!!!!
Lemon or Lime in a light beer makes a nice summer ferment. But now's not the time. Dark lager season is on the way!

Norm says he:

(copied without permission, so sue me. No wait, how about 30 lashes with a siphon hose?):

Tsk, Tsk, Tsk.

What length of tubing? With or w/o bottling cane attached?

Do I hear a call for copper tubing?

Subject: Raspberry or Peach beer...

I would like to try using raspberry or peach to flavor my next batch of beer, but I don't know what quantities to use. How should I vary the hopping levels when using these fruit adjuncts? Has anybody got a good recipe for an extract based peach or raspberry beer?
steve tollefsrud

*I've done raspberries in stouts/ pales, primary and secondary. I now have my first peach on the way. I can tell you that a flat of raspberries (4 #) at the end of the boil makes a nice red berry flavor and pink head in a malty pale ale. I'm about to keg up my raspberry brown with berries in the secondary. It's a yummy one! I think I'll drop in some molasses to balance the tartness of the berry. I used about a half bushel of peaches- pitted, frozen, smushed into carboy- and secondary beer dropped on top. I feel that a lighter beer is more fitting for peach.

I'm inclined to keep the hopping rate down on a fruit beer to let the fruit come through. Something semi floral. but not too overpowering. Say Williamete rather than Cascade. Raspberries are commonly found paired with stouts. I like seeing the color all that fruit lends to a brew. Maybe a light porter if you want dark flavor in there.

Freezing fruit- and pectic enzyme can help get the most out of fruit, and aid in clearing of the brew.

Subject: SPRUCE beer

I am thinking about making an extract-based batch of spruce beer. I would be interested in comments about whether it's worth it, and if so, how much spruce should be used for a five gallon batch. Thanks in advance.

John
pavao@ptsws1.npt.nuwc.navy.mil

* I will never try this again (I don't think...???) I tried extract (6 oz) for a 10 gallon batch (was supposed to be good for up to 6 gallons....) and it tasted like PLASTIC. SO...when in Oregon in the spring I tried picking spruce and the "spruce" hemlock tree- fresh green sprigs. I had a gallon bagful. Added them like hops, and had a beer that tasted like sucking sap or something...a chemical flavor that was not "enjoyable". I rarely EVER dump a batch..but...

Maybe a very small sprig of spruce... waved above the pot during the boil, then tossed in the fireplace... I'll stick with fruit for now!

**

OK OK Enough of that "dpdGggc29tZSBtY-ing" on Chris's blip.

So not everyone is a computer guru. I don't think we need any more bw used quoting gobbledy goop, or discussing men who boogy.

BTW Thanks for the ACTUAL translation that was posted.

THAT HELPED!

JC ferguson mentioned a brew which...

tasted quite similar to Miller's answer to the Microbreweries (what was the name.....

* Miller Reserve (especially the amber), 100% Barley Draft...

>making beer and wine for personal consumption is legal in all 50 states.
>(ed. true yet?)

No, not true yet. In Missouri we are still dangerous criminals producing powerful, mood-altering drugs. Let's do keep our facts straight.

* Utah too suffers from Prohibition laws in our "modern" age. At least Georgia got out from under. Write your congressman today!

*also note: Brewking sack ad in Sharper Image quotes:
"federal govert allows you to make up to 25 gallons of homemade beer each year. NFS in AL,Georgia. Resident of UT,Alabama, Oklahoma please consult local authorities before ordering"

Yeah right. Like I'm gonna ask first! Like I'm gonna order a brewbag anyway! All grain or bust! (well...occassionall extract... but only on a weeknight!) It's \$39.95 plus 6 S&H for 25 pints. They have a "traditional export ale" and "premium lager". Oh yum.

Damn at 25 gal/yr I could be done brewing in 2 weeks!
Too bad The Sharper Image doesn't have a Sharper grasp of the legality.

It is nice the know that the authorities here are not interested in enforcing this law. I have good reason to believe that.

Unless someone were to get stupid and try to sell it...like at a deadshow or something... but hey...that might work....hmmmmmm!

If the maximum percentage of alcohol allowed in a beer distributed to my state is 3.5, for instance, what about the beer that might be produced in a brewpub in my state? Must they conform to the same percentages as the distributors or are there exceptions for an "on premises only" beer?

Just curious...

*Unfortunately YES. At least in my "great" state. I would hate the burden and restriction of producing "legal" beer. The only "illegal" beer you can purchase (imports and the like) are obtained ONLY thru a STATE LISCENCED and OPERATED STORE. But the micros do manage to make some tasty brews once in while. I'm glad that my personal "brewery" is not required to conform to such strick regulations! But then it ain't open to the general public either.

End of blabber for now. John (The Coyote) Wyllie SLK6P@cc.usu.edu

Date: Mon, 18 Oct 93 14:12:27 EST
From: John DeCarlo<jdecarlo@homebrew.mitre.org>
Subject: Beer Drinks

Check any bartender's guide or list of recipes. Some that I have tasted in the past and enjoyed include:

Black Velvet--stout and champagne
Red Eye--beer and tomato juice
Shandy--British lemonade (more like US Sprite than US lemonade) and ale

Unfortunately, most of the beer recipes just call for "beer", since they have been formulated by people who have only been exposed to one kind of beer--Worldwide megabrew tasteless pilsener.

Now if we could just get some interesting combinations with good styles. Anyone know if a Red Eye is better with an IPA, for instance?

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org
If I were you, who would be reading this sentence?

Date: Mon, 18 Oct 1993 11:13:46 -0700
From: paul@rational.com (Paul Jasper)
Subject: Re: Making drinks with Beer?

On 14 Oct, 22:32, blazo@aol.com wrote:

> Subject: Making drinks with Beer?

>

> In HBD #1247, sean v. taylor <sean@chemres.tn.cornell.edu>

> RE: Subject: Beer Drinks writes the following:

>

> In London, England they mix bitter orange soda with beer and call the

> resultant beverage "Shandy". In some parts of England this is called

"Orange

> Shandy" and other soda beverages, Cherry, for instance, mixed with beer

would

> be called "Cherry Shandy".

"Orange Shandy"? "Cherry Shandy"? I count myself as a Londoner and I've never come across either of these. "Shandy", a half and half mixture of British lemonade (lemon soda) and beer is quite popular throughout Britain,

especially as a thirst quenching drink on a hot summer day. Some people drink "bitter top" - bitter with a splash of lemonade - but they are usually occasional drinkers who need something to sweeten their beer.

> It is almost shameful to admit it but (shudder) Orange Shandy tastes pretty

> darn good as a "lawnmower style" malt beverage. I know that this probably

> offends the sensitivities of most of this audience, but, refuse to judge

> until you've tried it. Mix equal parts Schweppes Bitter Orange with Double

> Diamond and see what I mean!

Yuck!

>-- End of excerpt from blazo@aol.com

- --

- -- Paul Jasper

- -- RATIONAL

- -- Object-Oriented Products

- --

Date: 18 Oct 93 11:32:00 CST
From: "DEV::SJK" <SJK%DEV.decnet@mdcgwy.mdc.com>
Subject: HB law questions

Tom writes:

>>making beer and wine for personal consumption is legal in all 50
states.
>>(ed. true yet?)
>
>No, not true yet. In Missouri we are still dangerous criminals
producing
>powerful, mood-altering drugs. Let's do keep our facts straight.

If I remember my beer-lore correctly, I thought Big Jimmy O'Carter made
homebrewing technically legal in this country (correcting an earlier
oversight). Being but a simple software engineer, my legal credentials
are a good approximation of nil, but I thought federal law superceded
state/local law. That is, if the Feds say it's OK for me to manufacture
certain kinds of drugs in my kitchen, then it doesn't matter one whit
what Missouri or any other state has to say about it. Yes?

This reminds of the request (by ?) recently for a recipe/ procedures for
making an eisbock. Isn't this a form of distillation (intentionally
concentrating the beer by freezing some of the water and drawing whats
left off) and isn't that illegal? Just wondering...

Scott Kaczorowski
sjk%c17fcs.decnet@mdcgwy.mdc.com

Date: Mon, 18 Oct 93 11:29:52 -0700
From: froeh@jpats.ecc.naa.rockwell.com (Michael Froehlich)
Subject: Woodruff Ale

I would like to find out how to make a Woodruff Ale. I had one at the Oregon Brewers Festival and it was superb. It had a pumpkin pie and malt taste that were perfect together. If anyone knows what woodruff is (spice or combination of spices???) or knows how to make a woodruff ale, please answer this call for help.

Brewingly Yours,

Michael Froehlich

```
/*
*****
*****

**** =====> Michael Froehlich <===== *****
****

**** ----> froeh@ecr.ecc.naa.rockwell.com) <---- *****
****

**** ----->> (310) 647-1482 <<----- *****
****

*****
*****
*/
```

Date: Mon, 18 Oct 93 14:36:03 EDT
From: Allan Janus <NASARC07@SIVM.SI.EDU>
Subject: Beer Drinks

I have a short shandy saga: once in London I had dragged my luggage to Victoria Station and was absolutely exhausted. I noticed a vending machine with shandy available (it's my impression that just saying "shandy" gets you beer & lemonade). Perishing with thirst, I raised can to lips, and instantly recovered my full vigor - nothing like sugared beer to really get you moving.

Other beer drinks -

Dog's Nose - beer and gin; a favorite of seamen in the age of Nelson, and curiously enough, amongst present-day Japanese. Keep the gin in the freezer,

use any old lager, great at the beach.

Snake Bite - beer and cider - excellent, but incredibly intoxicating - especially when you hit the open air.

Black Velvet - Stout and cider - my favorite - it's like a stout milkshake. I

know that BV also refers to Guinness & champagne, but if you ask for BV in a pub

you'll get it with cider.

And of course Red-eye; beer and tomato juice; thanks anyway.

Date: Mon, 18 Oct 1993 14:44:01 -0500 (EDT)
From: gelinas@ekman.unh.edu (Russell Gelinas)
Subject: beer sour

Here's a drink made with beer that's a staple on backpacking trips:

Bartenders (tm) or similar Whiskey Sour Mix (or Half Sour Mix)
Whiskey
Beer

Add 2 oz. whiskey to 1 package sour mix in a 12 oz. or so cup.
Dissolve mix. Add beer. Watch out, it foams. A very quenching
beverage.

Russ Gelinas
ssc/opal
unh

Date: Mon, 18 Oct 1993 11:29:15 PDT
From: Mark_Davis.osbu_south@xerox.com
Subject: Re: hot priming

Bart asks:

>I've always thought that this step is probably not necessary since the
>thermal mass of 1 pint of 200F sugar water is nothing compared with 5
>gallons @ 70F. So what if I zap a few yeast cells on the initial
contact ?

>They don't have very good lawyers anyway.

>

>I've never had the guts to actually risk a batch with this hot
combination

>experiment. Has anyone else done this successfully ? I'd like to
>simplify my process.

Well Bart this has been my standard practice for the start. I just put
the hot
sugar solution in the bottling carboy and rack the beer for the secondary
right
on top of it. I have had no problems with it as of yet. As you said
before the
thermal mass of 1 pint of 200F sugar water is nothing compared with 5
gallons @
70F.

Mark

P.S.

I heard that the yeast cells are consulting with a new legal firm.

Date: Mon, 18 Oct 93 14:13:34 CST

From: "Andrew B. Deliyannides" <Andrew.B.Deliyannides.1@nd.edu>

Subject:

Anyone have any good ideas on how to blowoff those kraeusen chunkies from a 5 gal carboy without compromising sanitation? I've heard ghost stories about little critters creeping up unsealed blowoff tubes, so I've tried attaching a fermentation lock at the end of a really long blowoff tube. A clumsy solution: the foam still manages to percolate through the lock, sometimes clogging and blowing off the lid. It's rather comical. The only other makeshift idea I have is to simply submerge the end of the blowoff tube in a bucket of chlorox solution. Sure, you'd have to change the solution every once in a while once it got polluted, but at least none of those critters would crawl up the tube. Or is this much ado about nothing?

Is the kraeusen itself protection enough from critters?

ABD

Date: Mon, 18 Oct 93 11:55:19 PDT
From: troy@scubed.scubed.com (Troy Howard)
Subject: Re: hot priming

Bart asks if anyone has added near-boiling priming syrup to beer.

Yep. I *usually* cool my syrup down before it comes in contact with the beer, but there have been times when I was just too darn impatient.

Result: screams of about 10,000 yeast dying, then . . . silence.

As far as I can tell, there was no detrimental effect. The beer carbonated quite nicely, no funny tastes, no law-suits from disgruntled yeast-relatives.

-Troy

Date: Mon, 18 Oct 93 15:20:24 EDT
From: Lee=A.=Menegoni@nectech.com
Subject: Wyeast 2278 / when where?

I have heard mention of a new strain of yeast from Wyeast
Wyeast 2278 Chech Lager.

My local HB shop can't get it. Is it available? Where and When can I get
it. What are its characteristics.

I have heard that this is a good strain for lagers with OG's greater than
1.050 Is this true?

please post replies to the net I have an unreliable mailer.

Lee Menegoni lmenegoni@nectech.com

Date: Mon, 18 Oct 1993 12:17:46 -0700 (PDT)
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>
Subject: Brewpub Review

The opinions expressed below are mine only. Others can decide what they are worth.

On a recent visit to the Los Angeles area I had the opportunity to visit two brewpubs (both fairly new). This is a review of the Huntington Beach Brewing Company.

Being that it had been over two years since my last visit to Huntington Beach, I was very upset by the recent changes to the area around the intersection of Pacific Coast Highway and Main St. What used to be a charming area with strong local atmosphere has now been converted into a stale, sterile tourist scene much like many others in southern Calif. Most of the old buildings have been torn down and replaced by stuccoed, pinkish things that are horrible to behold.

However, there are still some hold-outs and the Huntington Beach Brewing Co. is located in one. Although the pub is a bit difficult to locate on the first try, it is worth the search. HBBC can be found upstairs in one of the older buildings still standing. I was immediately impressed by the old brick, stylish wood furnishings and high, beamed ceilings. There is outside, patio seating and plenty of indoor seating as well.

The brewery is located directly behind the bar. The hot liquor tank, mash tun and kettle are in front, with the fermenting tanks behind. It seemed a bit cramped, but very functional. The crushed grain comes down from the storeroom in the attic and the holding tanks are in a cooling room adjacent. They also brew pilsners and lagers.

The beers they had on hand were:

Main Street Wheat: This is a light, slightly dry wheat. Very tasty and refreshing for hot, summer days. My only complaints with this beer would be that it was filtered and that it was a little light on the wheat taste. However, these complaints are minor and would not stop me from happily drinking it.

Huntington Beach Blond: This is a light pilsner. In all honesty, this is the first pils. I've ever had in a brewpub. It was a very tasty, American style pilsner. Sort of like what the major breweries could do if only they cared... Light in the mouth with a pleasant ending.

Bolsa Chica Bitter: A mild bitter. Nice red color and crisp taste and feel. My favorite of those on hand.

Pacific Porter: I honestly can't say too much about this one, as it was the last I sampled. I do know that I liked it, and happily finished off a pint before going back to the bitter.

Overall, the beer was very good, as well as the food. The atmosphere was friendly and comfortable, although it was during the day. I'm sure it

gets very crowded at night though. My only consistant complaint would be that all the beers I sampled seemed heavily filtered. Considering their clientelle, though, this is not suprising. Again, this complaint is not a serious problem and I look forward to my next visit.

- -----

I used to be disgusted, now I try to be amused.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

Date: Mon, 18 Oct 1993 12:20:06 MDT
From: Kevin Schutz <kschutz@atmel.com>
Subject: rock bock/sam adams (tm) radio spots/mixed beer drinks

RE: Rolling Rock Bock

I tried this about a month ago when I saw it at the store. I was drawn to the neat bottle. I thought it was nice (the label is a clear plastic type with the printing on the plastic, sort of like what some of the bottle waters are using). I guess I liked the bottle better than the beer. I certainly wouldn't call it a bock. But it was very drinkable. The packaging got me to bite on a 6-pack. I doubt I would get any more though.

RE: Sam Adams radio spots

Thanks Norm for the update on what GABF was doing in conjunction with Jim's advertising. I thought it strange that IMMEDIATELY after the GABF, I started to hear more of his commercials, something to the effect of "best beer 4 years running". Made it sound like he won again. Then I saw the winners list (I didn't get to go to the fest). I can't recall the station I heard it on, but it had to have been a Denver or Colo Springs station. It was on the following Monday though.

Guess this goes to show what \$\$\$ can buy in the way of lawyers and creative marketing types.

RE: Making drinks w/ Beer.

Here's an old set of recipes from my early college days. I'd like to think that I'm a bit wiser these days. The source is an old roommate from Kansas (nothing seemed to affect this boy!).

Kansas Whirlwind:

1 can Coors Light, drink 1/4 of the can, top off can with Everclear.

Kansas Twister:

1 can Coors Light, drink 1/2 of the can, top off can with Everclear.

Kansas Tornado:

1 can Coors Light, drink 3/4 of the can, top off can with Everclear.

I REALLY don't recommend these, but I thought it could provide some interesting reference point for someone. BTW, my roommate typically used the tall cans (16 ounces)! I never could keep up with that one.

Also, when I was over in England (1991), I saw a number of people order up mixers of a bitter and lemonade. I can't recall what they were called though. Seemed like the name varied depending on whether it was a bitter, Special Bitter or ESB. Looked strange, but then so did all of the Bud longnecks! I never did try one though (or a Bud - does the Bud in England differ from the Bud found in the States? I'm sure what I saw was not an import from the USA. I never thought about until I returned from my trip.).

Kevin

End of HOMEBREW Digest #1251, 10/20/93

Date: Mon, 18 Oct 93 12:57:23 CDT
From: hplabs!mcdcup!tellabs.com!don
Subject: Re: counter pressure filler (was Kegging systems)

>
>I got a counter pressure filler from Benjamine Machine Products that
>seems to work well. I posted the same question to the net, also asking
>for comments on the Foxx CPF. The general consensus was that the Foxx
>product was not well made, and that the BMP CPF was a good buy. I got
>one, used it, and had a problem with it leaking when the liquid valve
>was closed. Made for quite a mess until I got the process down. I
called
>BMP and asked about it, and the guy said it was unusual, but not unheard
>of, to have a problem with the valve seat. He said to take it off, send
>it back, and if there was a problem with it he would replace it. When I
>went to take it off I found that it was loose to start with. I'm
thinking
>that this may have caused the problem, but I won't have a chance to
check
>it out until next week. BTW, the BMP CPF was supposedly designed by
>Micah Millspaw who, if you are a long time reader of the HBD, you
recognize
>his name. If you don't, he was the source of some very good information
and
>is now the head brewer at some place in California (I think)
Thanks for the mini-review.

>
>BMP has ads in most (including the latest) issues of Zymurgy. If you
>don't have access to it, let me know and I'll dig it up for you. Price
>was about \$55 with shipping.
I don't have a sub. to Zymurgy but I do receive Brewing Techniques. I'll
check that tonight although the name does'ent sound familiar at all.
If you have the address or someone else has it, could you please email
it to me??? Actually it may be worth posting since others may also be
interested.

>
>BTW Don, I tried to email directly to you, but my mailer daemon doesn't
>recognize all those !'s in your address. If you have an address that is
>in internet format you might add it to your signature.
Normally the short version is included in my .signature file but I have
not found a way to include it in my posts to HBD. I will try to put this
in manually until I figure a better way to do this. Sorry about that...

don
don@tellabs.com

Date: Mon, 18 Oct 1993 13:02:46 -0700 (PDT)

From: "Bob Jones" <bjones@novax.llnl.gov>

Subject: Yeast viability

I'm interested in obtaining info on yeast viability. Given a freshly grown up yeast population, what does the viability curve look like vs time? What does the curve look like? Does the viability start to drop right after flocculation? I'm sure there are a lot of factors that effect the viability like temp. etc. I would be interested in any info. out there.

Thanks,

Bob Jones

Date: Mon, 18 Oct 93 16:10:22 -0400

From: paul@ftp.com (Paul Selkirk)

Subject: beer nuts?

The other day, while roasting some hickory nuts from my neighbor's tree, I got to wondering if anyone ever brewed with nuts.

Would you mash the nuts (lots of starch in there), or "dry-nut" a more conventional beer?

What kind of nuts would be good? The walnut/pecan/hickory family all taste like they've got a lot of tannins, so they might not be appropriate. Maybe almonds, filberts, brazil nuts... (I can see it now - Rainforest Crunch Beer!)

I've been reading the HBD since the beginning of the year, plus most of last year's back issues, and I've seen some...unusual...ideas, but I don't recall anything of this sort. What say ye?

paul

Date: Mon, 18 Oct 1993 13:24:34 -0700 (PDT)
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: My UK trip

Well I'm back from 3 weeks of pub hoppin in England, Wales and Scotland. I got to tour 4 brewerys, Young's, Sam Smith's, Calandonion and Traquir House (it was under reconstruction). The brewerys were all very nice and seemed to bend the rules more than a bit when I mentioned I was a brewer from the states. I came back with 4 yeast samples and am looking forward to brewing some real ales. A few thoughts on things I was surprised about in the UK.

* I expected cellar temp beer and low carbonation. The real ales are cellar temp (55 deg f) and DEAD flat. The ales may have a head if pulled via a sparkler on the beer engines.

* All the beers were extremely small gravity compared to our beers here in the states.

* Your average pub goer will consume 8-10 or more pints a night. They expect to drink to a glow and keep the glow, not pass out from alcohol.

* All the beers seemed much more subtle than I expected. There was malt and hops, but with the zero gas levels, they seemed much smaller than our ales here in the states.

* An Imperial pint was about \$2.25.

* The Brits are very fussy about both clarity and a good pour. The fill damn well better be to the top and they don't want any haze. All the beers were extremely clear. I expected some floaters, I say NONE.

* I really got use to the no gas, small gravity, cellar temp beers. I could drink 3-4 pints and was ready for more. We all make such a big deal out of carbonation in our finished product and would probably throw out a batch that had a gravity of 1038. Well relax! I'm looking forward to brewing a real ale (I won't however vent to the atmosphere). I will keep the gravity very low, the flavor up and serve it cool.

* On a negative note, smoking is not declining in the pub scene. It was a real challenge to find a corner where I could smell something other than cigarette smoke.

* I attended a beer festival in Bedford that had 53 real ales on. The beers were in the center of the room on a scaffolding made of steel pipes and wood planks. The kegs had a piece of muslin cloth that was damp over them and a

fan was blowing across them. How's that for room temp? The kegs all just gravity drained into the tasters mug. Quit a difference from our tasting, eh?

Just a few thoughts, hope you enjoyed them. I sure did enjoy experiencing them.

Bob Jones

Date: Mon, 18 Oct 93 16:07:30 EDT
From: sdlsb.dnet!73410%sdlcc@swlvx2.msdl.com (Carl Howes)
Subject: hot priming

Bart writes in HBD1249:

>When I prime my fermented beer with corn sugar, I usually cool the
>priming solution to 70F with an ice bath before mixing with the beer.
>[snip]
>I've always thought that this step is probably not necessary...
>[snip]

I just sampled a bottle of my latest batch (a porter) last night and
could detect no ill effects from using the primer while hot (~150F) due
to
a lack of patience while cooling it. A bit of off flavor from poor
bottle
rinsing, but that's another story (my wife also had one - no off flavor)
.

>Brewing equipment destroyed while typing this message : 0

Congratulations on your conservation of brewing equipment!! ;-)

Carl

Date: Mon, 18 Oct 93 16:06:09 EDT
From: lyons%adcl@swlvx2.msd.ray.com
Subject: Clean it up

> " I have found that it is much easier to fake an
> orgasm than to pretend to like basketball. "

I'm not clear if this implies that someone has a problem with basketball or with finding the right man? It may have appeared cute the first time it was posted, but please keep in mind that this type of material has little to do with the subject of beer and is offensive to some folk. I have also been guilty of making crude remarks, but have learned that a public forum is not proper place. Please clean it up.

Chris

Date: Tue, 19 Oct 1993 11:27:35 GMT+1100
From: Davin Slade <10692851@eng2.eng.monash.edu.au>
Subject: Honey instead of sugar.

Is it possible to use honey instead of cane sugar or dextrose.
If so how much honey is equivalent to 1 kg of sugar.

What is a good beer to use honey in.

Davin Slade, 4th Year Civil Engineering, Monash Uni, Oz
10692851@eng2.eng.monash.edu.au or
baldrick@yoyo.cc.monash.edu.au

"It was georgiousness and georgosity in the flesh"
Alexander de Large, A Clockwork Orange
Anthony Burgess, 1966, Stanley Kubrik, 1971

Date: Mon, 18 Oct 93 23:30 PDT
From: lfk@veritas.com (Lynn Kerby)
Subject: Re: hot priming

>I've always thought that this step is probably not necessary since the
>thermal mass of 1 pint of 200F sugar water is nothing compared with 5
>gallons @ 70F. So what if I zap a few yeast cells on the initial
contact ?

>They don't have very good lawyers anyway.

>

>I've never had the guts to actually risk a batch with this hot
combination

>experiment. Has anyone else done this successfully ? I'd like to
>simplify my process.

Be bold, fry the little buggers!

I don't bottle much anymore (kegs are great), but I got tired of
waiting for the priming solutions to cool back when I did bottle. I
tried an experiment where the priming solution was well over 100F and
it worked fine. Next batch it went in nearly boiling and guess what,
no carbonation whatsoever. Fooled you! It worked fine, as you have
guessed, the thermal mass of 1 cup of boiling sugar solution has very
little effect on the thermal mass of 5 gallons of beer. Your mileage
may vary, but if I ever have a need to bottle an entire batch, I
certainly wouldn't worry about killing the first few 100 million yeast
cells.

>Brewing equipment destroyed while typing this message : 0

How **does** he do it? :-)

Lynn Kerby
lfk@veritas.com

Date:19 Oct 1993 8:55:22 EST
From: ESPINOS0@ksg1.harvard.edu
Subject:

Please sign me off: Manolo Espinosa
espinos0@ksg1.harvard.edu

Date: Tue, 19 Oct 93 07:54:05 CDT
From: nfarrell@ppco.com (Norman Farrell)
Subject: Slant/plate recipes

Okay, all you yeast bankers out there in HDB land, a fellow club member without HDB access has asked me to pose a question on making slants and plates for yeast culturing at home. Tim would like to know what recipe is used by the Brewers Resource people for their slants (how 'bout it Dr. Raines)??? Failing that, he would settle for recommendations from other successful yeast bankers. If this is covered in a FAQ, please let me know and I will gladly fetch it.

Tim thanks you and I thank you, we all thank you. Private email is okay.

BTW I took 6 pages of notes from George Fix's talk at the Dixie Cup last weekend. I am writing them up in the form of a summary for a club newsletter and would gladly post them if there was interest (and if George Fix doesn't send me email telling me that I better not). The topic was the use of fining agents and is supposed to be included in his new book. Any interest?

Regards,
Norman (nfarrell@ppco.com)

Date: Tue, 19 Oct 93 08:53:06 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer drinks Belgian style

Enough with these wimpy British beer drinks. My friend Olivier DeCamp (who should have posted this himself) reports enjoying a nice Chimay Flambee on cool evenings in Belgium. This consists of Chimay mixed with high octane whiskey, set aflame. (Did I get that right, Oli?) Presumably you wait for the flames to die out before drinking, but the heat they generate warms the drink nicely.

Sounds to me like you hug bowl for a while afterward, too.

Date: Tue, 19 Oct 93 09:07:48 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium, Part 1: Rochefort

Beer Hunting in Belgium: Part 1 of 7

Rochefort (Abbaye de Notre Dame de St. Remy)
(by Jim Busch: BUSCH@DAACDEV1.STX.COM)

Through an amazing stroke of luck and Phil Seitz's wealth of connections in Belgium circles, we were able to arrange a tour of this monastery. It turns out that one of Phil's friends is the son of the man who assesses brewing taxes for the Rochfort region, and as a special favor to his father--who is retiring--the monks allowed our friend to bring several guests for a very rare look inside the monastery.

Rochefort is located a modest drive south from Namur. The sign next to the door of the abbey reads "No Visitors." We knocked and were greeted by a classic brother of the order, dressed in the traditional robes, sandals and cane, and hunched over with the burden of his years. We were led to a spartan reception/waiting area where the silence of the monastery began to hang on us. A short while later, head brewer Brother Antoine greeted us and we followed him to the brewery.

The brewery occupies a corner of the monastery, in a tall room roughly 20 meters long. Two sparkling traditional copper "onion dome" kettles were situated on the lower area, while another traditional copper lauter tun was situated on the far end of the room on a platform 2 meters above the main floor. The area was illuminated by tall stained glass windows, some of which sported hanging ivy plants. A large cross was on one wall. The traditional copper grant was embedded into the tiled platform wall, and the brewer still manually operates the grant handles to equalize the runoff rate from the lauter tun.

Inside the vessels were a slew of mechanical devices; the normal rakes and sparge arms in the lauter tun, but lots of probes and gadgets in the kettle. The second kettle was originally used to produce a table beer--a very normal practice at breweries that make high gravity beers, but a practice that is becoming less common. It is no longer used except to heat water (talk about wasted equipment!). When lautering, all the original mash water is allowed to drain from the mash, then additional water is added. The table beer, when it was made, came from later runnings off the mash.

Three beers are produced at the monastery, and are named for their strength in Belgian degrees: 6 (7.5% ABV); 8 (9.2% ABV); and 10 (11.3% ABV). We were also told that all three beers originate from identical mash bills (that is, the exact same mix and amount of malt), the difference being in the quantity of candi sugar added to the kettle. The mash bill consists of CaraVienna and Pils malts, with maize being added as an adjunct. Ground coriander is added to the kettle in addition to pulverized whole hops, Styrian Goldings for kettle hops, Hersbrucker Hallertau for finish. This is the first brewery I have ever been to that goes to the trouble of using whole noble hops and then pulverizes them prior to addition to the kettle. This is done to ease the centrifuging of the cast out wort. The original gravities of the three beers are: 17P, 20P and 25P.

The cast out wort is passed through the SS centrifuge, then a plate heat exchanger, and then is dosed with a two-strain yeast from a small cylindro-conical yeast tank. The fermentation is

done in what appears to be a tiled open fermenter that was modified by the addition of a closed SS top. The top looked to be quite involved, with piping and controls everywhere. The two fermenters occupied a relatively small room.

After primary fermentation, the beer is filtered using a Diatomatous Earth filter (DE or Kieselgur filter) and then racked into maturation tanks. A brief conditioning period is followed by the addition of priming sugar and three days later bottling is done. The bottles are steam cleaned and sterilized before being filled in a very large Kronen bottling line. Every piece of equipment in this brewery was of high quality, well engineered and of greater capacity than what appeared to be required. These monks certainly built it right.

Rocheport beers are some of the harder-to-find Trappist beers even in Belgium, and the monastery purposefully perpetuates this. The brewing schedule is always the same. They only brew 3 days a week. The brewing schedule varies little; 2 weeks of Rocheport 8 (6 days), and 1 week of Rocheport 10 (3 days). A week of Rocheport 6 (3 days) is thrown in from time to time. It is no wonder that the '8' is the most prevalent beer of the three. It was the '8' that Brother Antoine opened for us in his study. As Michael Jackson has noted, the study is a special place, adorned by literally hundreds of beer steins from brewmasters that have visited, many from great breweries in Germany. Brother Antoine himself is a bit special in that he seemed genuinely amicable to us and did not typify the Trappist stereotype monk. He dressed quite plain and normal, not in the robes of his other monks. There was even a plastic Jesus with flickering light on a shelf.

The beer was fantastic. The really remarkable thing about all of the Rocheport beers is the art of creating a significant amount of alcohol but keeping the flavor perceptions several percent lower than the actual alcohol. This is not an easy feat.

Brother Antoine is one of 24 monks that live in the spacious monastery. Economically, sales of the beer support the monastery and its projects. Even at three days a week of brewing, the monastery is making boatloads of money. Brother Antoine proudly told us of the newly renovated Chapel and we stopped there after our Rocheport 8's were consumed. The high cathedral ceiling and walls are made from the stone blocks of old farmhouses in the Loire Valley, and the high narrow windows are filled not with glass but with thin slabs of alabaster. The pews were being hand made and carved by local craftsmen as we were there, and the column capitals had also been elaborately carved. The floor of the entrance area is adorned with a very large circular marble inlay. The marble was cut into arcs and inlaid and polished. All of this was being paid for by the brewery.

Since it was the end of a work day, the workers were relaxing with a case of Rocheport 8! It was quite a sight.

According to Brother Antoine, the other Trappist breweries have broader financial responsibilities. In addition to supporting itself, Chimay also pays the expenses for four other monasteries or convents, and Brother Antoine believes Chimay began brewing years ago to provide jobs and economic development to the people in its region. This puts their high production into context.

Date: Tue, 19 Oct 1993 10:51:09 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: yeast pitching/filters/names

> Date: Fri, 15 Oct 93 15:52:38 EDT"
> From: Gary S. Kuyat <gsk@sagan.bellcore.com>
> Subject: 5/2/.5 micron filters
> Full-Name: Gary S. Kuyat
>
> 5 micron:
> Takes out big chunks, like hop particles. No effect in flavor, no
effect in
> body, no effect in chill haze. Other than as a pre-filter 5 mic. seems
pretty
> useless.
>
> 2 micron:
> This seems to be the best all around. Removes yeast. Some very slight
loss of
> body. Clears and "crispens" beer taste. Almost have to say "why
wouldn't you
> run all your beer through this?" (that is if you're kegging!) Don't try
.5 uconrm...
> Removes yeast, some body and if your beer is very cold when you
filter, this
> removes chill haze! Kinda leaves your beer with a "thin" mouth feel.
If you
> -----

What kind of filters are you using, what is thier efficiency rating and
what
are they manufactured from? All of these factors will effect filtering.
Also,
how fast (psi) so you push the beer from keg to keg, and do you condition
it
prior to filtering?

> -----
> Date: Sun, 17 Oct 1993 09:51:35 -0700 (PDT)
> From: Domenick Venezia <venezia@zgi.com>
> Subject: Yeast nutrients

> same conditions then assayed them for total cell counts. The YNB
starter
> had a cell density 10 times (!) of the other. The numbers worked out
to
> 10×10^{10} cells/liter. I seem to remember an optimal pitch for 5
gallons
> is 4×10^{10} cells so using YNB you could pitch with a pint and get an
> optimal cell count.

Usually, cell counts are expressed in cells/ml, so the above numbers look
more
impressive than they actually are. 4 million cells/ml is underpitching,
even
for ales, although not by much (many UK ale brewers pitch between 5-10
million
cells/ml). For lagers, it is 1 million cells/ml/degree plato. So for a
12P
lager, pitch 12 million cells/ml. For a 17P lager, use at least 17
million

cells/ml, and as it goes even higher, up the density. The 10 million/ml is a good pitching rate for most regular beers. If you have access to thick slurry, pitch 1 lb per BBL of wort.

> -----
> Date: Mon, 18 Oct 93 09:15:49 -0400
> From: "Phillip Seitz" <p00644@psilink.com>
> Subject: Beer hunting in Belgium: Introduction
>
> on beer and brewing in Belgium, based primarily on research
> conducted by Jim Bush and myself during a visit this past summer.
> ^^^^^^ Who is this guy ???:-)

Good brewing,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Tue, 19 Oct 1993 08:50:17 -0600 (MDT)
From: EZIMMERM@UWYO.EDU
Subject: Beer in the appropriate container thread...

Salutations!

When reading that little thread on the 'right' container for each beer I realized we had neglected 'lawnmower beer' and thought it should be suggested we use (yep, you guessed it) a YARD glass!

Gene in Laramie

p.s. please forgive the bad pun, but I couldn't resist this one...

Date: Tue, 19 Oct 1993 10:51:50 -0400 (EDT)
From: Jane M Slipp <jmsst58+pitt.edu>
Subject: Aluminum for sparge water heating?

Is there any harm in using an aluminum pot to heat water to 168F
for sparging the mash in a lauter tun?

-steve

Date: Tue, 19 Oct 93 08:01:54 -0700
From: cary@nas.nasa.gov (Matt F. Cary)
Subject: Re: Beer Drinks

In HBD #1250, dspalme@mke.ab.com wrote:

>In Germany, people will mix a light-colored beer (insert Pilzen or Weiss
>here) and mix it with the equivalent of Sprite (tm) and call it a
"Radler."

In Germany, they were making "radler"s before Sprite(tm) was available.
Every radler I ever had was beer and lemonade. I believe that was the
original drink, which literally refers to bicyclists. Perhaps
in need of a lighter drink than straight beer, they were among the first
to drink lots of them (what German would dilute their beer without
pressing need). radler is probably now used to mean any beer/soft drink
combination.

OK, now here's a real beer drink for you. I've heard this referred to
as a Slip, Strip and Go Naked:

1 12 oz can frozen lemonade emptied into a pitcher
12oz gin (measure using the now empty lemonade can)
3 12 oz beers

Mix it all together and you'll experience the name.
This is a summer drink and it's the only gin drink I ever remember
(barely)
liking.

Matt Cary
cary@nas.nasa.gov

Date: Tue, 19 Oct 93 10:36:31 -0500
From: "Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu>
Subject: beer drinks

In France, they use beer as a mixer for a drink called "panache".
It consists of roughly equal parts of a white soda and beer.
Occasionally, they will add a splash of grenadine to the glass,
the name of this version escapes me.

JEFF M. MICHALSKI
michalski_jm@rophys.wustl.edu

Date: Tue, 19 Oct 93 09:13:36 -0700
From: Ted Manahan <tedm@hpcvcbp.cv.hp.com>
Subject: hot priming solution
Full-Name: Ted Manahan

A couple days ago, Bart Thielges asks:

- > When I prime my fermented beer with corn sugar, I usually cool the priming solution to 70F with an ice bath before mixing with the beer.
- > I've always thought that this step is probably not necessary since ...
- > I've never had the guts to actually risk a batch with this hot combination experiment. Has anyone else done this successfully ?

I do it every time. My technique is to boil 1 cup of water, then add between 1/2 and 2/3 cup corn sugar, turn off the heat, and let it sit until cool.

Except, I never allow enough time to let it cool.

What the heck, I just pour it through a sanitized (or at least rinsed) kitchen funnel onto the beer while racking into the priming carboy.

It works for me.

Ted Manahan
tedm@cv.hp.com
503/750-2856

Date: Tue, 19 Oct 93 09:18:43 PDT
From: DJM1%CRPTech%DCPP@cts27.comp.pge.com
Subject: Hot Priming/Keg Request

In HDB #1249 Bart asks:

)Subject: hot priming

)I've always thought that this step is probably not necessary since the
)thermal mass of 1 pint of 200F sugar water is nothing compared with 5
)gallons @ 70F. So what if I zap a few yeast cells on the initial
contact ?

)They don't have very good lawyers anyway.

)I've never had the guts to actually risk a batch with this hot
combination
)experiment. Has anyone else done this successfully ? I'd like to
)simplify my process.

This is the way I've been doing priming since switching to kegs, I've
never
had any problem with carbonation.

Does anyone out there on the HBD know where to obtain old (or new, for
that
matter) 15 gal kegs....Searches of local Recycling places are a no-go
(yeah,
I could actually buy some of that massed-produced swill and keep the keg
for
the deposit). TIA-----You can E-Mail me direct.

Dan

Date: Tue, 19 Oct 93 11:48 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: beer dinks & drinks

All the talk concerning Shandy's reminded me of the Snakebite--an English concoction served at pubs--1 part lager to 1 part hardcider. Gives you those hangovers where it's difficult to force your eyes open the next day.

I've seen a recipe for a Bloody Mary-esque drink made with beer instead of vodka. A brunch drink. The exact measures escape me.

Also, there's the eternal short & a pint (Irish Whiskey & Guinness)... either as a boilermaker or drop the shot into the pint. At the Great Taste of the Midwest, Three Bells Brewery of Mich. provided an Irish whiskey infused stout in wooden casks. Hopefully that wasn't a once in my lifetime occurrence.'Tis the season & the Bushmill's is at the ready.

Happy mixing,
David

Date: Tue, 19 Oct 93 09:57:25 PDT
From: kdamrow@Thomas.COM (Kip Damrow)
Subject: regional brewing publications

Does anyone have phone numbers for regional brewing publications
in the mid-west and the east coast? (similar to Celebrator, on the west
coast)
Thanks, Kip.

Date: Tue, 19 Oct 1993 10:37:45 -0800
From: "John C. Post" <jpost@llnl.gov>
Subject: Distillation and the home-brewer

Actually, as I remember way back a couple of years ago, there is a classic beer style (eis-bock?) that *requires* distillation. There was quite a brew-ha-ha (sic!) as to whether it was legal to make this style or not, as it uses freeze-distillation (you freeze the fermented-out wort and remove the ice cake, which leaves the final product awaiting carbonation). Freeze distillation is technically probably illegal, but, in the spirit of this thread, probably not dangerous...

Date: Tue, 19 Oct 1993 10:50:47 -0700 (PDT)
From: davep@cirrus.com (David Pike)
Subject: Carbonation and Filtration

While reading the Fix'es Vienna book last night, I came across the sections on filtration and carbonation, and I suddenly got confused as to which order they should occur in.

1. carbonate then filter
2. or filter then carbonate

It seems some of the big boys filter and then pump into a conditioning tank to carbonate, so this would be #2. Other breweries, Anchor for one, end secondary fermentation with the beer naturally carbonated, and filter afterwards.

At home, it can be either method. Secondary ferment, then filter, then carbonate in a keg, then bottle(or drink). Or it can be the other way around, ie. from the secondary, to the keg for carbonation, then filtration, then bottling.

Whats the HBD consensus, which method is used, and why?

Cheers!

Dave

Date: 19 Oct 1993 13:57:40 U
From: "Daniel F McConnell" <Daniel_F_McConnell@mailgw.surg.med.umich.edu>
Subject: lemon beer/yeast nutrient

Subject: lemon beer/yeast nutrient

Hi All:

>In Germany, people will mix a light-colored beer (insert Pilzen or Weiss here) and mix it with the equivalent of Sprite (tm) and call it a "Radler."

I believe it is done in a 50/50 ratio. It is quite tasty on those hot, summer days and every now and then I will consider doing the same with some of the swill I see in my parent's 'fridge. Good stuff! I recommend it! Be daring! Give it a try!

I first became aware of such strange things when I was in Germany too, I tried it and hated it. Later back home it occured to me that this might be a perfect thirst quencher after triathalons.....It was! Don't waste good beer on this. The combination of lemon and beer is far better than other *replacement* crap like Gatoraid or Exceed (tm,tm). Regular beer doesn't cut it-too much carbonation. Besides, you can have a quart or so, experience the tremendous muscle relaxing effects and rehydrate without falling down.

While I'm here, I'll bite on the yeast starter question....

from Domenick Venezia

>.....[edit].....Chris grew the starters under the same conditions then assayed them for total cell counts. The YNB starter had a cell density 10 times (!) of the other. The numbers worked out to 10×10^{10} cells/liter. I seem to remember an optimal pitch for 5 gallons is 4×10^{10} cells so using YNB you could pitch with a pint and get an optimal cell count.

FWIW 10×10^{10} cells/L isn't really that high. These values are usually expressed in cells/mL and this translates to 10×10^7 /mL or 100 million cells/mL. A typical normal fermentation may produce cell counts of 50 million cells/mL which is dependant on strain, O2 levels etc. As far as pitching of 4×10^{10} cells, you don't give a volume of pitching culture, so lets assume that you mean 1 L. 4×10^{10} cells into 19 L (5 gal) will provide about 2×10^9 cells/L or 2×10^6 cells/mL. Optimal pitch rates are debatable, but I think it is agreed that this rate is low for ales (should be 5-10 $\times 10^6$ /mL) and extremely low for lagers (should be 10-15 $\times 10^6$ /mL), especially lagers STARTED at fermentation temperatures near 50F, (not pseudo-steam-start-'em-at-70-and-cool-'em-to-50-lagers). Noonan recommends even higher rates for Scotch Ales and other strong beer in his new book.

What kind of lag time did he get? I'll bet it was on the order of 10-12 hours, not bad, but greater than optimum.

DanMcC

Date: Tue, 19 Oct 1993 11:20:31 -0700 (PDT)
From: Kyle Hammon <MHAGEMAN@OREGON.UOREGON.EDU>
Subject: Re: beer drinks

I have no idea of any history to the drink, but my wife (from the Montana outback - Jordan Montana, pop. 350) introduced me to beer and tomato juice.

No, it's not disgusting! My own modification is Snappy Tom or V-8 with Luisiana Hot Sauce plus the beer of your choice.

As someone else suggested, this is best done with the beer you find in your parents fridge... or with the stuff leftover from well-intentioned, but sadly unevolved offerings at a pot-luck.

Kyle Hammon "Just Drink It"
MHAGEMAN@OREGON.UOREGON.EDU

Date: Tue, 19 Oct 1993 13:31:06 -0500 (CDT)

From: Paul Boor <PBOOR@BEACH.UTMB.EDU>

Subject: beer drinks: velvet hammer

In younger and wilder days we held lab parties that featured the "velvet hammer", i.e. half guinness stout and half dry (cheap) champagne, in a punch bowl with a chunk of dry ice in it, served with small paper cups.

Very delicious, much too powerful, and much too easy-going-down...

Date: Tue, 19 Oct 93 09:04:26 PDT
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Kegging FAQ delayed slightly

Well, sorry to inform you all that the Kegging FAQ will be delayed a couple of weeks. The task of combing through back issues of HBD for questions and answers is *much* larger than I had anticipated. I am about halfway through the articles and can only work on them a short time each day. I expect that by the time I am done and preliminary reviews have been done by people whom I have asked to assist me with a review process, it will be the end of November, instead of the end of October as I have previously posted. I am sorry for the delay, but I have to work to support my newsfeed habit.

The good news is that the FAQ is not languishing, but making progress daily. I think it will be a very worthwhile endeavor, even though my fingers are growing shorter with prolonged use on the keyboard. B-l

Date: Tue, 19 Oct 93 14:55 CDT
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: mashout

> I understand you once had a MM but traded it for a Corona
> because the grain kept coming out of the hopper when you turned
> the crank. The Corona has an arrow telling you how to turn the
> crank and I can understand how No-Mashout-Types (NMT's) feel
> more comfortable with it.
>
> js

Well, that's partly true. I did own a Maltmill but returned to my old Corona. Yes, I admit that I couldn't figure out which way the crank turned. That and the fact that once I figured out how to operate the Maltmill, it really didn't do a good job of ringing-out my wet laundry like I thought it would.

But we seem to be digressing from the original proposal that mashouts are unnecessary. What is called for in this debate are cold, hard facts. After all, this is HBD not late night cable tv.

In that vein I have summarized my last two year's worth of brewing records. What I found was that all grists were composed of Belgian malts. Small amounts of wheat were used but never more than 5%. For background: Corona grind, simple infusion mash, mash & sparge ala picnic cooler, never a protein rest, never a mashout and rarely a ph adjustment.

The bottom line remained unchanged: no stuck sparges and mashing efficiencies over 80%. Given the simplicity of the efficiency measurement I think it's safe to say the numbers can be trusted.

Assuming that one is using a grist that does not have a high percentage of wheat or rye, I remain confident that mashouts are a waste of time. But why take my word for it? Why not give it a try next time?

Over time, we incorporate new techniques into our brewing methodology when convinced of the new technique's merit. I'm proposing the same action only in the opposite direction in that techniques can be eliminated when deemed unnecessary. Such is the case with mashouts.

chris campanelli

Date: Tue, 19 Oct 93 15:12:09 -0500
From: "Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu>
Subject: barleywine yeast

Barlyewine is featured in the latest issue of zymurgy.
The use of a yeast mixture has been suggested by some "experts"
but the author of this article claims he has never used
anything but ale yeast.

Any comments from the HBD? If a combination of ale and other
yeast are used, should they be combined day one at pitching, or
should the wine or champagne yeast be added after initial fermentation
settles down? If an ale yeast is considered hearty enough, which
varieties are best? If an ale yeast isn't enough, which wine or
champagne yeasts are good quality additions?

thanks,
JEFF M. MICHALSKI
michalski_jm@rophys.wustl.edu

Date: Tue, 19 Oct 93 14:32 CDT
From: korz@iepubj.att.com
Subject: lauter tun designs/amylase/Belgian yeasts

Wyllie Coyote posted a very good summary of lauter tuns. I'd like to add just a few comments:

> 1. Grain bag in a bucket with a spigot near the bottom of the
> bucket. Grain bag is held in place with elastic (bungee). Bag is
> mesh material. I used one of these for several years. Worked fine.
> Disadvantage: Size limitation, not insulated, unless you stick it
> in a box. Bag would slip sometimes.

Please note that due to a fluid mechanics phenomenon called "channeling" it is recommended that the grain bag you use for the above system should have relatively "waterproof" sides and only the bottom should be made of mesh.

>to allow me to run water through the manifold to clear it. I also
>fashioned a metal screen to fit over the manifold- kinda like a
>false bottom to make a flatter surface for the grain bed (can you
>say "overkill"?). It keeps big grain bits away from the tubing-
>aiding the grain bed establishment, and makes it easier to lift
>the grain out of the cooler into my healthy compost pile. I don't

Perhaps it makes it easier to remove the grains, but if indeed it keeps the large particles of grain away from the manifold, then you don't need the manifold. As you said yourself, it's the grain bed that does the filtering and it requires that the large pieces be at the bottom, smaller on top of those, etc. If the mesh is holding up the large husk pieces, you should be establishing your bed on the screen and omitting the manifold.

In all fairness, the commercial devices should have been mentioned. The ones that I know of are the Phil's Phalse Bottom, which is similar in function to the Zapap design, but works a bit differently. The only comment I have about this design is that it has been mentioned on the HBD that the hose has a tendency to kink where it comes out of the Phalse Bottom. Replacing this with an elbow seems to fix the problem.

Another design I know of is available commercially and you can make it yourself: the EasyMasher(tm) or easymasher. This design uses a piece of screen (like stainless window screen) formed into a tube and then hoseclamped to a brass tube that makes its way through the wall of the kettle. I would imagine you could mount it in a cooler too. My concern about this design is that the runoff is drawn from a very small area of the mash and would (again, due to channeling) theoretically give lower extraction rates than a lautering system which takes the runoff from a wider range of the cross-section of the grain bed. I must stress *theoretically* since a number of users have reported very good extraction rates.

There are a number of very expensive commercial systems (made from straight-sided kegs), which are actually scaled-down versions of full-size commercial lauter tuns. I have no experience nor have heard much about them so it's too soon to tell. Cost is a big disadvantage.

Finally, the RIMS system should be mentioned. RIMS stands for Recirculating Infusion Mash System (I believe) and recent improvements have apparently increased the capacity of this system. I know that George Fix was very impressed with the new design of this system. It's biggest disadvantage is cost.

Disclaimer -- I don't sell ANY lauter tuns or commercial devices for the building of lauter tuns, so I'd say I'm pretty impartial on this.

Steve writes:

>I am a bit confused over the use of Amylase Enzyme when brewing all >grain beer. My understanding is that it contains Alpha Amalyse.

>

>My understanding is that Alpha Amylase is denatured around 130 degF.

>If this is correct what good is the enzyme at mash temps above 140 >degF?

I assume you are talking about a commercial version of Amylase Enzyme. I've never used any commercial versions, but you really shouldn't need any unless you are using a lot of adjuncts like boiled rice, oats, wheat flour, oat flour, cornstarch, unmalted grains, etc. Malted barley and malted wheat have more than enough amylase on their own to convert their starches as well as a reasonable amount of adjuncts.

There's alpha amylase and beta amylase. Alpha amylase is less temperature sensitive than beta. Alpha slowly begins to denature above 140F, I believe, but will last a couple of hours even at 158F. Beta amylase also begins to denature at about 140F also, but denatures quite quickly above 150F. Alpha amylase converts starches and dextrans into glucose until it reaches a branch that it can't "eat" leaving a limit dextrin. Beta amylase works by cutting large chains of glucose into smaller chains. If you mash at the lower end of the 148F to 158F range, the two enzymes will work together to make a highly fermentable, thin (low body) beer. If you mash at the higher end of the range, you will get a less fermentable, heavier (higher body), slightly sweeter beer. Something in-between, will get you something in-between.

The enzymes that denature around 130F would probably be one of the proteolytic (protein degrading) enzymes. There are two there also: Peptidase and Protease, but I forget which does what. The two of them work together like the amylase enzymes to break large proteins into small proteins and amino acids. At lower protein rest temps, you get more amino acids, less body and less head-retaining small proteins. At higher protein rest temps, you get less amino acids and more small proteins (better head retention and more body).

Stu writes:

>suggestions here? Would it help to culture a Chimay or Duvel and repitch

Chimay is bottled with the fermenting yeast, Duvel (I've been told) is not.

A1.

End of HOMEBREW Digest #1252, 10/21/93

Date: Tue, 19 Oct 93 14:33 CDT
From: korz@iepubj.att.com
Subject: iodophor/Godzilla/yeast help

Eric writes:

>> Iodophor has a sort of metallic-chlorine-like taste ... It's less
>objectionable to me than chlorine itself, though. I think the key has to
be
>to drain thoroughly after sanitizing with the stuff, and to use pretty
low
>levels to start with. ... 12ppm is easily detectable. We could do an
>experiment...

I don't know about the taste, but I've been told by the manufacturer,
that Iodophor is non-toxic WHEN DRY. All the instructions regarding
its use around brewing have included the mention of DRYING the sanitized
article.

>immediately for food service. FDA considers 10ppm iodine

Around here 12.5ppm is what the Health Dept. requires.

>safe for consumption, though iodophor solution also contains
>phosphoric acid and isn't very tasty by itself.

Not all iodophors contain phosphoric acid -- the "phor" has nothing
to do with phosphoric acid -- this is what a chemist told me.
I found a really interesting article in an ASBC publication from
the 50's. I'll see if I can get around to posting some of the
more interesting parts.

>[The original beer was a "Belgian" brown... I would describe the flavor
as
>smoothly medicinal rather than infected]

Smoothly medicinal sounds to me like stale grain. Some grains are more
suceptable to developing a phenolic smell/flavor -- I've found that
DeWolf-Cosyns CaraPils is the most likely to develop this problem of all
the grains that I've tried. I was talking to Tim Norris about this
recently
and he suggested that perhaps it's the moisture content, since the CP has
a high moisture content compared to the other DWC grains. The phenolic
flavor I'm talking about is similar to BandAids(tm). Is that what you
smelled/tasted? A little wheat malt can give you this flavor/aroma too.
Any wheat in the recipe?

Jack writes:

> Keep in mind that Godzilla is for real but the others are just just
fictional
> characters.

I agree. You then, being Mothra, must have just been a figment
of our collective HBD imagination?

David writes:

>I'm a novice brewer (second batch) who has now learned, don't throw away
>the labels to your mixes or yeasts! My question is about yeast. I
>brewed two days ago a hopped extract for a strong ale. Before adding
>the yeast to the (pre-)wort mix, I put it in water and warmed it. The

>wort was at 70 degrees when I added the yeast. Forty-eight hours later,
>there's been nary a bubble through my fermentation lock. Would
>overwarming have killed the yeast, or was it more likely something else?

How warm did you warm it? You should rehydrate yeast at between 90 and 110F and then let that slowly cool to your wort temperature before pitching.

I suspect that either you A) didn't aerate your wort enough, in which case you should aerate the wort and add more yeast, B) shocked the yeast by rehydrating in too COOL a water, in which case you should wait some more, C) killed it by heating it over 130F, in which case you should add more yeast, or D) it has already fermented out the whole batch while you were not

looking (is there a brown ring of crud on the walls of the fermenter, about

an inch wide, just above the level of the wort? if yes, then it's probably

D). If the lag time ends up being more than three or four days, then I would taste the beer before bottling and dump it if it got infected.

Al.

Date: Tue, 19 Oct 93 11:57 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Cranberries attn: M. Blongewicz

Apologies to subscribers for use of bandwidth...

To Michael Blongenwicz--

Haven't gotten any cranberry recipies other that two mentioned in the Cat's Meow. Sorry I hadn't replied earlier, can't reach you via personal email.

To readers--I'm still in the market for extract recipes using cranberries. Any experiences and tips would be appreciated.

Thanks,
David Atkins
UW-Madison
atkins@macc.wisc.edu

Date: Tue, 19 Oct 1993 16:57:45 -0400 (EDT)
From: Kieran O'Connor <koconnor@mailbox.syr.edu>
Subject: Temperature Controls

Folks--

As far as I know, there are only 3 temperature controllers for
fridges--the Hunter, "The Controller" put out by Williams, and the Penn
Temperature Control (this control needs modification).

Could anyone tell me if there are any others they've used or heard of?
Thanks, its for an article.

BTW--who makes the Hunter Energy Monitor?

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu
Syracuse, N.Y. USA

Date: Tue, 19 Oct 93 17:15:42 EDT
From: 19-Oct-1993 1709 <macneal@pate.enet.dec.com>
Subject: Hot priming and peach beer

Bart Thielges asked about adding hot priming sugar solution to wort for priming. I do that all the time and haven't seen a problem yet. I pour the boiling corn sugar/water solution into my bottling bucket and then start siphoning the beer into it.

Steven Tollefsrud asked about a peach beer. I made one a couple of months ago when my peach tree started producing. I used a recipe from Dave Miller's "Brewing the World's Great Beers". It's basically a lightly hopped, lightly colored, wheat & barley beer. Ferment to near completion in primary and siphon onto 10 lbs. of crushed peaches in the secondary and let ferment another couple of weeks. It has a great peach aroma and a very light and refreshing taste. The biggest problem I had with it was separating the beer from the peaches. I ended up leaving almost a gallon of beer behind because of clogging siphons. This caused a bit of a complication since I primed for 5 gals -- the beer has to be well chilled to avoid gushers.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Tue, 19 Oct 93 13:53:52 -0500
From: bliss@pixel.convex.com (Brian Bliss)
Subject: mash procedure

chris campanelli writes:

>I skip the
>mash-out and consistently get good yields. It should also be noted
>that I use a picnic cooler and never perform a protein rest (I use
>Belgian malts).

My normal procedure exactly. It's worked like a charm for the past
20 batches.

>I won't tell you how I grind my malt because I'll
>then be forced to use the "C" word.

"Crack"? "Cremate"?

Oooooooh - "C R U _ _". (Hint - rhymes with "Lush").

Now if we could just manage to avoid using "Mash", "Sparge",
"Efficiency", and "Lactic", maybe we could keep the hbd down
to a reasonable size...

bb

Date: Wed, 20 Oct 93 08:03:07 EDT
From: sims@pdesds1.scra.org (Jim Sims)
Subject: oxidation confusion

>>
>>> From: arne thormodsen <arnet@kaibutsu.cup.hp.com>
>>> Subject: Oxidation and Filtering
>>>
>>> OK, I'll be the heretic. Hey, new brewers! DON'T worry about
oxidation
>>> when transferring to secondary. The beer is cool and saturated
>>> (probably supersaturated) with CO2. If it foams a little when you
>>> transfer it there is virtually no way it will oxidize, because CO2 is
>>> coming out.
>>>
>>> Relax, have a homebrew, and shove that nasty ol' oxidation bogeyman
back
>>> in the closet where it (usually) belongs.
>>>
>> Seriously, fermented beer when young
>> will have around 1 atmosphere of CO2 in solution. While this will rise
>> out of solution as the beer is racked, the original posters experience
>> with a filter is certainly going to introduce some degree of oxidation.
>> A small degree of splashing into the secondary is OK, putting it
through
>> a filter/funnel is sure disaster. Its just not worth it, or necessary.
>>

Okay - I give up. How *do* I filter out those bits of gunk, fruit,
etc from the primary (or secondary) fermenter when ready to bottle,
without oxidizing? To say nothing of trying to filter out the hops,
etc *before* going into the primary....

jim

Date: Wed, 20 Oct 93 08:30:37 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium: Part 2 (Brasserie de Silenrieux)

Beer Hunting in Belgium: Part 2 of 7

Brasserie de Silenrieux
(by Jim Busch: BUSCH@DAACDEV1.STX.COM)

This brewery opened in December 1992, and is still largely unknown. A friend of one of our Belgium hosts had just visited the brewery the month before our we arrived in Belgium, and reported that they were brewing with unusual grains. So when a visit was suggested, we jumped on it.

It turns out that the government of Belgium had the notion of developing brewing processes using non-traditional grains, primarily as a way to stimulate agricultural production and open markets for local agricultural products. Early research and small scale brewing experiments were performed in Canada and at the university of Louvain-la-Neuve. Successful beers were produced using buckwheat and spelt (a wheat relative) as principal ingredients. These experiments were underwritten by subsidies from the Belgian agriculture ministry, starting with 3-liter lab batches and working up to 6 hl batches using the brewing studies facilities at Louvain-la-Neuve.

Monetary assistance may also have been provided to the organizers of the brewery, who have built a truly beautiful modern facility in the south of Belgium near Chimay and a vacation lake/camping area. The brewery consists of three dedicated production vessels; a mash tun, a special lauter tun, and the kettle. The mash tun and kettle are normal enough stainless steel vessels while the lauter tun (if one can call it a that--a separator might be more accurate) consists of a large SS vessel containing a removable circular basket, or strainer, and the strainer/basket is attached to a crane attached to overhead support structures. The strainer has slots in the bottom and up the sides about 1/2 a meter from the bottom. The entire saccrified mash is pumped from the mash tun into the basket, which is then slowly raised via the crane out of the lauter tun. In effect, the basket is used like a giant tea bag, with the liquid runoff flowing through the slots into the vessel, leaving the grains in the basket. The liquid is then pumped over to the kettle. There is no sparging performed. The brewers admitted to less than ideal extraction of sugars and a generally difficult separation stage.

Three SS unitank fermenters are used as primary vessels while a fourth is used only for mixing the priming sugar prior to the hand filling of champagne-type bottles. A typical Belgium top fermenting "abbey" strain of yeast is used, most likely quite similar to that employed in numerous Belgium strong ale breweries, including La Chouffe, La Binchoise and possibly La Caracole. Kegs are also used, and are sanitized using forced steam; a steam hose is just pushed into the kegs and allowed to vent, resulting in about 120 decibels of noise pollution. Definitely not my idea of a nice working environment. The brewers were a bit frustrated in terms of keg sales since it is near impossible to break the stranglehold that the giant Belgium brewing consortium, Interbrew, has on tap handles in the country.

One of the nice things about the design of this brewery is that there is a steel catwalk running the entire length of the brewing vessels, including the unitanks. This allows the brewer

to do most of his work up top and close to the action. The brewery is generally well designed and constructed, although the brewers noted the difficulty involved in packaging the products. While the rest of the brewery is quite modern, there is no bottling line. A set of manual bottle fillers are used for the champagne bottles, and labels were applied to the bottles we bought the old-fashioned homebrew way--with milk.

The brewhaus is separated from the tasting room by large plate glass windows. The ceiling of the tasting room is brick!

We were able to sample the brewery's two products, Joseph and Sara. Joseph is a blonde beer of 6% ABV. It consists of 55-60% spelt and the balance pale malt. The bottle describes the product as "Bier d'Epeautre" (epautre=spelt). It is blond with a big creamy head, typical "abbey" aroma and some citrus notes. Despite being produced from a large percentage of cereal grains, the beer retains a high degree of malt/hop/yeast balance. It is a broad cross between abbey beers and the ever popular Wits. The beer is named after the person in the agriculture ministry who lobbied for the revival of spelt as a brewing and food grain and who, not coincidentally, provided the subsidies for the early brewing experiments.

Sara is a brune (brown beer), called "Biere de Sarrasin" (sarrasin=buckwheat). It is produced from equal parts of buckwheat and malt and features a caramel aroma intermixed with the abbey esters with a fairly light caramel finish. This is a good beer, but did not approach the quality of the Joseph. It is also 6% ABV.

Date: Wed, 20 Oct 93 09:28:09 EDT
From: Bob Wood <wood@fs09.webo.dg.com>
Subject: Re: HB law questions

Scott Kaczorowski writes:

> If I remember my beer-lore correctly, I thought Big Jimmy O'Carter made
> homebrewing technically legal in this country (correcting an earlier
> oversight). Being but a simple software engineer, my legal credentials
> are a good approximation of nil, but I thought federal law superceded
> state/local law. That is, if the Feds say it's OK for me to
manufacture
> certain kinds of drugs in my kitchen, then it doesn't matter one whit
> what Missouri or any other state has to say about it. Yes?

Not true. (You can decide for yourself whether this is good or bad).
I don't want to rant too much on this, but the U.S. Constitution attempts
to give states the ability to make their own laws, while giving the
federal
government jurisdiction over inter-state issues (interstate commerce,
dealing with foreign countries, etc.) and enforcing rights guaranteed by
the constitution. When the feds want to enact a law which appears
outside
their jurisdiction, they generally do it in one of these ways:

- * Pass a constitutional amendment (prohibition, for example).
- * Argue that the issue crosses state boundaries and therefore is
already
within their jurisdiction (FCC, for example).
- * Impose taxes/licensing on some products or services (brewing).
- * Threaten to withhold federal revenue from states unless the states
pass their own laws for which the feds otherwise have no jurisdiction
(many highway laws).

In the case of beer brewing, the feds collect taxes on alcoholic
beverages.
The change that Carter signed simply said that if you make less than a
certain amount of beer for your own use, the feds won't tax you on it,
and
won't require any special licensing. There is no guarantee that any
particular state won't further restrict home brewing.

I think there is little chance of a U.S. Constitutional amendment being
passed to guarantee the right to brew beer. Are there active movements
in the
more restrictive states to have their state laws changed?

- -- bob wood

Date: Tue, 19 Oct 93 16:54
From: MEADE.SRVRHOST@test.readmore.com (Meade Eggleston)
Subject: Cider

Hi all.

I'm planning on making a batch of hard cider. I'll was going to/may still use store bought cider. The only problem is that the only cider I can find has 1/20 of 1% Potassium Sorbate. Not being the chemist I wasn't sure if this stuff would kill the yeast I planned on adding (Yeast Labs Cider).

What is the Potassium Sorbate suppose to do?

Will it allow me to ferment with my own yeast?

Any unpleasant effect/tastes using cider with it mixed in?

Also, I was wondering about the effects of using Campden Tablets in the Cider. I am a little leery about using any
Please e-mail me directly and I'll summarize the responses.

Thanks,

Meade Eggleston
meade@readmore.com

Date: Wed, 20 Oct 1993 08:45:12 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: liquid malt extract

>This formula uses 1.042 for a pound of
>DME (dry malt extract) in a gallon of water, about 1.034 for
>LME (liquid malt extract), and about 1.029 for speciality grains.
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

Yuck! I wouldn't put that stuff in my beer!

Geoff

Date: Wed, 20 Oct 1993 07:42:11 -0700 (PDT)
From: Domenick Venezia <venezia@zgi.com>
Subject: Liquid Yeast: Friend or Fiend

In HBD 1251 Jerome asks if liquid yeast is Friend or Fiend. FRIEND!!

Liquid yeast is a friend. My beer got much better when I switched to liquid yeasts. Although the Wyeast package says you can just pitch directly from the package, my experience is that this is not a good idea and a starter is absolutely necessary. Why? The number of yeast cells in the Wyeast package is very low and results in an incredible under pitch which can lead to very long lag times raising the risk of infection.

> I had gotten a WYeast American Ale packet, and burst the inner packet
> on Thursday evening. Sure enough, by noon on Saturday it was nice and
> puffy. My 1043 wort was at 70F, and all was well with the

...snip

> ...wait for fermentation to begin, but lo! nothing happens and keeps on
not
> happening until Monday morning.

It has been my experience that Wyeast is ready to pitch after about 24 hrs, sometimes less. By the time the package is really puffed the yeast has gone way past high kraesen (sic?), and flocculated. It's had a good meal and dozed off. Pitching this means not only are you under pitching, but you are under pitching sleeping yeast that will need some time to wake up. By using a starter you can pitch more cells and perhaps better time your pitch to occur just before high kraesen. So I think that a 48 hr lag time (Sat-Mon) is not unexpected.

Another thing to watch out for is that dry yeast is often contaminated with bacteria. Reusing slurry from a dry yeast fermentation may allow the bacterial population to build up to infection levels.

Let me suggest that you download the yeast FAQ from sierra.stanford.edu to get some guidance in propagating a yeast starter.

Liquid yeast is your friend. You just have to treat 'em right.

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: Wed, 20 Oct 93 10:34:46 EST
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>
Subject: Relax, Don't worry, ...

In 1251 jmp@shoe.wustl.edu related difficulties with Wyeast used straight. I remeber using Wyeast straight and having 2 day lags, but so what? If the system is clean there won't be any contamination. The last thing I would do is worry and contaminate a \$4 culture with a 30cent sachet of microflora assortment. And you'll develop plenty of slurry for a quick fermentation. If using a Wyeast one should make a starter, and if it's a lager the starter should be around a gallon.

Onanother note that I will refer to as Chicago time warp. How come a response from js appeared before the posting from Chris C to which it responded (in 1250)?

'Hey Ma'am! I'm not an athlete. I'm a ball player' - John Kruk, Phillis firstbaseman Engineering, responding to a woman who told him he was a bad athletic role model sitting at a bar drinking and smoking.	Ulick Stafford, PP-ASEL Dept of Chemical Notre Dame, IN 46556 ulick@darwin.cc.nd.edu
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

Date: Wed, 20 Oct 1993 09:32:42 -0700 (PDT)
From: gummitch@techbook.com (Jeff Frane)
Subject: Re: Liquid Yeast

Jerome Peirick writes:

Liquid Yeast: Friend or Fiend?

>
> So far, a dull story. But the reason for the post is that this the
third time
> in four instances of liquid yeast use that this happened to me. The
questions
> I have are:
>
> Why does this happen?
> Why does liquid yeast seem so my less robust than dry?
> Should this happen when I use the liquid yeast
as directed on the package?
> Should I just admit abject failure and use dry yeasts exclusively?
>

Jerome, this happens because you are (a) underpitching and (b) probably under-aerating. There is a fairly small quantity of yeast in the package, which is why the general wisdom is that you need a starter. A starter (which is really very simple to put together and use) will get the cell counts up to something approximating the correct number. You will never get counts like that simply pitching from the package. Dry yeasts generally have much higher counts, although the percentage of viable cells in the packages isn't very high. It is possible to get a decent fermentation from the packet, but it's asking a lot, and it requires a very fresh package and extremely thorough aeration of the wort prior to pitching.

You should: follow the instructions on making a starter wort, and begining the process of building up your yeast several days before brewing; and you should shake the bejabbers out of your cooled wort (or follow some more advanced instructions about using an aquarium pump to aerate -- see Dave Miller's articles in Brewing Techniques). You *will* see a difference in the quality of your beer. Really.

Scott Kaczorowski writes:

> If I remember my beer-lore correctly, I thought Big Jimmy O'Carter made
> homebrewing technically legal in this country (correcting an earlier
> oversight). Being but a simple software engineer, my legal credentials
> are a good approximation of nil, but I thought federal law superceded
> state/local law. That is, if the Feds say it's OK for me to
manufacture
> certain kinds of drugs in my kitchen, then it doesn't matter one whit
> what Missouri or any other state has to say about it. Yes?
>

No. State law supercedes federal law in this instance. This is why each state has been able to set guidelines for alcohol content, drinking age, etc. (for example, in Oregon and Washington you can only buy distilled beverages from state-operated liquor stores, while in nearby California you can buy the stuff virtually anywhere). On the other hand, while the federal government prohibited homebrewing, the state could *not* allow it. Clear? No? Well, it doesn't make any sense to me either.

- --Jeff Frane

Date: Wed, 20 Oct 1993 10:41:14 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: Amylase

> >When should Alpha Amalyse be used?

>Thanks, Steve

* Amylase (sp!) is a combination of alpha and beta amylase. Two starchdegrading enzymes- diastatic enzymes. Most commercial "amylase" is actually diastase- a mix of alpha and beta amylase. The alpha cuts the middle of enzymes (endo-) while beta chops off the ends (exo-). Alphas are most active at 65-67 deg C, or 149-153 deg F. Beta works at 52-62 deg C, 126-144 deg F. Alpha inactivates at 67 deg C (153), while beta ceases at 65 deg C(149). These temps are not exact cutoffs and inactivation takes a period of time (40 min-2hrs) to completely eliminate activity. Both enzymes will be active simultaneously. A higher temp mash will result in more unfermentables (more complex sugars) by favoring the alpha activity, whereas a lower temp will favor the beta and smaller more "digestable" sugars for the yeast.

Amylases and other enzymes are present in pale malts (grains) and some other grains (munich, vienna...etc). If you are mashing they are there and required for the process. If you are using extracts you don't need to worry about them. If you do a partial mash, or add something like flaked corn (NOT Kellogs!) or rice you need to have enzymes convert the starches to fermentable sugars. For this you can use pale malt, or some purified amylase. You can add amylase to a mash if you are not getting good yields- but probably better to work out a system that works more effectively! Someone mentioned using flaked corn in an extract beer and making tea with it. What is the point of that? You are adding starch. Corn can lighten a beers body while adding fermentables w/o much color or substance, but where is the advantage in an extract brew? Has anyone done this? Does anyone have a REASON behind doing this?

Hope some of this helps a bit. John (The Coyote) Wyllie
SLK6P@cc.usu.edu

Kevin asks:

>Why do you consider distilling to be dangerous? There is an element of risk

> involved with making anything. (including fried chicken) Distillers simply

> take a fermented product and evaporate and condense the alcohol.

>

> >Illegal? Yes. Dangerous? Hardly.

>

*Can you say DEATH & BLINDNESS! Ethyl alcohol goes to a vapor within a specific temperature range (I ain't gonna quote it!) while OTHER alcohols vaporize at different temps. While ethanol won't do us any harm...well...maybe a little nausea in excess...a bit of a headache... some other alcohols, or components of a ferment could do some harm. If it's done right- sure you can get a fine distilled product. I even tried one once- could've dropped it in a NA beer too, but I wanted to try it straight. Tasty it was! (peeeka boo!)

I don't have all the chemistry here to explain it...but there are

dangers in distilling. That is WHY there are real laws about it, and why those WILL be enforced, as depicted by such "fine" TV programs. Look it up in a library. Most universities will have something on it.

"I can't see I can't see" John (The Coyote) Wyllie

"Why not?!" SLK6P@cc.usu.edu

"I got my eyes shut! Nyuck Nyuck"

Date: Wed, 20 Oct 93 12:15:11 -0400 [EDT]
From: greg.demkowicz@circellar.com
Subject: WORT CHILLERS

There's been a lot of posts about what type and size of wort chillers to use, be it cold water bath, immersion, or counter-flow. Most counter-flow designs are based on a length of 3/8" copper tubing passing through the center of a garden hose. This is quite effective, but awkward to use.

So, here's a question for all you Thermodynamic type people: how effective would a 30 foot length of 3/8" diameter, coiled copper tubing, be in a 2 foot long, 4" inside diameter, PVC pipe? Essentially, I want to place the coil inside the PVC, with the ends of the coil entering and exiting the capped ends of the PVC. The cooling water would enter the capped ends as well, but counter-flow. The "coil" diameter would be about 3.5", resulting in a circumference of about 11". With each "coil" spaced about 1/4" apart, the length would be about 2 feet. Of course the length and size of the copper tubing can be altered, (the PVC diameter is the max. I can get) but, is the idea feasible? Any comments appreciated.

Greg

Date: Wed, 20 Oct 1993 12:51:00 -0400
From: mike.sadul@canrem.com (Mike Sadul)
Subject: Hose vs copper tubing

Norm writes:

> I just bought a thick-wall polyethylene hose to run from my lauter
> tun to my boiler. The hose I use now is a thin-wall vinyl hose
> which has a tendency to collapse when the hot liquor is flowing
> through it.

I was also concerned over the use of a plastic hose in the kettle
and the fact that the hose was close to the open flame of the
propane burner near the side of the kettle. Also, The hose flattened
out where it looped up before going into the kettle.

My solution was to use a length of 3/8 copper tubing inside the
kettle and attach the hose to that.

The top of the tubing has an S curve so that I can hang it on
the kettle itself. It's a tight fit, so it doesn't fall out
if you accidentally yank the hose.

The bottom of the tube is 1/4 inch off the bottom of the kettle.
This minimizes (eliminates) splashing of the hot wort as it flows
into the kettle. The outside end curves back up so that the hose
coming in meets it straight on and doesn't droop and flatten out.

'Why I'm not an artist' ASCII graphics to follow:

```
Lid      _
-----+-----+----- #
I      /I/# Plastic hose
I      | I | #
I      | I / #
I      | I | /
I      | I / _/ Copper tube
I      | I
I      | I
I      Kettle | I
I      | I
I      | I
-----+-----+
```

Mike
mike.sadul@canrem.com

Date: 20 Oct 93 13:19:17
From: REGINAH@SOCIOLOGY.lan.mcgill.ca
Subject: Spruce Beer

I just wanted to say a word in defense of spruce beer- I made a batch using Papazian's recipe, with 1 oz of spruce essence, and it was good. Yes, it was odd, earthy even, but I grew up drinking the soda versions of birch and spruce beer. My spruce beer had similar taste without the sugar. It may be that spruce essences and extracts are highly variable in quality. For that matter, spruce trees are probably variable in quality. If anybody wants to know, I can check up on the brand name of the essence I used. If spruce beer sounds interesting to you, don't be deterred.

Regina Harrison
McGill University
reginah@sociology.lan.mcgill.ca

Date: Wed, 20 Oct 1993 13:14:33 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: HB law questions

Scott Kaczorowski says:

>my legal credentials are a good approximation of nil, but I
>thought federal law superceded state/local law. That is, if the
>Feds say it's OK for me to manufacture certain kinds of drugs in
>my kitchen, then it doesn't matter one whit what Missouri or any
>other state has to say about it. Yes?

Federal law supercedes state law except when it doesn't. What they often do, and did in this case, was leave further regulation of brewing to the states. ie: "Its OK for you to manufacture up to 200 gallons of certain drug-containing beverages in your kitchen unless your local government objects, in which case you're stuck with the more restrictive regulations." Funny how they can write whatever laws they want...

t

Date: Wed, 20 Oct 93 13:50:00 EDT
From: mferts@taec.com (Mike Fertsch)
Subject: re: HB law questions

Scott Kaczorowski speculates on the Federal statute allowing homebrewing, and questions Federal law superseding local laws.

>If I remember my beer-lore correctly, I thought Carter made
>homebrewing technically legal in this country (correcting an earlier
>oversight). I thought federal law superceded state/local law.

My guess is that the law removed the Federal restriction on brewing. This is not the same as saying the law grants permission to brew. Without a Federal restriction, states and localities are allowed to make their own regulations. This is why dry towns and dry counties are allowed to exist.

Mike Fertsch (mferts@taec.com)

Date: 20 Oct 1993 10:19:18 -0800
From: John Scoblic <KFJLS@acad1.alaska.edu>
Subject: Spruce Beer

You guys are giving Spruce Beer a bad rap! I've been making it for four years and have to keep it quiet that I have a new batch in the fermenter. My friends hound me for a taste of the elixer. I use Papazian's recipe with 4 oz of spruce tips picked from a Spruce tree (not hemlock) in the spring added like hops (in the hops bag). I have NEVER had a bad batch nor a sappy or any other off flavor. I have never used essence. Being a purist, I think it poor style but I would suggest just a hint of Spruce essence and then add more in future batches.

Date: Wed, 20 Oct 93 12:17:10 MDT
From: npyle@n33.stortek.com
Subject: Hops FAQ nearly ready

The Hops FAQ is nearing completion but I have one sticking point. I've used IBU's so long that I can't recall the definition of HBU. I looked up AAU in Miller's and Line's books, and I have that. Rager says the two are the same, i.e. AAU=HBU but Al Korzonas mentioned that he thought one of them was batch size dependent, based on a 5 gallon batch (and that rang a bell with me) .
According to Miller and Line, AAU is just the alpha acid percentage multiplied by the weight in ounces. This leaves HBU as being the batch size dependent one if they are not the same. This should be simple but I figured the quickest way to get the answer to this would be here on the HBD. Thanks for your input.
Expect to see this thing in the next few days.

Old Lucifer (the barley wine from hell that just won't quit!) update: OG= 1.039 after 4 weeks. At this rate I may bottle it before Christmas after all!

norm

Date: Wed, 20 Oct 1993 13:22:47 -0500
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Liquid Yeast: Friend or Fiend?

Jerome Pierick asks in HDB #1251 (essentially) about yeast pitching rates, and the instructions on the Wyeast packages which say essentially that sufficient yeast cells for a five gallon batch are grown in 50 ml of wort. He goes on to say he has experienced lag times exceeding 48 hours, and wants to know why this is versus the dry yeast he's been using. Finally, he asks about repitching yeast grown from a dry yeast culture.

Well, I've used Wyeast as directed on the package and I experience lag times just like Jermome. IMNSHO, the directions on the Wyeast package do a great disservice to homebrewers as well as the company. Yes, it *will work* but its far from ideal. According to various sources summarized by Patrick Weix in the famous HBD Yeast FAQ (what would we do without those TLAs?) says that you need 1 volume of yeast solids per 250 volumes of wort for lager yeasts, and 2/3 that rate for ale yeasts. This translates roughly to 2 cups of yeast slurry in a five gallon batch of ale, or three cups in a batch of lager. Compare this with the teaspoon or so you dump out of a Wyeast package. When the term "yeast slurry" is used I thake this to mean the tan stuff that'll settle out of a wort after fermentation. The Wyeast package contains about ten teaspoons of wort, but no where near that much yeast slurry.

Well, I rarely pitch at ideal rates. Usually I step Wyeast up twice, using a pint of sterile wort each time. This yields maybe 1/2 cup of slurry. Still a far cry from ideal, but much better than the package directions produce. Usually the beer is fermenting away the next morning. When the planets are properly aligned, I sometimes pour a new wort on top of the yeast cake in my secondary fermenter to make a second beer. This is much closer to the ideal pitching rate, and I get amazing fermentations when I do this. Very short lag times -- just a couple hours.

So, what's a brewer to do? If you don't want to take the time to step your Wyeast up, and I can perfectly well understand why you wouldn't, you can follow the directions on the package, and thoroughly aerate your wort. This works, and makes very tasty beer. Just count on longer-than-ideal lag times. This means you'll want to be scrupulous about sanitation. Wear rubber gloves, use plenty o' bleach, and all that. If you do these things I think any pure Wyeast or YeastLabs culture will produce a better beer than any dry yeast I know of. I keep a package of dry yeast around in case a wort isn't fermenting after 72 hours. I used one once, and the beer was OK. This is I think what Jerome is doing after 36 - 48 hours.

If you DO continue to use dry yeast, repitching is not recommended. ALL dry yeast is contaminated with wild yeast and bacteria. But there's a lot more good yeast than contaminants, so the yeast effectively out-competes the other beasts for the goodies in your wort. But the contamination is still there, and will increase in concentration with subsequent reuse of the culture. The reason you see such short lag times is that there's lots more yeast in the dry package than in the Wyeast package.

Hope some of this helps...

Date: Wed, 20 Oct 93 14:32:43 EDT
From: garti@mrg.xyplex.com (Mark Garti)
Subject: grain storage

what are people using to store their grain in?
how long, under good conditions, will the grain be
fresh? besides rats, are there any problems associated
with buying and keeping 50 lbs of grain?
mrgarti@xyplex.com

Date: Wed, 20 Oct 1993 14:41:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: Re: Applejack/distilling

Hello All,

Because freezing hard cider to make apple jack concentrates the alcohol in the solution, a physical separation if you will, technically it's not a distillation. Distillation is used mainly to purify, as well as separate;concentrating the solution is a beneficial side effect. Applejack is one of those things you can play dumb over, "jeeze I had no idea it would do that officer! I just wanted to keep it from going bad.". Any of you who have ever seen a "still" know that it obviously can't be passed off for anything else. However, I'm just a lowly research tech., not a lawyer (thank god!) so I can't quote laws, but as far as I'm concerned making apple jack wouldn't be illegal because you aren't doing any distillation. BTW, distilling hard cider would result in apple brandy, not that I wish to plant ideas into anyone's head.

While I'm at it, I can see why cops & the law (especially the ones who haven't got a clue) would confuse homebrew apparatus with distillation apparatus. Those of you who cool your wort with copper coils beware, they're the give-away as far identifying moonshiners!

Cheers!

Pam

Date: Wed, 20 Oct 1993 13:00:46 -0700 (PDT)
From: Eric Wade <ericwade@CLASS.ORG>
Subject: Homebrew and the law

COYOTE <SLK6P@cc.usu.edu> writes:

>*also note: Brewking sack ad in Sharper Image quotes:
> "federal govert allows you to make up to 25 gallons of
>homemad beer each year.

<snip>

>Damn at 25 gal/yr I could be done brewing in 2 weeks!
>Too bad The Sharper Image doesn't have a Sharper grasp of the
>legality.

Correct. Federal law allows for the production of 200 gallons per year per household if there are 2 or more adults in the household or 100 gallons/year if there is only one adult.

Scott writes:

>If I remember my beer-lore correctly, I thought Big Jimmy O'Carter made
>homebrewing technically legal in this country (correcting an earlier
>oversight). Being but a simple software engineer, my legal credentials
>are a good approximation of nil, but I thought federal law superceded
>state/local law. That is, if the Feds say it's OK for me to manufacture
>certain kinds of drugs in my kitchen, then it doesn't matter one whit
>what Missouri or any other state has to say about it. Yes?

As a simple law librarian I can't program my way out of a paper bag (well I might get that far, but maybe not) but I think I can clarify this misunderstanding a bit. The law that Carter signed exempted homebrew (within limits, e.g. 200 gallons/household) from excise taxes. The oversight Scott refers to is that an earlier law that exempted home winemaking from the excise tax did not do the same for beer.

Now, exempting homebrew from excise taxes ain't quite the same as providing a constitutional right to brew. I guess that since many of our founding fathers were brewers and nobody had threatened this right, they didn't seem fit to include it in the Constitution. This being the case, I believe state goverments can pretty much do as they please. On the other hand, if the feds said homebrewing is illegal, the states couldn't say otherwise.

=Eric <ericwade@class.org>

Date: Wed, 20 Oct 1993 16:23:09 -0500 (UTC -05:00)

From: ROWLEY@kuhub.cc.ukans.edu

Subject: Belgian Special B (Matthew Rowley)

Howdy, all.

I've just snagged some Belgian Special B to use in an Irish red. This will be the first time I've ever worked with the stuff, but look forward to it. Does anyone have any experience using Special B? I thought that I might put some into my next porter or stout, but would like to hear from you if you've any suggestions on how/how not to handle this grain: Temperatures, proportions, that sort of thing.

As to beer drinks: in college, we used to concoct "beer busters": one can/bottle of commercial beer, one shot o' vodka, a spot of Tabasco: viola! A beer buster! Looks nasty, tastes like beer, just a little hot. Very soon after this, I started homebrewing. You draw the connection. Perhaps explains why I want chilies away from my goddamned brewpot. ;)

Matt Rowley
Dept of Anthropology
University of Kansas
rowley@kuhub.cc.ukans.edu

Date: Wed, 20 Oct 93 17:18:40 EDT

From: gjsparks@aol.com

Subject: Alabama Laws

Some comments and questions in the HBD concerning whether xhomebrewing is legal in all 50 states prompted me to investigate the situation here (to borrow a phrase) in the beer wastelands of Alabama. According to Mr. Charles Ball of the Alabama Beverage Control Board Enforcement Office in Montgomery: 1) Homebrewing is strictly illegal in the state of Alabama. 2) Transporting any alcoholic beverage into AL (as a personal citizen, not a distributor, obviously) is strictly illegal; distributors must comply with all of AL's labelling and tax requirements. 3) Distributors are prevented by law from importing any beer with greater than 4% alcohol by weight (5% by volume). 4) Commercial breweries (microbreweries, brewpubs, et al.) must be built in an historic building or historic district in which draft beer was sold prior to Prohibition (??).

My personal impression is that they don't really care about enforcing the homebrew laws (unless one were to try and sell it or some other obvious violation). This was the extent of the information I got in the short conversation I had with Mr. Ball; I am also interested in what the federal regulations are, and how they interact with the state laws. If anyone can provide me with or direct me to this information, please e-mail me, or if it's sufficiently interesting, post it here. Maybe a compilation of basic regulations for all 50 states could be created? Thanks.

gjsparks@aol.com

Date: 20 Oct 93 17:46:57 U
From: "conley" <conley@macgw1.crd.ge.com>
Subject: How Bad is Bad Beer?

Hi Home Brewers,

I have just started Home Brew'n. I haven't even tasted my first batch yet. I have a couple of questions. (I apologize if they have already come up)

First, what kind of critters can invade a bad batch? What is the worst illness that you have heard of from drinking 'bad beer'? I followed all the cleaning directions (B'Brite) and don't think any thing went wrong but just want to know.

Second, what is a good McEwan's taste alike? I have had this beer and like it's

style.

Happy Brew'n
Doug.

Douglas J Conley.
GE Corporate Research & Development
conley@crd.ge.com

Date: Wed, 20 Oct 1993 23:30:29 UTC+0100
From: "David S. Reher" <soso203@sis.ucm.es>
Subject: Stores

Can anyone give me addresses for Homebrewing stores in Europe that
serve mail orders? Thank You.

Antonio S. Reher.
Spain.

End of HOMEBREW Digest #1253, 10/23/93

Date: Wed, 20 Oct 93 21:12:00 -0600
From: phil.brushaber@lunatic.metronet.com (Phil Brushaber)
Subject: Wyeast 2308 Munich Unstable?

This weekend I am going to brew a dopplebock (and hope for a taste like Paulander Salvator). I went with Wyeast Bavarian Yeast, but I was intreagued with Wyeast Munich.

Wyeast publishes the following description:

2308. Munich Yeast from Wissenschaftliche in Munich #308. One of the first pure yeast available to American homebrewers. Sometimes unstable, but smooth soft well rounded and full bodied. Medium flocculation, apparent attenuation 73-77%. Optimum fermentation temperature: 50 deg. F (10 deg. C).

Has anybody had experience with this yeast? What is so unstable about this yeast? How does it manefest its instbility?

Date: Thu, 21 Oct 93 07:40:00 BST
From: s.quarterman@genie.geis.com
Subject: Malto-Dextrin Gravity Rating

I was just wondering if anyone here might have an idea of the amount of fermentables available when using the malto-dextrin extracts that are available. I would like to have a close approximation of the gravity available from 1 lb in 1 gallon of water.

Also, what temperature would be good to make test solutions of extracts and water? I was thinking about dissolving some extracts but do not want to boil the solution as I would not be guaranteed to be left with 1 gallon of water.

TIA

Steve Quarterman >><< Portland, Or
S.Quarterman@GEnie.geis.com

Date: 19 Oct 93 01:58:53 MDT (Tue)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: addendum to carboy-handle note - negative datum

I got a followup note from the one person I mentioned in my carboy handle article the other day who had a problem with the handles: He told me that he was using the carboy handle on a 6-gallon (not 6.5 / 25 liter, as I'd reported) and that it has a standard-diameter neck. He saw some cracking/crazing around the neck with the handle, so I'd say stay away from using the handles for this size of carboy. (It's not one I've encountered-- I've only used the 5-gallon water-cooler size and the 6.5 gallon sulfuric acid style.)

And, as always, be careful with carboys. Relax, don't worry...but PAY ATTENTION.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
 ...Simpler is better.

Date: 21 Oct 1993 01:41:36 U
From: "Daniel F McConnell" <Daniel_F_McConnell@mailgw.surg.med.umich.edu>
Subject: name?/forced decoction

Subject: Time:1:26 AM
OFFICE MEMOname?/forced decoction Date:10/21/93

Greetings:

The last batch of beer that I brewed I had intended to be lazy but I was FORCED to do a decoction-this isn't a bad thing, but plans are plans, anyway more on that later. As I brought the mash up to saccharification temp (67C in this case) I could TELL when I was almost there just by looking at the mash. Suddenly it became very foamy and just looked right. I have noticed this in the past, but this time it hit me....THERE MUST BE A NAME FOR THIS. Surely the Germans had (have) a name for it. Any guesses? Like maybe Saccharification with an umlaut or two?

The reason that I did a decoction is less clear. I used Durst malt, a high quality German Pilsner malt. I had planned to mash in at protein rest temp and then recirculate and bring the mash up to 67C by heating the tun. I mashed in at 50C and as I started to recirculate, nothing but a trickle. VERY milky looking. Stirring helped, thinning helped, but it would always slow and then stop. OK, OK, OK, I'll decoct. The beautiful malt aroma that was produced during that step made me wonder why I was tempted to do without. As soon as the main mash came up to 67C, recirculation commenced and things went as expected, although an hour later than desired. Sparged wonderfully, no problems here. This is the second time I have used this malt and the second time I had this problem which was solved the same way in both cases. Since the first was a Triple and the second was a deviant variation-on-a-Pilsner maybe this is Gambrinis forcing me to do the right thing-decoct with continental malt. Comments? Don't tell me to switch malts, I still have most (65 lbs) of a 100 lb sack to go.

This COULD be a Motor-Corona problem although I have never had this difficulty with Breiss malt. I'll use a Malt Mill in the next go to eliminate that variable. Perhaps adding a small percentage of Breiss to establish a better filter bed or assist in conversion/protein breakdown may help. Anyone else seen a stuck RIMS only at protein rest temp that went away at saccharification temp?

DanMcC

Date: Thu, 21 Oct 93 05:53:06 PDT
From: Jamie Ide 21-Oct-1993 0848 <ide@studio.enet.dec.com>
Subject: Need Advice on Chimay Recipe

I'd like to brew an all-grain Chimay clone (Grande Reserve) and need
some advice on the recipe. Are there any new thoughts on this now
that
Belgian malts are available? What should I use for the base malt?

How does the Wyeast Belgian compare to cultured Chimay yeast? Which
am
I better off using?

Any help will be appreciated.

Jamie Ide ide@studio.enet.dec.com

Date: 21 Oct 93 14:03:51 GMT
From: GANDE@slims.attmail.com
Subject: Yeast Labs Products

I've recently started using Yeast Labs liquid cultures, as a replacement for Wyeast. I have yet to have a batch to sample and was curious what the apparant attenuation of their yeasts was. I checked the FAQ at Stanford and there is no mention of it. Anyone know, or know where to get this info on the net?...

TIA...GA

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
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Date: Thu, 21 Oct 93 08:56:33 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beerhunting in Belgium: Part 3 (Liefmans and Oud Bruins)

[NOTE: My apologies for the long time it has taken for these posts to materialize; the problem is the long line of posts waiting for Digest publication. Having had too many Rocheforts myself, I'm not even sure which chapters have been posted and which haven't, and apologise if any of them appear twice. We'll make sure they all get out. I only hope it will have been worth the wait.]

Beer Hunting in Belgium: Part 3 of 7

Liefmans Brewery and Oud Bruins
(by Phil Seitz)

Oudenaard is known for its brown beers, particularly its oud bruins, which have a characteristic tartness. Local brown beer breweries include Liefmans, Roman, Claryisse and Cnudde. The first three are featured in an annual brown beer festival held in late June.

The Liefmans Brewery is located just outside Oudenaarde in a group of aged brick industrial buildings. Liefmans was purchased several years ago by the Riva brewing company, and has seven on-site employees.

A substantial part of the brewery is now being converted into a beer museum and reception center. The brewery is no longer mashing or boiling wort; instead, wort is prepared at the Riva Brewery in Dentergem and delivered, sterile, for fermentation at Liefmans. Liefmans' antiquated mash tuns and kettles are being retained as part of the museum.

Our initial expectation of lessening quality with industrial ownership appeared to be unfounded. Our guide, one of the brewers, said that during the 1980s Liefmans had substantial quality control problems, and that production had fallen from 30,000 hectoliters in 1980 to 8,000 hectoliters in 1990, which is approximately when the change of ownership took place. Production is now picking up (11,000 hectoliters annually) and quality appears to have stabilized. The tales we'd heard of Madame Rose, who lovingly looked after the brewery, sounded like myths as we heard stories of about what appeared to be a lack of proper attention to operations.

Other published information also appears to have been a bit mythologized. For instance, Liefmans boiled in room-size square kettles for an overnight simmer. These days the beer receives the standard 1.5-2 hour boil. This sounded like a concession to modern times until we saw the kettles, which contained heating elements so obviously inadequate that it quite likely took all night just to get the wort to the boiling point.

The one aspect where there has been a substantial change is in the cooling. Prior to Riva Liefmans used two large cool ships for initial cooling, and during cooling diluted its high-gravity wort with approximately 1 part water to three parts wort. From these cool ships the beer was then pumped over open-air cooling columns (beudelots?) and into the open fermenters. Nowadays the sterile wort goes straight to the fermenters. We thought that exposure to beneficial micro-organisms might be sacrificed by skipping these steps--affecting the trademark sourness of the beers--but our guide felt the Liefmans' yeast strain was sufficient to produced the desired flavor. Tasting was believing in this case and it appears that the new regime has not resulted

in any major sacrifices.

The brewery makes two basic beers, one at 5% ABV and one at 6%, from which a variety of blended products are produced. Both worts are made entirely from pilsner and caramel malts, and each is fermented with the same yeast in swimming-pool-sized open fermenters. We were there during the first day of fermentation, and the quantities of foam and yeast running off were truly impressive. On day 3 yeast is skimmed and collected for reuse.

The basic beers then go into steel secondary tanks. The 5% beer is run into fermenters loaded by hand with cherries or raspberries--typically about 1 lb per gallon. The beer sits on the cherries for a year or more before being filtered, blended with about 40% of the 6% beer, pasteurized, sweetened and force carbonated for bottling.

The 6% beer itself becomes Goudenband, which receives much the same treatment but is not blended. Another beer, Odnar, is produced by diluting the 6% beer to about 4.5%. This is sold locally as a table beer, and presumably is sweetened also.

We had a chance to taste the unblended beers directly from the fermenters, and found the product at this stage to be rather lambic-like in its tartness, though much cleaner overall. Obviously there is a bacterial component to the yeast being used.

Another change in recent years is that the Goudenband is no longer aged before sale. This is unfortunate, as the brewer noted that at least six months of down time improves the product substantially. We asked why this would be, given that the beers contain no residual yeast. He said oxidation from exposure to air in the head space adds an essential element to the mature product. He also said local consumers were aware of the change, and laid their bottles down prior to consumption. A taste of fresh, on-tap Goudenband later on did seem to indicate that a certain bite was missing. The cellars shown on page 105 of Jackson's NEW WORLD GUIDE still have bottle in them, but it is a bad batch from 1987 that is being retained for purposes of the beer museum.

Throughout most of Europe Liefmans products are sold wrapped in tissue paper. We happened to be there on the day that a large number of bottles were being wrapped--by hand. The workers' speed was impressive--between 2,000 and 3,000 bottles a day--but frankly, between the wrapping work and the need to load and evacuate the fruit from the fermenters by hand, this did not seem to be a particularly attractive place to work.

Because the brewery is small it does cater to special orders and requests. Liefmans sells beer in bottles up to magnum-sized, but area residents can bring larger bottles and leave them to be custom filled. We saw a storage area with a fair number of jereboams and larger bottles, each one tagged with the name of the owner, awaiting pickup.

Liefmans has an indoor taproom and outdoor terrace fronting on a canal. A glass of Goudenband and each of the fruit beers is included in the tour price. Their fruit products, always formidable in my opinion, are truly divine when fresh on tap. This is particularly true of the framboise (raspberry).

Tours of the brewery are available by appointment, and cost 100 francs. We were the only people on the tour. Our guide spoke English, and was obviously intimately familiar with the brewing process, having worked at Liefmans as a brewer for several years and also having received a degree in brewing studies in Gent. The telephone number is 055/31.13.91.

Other local brown beers include Felix (produced by the Clarysse brewery), which is similar to Goudenband, and brown ale from Roman, which is similar in color and body to its neighbors' products but is hoppier and not at all tart--rather a rich version of a standard brown ale.

Date: Thu, 21 Oct 93 09:16:45 -0400
From: paul@grammatech.com (Paul Anderson)
Subject: Re: beer drinks & drinks

All this talk of odd combinations of drinks reminds me of a peculiar sounding combination a friend introduced me to in England: Guinness and port. It sounds disgusting, but tastes amazingly good. I recall that the ratio was one glass of port to one pint of draught Guinness.

Happy days,
Paul Anderson.

Date: Thu, 21 Oct 93 09:45:47 EDT
From: pavao@ptsws1 (John D. Pavao)
Subject: Re: spruce beer

Dear Homebrewers,
Thanks to those who responded both publicly in HBD and privately to my question about spruce beer in digest #1249. Based on the responses, I plan to brew a batch using the recipe from TNCJOHB which is the one I was thinking about trying anyway. For my first attempt I'll use half an ounce of spruce essence just to see how it goes. I'll let you know how it comes out and what kinds of responses I get by those trying it. Thanks again for your comments.

John
ptsws1.npt.nuwc.navy.mil

Date: Thu, 21 Oct 93 7:57:37 MDT
From: Jason Goldman <jason@gibson.sde.hp.com>
Subject: Re: barleywine yeast

"Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu> writes:

>

> Barlyewine is featured in the latest issue of zymurgy.
> The use of a yeast mixture has been suggested by some "experts"
> but the author of this article claims he has never used
> anything but ale yeast.

>

> Any comments from the HBD? If a combination of ale and other
> yeast are used, should they be combined day one at pitching, or
> should the wine or champagne yeast be added after initial fermentation
> settles down? If an ale yeast is considered hearty enough, which
> varieties are best? If an ale yeast isn't enough, which wine or
> champagne yeasts are good quality additions?

Several of the people I know who make barleywine use 2 yeasts, including the one whose recipe I started from for my first one (thanks Glenn). I start the fermentation with ale yeast and after it's started to slow a little, I pitch champagne yeast. I don't recall off the top of my head which particular yeasts I used.

Jason
jason@gibson.sde.hp.com

Date: Thu, 21 Oct 93 08:57:01 CDT
From: Fritz Keinert <keinert@iastate.edu>
Subject: layered beer

While we are on the subject of beer drinks: does anybody know how to get two differently colored beers (like Guinness and Bass Ale) in two layers in the same glass? We tried it once during a party, with no success.

- - - -

Fritz Keinert phone: (515) 294-5223
Department of Mathematics fax: (515) 294-5454
Iowa State University e-mail: keinert@iastate.edu
Ames, IA 50011

Date: 21 Oct 93 15:04:55 GMT
From: GANDE@slims.attmail.com
Subject: Clean it up?

It seems some may take offense to contents of taglines containing words like "fake", "orgasm" and "basketball", such as Chris's comments yesterday. Personally, I find these words, when used in the context that they were to be quite amusing, and after all women have the right to fake an orgasm too. On the other hand, IMO any game that you get to more than 100 points in, like basketball, has something wrong with the rules.

I pay to read the HBD each day and find many things 'offensive' in it, such as pages and pages of yesterday's quotes with one line responses, rhetorical discussions with little or no outcome, battles of ego's, etc. I don't complain because this is the culture and I understand. I am a homebrewer, relaxed and tolerant with a sense of humour. Lighten up, eh.

....Glenn Anderson

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
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Date: Thu, 21 Oct 1993 09:17:55 -0500 (CDT)
From: Steve Seaney <seaney@ie.engr.wisc.edu>
Subject: Plans for Grain Mill

Hello,

The other day I saw one of Jack Schmedling's (sp?) grain mills at a brew store. It doesn't appear to be that hard to make. The cost seems extremely high.

Has anyone out there ever made a roller mill? Do you have any plans handy?

Thanks,
Steve

- - -

Steve Seaney: 608/265-3954: seaney@engr.wisc.edu

Date: Thu, 21 Oct 1993 07:25:37 -0700 (PDT)
From: "Bob Jones" <bjones@novax.llnl.gov>
Subject: Benjamin Machine Products address

Here is BMP address FYI.....

Benjamin Machine Products
1121 Doker unit #7
Modesto, Calif. 95351

Fax number 209-523-8874

I believe the last I heard the price of the CP filler was \$55. Yep Micah is the designer of this CP filler, I use one and highly recommend it! I spoke with Micah earlier this week and ask him how things were going at the brewery? He said they are selling all the beer they make and are in the process of expansion. He is a one man show at Murphy's Creek brewery. I personally haven't had much chance to taste any of their beers, they are not widely distributed here in the bay area. They seem to find a market in the gold country large enough to sell most all their beer they make. I plan on going up and brewing with Micah one of these days and will report back. I told him I would not clean out any mash tuns!

Bob

Date: Thu, 21 Oct 1993 09:27:35 -0500 (UTC -05:00)

From: ROWLEY@kuhub.cc.ukans.edu

Subject: Re: Beer Nuts (Matthew Rowley)

Paul asks about brewing with nuts (not bold brewing-proper nuts). You've read my mind, brother. That same question was why I logged on this morning.

I had an idead to throw some roasted almonds in a batch, but refrained because I've seen all kinds of wierd business go into beers, but never nuts; I've never seen any recipes for it, either.

I suspect that the oils in nuts would absolutely kill any head, though (comparable to doing the nose grease trick to your entire run). If'n anyone can offer advice otherwise, I'd love to be shown wrong.

Matthew

Date: Thu, 21 Oct 1993 09:39:24 -0500 (CDT)
From: tomt@nano.sps.mot.com (Tom Tomazin)
Subject: infected brew and head

A couple weekends ago I brewed up 2 batches, a red bitter and an octoberfest. Last weekend, I racked both into secondaries. Well, I was a little lax in my sanitation, and I think the octoberfest is infected. A day after racking, the red bitter developed a nice "mini" krausen, while the octoberfest had none, although it was bubbling frequently. I let both go for a couple days, and yesterday I decided to try I revive the octoberfest. I gave the carboy several good shakes, and while it developed some "froth", it quickly dissipated. Aerating the same batch in the primary produced a dense head that lingered. By the way, I used Wyeast European Ale yeast (in 2 sixteen oz starters) for both batches.

I decided to taste the octoberfest to see if it was sour, and it was (a little) but didn't really taste too bad. So I think I have learned two important lessons here:

1. Sanitize everything carefully (dah)
2. The problems that a lot of people have with carbonation and head retention (including myself) may be related to infections that don't completely foul the beer, but just add off flavors. In fact, if I didn't think that this beer was infected, I might not have even noticed (if it was bottled and chilled), although I would have noticed the poor head retention.

But why does an infection kill head? And what can I do with this 5 gallon batch of infected brew?

Thanks,
Tom

- - -

~~~~~

Thomas TomazinParallel Scalable Processor Design  
MOTOROLA SPS, Inc. (512) 505-8124  
505 Barton Springs Rd. Suite 1055 Austin, Texas 78762

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Date: Thu, 21 Oct 1993 08:42:30 -0600 (MDT)

From: EZIMMERM@UWYO.EDU

Subject: Holiday Ale anyone?

Salutations!

My homebrew club, the famous Snowy Range Foamentors, is going to have a local homebrewing contest. The beer of the month for December, the month of the contest, is Holiday Ale. I'm wondering if anyone out on the Net has any really good extract ale recipes they think might be good? I'm always preaching the values of a well read HomeBrew Digest to them,

but most of them think they can live with out the wealth of information available here. Well, I'm going to tap this source and try to win the contest. Any suggestions?

Gene in Laramie

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Date: Thu, 21 Oct 93 11:26:35 EST  
From: Dave Lame <dlame99@prog.c4.gmeds.com>  
Subject: Brewing with nuts

Paul Selkirk asks -

"The other day, while roasting some hickory nuts from my neighbor's tree, I got to wondering if anyone ever brewed with nuts."

I will answer - sort of.

I make mead, and I'm also a member of the Society for Creative Anachronism, a medieval recreation group. I was reading a book called "The Sacred Bee", all about the history and folklore of bees, mead and honey. It had a quote from an eighth century Irish manuscript in which there was a reference to mead made from "honey of the bee and milk of the hazel". There were also references in other places to "hazel milk". The author went on to explain that immature hazel nuts had a thin white liquid in them, and that these eighth century lads would gather the immature hazel nuts and use this little liquid to add to their mead.

They would do this because the hazel was a sacred plant which, like honey, would give eloquence and insight to the imbiber. So, mead and hazel together was sure to be a magical drink.

I couldn't picture people running around finding unripe hazel nuts and getting a few drops of liquid from each one. Their old magic was a bit more practical than that. Being strongly inclined to recreate something from eighth century Ireland, which was only 100 years or so later than my own adopted time period for recreation, I decided to experiment. Instead of using "hazel milk" from immature hazel nuts, which would be rather difficult to find and process, I just decided to throw in some nuts.

I crushed up the nuts, and I always boil some honey and water together to put into the primary. I boiled the honey and water, and poured it over crushed hazel nuts. Lo and behold, the boiling water pouring over the nuts released a lot of oil in them, and it formed a suspension in the top of the primary. The result was a milky-white liquid. This, I realized, was the real "hazel milk" to which the Irish were referring.

I have no doubt that this hazel milk made the Irish mead better, and I'm sure that they attributed this to the magical property of the hazel. I suspect that another factor may have been at work. Their quality control wasn't the

best, and I'm sure that they made many a bad batch, polluted by lots of the sulfur compounds that produce awful smells. These sulfur compounds are soluble in oil much more so than in water. By adding the "magical" nuts, and skimming off the oil, they got rid of the sulfur compounds, making the mead taste better.

Enough history, you might be wondering how well it worked. I've had mixed reviews. There are a couple of problems with using nuts. First, there is the flavor of the nuts themselves. It is very strong and somewhat "woody" in the final mead. Not very many people associate this with wines, and a lot of people just plain don't like it. Some do like it, but many don't. I suspect that it might be somewhat more popular in a beer, especially a darker, heavier, beer. Second, there is the oil. Most beer and wine is made with water and sugar, adding a fair quantity of fat in there requires special caution. I've made two batches so far. In the first batch, although the mead looked clear, I actually ended up with floating patches of oil in the glass. The residual oil had gotten together and floated to the top after a few months in the bottles. In the second batch, I used finings, twice. I racked it an extra time, being very sure not to mix it up in transport, so that all the oil would be on top. I made sure the siphon was well below the top so that the oil would not come with the mead. It worked fairly well. There was no oil left in my second batch, although it was not as clear as some of my other efforts. One thing you should definitely do, in my opinion, is to use the "hazel milk", or milk of whatever nut you use, rather than using the whole nut. I did that with my second batch, and it was much easier to handle, with no noticeable change in the nut flavor. Grind up the nuts and pour boiling water over them, and use the liquid that forms. I don't know what is a good amount. I used two pounds of nuts for a gallon of mead, but that was just a guess. I wouldn't use any more, and next batch I'll probably use less.

I submitted it for judging. The judges recommended using oak chips in the next batch, and they also recommended a long aging period, to let the flavor mellow somewhat. The mead was also dry, and they recommended making it sweeter. Some experiments mixing sugar into it confirmed this was probably a very good idea, as the bouquet and flavor were both improved.

All things considered, mead and nuts were an ok idea, and I intend to do it some more, but it is definitely a specialty drink. You will find a few people who really like it, and a lot of people who would really rather have a nice

amber ale.

Since I intend to try this some more, I would like to know if anyone else has used nuts, and how well it worked. I haven't seen any other references to nuts in brewing in books written since the eighth century.

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Date: Thu, 21 Oct 93 08:51:31 PDT  
From: todd@ted.hac.com (Todd Thompson)  
Subject: Aerating wort

I'm a new brewer and have been reading homebrew digest for a couple of months. My question has to do with aeration of the freshly pitched wort. I've made two batches over the last few weeks while reading Papazian and Miller's books on the subject of homebrewing. Only then did I realize that I had done no where near the amount of shaking/stirring and bubbling they suggest. By this time my fermentations had stopped (after only 3 days).

I took off the airlock and replaced it with a stopper and proceeded to shake and swish the wort (now beer?) around for a few minutes. Immediately the beer started fermenting again and fermented very slowly for the next couple of days. Now the questions:

- 1) Was it a mistake to aerate once fermentation had stopped? (I would rather not drink wet cardboard flavored beer!) Have I oxygenated too late in the process?
- 2) How much aeration is necessary? Shaking a five-gallon fermenter even for a few minutes can be hard on the back. Besides, some wort always spills from around the edges of the lid while shaking. Is it really necessary to shake the fermenter for 5 minutes every hour or two for the first day? (Sorry I don't have the exact recommendations with me. It seemed like alot of shaking to me, though.)
- 3) Is there a better way to aerate than shaking or the aquarium pump/air stone method? It seems like an air stone for aquariums would be difficult to sanitize.

Great discussion group! This is my only source of info other than books. Thanks for your responses in advance :-)!

Todd  
toddthom@hac2arpa.hac.com

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Date: Thu, 21 Oct 93 10:50 CDT  
From: arf@mcs.com (Jack Schmidling)  
Subject: Polyethylene Mashout

>From: npyle@n33.stortek.com

>I just bought a thick-wall polyethylene hose to run from my lauter tun  
to my  
boiler. The hose I use now is a thin-wall vinyl hose which has a  
tendency to  
collapse when the hot liquor is flowing through it. Any experience with  
this  
PE hose? It is quite stiff, compared to the vinyl, translucent (similar  
to  
the vinyl after coming in contact with boiling wort), and has almost a  
waxy  
feel to it. Also, it is rated for a fair amount of pressure, but says  
nothing  
about temperature. Use it or lose it?

I am using Low Density Polyethylene tubing for transferring wort. It is  
FDA  
approved and has a temp range of -70 to 120F and it handles sweet wort  
temp  
just fine. It softens up just enough to feel good. I have a short  
piece of  
copper tubing on the kettle end that goes to the bottom of the kettle to  
avoid HSA for what ever that is worth. I also have a ball valve above  
the  
kettle so I can control the flow rate down there.

I started out with 1/8" i.d. but the flow rate was too slow so I now use  
1/4". Not sure what you mean by thick-wall but this is 3/8" o.d. on the  
1/4"  
i.d. tubing.

>From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)

>Over time, we incorporate new techniques into our brewing  
methodology when convinced of the new technique's merit. I'm  
proposing the same action only in the opposite direction in that  
techniques can be eliminated when deemed unnecessary. Such is the  
case with mashouts.

Finally had to get serious and spoil the fun, didn't you?

That's tough to argue with, Chris and in the spirit of pioneering, I  
will  
(might) give it a whirl on my next batch. The only excuse I have left  
is  
that the mash cools off very rapidly in a steel kettle compared to an  
insulated cooler and you might want to offer me a special dispensation.

js

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Date: Thu, 21 Oct 1993 16:04:11 GMT  
From: COOK@CDHF2.GSFC.NASA.GOV (Chris Cook)  
Subject: Beer Drinks, Fruit Beers and Spruce Beers

#### Beer drinks

- - - - -

A couple of years ago my wife and I went out Polka dancing with another couple that had recently returned from Germany. In between dances we were dringing from pitchers of Dortmunder Union and Coke. Without prior provocation, the husband mixed the two in his glass, calling it a 'Diesel'.

A what? we asked.

Diesel, he said, shrugging, that's what they call it in Germany.

Anything with a name that bad has to be tried. It wasn't bad.

#### Fruit Beers

- - - - -

I was making wines for years before starting beers, and fruit wines are easier and quicker than grape wines. It was simple extract stuff - dump in a can or two of concentrate with corn sugar, sterilize using camden tablets, balance the acid and, a day later, pitch dry yeast.

My first attempt to combine canned fruit must ['must' is the wine version of wort] with beer was a cherry stout. It was based loosely on Papazian's recipe, with one 48 oz can of cherry wine concentrate added during the boil. Unfortunately, I think I was having a bad sanitation day - the beer had metallic overtones that spoiled the flavor. Or maybe boiling the cherry concentrate was the mistake?

My second attempt was a light raspberry mead, which was fabulous. It was a lower-gravity sparkling mead, with one 48 oz can of raspberry must concentrate and 7.5 pounds of honey for 5 gallons. Everything was added at the start of fermentation and I used camden tablets to sanitize, rather than boiling. I drank the last bottle years ago, but I remember it being sparkingly clear, dry with a very pleasant raspberry nose, a subtle flavor and a very nice reddish color.

Anyone else try using canned fruit must?

#### Spruce Beer

- - - - -

In HBD1251, John (The Coyote) Wyllie <SLK6P@cc.usu.edu> talks about spruce beer disasters. I've mentioned by love for a good spruce beer before in the Digest, and with a recent batch I have another datapoint.

I've made variations of Papazian's Goat Scrotum Ale every year, including spruce most of the time. While they've all been different, they were all

generally rich, very full-bodied and dark beers, and the spruce just worked well for me. Until last year.

My procedure before that was to add a bottle (2 oz?) of spruce essence with the extracts at the start of the boil. The kitchen would smell strongly (and nicely, I thought) all during the boil, and the resulting spruce flavor was nice without being overpowering.

John mentioned using 6 oz of essence. I don't know the brand, but that sounds like a whole lot of essence.

Since I went all-grain, I started getting fancy ideas, and I thought that maybe I shouldn't be boiling off all those aromatics in the spruce essence.

So for the next batch I added about the bottle at the end of the boil.

All

I can say is that it looked good on paper; the beer was undrinkable, with strong, raw, somewhat chemical flavors.

I tried again this year with a dark spruce beer that I just got around to kegging. This time I made a light-bodied, dry stout with spruce added at the beginning of the boil. The spruce flavor is back where I wanted it, without the harsh overtones. Unfortunately, I find I don't care for the flavor in a dry, light-bodied beer, or at least *that* dry, light-bodied beer. This fall I'm back to old crankcase 'n spruce.

Chris Cook  
cook@cdhf2.gsfc.nasa.gov

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Date: Thu, 21 Oct 1993 11:07:02 -0500 (CDT)  
From: BadAssAstronomer <STOREY@fender.msfc.nasa.gov>  
Subject: uk pubbing

>Well I'm back from 3 weeks of pub hoppin in England, Wales and Scotland.  
I  
>got to tour 4 brewerys, Young's, Sam Smith's, Calandonion and Traquir  
House  
>(it was under reconstruction). The brewerys were all very nice and  
seemed to  
>bend the rules more than a bit when I mentioned I was a brewer from the  
>states. I came back with 4 yeast samples and am looking forward to  
brewing  
>some real ales. A few thoughts on things I was surprised about in the  
UK.

You are a dog! :) I practically begged to tour Young's but to no  
avail. I got to see (from the outside anyway) quite a few  
breweries. It's almost hard not to there are so many around.

>\* I expected cellar temp beer and low carbonation. The real ales are  
cellar  
>temp (55 deg f) and DEAD flat. The ales may have a head if pulled via a  
>sparkler on the beer engines.

This is true. Almost every beer was cool enough to condensate the  
glass a bit. No head or very little each time.

>\* All the beers were extremely small gravity compared to our beers here  
in  
>the states.

I wouldn't say that this is true of my experience. Although, most  
were of low gravity. I remember one though from Gibbs Mew called  
Bishop's Tipple, that was definitely strong. I had a couple of  
pints and felt just fine.

>\* An Imperial pint was about \$2.25.

I was paying about 1.80lb (~\$3.25 then) so you got a bargain.

>\* The Brits are very fussy about both clarity and a good pour. The fill  
>damn well better be to the top and they don't want any haze. All the  
beers  
>were extremely clear. I expected some floaters, I say NONE.

They were very fussy about their cask served stuff as well. I  
visited one pub and got a cask served Young's Winter Warmer and it  
tasted awful. I had one 2 days prior at the same pub that was  
wonderful. So, I mentioned this to the barkeep, and he quickly  
apologized, covered the cask (mentioning to the others that "it  
was off"), and poured another pint of Young's Porter for me. I was  
more than a little suprised that he just took my word for it.

All in all, I had a great trip (back in March) and hope to return  
as soon as I save enough money. I would recommend that experience  
to anybody.

scott

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Date: Thu, 21 Oct 1993 09:48:45 -0700 (PDT)  
From: Jeremy Ballard Bergsman <jeremybb@leland.Stanford.EDU>  
Subject: amylase confusion

I believe that the confusion over the denaturation temperatures of amylase enzyme results from the fact that barley alpha amylase and the purified amylase sold by homebrew shop is a different enzyme, the latter coming from a fungus (aspergillus?), and originally for use in brewing (?) sake. There are many sources of enzymes that break down starch (can you say salivary amylase?), the fungal one is probably the cheapest. All of these enzymes will have different optimal conditions and denaturations temps. The enzyme I use for experimental mini-mashes is called Koji and the manufacturer gives 122F as the optimal temp., consistent with 130 or so as the denaturation temp.

Jeremy Bergsman

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Date: Thu, 21 Oct 93 09:48:03 PDT  
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)  
Subject: Hot Priming/Keg Request

>>>> On Tue, 19 Oct 93 09:18:43 PDT,  
DJM1%CRPTech%D CPP@cts27.comp.pge.com said:

Dan> Does anyone out there on the HBD know where to obtain old (or  
Dan> new, for that matter) 15 gal kegs....Searches of local Recycling  
Dan> places are a no-go (yeah, I could actually buy some of that  
Dan> massed-produced swill and keep the keg for the deposit).  
Dan> TIA-----You can E-Mail me direct.

Well, it is possible to call around to beer suppliers (retail) and see if they will be willing to let you pay the deposit and walk out with an empty keg. I did this with 4 kegs. No problem. Before I did, I called the wholesale distributor and asked "If I do this, will the retailer get in trouble?" The reply was, "No, but someone up the line will eventually have to pay the \$150 value of the keg. You know that even though you pay \$12 deposit, the kegs are not that cheap and someone will eventually have to replace them."

I mailed off for some information on a RIMS system from SABCO Save-a-Barrel and got literature about the kegs which they have available. They take commercial used kegs which have been proven unfit to hold pressure, recondition them, cut out the top and install a nipple and valve. They sell from \$65 to \$150 depending on what options you get done (\$150 gets you the keg, a stainless ball valve and a stainless thermometer well). They also have lauter tun screens available for the kegs. (I am making the assumption that you want this for a kettle, not for kegging).

They included a page describing that paying a deposit on a keg and then taking it away forever is a crime and that some breweries are taking individuals to court and winning suits (civil) against them for doing this. No mention was made of how often compared to the number of people who actually do this. Of course, their tactic is to scare you into buying their product.

If anyone wants to contact them, I can look up the number, or they advertise in Zymurgy and Brewing Techniques, the ad for the RIMS system which is microprocessor controlled ( and BTW runs \$3000 for the complete system ).

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucSD!megatek!hollen

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Date: Thu, 21 Oct 93 13:30:57 EDT  
From: sims@pdesds1.scra.org (Jim Sims)  
Subject: re: [beer drinks, the Kansas version....

Return-Path: <Phyllis=Gunn%FICPO%MASC@vines.erl.gov>



Date: Wed, 20 Oct 93 14:01:48 MDT

**Subject: re: [beer drinks, the Kansas version....**

Coors ain't no beer so how can it qualify as a beer mix! Now that my feelings about Coors are known...The day Secretariat won the derby I was introduced to Bo-Peeps...1/2 Strohs (almost as bad) and 1/2 red wine! An old Kentucky receipe that works all too well! Don't recommend it for anyone over 21.

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Date: Thu, 21 Oct 1993 14:05:43 -0400 (EDT)

From: drose@husc.harvard.edu

**Subject: Low-temp Bottle Conditioning Query**

A friend without access to the net asked me to pass on the following question. He doing a real lager for the first time, has fermented at low temp, bottled, and is now letting the beer condition at around 45F. At this temperature, how long can he expect it to take before the beer is carbonated? He opened one after 1-2 weeks (yes, that is very early) and it was flat. Another problem he encountered: when fermenting at low temp, how does one reliably determine that fermentation is over (i. e. when fermentation is so slow, how do you decide that it has stopped?). He didn't like my answers to these questions: Get kegs so you don't have to bottle condition, and brew ales so you don't have to wait so long.

Thanks.

Dave Rose.

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Date: Thu, 21 Oct 93 14:33:21 EDT  
From: umehara@NADC.NADC.NAVY.MIL (M. Umehara)  
Subject: Pubs in Phoenix

I was wondering if anyone had any recommendations for  
pubs/brewpubs in Phonenix? Thanks in advance,

Mike  
umehara@nadc.nadc.navy.mil

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Date: 21 Oct 93 10:37 CST  
From: Wolfe@act-12-po.act.org  
Subject: Going all-grain

I'm ready to start all-grain brewing, and I would like some advice.

First, I am considering mashing on a burner rather than using a cooler for a mash tun. Is the primary reason for using the cooler rather than a burner the reduced investment in time and money? I guess I want to know how much of a hassle is it to mash on the stove as opposed to mashing in a cooler and if there are any differences in the quality of the brew.

Second, because I want to mash on the stove I need to invest in a larger brew kettle. So far, I've only done high density extract & partial mash brewing so I've gotten by with only a 2.5 gallon kettle. I've found a medium-duty 7.5 gallon SS kettle with a lid and a spigot for about \$100. I am toying with the idea of moving on to 10 gallon batches in the future. Is the kettle described here a worthwhile investment, and could I still use it to mash grains for a 10 gallon batch of brew?

Third, I read a comment a while back about trying to get a 5 gallon batch of all-grain brew into a 5 gallon carboy. I have three five gallon carboys (They were cheap! \$7 at a local used stuff store.). Will I have a problem using these for my all-grain batches? When I started doing partial mashes I got a lot more blowoff in the primary. Will the blowoff in a 5 gallon carboy be unmanagable with an all-grain batch. I've been using a stopper and a racking can as my blowoff valve, but have heard a number of people report using a 1" pipe attached to the top of the carboy. Any insights?

Finally, I have Miller's and Papazian's books. Can anyone suggest a good next book for someone who brews mostly ales that is getting into serious all-grain brewing (e.g., Foster's Pale Ale)?

Ed Wolfe

WOLFE@ACT-12-PO.ACT.ORG

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End of HOMEBREW Digest #1254, 10/25/93  
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Date: Thu, 21 Oct 93 13:29:18 MDT  
From: npyle@n33.stortek.com  
Subject: Late Kettle Hop Additions

I've been thinking recently about hop additions (all this Hops FAQ stuff has forced me to think about some of this stuff). I just realized that there is an inherent advantage to immersion chillers (my old method) over counter-flow chillers (my current method). Yes, the immersion chiller leaves the cold break in the kettle but it does something else that I have not seen discussed in this forum.

The immersion chiller cools the wort and hops fairly quickly from 100C to around 50C (maybe 10 minutes). The late kettle additions are boiled for a short time (1-10 minutes) and then within 10 more minutes they are at a relatively low temperature (50C). Granted, getting the wort down the final 20C to pitching temperature is pretty slow but the volatile hop compounds which you are trying to retain with late additions are less reactive between 20C and 50C than they are at 100C.

With the counter-flow chiller the wort and hops remain near 100C the entire time the wort is being chilled. From experience I know the kettle is still extremely hot 20 minutes after turning off the flame. I would bet that finishing hops act more like flavoring hops and that flavoring hops act more like bittering hops with a counter-flow. Can anyone verify these assumptions? Do you know of any commercial brewers who use immersion chillers (they clearly have some advantages)? Probably not since immersion chillers are less efficient and I know of few commercial brewers (even micros) who care a lot about hop aroma.

I may alter my procedure a little bit to compensate for this. I haven't yet decided how. Suggestions?

Cheers,  
Norm

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Date: Thu, 21 Oct 1993 12:34:58 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: Yeast nutrients/pitching

Thanks to Jim \*Busch\* and Daniel F. McConnell on giving some definitive and consistent numbers concerning optimal pitching rates, ales at 5-10x10\*\*6 cells/ml, and lagers at 10-15x10\*\*6 cells/ml or more. One thing that confused me at first and perhaps others was the fact that pitching rate is defined by the resultant cell density in the batch after pitching. So what at first may seem to be wildly different numbers between Jim and Dan's posts are actually the same numbers.

My goal in starting this enquiry was to somehow get my pitching rate into an acceptable range while NOT being forced to pitch a half gallon or more of some other wort into a carefully designed recipe. Remember a half gallon is 10% of a 5 gallon batch and such a volume will affect your results. I would like to do an adequate pitch in about a pint of starter. Also, I wanted to avoid having to save and pitch yeast slurry from previous batches (Hey, I want it all).

Generally, I pitch a pint starter (very seriously underpitching) and if I can get 10 times the pitching rate by using a little YNB (provided the yeast characteristics remain stable) I figure it's worth it.

If one is not reusing slurry but using a starter what's involved in getting an adequate lager pitch of 10-15x10\*\*6 cells/ml in a 5 gallon batch?

>Dan asked:  
>  
> What kind of lag time did he get? I'll bet it was on the order of 10-12  
> hours, not bad, but greater than optimum.

With Wyeast Chico Ale strain he got just what Dan expected, 10-12 hrs. However, with Wyeast London Ale strain he got a 3 hour lag.

Speaking of lag time, how exactly are we determining the end of lag time? For my own purposes I have defined the EOLT as 2 bubbles/minute from my airlock, but this may be misleading in either direction. Jim? Dan? fg

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Thu, 21 Oct 93 14:03 CDT  
From: korz@iepubj.att.com  
Subject: Liquid yeast/Alpha Acid loss/extract OG calculations

Jerome writes:

>I usually ferment my wort with dry yeast, usually with good and reliable  
>results. Periodically, I will use WYeast, particularly when I intend to  
make

<edited>

>pale ale on Saturday morning. I had gotten a WYeast American Ale  
packet, and  
>burst the inner packet on Thursday evening. Sure enough, by noon on  
Saturday  
>it was nice and puffy. My 1043 wort was at 70F, and all was well with  
the  
>world. So, I sanitize the yeast package in bleach water, rinse it off,  
>cut it open, drop liquid into the wort, cap it and swirl it up. I then  
>wait for fermentation to begin, but lo! nothing happens and keeps on not  
>happening until Monday morning.

Many dry yeast users have reported problems like this when switching to  
liquid yeasts. There are two factors, both which affect lag time, that  
are significantly different between dry and liquid yeasts: 1) aeration  
and

2) cell count. 1. Before drying, the yeast destined for the drier are  
given

lots and lots of oxygen, so that after rehydration, even if there is a  
shortage of oxygen in your wort, the dry yeast cope with this dilemma  
better.

2. There are many orders of magnitude more yeast in 7gms of dry yeast  
than  
in 1.75 floz of liquid yeast. You can get by without a starter, but your  
luck diminishes as the yeast package gets older since the %viable goes  
down.

A starter is recommended, but not manditory, for liquid yeast. I've had  
good success with pitching right from the Wyeast package, but I was  
prepared  
for a 48- to 72-hour lag time. It's a real test of your sanitation! More  
recently (in the last 2-3 years), I've been using starters and get lag  
times  
as short as 12 hours, but sometimes it still takes 24 hours even with a  
starter.

>Should I just admit abject failure and use dry yeasts exclusively? By  
>extension, will I make a beer with "666" tatoood on its forehead if I  
reuse  
>the slurry from a batch fermented with dry yeast?

Recent data suggests that the bacterial and wild yeast counts of dry  
yeasts  
have gone down considerably from 5 years ago. Dry yeasts that I've had  
success with are Nottingham and Coopers and have heard other brewer's  
(who's  
opinions I highly respect) have success with the new strain of Red Star  
Ale,  
Windsor and Pasteur Champagne. I don't think you should fear repitching  
from dry yeast slurry, but as always, be careful.

\*\*\*\*\*

t writes:

>Glen Anderson asks:

>

>>Would anyone know what percent of Alpha Acid has been lost in the  
>>1992 crop, assuming they were stored under optimum conditions? I just  
>>purchased about a pound and would like to adjust my recipes.

There are a great many factors that affect AA loss: temperature, oxygen,  
packaging material, hop variety and type (pellets, plugs, whole).

Assuming optimum conditions (freezer temperatures, N2- or CO2-purged  
packaging, oxygen-barrier packaging), I would say that perhaps 95% or  
more AA would be retained. However, optimal conditions are rarely  
kept and retailers have only recently started to use oxygen-barrier  
packaging, but virtually no one purges their packages with inert gasses.  
Note that HDPE, the most common plastic used for packaging, is not  
oxygen-barrier. A good rule of thumb is "if you can smell the hops,  
it's not oxygen-barrier packaging."

Regarding hop variety variations, here's a bit of data (thanks to Ralph^  
2  
at Hopunion, USA):

variety storagabilty  
(% of AA remaining  
after 6 months storage  
at 20 degrees C)

|                          |             |
|--------------------------|-------------|
| CASCADE                  | 48-52       |
| CENTENNIAL               | 60-65       |
| CHINOOK                  | 65-70       |
| CLUSTER                  | 80-85       |
| CRYSTAL                  | unavailable |
| EROICA                   | 55-65       |
| FUGGLE                   | 60-65       |
| GALENA                   | 75-80       |
| HALLERTAUER              | 52-58       |
| HERSBRUCKER (US)         | 55-65       |
| HERSBRUCKER (HALLERTAU)  | 55-65       |
| LIBERTY                  | 35-55       |
| MOUNT HOOD               | 50-60       |
| NORTHERN BREWER (DOMSTC) | 70-85       |
| NORTHERN BREWER (HALLRT) | 70-80       |
| NUGGET                   | 70-80       |
| PERLE                    | 80-85       |
| SAAZ (CZECH)             | 45-55       |
| SPALT (US)               | 45-55       |
| SPALT (GERMAN)           | 50-60       |
| STRISSELSPALT            | 60-70       |
| TETTNANGER (US)          | 55-60       |
| TETTNANGER (GERMAN)      | 55-60       |
| WILLAMETTE               | 60-65       |

Note that 20C is about 68F, so we're talking about room temperature.  
Don't forget that this is just a measure of Alpha Acid retention and  
not the essential oils. The highly volatile aromatics of hops are much  
more fragile. My experience with the CO2-purged, 3mil Oxygen-harrier  
packaging I use, has shown that this method of storage (even at 40F)  
tends to retain the wonderful hop aromatics, whereas my old method  
of storage, Saran Wrap (tm) and foil in the freezer doesn't work as  
well. Also, regarding the type, pellets tend to retain more of  
everything  
(AA and aromatics) than plugs, which retain more of everything than  
whole.  
It's all a matter of exposed surface area.

>If I understand things right, essentially zero. No adjustments should be  
>necessary. Mark Garetz (our local Hop Expert) may wish to comment.

I would really rather that people not reinforce Mark's self-proclaimed expertise -- what I posted before is really true: Mark Garetz only started brewing about two years ago. I've been brewing for over 8 years and reading about brewing even longer and continue to discourage people from calling me an "expert." Perhaps in 30 more years. I've experienced a lot over the years and read a lot too and have found tons of inconsistency in brewing literature. No one can become a brewing expert from a book -- there's too much conflicting data out there!

\*\*\*\*\*

Mike writes:

>My equation is  $OG = 1 + \frac{\text{\#pounds of stuff}}{\text{\#gallons of wort}} * .042$  for  
>dry extract, and  
>  
>  $OG = 1 + \frac{\text{\#pounds of stuff}}{\text{\#gallons of wort}} * .036$   
>  
>for liquid extract.

I've found that various brands of DME are more consistently in the 42 points range, but that syrups vary from 35 points to almost 40 (for Northwestern). Also, crystal malts give me extracts in the mid to high 20's, but note that the Belgian and English crystal malts are 2-row, whereas domestic are 6-row and give quite a bit less extract. I have some limited data on roasted malts but have yet to extract (no pun intended) useful data out of them. Perhaps I can get a copy of the Karamarkar algorithm ;^).

Al.

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Date: Thu, 21 Oct 1993 15:51:26 -0400 (EDT)  
From: "PETER JUST, ANTHROPOLOGY, WILLIAMS COLLEGE" <Peter.Just@williams.edu>

**Subject: Bulk vs. bottle lagering**

With the onset of cooler weather I'm beginning to contemplate brewing lager for the first time. My guides to this point have been books by Byron Burch and Dave Miller. Burch seems to favor lagering in bulk, Miller seems to think it's alright to do it after priming and bottling. Is there a consensus on the advantages and disadvantages of the two methods?

Peter Just internet: peter.just@williams.edu

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Date: Thu, 21 Oct 93 14:51:23 CDT  
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>  
Subject: nuts in brew

Paul Selkirk asked:

Date: Mon, 18 Oct 93 16:10:22 -0400  
From: paul@ftp.com (Paul Selkirk)  
Subject: beer nuts?

The other day, while roasting some hickory nuts from my neighbor's tree, I got to wondering if anyone ever brewed with nuts.

Would you mash the nuts (lots of starch in there), or "dry-nut" a more conventional beer?

What kind of nuts would be good? The walnut/pecan/hickory family all taste like they've got a lot of tannins, so they might not be appropriate. Maybe almonds, filberts, brazil nuts... (I can see it now - Rainforest Crunch Beer!)

I've been reading the HBD since the beginning of the year, plus most of last year's back issues, and I've seen some...unusual...ideas, but I don't recall anything of this sort. What say ye?

paul

Well I have tried using nuts before in a homebrew, and in my case the results weren'r worth it. In the first place, I was using black walnuts, which are probably one of the hardest nuts to shell. I mashed them in (approx 4-6 ounces) with some DMS (diastatic malt syrup) and proceeded to incorporate the mixture into a sweet stout, which I think is OK, but the walnut aroma/flavor comes across more as a fault than a useful addition. I think that this area deserves more research.

Tony Johnston  
Chemist, Homebrewer

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Date: Thu, 21 Oct 93 16:12:00 EDT  
From: sdlsb.dnet!73410%sdicc@swlvx2.msd.ray.com  
Subject: humor/channeling

From: dspalme@mke.ab.com [signature file]

> " I have found that it is much easier to fake an  
> orgasm than to pretend to like basketball. "

May you never have to do either.

From: lyons%adcl@swlvx2.msd.ray.com

> I'm not clear if this implies...finding the right man?

Feeling a little insecure today?

> little to do with the subject of beer and is offensive to some folk.

Oh, lighten up! It's humor, laugh.

\*\*\*\*\*

From: EZIMMERM@UWYO.EDU

> p.s. please forgive the bad pun, but I couldn't resist this one...

Forgive what? All you did was pun at the one yard line...

\*\*\*\*\*

From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)

> That and the fact that once I figured out how to operate the Maltmill,  
> it really didn't do a good job of ringing-out my wet laundry like I  
> thought it would.  
> [snip]  
> After all, this is HBD not late night cable tv.

Really!???

\*\*\*\*\*

From: korz@iepubj.att.com

> ...due to a fluid mechanics phenomenon called "channeling"

Which is what?

> ...it has been mentioned on the HBD that the hose has a tendency to  
> kink where it comes out of the [Phil's] Phalse Bottom. Replacing this  
> with an elbow seems to fix the problem.

I saw a Phalse Bottom at my local supplier's recently which came with  
an elbow. Phil must have been listening.

Carl

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Date: Thu, 21 Oct 1993 13:03:12 MDT  
From: Kevin Schutz <kschutz@atmel.com>  
Subject: More beer drinks

Assuming that any type of beer "drink" qualifies, I almost completely forgot about some beer shake recipes. I just remembered them after reading about the Belgian beer drinks.

The first place I ran across beer shakes was at the Wildnerness Pub in Boulder, CO. They serve a Porter (Boulder) shake. Pretty tasty. Since that time, I've experimented with several varieties of porter shakes (using Boulder Porter, Black Hook, or homebrew), several Linderman's (sp?) for fruit flavors and even an Anchor Steam shake. Not bad!

The basic recipe for home use is to get some vanilla ice cream, beer (I'd recommend some beer that has a strong character so that the flavor will come through), milk (optional), and a blender. Blend to taste.

I'd recommend beer shakes to anyone unless they have a problem with lactic acid or alcohol.

Kevin

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Date: Thu, 21 Oct 93 20:02:04 EDT  
From: Philip Proefrock <PSPROEFR@MIAMIU.ACS.MUOHIO.EDU>  
Subject: Growing Hops

I am interested in growing my own hops for use in my homebrew. (I don't plan to use this exclusively, but it would be nice to have hops I had grown in the beer that I brew. I expect I would only use the homegrown hops for one part of the process, say boiling, and will continue to buy other varieties for flavor/aroma.) Does anyone else do this? Can you provide some pointers, suggestions as to where I can find seedlings or seeds, etc.? What varieties will grow best in the midwest?o I hope to get starters going indoors this fall, so that I can get them growing this coming spring.

Thanks in Advance,  
Philip Proefrock  
psproefr@miamiu.muohio.edu  
'More Attitude Than Talent'  
Architecture 3+ Graduate Program, Miami University, Oxford, Ohio

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Date: Fri, 22 Oct 93 01:09:00 +0300  
From: ari.jarmala@mpoli.fi (Ari Jarmala)  
Subject: Slow CF chiller

drose@husc.harvard.edu writes about slow CF wort chillers:

HO>I bought 50ft of garden hose (a lot  
HO>cheaper than tygon tubing), 50 ft of 1/4" copper tubing, and built  
HO>a 40 ft chiller (10 feet of the hose going to the connecting lines).

1/4" tube is very thin. Try larger diameter tube. The gain:

- \* the cross section area of the tube is the square of the diameter
- \* the flow is the cross section area times the speed of wort in the tube
- \* the resistance to flow is reduced by increasing diameters => faster flow

Increase the diameter by a factor of 2 and you get about 6 to 8 times faster volume flow. Maintain the length of the chiller.

The other possibility is to increase the driving force: increase the height difference.

- Ari J[rm[1[

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Date: Thu, 21 Oct 93 11:09:00 -0600  
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)  
Subject: beer nuts

In HBD #1252 Paul Selkirk asked:

PS> Would you mash the nuts (lots of starch in there), or "dry-nut" a  
> more conventional beer?

PS> What kind of nuts would be good? The walnut/pecan/hickory family  
> all taste like they've got a lot of tannins, so they might not be  
> appropriate. Maybe almonds, filberts, brazil nuts... (I can see it  
> now - Rainforest Crunch Beer!)

Yes, they do have lots of starch, but also lots of oil. You risk the  
possibility of having a "headless" beer. Hey, Euell Gibbons used to make  
biscuits from acorn flour, why not give it a try?

Chuck  
\* RM 1.2 00946 \*

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Date: Fri, 22 Oct 93 13:21 BST  
From: AGENT COOPER <CENSWM@vaxa.hw.ac.uk>  
Subject: Stainless Steel Kegs in UK?

I need your help!

I want to make a stainless steel brewing set up. I have read about how you stateside folks, get stainless kegs and cut them up. Yeah great I would like to do that but you dont seem to get stainless steel kegs here! they are all alloy. Which is no use.

Does anyone know IF you can get stainless steel kegs in the UK? and if not are there any UK people who can suggest a cheap source of stainless brew kettles etc?

I use a plastic brewheat thingy and I think its crap, I want to brew bigger batches and I want to use gas to heat, cos I like flames!

Please help!

Stuart  
censwm@uk.ac.hw.clustEdinburgh, Scotland

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Date: Fri, 22 Oct 93 08:46:25 -0400  
From: "Phillip Seitz" <p00644@psilink.com>  
Subject: Beer hunting in Belgium: Part 4 (Brasserie la Caracole)

Beer Hunting in Belgium: Part 4 of 7

Brasserie La Caracole, Namur  
(by Phil Seitz)

In Belgium it is possible to run very small scale commercial brewing operations, and there are breweries that only sell a few hundred bottles a year. Obviously the brewers in this situation don't make their living this way, but in some cases they gain valuable experience toward opening larger operations.

One very small operation is the Brasserie La Caracole, which is owned by three partners--the minimum allowable when forming a partnership in Belgium. One of the partners owns a well-known local specialty beer store, La Cave de Wallonie, which serves as the primary outlet for the brewery's products.

Since I have previously reported on this 4 hl garage brewery in HBD I will not review the entirety of their operations. However, my return visit did give us a chance to cover some new ground, some of which will be of particular interest to small-scale commercial brewers:

**Equipment:** The brewery uses a converted steam-jacketed Army-surplus soup kettle. The jacket and inner kettle were separated, with the interior becoming their mash tun and kettle, and the exterior jacket becoming their lauter tun. Water is heated using a European-type flash hot water heater, and is added to the lauter tun just the way we do it--one dipper at a time. The fermenters are located in individual closets, which are heated when necessary and protected by UV lamps.

**Yeast:** Yeast is obtained fresh from a yeast bank at Louvain-La-Neuve, and the same yeast is used for their white, amber, and dark beers. The yeast comes in a 30 liter sealed container, with a yeast count of 5 million cells per centiliter.

Like most breweries this one has a device for cooling and oxygenating its wort. However, they've been having a problem with generation of too many yeast cells during fermentation, making it difficult to get a clear beer. They have therefore decided to temporarily do without oxygenation to see if this will reduce the respiration phase and the resultant increased cell count from reproduction.

**Malt:** The brewers here have lots of good things to say about the DeWolf-Cosyns malts, which are also available here in the U.S. Not only do they feel these are the best available in Belgium, but they also have fewer business problems with this maltings. When dealing with other sources they report constant problems receiving the wrong thing. In addition, they report that while different maltings produce the same lines of malts, if you order the same thing (say, caravienne) from each source you're going to get somewhat different products. Apparently there are no strict definitions regarding what a malt should be if its called by a particular name. Of course, this would also discourage brewers from switching malt suppliers once they've gotten used to something.

The malts from the Deskamps also got a favorable mention. They have at least one maltings, in Gembloux.

Spices: The brewery uses two different types of orange peel. Bitter orange is used for their white beer, and sweet orange for their strong ales. The former is a greenish-gray color, quite bitter in flavor, and provides very little orange flavor in the beer--only a mellow form of bitterness is imparted. Bitter orange is used at a rate of 0.5 grams per liter of finished beer. The sweet orange provides a more conventional orange flavor, and is used in quantities ranging from 0.5 grams/liter to double that or even more. Both types of peel are purchased in 50 kg sacks.

Training: The brewer (one of the three partners) received a 6 year brewing degree from Louvain-La-Neuve. The first four years focus on chemistry and biology, and the last two specifically in brewing. Presumably this is roughly equivalent to a B.S. and an M.A. I can't recall now what his day-job was (the brewery operates only on weekends), but I believe it dealt with commercial production of yeast for food products.

Economics: The brewery hopes to move to larger quarters, preferably a 20 hl facility, and is slowly collecting equipment and experience. At the moment it is loosing 60,000 Belgian francs a month, or about \$1,800. They appear to see this as a cost to be paid during their education, which is fine as long as they can afford it.

Use of fresh yeast for each batch adds 8 francs (about \$0.25) to the price of each 75 cl bottle, but at present the brewery has no yeast-propagation facilities. They must also use new bottles (as opposed to returnables, which are cheaper) because they don't have space for bottle cleaning. For that matter, they don't have electricity or plumbing either, and run a tube down the street to a sewer when they're brewing.

While the brewery sells at least 50% of its beer through La Cave de Wallonie, it also sells a substantial portion through what might be called subscription. In Belgium there are many fraternal and business organizations holding meetings throughout the year, and it is a common practice to have a brewery prepare a batch of beer with special labels for the occasion. (Some American wineries also provide this service.) It can be surprising how much beer can be sold this way, and for a small brewery the arrangement is ideal--they know how much beer they need to brew, and they don't have to worry about distribution. Someone shows up with a truck, takes several dozen cases, hands over a check, and the thing is done. In a business where cultivating and supplying retail outlets can be a major chore, the savings in effort is substantial. In addition, many of these organizations see it as a matter of pride to present unusual or high quality beers, and actually seek out smaller breweries to work with. Regional pride plays a strong role as well.

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Date: Fri, 22 Oct 93 08:59:02 -0500  
From: gjfix@utammat.uta.edu (George J Fix)  
Subject: Carbonation and Filtration; Mashoffs

Dave in HBD#1252 asks:

>While reading the Fix'es Vienna book last night, I came across the sections  
>on filtration and carbonation, and I suddenly got confused as to which  
>order they should occur in.

> 1. carbonate then filter  
> 2. or filter then carbonate

>It seems some of the big boys filter and then pump into a conditioning tank  
>to carbonate, so this would be #2. Other breweries, Anchor for one, end  
>secondary fermentation with the beer naturally carbonated, and filter  
>afterwards.

It is difficult to properly filter fully carbonated beer. Thus option #2 typically gives the best results. I use 5 gal. kegs for storage, and try to adjust the pressure so that the CO2 content of the beer is 1.6-1.8 vols. (i.e., liters per liter). This will not filter as well as totally flat beer, but the differences are not great. After filtration, the CO2 level is increased to the desired level (2.2-2.4 vols. for ale and 2.5-2.6 vols. for lager) by direct CO2 injection.

I always use to use a mashoff at 168F for each of my brews. Last year when visiting Anchor I noticed that they did not mash off. I asked Mark Carpenter about this and he resonded "Who needs it". Since then I have been working with a final temperature of 158F, and have seen no negative effects. There has been no major change in yields, and I still get a fast run off (which I prefer). I am using propane burners, and with this set up I find I can get a tighter control of wort color by not mashing off. In short, I think Chris has got this one right.

-George Fix

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Date: Fri, 22 Oct 93 09:43:22 CDT  
From: hplabs!mcdcup!tellabs.com!don  
Subject: Re: Hot priming, blowoff tube

> Date: Mon, 18 Oct 1993 11:29:15 PDT  
> From: Mark\_Davis.osbu\_south@xerox.com  
> Subject: Re: hot priming  
>  
>  
> Bart asks:  
> >I've always thought that this step is probably not  
>necessary since the  
> >thermal mass of 1 pint of 200F sugar water is nothing  
>compared with 5  
> >gallons @ 70F. So what if I zap a few yeast cells on the  
>initial contact ?  
> >They don't have very good lawyers anyway.  
> >  
> >I've never had the guts to actually risk a batch with this  
>hot combination  
> >experiment. Has anyone else done this successfully ? I'd like  
>to> >simplify my process.

I've done this for a lot of batches and it works out just fine.

> ----->  
> Date: Mon, 18 Oct 93 14:13:34 CST  
> From: "Andrew B. Deliyannides" <Andrew.B.Deliyannides.1@nd.edu>  
> Subject:  
>  
> Anyone have any good ideas on how to blowoff those kraeusen  
>chunkies from  
> a 5 gal carboy without compromising sanitation? I've heard  
>ghost stories  
> about little critters creeping up unsealed blowoff tubes,  
>so I've tried  
> attaching a fermentation lock at the end of a really long  
>blowoff tube. A  
> clumsy solution: the foam still manages to percolate through  
>the lock,  
> sometimes clogging and blowing off the lid. It's rather  
>comical. The only  
> other makeshift idea I have is to simply submerge the end  
>of the blowoff  
> tube in a bucket of chlorox solution. Sure, you'd have to  
>change the  
> solution every once in a while once it got polluted, but at  
>least none of  
> those critters would crawl up the tube. Or is this much ado  
>about nothing?  
> Is the kraeusen itself protection enough from critters?  
> ABD  
>  
> -----

This is exactly what I do. Take a bucket and fill it  
1/4 - 1/2 full and submerge the end of the 1" tube in  
the water. Give it a shot of bleach to prevent any stuff  
from growing in there. Actually a tsp would be more than  
enough. I've yet to ever get an infection from using this



method. I've never had to change the solution... well maybe  
once or twice when I've used dry yeast.

don

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Date: Fri, 22 Oct 1993 11:49:52 -0300

From: Ed Hitchcock <ECH@ac.dal.ca>

**Subject: Blanche de Bruges Yeast**

I got a culture going from the dregs of a bottle of Blanche de Bruges. Does anyone know whether this is their fermenting yeast, whether it is a lager bottling yeast, and/or whether there is any hope of there being lactobacillus still in there? Anyone?

---

Ed Hitchcock ech@ac.dal.ca | "I'm not from outer space. I'm from  
Anatomy & Neurobiology | Iowa. I just work in outer space."  
Dalhousie University, Halifax |- James T. Kirk  
[Eschew racism. Drink beer from all nations]

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Date: Fri, 22 Oct 93 11:34:32 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Re: Beer hunting in Belgium

For those of us reading this fine report who are wondering about the prices quoted: Currently, the Belgian franc is trading at about 35 to the dollar.

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Date: Fri, 22 Oct 93 09:48:06 -0700  
From: goetze@cats.ucsc.edu (Tom Goetze)  
Subject: Scraping hops from the side of my kettle

As I was brewing my Holiday Happiness (extract/speciality/spices) last night, a question about my procedure came to me. Sometimes after adding the hops to the boil, a big head of foam forms on top of the boil which pushes much of the hop pellets up and against the side of my kettle. So when the foam subsides (which it actually doesn't always do) it appears most of hop pellet gunk is stuck to the side of my kettle. So here is my question: Should I bother scaping the hops off the side of my kettle or have all the bittering oils already made their way into the boil?

It has been my practice to scape them off in the past, but I was just curious if I actually needed to put down my homebrew to scape the hops off. It sure could save me a couple of minutes drinking time.

Thanks in advance,

tom

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Date: 22 Oct 93 12:37:00 EST  
From: "Anderso\_A" <Anderso\_A@hq.navy.mil>  
Subject: Yeast

Message Creation Date was at 22-OCT-1993 12:37:00

Greetings,

I've a couple of questions dealing with the propagation of yeast as well as yeast washing after fermenting a batch. I've had generally good success in these areas in the past, but now I'm beginning to wonder about the basic processes and inherent assumptions. If anyone can shed some light on the following issues, I'd greatly appreciate it.

1. Mutations while propagating yeast: If I'm attempting to propagate the yeast for a Scotch Ale (or other high OG beer) from a slant, it will require many cycles of propagation to get the required volume of yeast slurry. I read how commercial breweries can re-use a given batch of yeast from 5-10 times before replacing. Well, I'm doing at least 5 cycles of yeast propagation for my high-gravity beers. Am I running a risk of introducing a mutant strain into my yeast? Am I running the the risk that, even though I have a lot of yeast, it may have reached the point of "being tired"? Aside from ingratiating myself with a commercial brewer who will give me quarts of yeast on demand, how do I assure that I have enough volume of a "healthy" yeast?

2. Washing yeast: In an attempt to solve Question #1, I have been experimenting with washing my yeast from one batch to use in a second. I have tried taking yeast from both my primary and then my secondary fermentor. The primary has more junk to remove (i.e. vegetable materials & cold break [I don't rack the beer off the boil pot into the carboy - I jsut strain the COOL wort into the carboy & then rack to a secondary after about a week.], but it also has more yeast than the secondary carboy. Because of this, I've done more testing with the primary carboy's yeast. I've been using a process I read about on HBD a year ago which uses sterile water and (3) 1-quart mason jars. What I want to know is, after I have agitated my sterile water, yeast, trub mixture in a mason jar, how long will the yeast remain in suspension before precipitating out of solution? As I understand it, the trub should fall out first before the yeast does. However, the longer you wait, the more clearly a separation between liquid and solids exists. Is there a general rule of thumb for the optimum time at which to decant the yeast off the trub?

My apologies for rambling so long. Any help in shedding light on these issues would be appreciated.

Cheers,  
Andy A

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Date: 22 Oct 93 10:13:36-0400  
From: ROBERT.URWILER@sprint.sprint.com  
Subject: You can't judge a beer by the bottle, but...

I am relatively new to home brewing but have noticed that a majority of the equipment commercially marketed for the brewer is focused on the brewing process itself. Although I agree that the beer is absolutely the most important aspect of this craft, I find it strange that the final product (a superior brew) is often presented in a sub-standard package (in my case, scuffed up old Miller Lite bottles with a caps that say "real beer"). I have seen the labels offered by my local supplier and by a few of the mail order catalogs... pretty sad...

It seems to me that there would be an excellent market for custom packaging supplies for the home brewer such as high quality, custom screen labeled bottles, caps, and quality wooden cases. The same organizations who make custom screen printed coffee cups could produce these items at a reasonable cost. I know that I personally would order a couple gross of high quality bottles with my label(s) in wooden cases given the opportunity. Any thoughts or suggestions?

"Perception is nine-tenths of the law..." -unknown-

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Date: 22 Oct 1993 16:15:20 -0500 (EST)  
From: STROUD%GAIA@leia.polaroid.com  
Subject: BEER COCKTAILS, FAQ Part I

Subject: BEER DRINKS, FAQ (Part I)

Q0001: When I make a beer cocktail should I use the lightest beer possible, like a Coors light?

A0001: Of course not. If you want to add as little flavor as possible to your drink, you should use water. Light American lagers are best reserved for rinsing out carboys or for playing BeerHunter.

Q0002: What style of beer is best used then?

A0002: Something dark, with a full aromatic palate and plenty of alcohol. Several months of intensive research and taste testing by some of Beantown's more adventurous beer cognoscenti have determined that the best beers to use in cocktails are those in which mastication of the grains by virgins is a key step in the brewing process.

Q0003: Do beers made that process really, uh, exist?

A0003: What, have you been hiding under a rock? Do I have to spell it out for you? X-I-N-G-U!

Q0004: Can you give me an example of a Xingu cocktail?

A0004: Here's one for beginners:

XING-UP (Xingu shandy)

Pour equal amounts of Xingu and 7-up over cracked ice. Shake well, pour into a tall frosted glass, add a twist of citrus (lemon, lime, or orange), and insert aswizzle stick.

Q0005: That's a nice enough recipe, but don't you have anything a little, uh, more exotic?

A0005: Certainly. Here's one that not only goes great with nachoes, but also looks great:

BLACK BANANA (Xingu Daiquiri)

Pour 6 oz. of Xingu into a blender.

Add:

1 oz rum

1 ripe, peeled banana (for those authentic tropical esters)

3 oz lime juice

10 ice cubes

Blend until very smooth

Serve in a cocktail glass (paper umbrella optional).

Q0006: Can I eat meals with beer cocktails?

A0006: Don't be a twit. Anybody who knows anything about food will tell you

that only wine is drunk with meals; cocktails are reserved for finger food like stuffed mushrooms and cocktail weiners. Here is a recipe for a beer drink that goes great with caviar:

XINGU PIRANHA (Wandamatic)

Pour 16oz of Xingu into a blender.

Add:

6 oz orange juice (fresh squeezed if possible)

dash of tabasco

6-8 ice cubes

Blend on medium speed to crack the ice.

Drop in one small tropical fish (your choice of species)

Blend until smooth. Pour into a chilled glass, insert a straw, and garnish

with a cherry and an orange slice (paper umbrella mandatory).

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Date: Fri, 22 Oct 93 18:31:31 MST  
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)  
Subject: Yeast in Suspense

I have the following question about yeast in suspension in my beer:

At a given time during fermentation, what proportion of yeast cells are in suspension compared to those which are resting on the bottom of the fermenter? Further, are the cells that have settled out dormant and the ones in suspension active, in some sense?

This is important when pitching starter cultures and when bottling. When pitching my starter, should I swirl it around to kick up the yeast cells that have settled out? When bottling beer that has been in the secondary for a long time, should I rouse the yeast also, or will the individuals remaining in suspension be enough to take care of bottle conditioning?

TIA for any responses.

- - - -  
Joel Birkeland  
Motorola SPS  
birkelan@adtaz.sps.mot.com

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Date: Fri, 22 Oct 93 11:14:26 CDT  
From: hplabs!mcdcup!tellabs.com!don  
Subject: Re: Clean it up

> Date: Mon, 18 Oct 93 16:06:09 EDT  
> From: lyons%adcl@swlvx2.msd.ray.com  
> Subject: Clean it up  
>  
> > " I have found that it is much easier to fake an  
> > orgasm than to pretend to like basketball. "  
>  
> I'm not clear if this implies that someone has a problem with  
> basketball or with finding the right man? It may have appeared  
> cute the first time it was posted, but please keep in mind that  
> this type of material has little to do with the subject of beer  
> and is offensive to some folk. I have also been guilty of making  
> crude remarks, but have learned that a public forum is not proper  
> place. Please clean it up.  
>  
> Chris

I still find it pretty cute... :-)  
There is more to life than just brewing beer...  
Lighten up a bit huh...

don

Uh oh... now I've done it.

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Date: Fri, 22 Oct 93 10:55:57 CDT  
From: hplabs!mcdcup!tellabs.com!don  
Subject: Benjamin Machine Products number.

I had several requests to email the number for this company so I figure there must be sufficient interest to post it. Their number is: 209-523-8874

For anyone else who did not follow the thread, this was about counter pressure bottle fillers and what types were available.

don

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Date: Sat, 23 Oct 93 10:41:22 EDT  
From: U-E68316-Scott Wisler <wisler\_scott@ae.ge.com>  
Subject: Wort Chillers reply

In HBD 1253, Greg asks about a wort chiller design:

>how effective would a 30 foot length of 3/8" diameter, coiled copper  
>tubing, be in a 2 foot long, 4" inside diameter, PVC pipe?

Very interesting question and design idea. It is also a very difficult question to answer quantitatively, because the heat transfer coefficient,  $h$ , is difficult to estimate without empirical data.  $h$  depends on the geometry, material properties, and fluid dynamics of the system.

I would say that the PVC chiller would be less effective than the in-garden-hose variety for two reasons: First the flow may predominately go up the center of the PVC instead of over the copper coils. You can get around this by fitting another PVC tube of say 2" dia, sealed with end caps, inside the copper coil as a center plug (as we say in the aircraft engine business). The second reason is that the cooling flow would be across the copper pipe, rather than along it with the garden-hose variety. In the cross-flow case, the cooling water will flow (relatively) smoothly over the front half of the copper pipe cross-section. On the back side, there is a region of separated flow, or recirculation. The heat transfer coefficient drops off in this recirculation region on the back side of the copper tubing. Therefore less of the copper tubing area is useful for heat transfer.

But this probably doesn't answer the really important question: Will it work for me? At the .2 gallon-per-min (gpm) flow rate many CF chillers have, I don't think you'll have a problem. (I think 25 min per 5 gal is about what I've read here for no pump-assist) I know of a pump-assisted 1.0 gpm 30' 3/8 copper-in-garden-hose CF chiller that works fine. So if 30' of 3/8" CF has at least 5x in extra cooling capability, and you don't pump out, I don't see any problem with your idea.

In fact, I think its a pretty darn good one if you are brewing outside and pipe your wort into the basement. Mount that on the basement wall and you don't have to worry about hauling it around, setting it set up or it being in the way. I'd encourage you to make it at tell us how it works...

Keep up the designing !

scott

BTW, for those of you who want credentials, I have a Bachelors and (will) have Masters (just as soon as I finish my thesis) in Aerodynamics. I have special interests in aerothermodynamics and aeroacoustics.

Scott Wisler  
swisler@c0431.ae.ge.com  
GE Aircraft Engines  
Cincinnati, OH

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Date: Sat, 23 Oct 93 11:04:37 PDT  
From: waltman@netcom.com (Fred Waltman)  
Subject: Long lag times for liquid yeast.

Re: The discussion of long lag times with liquid yeast.

My first batch of homebrew was from a Brewtek Kit from Brewers Resource (highly recommended, BTW, for those starting out) and it came with Wyeast liquid. I followed all of the instructions, pitched the yeast packet directly (no starter, of course -- I didn't know what one was), waited a day AND NOTHING HAPPENED! I was heartbroken. "I've killed my beer", I sobbed on my girlfriends shoulder. Here I was, all fired up to make beer and I couldn't even follow a receipe right. Of course, the next morning, when I woke up, things were fermenting along merrily and the beer turned out great. I must of sat and watched the airlock bubble for an hour. Anybody who came by was forced to watch as well.

Fred Waltman  
waltman@netcom.com

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Date: Sat, 23 Oct 1993 18:30:10 -0400 (EDT)  
From: WESTEMEIER@delphi.com  
Subject: Steam injection

I recently watched a fellow homebrewer use what I consider an extremely clever gadget. He had an ordinary household pressure cooker that he modified to run a steam line out through a ball valve. By simply injecting live, low pressure steam into the bottom of his picnic cooler mash tun while stirring the mash, he was able to raise the temperature to the desired point very quickly. He also used the steam to heat his sparge water in the same way. It all seemed so simple and logical that I wondered why I hadn't seen it mentioned before.

Has anyone experimented with this type of setup? What were the pros and cons?

Ed Westemeier  
Cincinnati, Ohio  
westemeier@delphi.com

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End of HOMEBREW Digest #1255, 10/26/93  
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Date: Sat, 23 Oct 93 17:50:37 -0700  
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>  
Subject: I want to meet her

=====

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|                                                                                                                                                                                                               |                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 'Hey Ma'am! I'm not an athlete. I'm a ball player' - John Kruk, Phillies firstbaseman Engineering, responding to a woman who told him he was a bad athletic role model sitting at a bar drinking and smoking. | Ulick Stafford, PP-ASEL<br>Dept of Chemical<br>Notre Dame, IN 46556<br>ulick@darwin.cc.nd.edu |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

- - - - -

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Hey, I want to meet the woman who had the nerve to say this while she was drinking and smoking ;-) )

- --arne

P.S. - I'm available, but a bear to get along with :-)

- - - - -

Date: Sat, 23 Oct 93 18:14:21 PDT  
From: mikel@netlink.nix.com (Mike Lemons)  
Subject: Agrees with COPS show

>From HBD 1253:

> \*Can you say DEATH & BLINDNESS! Ethyl alcohol goes to a vapor within  
> a specific temperature range ( I ain't gonna quote it!) while OTHER  
> alcohols vaporize at different temps. While ethanol won't do us any  
> harm...well...maybe a little nausea in excess...a bit of a headache..  
> .  
> some other alcohols, or components of a ferment could do some harm.  
> If it's done right- sure you can get a fine distilled product. I even  
> tried one once- could've dropped it in a NA beer too, but I wanted to  
> try it straight. Tasty it was! (peeka boo!)  
> I don't have all the chemistry here to explain it...but there are  
> dangers in distilling. That is WHY there are real laws about it, and  
> why those WILL be enforced, as depicted by such "fine" TV programs.  
> Look it up in a library. Most universities will have something on it.  
>  
> "I can't see I can't see" John (The Coyote) Wyllie  
> "Why not?!" SLK6P@cc.usu.edu  
> "I got my eyes shut! Nyuck Nyuck"  
> \*\*\*\*\*

Wow! Somebody actually agrees with that stupid COPS show! I thought I would never see the day. I don't know what he expects us to look up.

Somebody doesn't realize that methyl alcohol was intentionally added to "bathtub gin" during prohibition to increase its intoxicating ability. Poisonous, but it will get you drunk.

The government arrests people who operate a still because they want their alcohol taxes. If they tell you that they do it for your protection, just remember that they told Indians the same thing when they took their land.

-----  
INTERNET: mikel@netlink.nix.com (Mike Lemons)  
UUCP: ...!ryptyde!netlink!mikel  
Network Information eXchange \* Public Access in San Diego, CA (619) 453-1115  
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Date: Sat, 23 Oct 93 20:54:19 -0500  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: wyeast/spruce/distillation temps/and more...

In response to the responses to the  
"why doesnt wyeast take off quick enough" post(s):

I assume that it is accepted as fast that you need to make  
a starter to get the yeast population up to adequate pitching  
amounts.

- 1) the wyeast package misadvertizes that you do not need to.
- 2) there package should be large enough that you don't need to.  
if the entire idea behind the "pop the inner-pouch, let it  
swell" design was to eliminate the need for a starter, it has  
failed.
- 3) why can't wyeast make a package that does the aforementioned?  
Industrial yeast propogation is certainly expensive, but more  
from the overhead point of view that the per-unit standpoint.  
It would not cost that much more to put more yeast in the  
package. perhaps the size of the package is a factor, and  
and more nutrient in a larger pouch would be substantially  
more expensive. perhaps a cheap plastic pressure relief valve?
- 4) I find that hopping my starters substantially cuts down on  
the numer of infected ones. I still throw out 1/2 of my wyeast  
starters because they do not smell/taste questionable.  
I have NEVER had an infected batch from dry whitbread ale yeast.
- 5) I am not satisfied with the performance of wyeast as a whole.  
The last pouch I bought took 5 days to swell, then I made a starter  
and it went sour. I do not lead a life that can adjust my brewing  
schedule around when the damn package swells. I'm sure 95% of the  
human population have jobs which are even less flexible than mine.
- 6) I still buy wyeast and try to use it for those batches which require  
a special flavor from the yeast. I wish there were an alternative...  
It would not take that much more work to provide us with a packaging  
that has a larger yeast population developed before you open it.
- 7) I do not dipuste the quality of the yeast when it actually works.

- - - - -

> >When should Alpha Amalyse be used?  
>Thanks, Steve  
> Amylase (sp!) is a combination of alpha and beta amylase. Two

I think the original poster also asked "how much should be used?".  
How many oz of amanlyze enzyme that you buy in a bottle is the  
equivalent of that in 1 lb of lager malt at 100 Lintner?

- - - - -

>Kevin asks:  
>>Why do you consider distilling to be dangerous? There is an element of  
risk  
>> involved with making anything. (including fried chicken) Distillers  
simply

>> take a fermented product and evaporate and condense the alcohol.  
>>Illegal? Yes. Dangerous? Hardly.

> \*Can you say DEATH & BLINDNESS! Ethyl alcohol goes to a vapor within  
> a specific temperature range ( I ain't gonna quote it!) while OTHER  
> alcohols vaporize at different temps.

just for my information, what are those temps? what's the boiling point  
of methanol, ethanol, CH<sub>3</sub>(n(CH<sub>2</sub>))OH, and at what temps should  
distillation  
take place?

- - - - -

>So, here's a question for all you Thermodynamic type people: how  
effective  
>would a 30 foot length of 3/8" diameter, coiled copper tubing, be in  
>a 2 foot long, 4" inside diameter, PVC pipe? Essentially, I want to  
place  
>the coil inside the PVC, with the ends of the coil entering and exiting  
>the capped ends of the PVC. The cooling water would enter the capped  
>ends as well, but counter-flow. The "coil" diameter would be about 3.  
5",  
>resulting in a circumference of about 11". With each "coil" spaced about  
>1/4" apart, the length would be about 2 feet. Of course the length and  
>size of the copper tubing can be altered, (the PVC diameter is the max.  
I  
>can get) but, is the idea feasible? Any comments appreciated.

try wrapping the copper tubing around a 2.5" PVC pipe, and place the  
entire  
thing inside the 4" pipe. seal off the inside of the inner pipe. the  
design  
could ceratnly be adequate, but in your proposed design, there would be  
a large amount of water that would flow near the center of the tube that  
would never come near the copper pipe. It would work, but require more  
water.

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Regina Harrison writes:

> I just wanted to say a word in defense of spruce beer- I made a  
>batch using Papazian's recipe, with 1 oz of spruce essence, and it  
>was good. Yes, it was odd, earthy even, but I grew up drinking the  
>soda versions of birch and spruce beer. My spruce beer had similar  
>taste without the sugar. It may be that spruce essences and extracts  
>are highly variable in quality...

Batch #9 of mine was a spruce "steam beer", i.e. bruce & kay's honey  
spruce lager, but fermented at ale temps. I used one 14ml bottle of  
Leigh-Williams spruce extract.

quite good indeed, but had a solvent-like flavor when served a low temps  
-  
at 55 it was great! I defininetly would not use more spruce extract,  
and if someone who lives in the Dallas area wants 2 more bottles of it  
(I still have 3 more, and would rather "concentrate" on barleywine)

- - - - -

mrgarti@xyplex.com writes:

>what are people using to store their grain in?  
>how long, under good conditions, will the grain be  
>fresh? besides rats, are there any problems associated

>with buying and keeping 50 lbs of grain?

don't worry about it, at least not if it's uncrushed...

Oh my, I used the C-word! (or is that the un-C-word? :-)

bb

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Date: Sun, 24 Oct 93 10:58:59 EDT

From: btalk@aol.com

Subject: Re: Eisbock

The recent talk about distillation got me thinking...

I've got a pretty good recipe fpr Doppelbock and was wondering about Eisbock.

If I WERE to freeze my Doppelbock, would freezing it in a cornelius keg be

agood idea. It seems then I could open it to get the ice out easily. I doubt

the ice would be in one nice chunk. probably more like slush?

How to recarbonate( besides forced co2 in the can)?

Any ideas, if I WERE to try this?

Bob Talkiewicz

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Date: Sun, 24 Oct 1993 11:52:00 +22306512 (CDT)  
From: dhholscl@rs6000.cmp.ilstu.edu (David Holsclaw)  
Subject: PH Malt, Beer Drinks

Greetings,

I have a question about the use of PH malt and hope that someone out there has an answer. After receiving back comments on several of my brews, and after purchasing a PH meter, I come to the realization that my mash PH's are WAY TO HIGH!! They are in the range of 6.6 - 7.0 for a pale ale. Unless I am mistaken, they should be more in the range of 5.0 - 5.5.

I have tried adding several teaspoons of gypsum to the mash but am yet to see any change.

It was suggested to me that I try some PH malt. For those of you who have not seen (or tasted) this stuff, it is barley malt that has been allowed to partially "rot" for lack of a better term. This creates a very acidic malt that allows brewers to lower their mash PH and still meet the German Purity Laws.

My question is, how much should I use in a 5 gallon batch with 9 - 10 lbs. of other grains? Has anyone else had problems like this with mash PH? What do you do?

Beer Drink: My favorite starts out with a 32 oz glass with two commercial beers in it (I wouldn't treat my beer like this). Then you add one or two (depending on your mood) shots of Canadian Mist and then the trully unique ingrediant. One raw egg is cracked into the glass and allowed to sit unbroken on the bottom of the glass. The idea of the drink is to "slam" the whole thing in one drink and believe me, when you see that raw egg start to slide down the side of the glass it gives you the incentive to keep all that liquid moving quickly. :) We call this drink "The Chicken Maker" and it is a New Years tradition. Enjoy!!

-----

Date: Sun, 24 Oct 1993 10:01:56 -0700 (PDT)  
From: Domenick Venezia <venezia@zgi.com>  
Subject: The 'C' word

Chris Campanelli writes:

>I won't tell you how I grind my malt because I'll  
>then be forced to use the "C" word.

Then Brian Bliss writes:

>"Crack"? "Cremate"?  
>Oooooooh - "C R U \_ \_". (Hint - rhymes with "Lush").  
>Now if we could just manage to avoid using "Mash", "Sparge",  
>"Efficiency", and "Lactic", maybe we could keep the hbd down  
>to a reasonable size...

Chris, correct me if I'm wrong, but I took the 'C' word to be:

"C O R O \_ \_". (Hint - rhymes with "Bologna").

BTW - I found the now infamous "faking orgasm" signoff message by  
Diane Palme quite amusing, but I must admit that I am not much of a  
fan -- of Basketball. And I suspect that Chris Lyons' rather prudish  
response stems from the striking of some personal and painful chord.  
Chris, ... relax, don't worry, have a homebrew.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Mon, 25 Oct 93 03:25:27 -0700  
From: mchristy%spc.dnet@gpo.nsc.com (Mike Christy TEST SOFTWARE  
AUTOMATION x8466)  
Subject: Cider Reply

Martin W. - I cant get back to you cause of the ccm! in your address so I'll answer you here... From what I understand, there is naturally occurring apple type yeast in the cider which makes it "go bad". When I make a batch, I usually dissolve the sugar, either white or brown, in a little warm cider first then added it back to rest. It seems the yeast have a harder time with the white sugar and this seems to leave a sweeter result. They eat almost all the brown. The batch I made this weekend used 1/2 cup frozen sliced strawberries, 1/2 cup white sugar, 1 gallon cider.... I'll let you know how it turns out around new years.

Good luck - mike

Martin W. - I cant get back to you cause of the ccm! in your address so I'll answer you here... From what I understand, there is naturally occurring apple type yeast in the cider which makes it "go bad". When I make a batch, I usually dissolve the sugar, either white or brown, in a little warm cider first then added it back to rest. It seems the yeast have a harder time with the white sugar and this seems to leave a sweeter result. They eat almost all the brown. The batch I made this weekend used 1/2 cup frozen sliced strawberries, 1/2 cup white sugar, 1 gallon cider.... I'll let you know how it turns out around new years.

Good luck - mike

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Date: Mon, 25 Oct 93 08:50:46 EDT  
From: Dean Cookson <cookson@mbunix.mitre.org>  
Subject: Liquid Yeast: Friend or Fiend

Domenick Venezia <venezia@zgi.com> Writes:

> In HBD 1251 Jerome asks if liquid yeast is Friend or Fiend. FRIEND!!  
>

> Liquid yeast is a friend. My beer got much better when I switched to  
> liquid yeasts. Although the Wyeast package says you can just pitch  
> directly from the package, my experience is that this is not a good  
idea and

> a starter is absolutely necessary. Why? The number of yeast cells in  
the

> Wyeast package is very low and results in an incredible under pitch  
which

> can lead to very long lag times raising the risk of infection.

I used to think that too, but. On each of the last two weekends I've  
pitched directly from the packet. The longer of the two lag times was  
about 30 hours. Quite reasonable in my book.

Dean

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Date: Mon, 25 Oct 93 08:37:03 -0400  
From: "Phillip Seitz" <p00644@psilink.com>  
Subject: Beer hunting in Belgium: Part 5 (Oud Beersel)

Beer Hunting in Belgium: Part 5 of 7

Oud Beersel - Lambic Day  
(by Jim Busch: BUSCH@DAACDEV1.STX.COM)

Located just a short drive south of Brussels is the town of Beersel, where the Vandervelden family has been brewing lambics since 1882. We had called these people early in the day. They had informed us that the brewery only has tours at set times, but that we would be welcome if we wanted to come a week later and join a group of 30 people. We accepted this, but were a bit disappointed.

Not being able to visit this brewery, we decided to venture elsewhere in search of lambic-type beers. Our first stop was an accidental discovery in the small town of St. Genesius-Rode, located south of Brussels and east of Beersel. There we found beer hunting heaven, Drinks Wets (209 Steenweg op Halle), a Belgian version of Liquor Barn. In this beer store one can find a entire wall full of lambics, some with the "old style" white-washed bottles, some with big names like Cantillion and Frank Boon, and some actually oozing lambic out of the wet cork (Hannsens). Our shopping carts quickly filled with lambics, Belgian specials and Abbey beers and of course, Belgian glassware. Fortunately for us, they accepted VISA! We each departed with a hefty load of some really diverse beers. The day was young and we were already quite pleased with the results.

We ventured on to Beersel, in search of the cafe that Michael Jackson notes in his book on Belgium beers (The Three Fountains). When we arrived we realized the cafe was closed on Tuesdays, the day of our visit. We got a bite to eat next door and inquired about good beers of the area. We were informed that Oud Beersel was the best lambic around and the brewery, being right on the other side of the town, and a must visit.

Off we went, and following the Oud Beersel signs we had little difficulty finding the brewery. The outside features red and white tiles with the words: Kriek/Gueuze. Upon entering, an older man began a discussion in French with Phil, that I was not in tune to. Much back and forth ensued, with the occasional apology offered from Phil. Soon I was informed that the discussion centered on the fact that we had called earlier and were told NO, only to arrive later anyway. Phil successfully explained that we had no idea that Oud Beersel Brewery and the Vandervelden were the same thing. It helped at this point to inquire about purchasing their lambics, and sure enough we were informed that beer was available for sale, as long as we were willing to buy it by the case. No problem. We got six 750 ml bottles each of Kriek and Gueuze.

The beer was stored in the traditional manner, on the side with a swath of white or pink paint to indicate "up". After some discussion, it was decided that labels might help, since we already were transporting a ton of beer around the country. The brewer glued the labels on one by one.

While Phil was busy taking care of this important activity, I ran back to the car for my camera, and started shooting pictures of the place. Eventually we asked enough questions that we were given an unofficial tour. A typical lambic brewery, the mash tun and boil kettle are weathered insulated cylinders, the

insulation being held on with duct tape. A vertical system was in use, where a masonry-built painted grain shoot feeds the mash tun. Everything was quite dusty, with wooden planks forming a second tier walkway for the brewer to work on the top of the tanks. I was constantly concerned that I would fall through this very crude arrangement. There were two separator/cooling tanks, if one can call them a tank. They were basically a coolship in the shape of a tall bath tub, with slotted plates on the bottom. This was the traditional cool ship, where the hot and cold breaks settle out and the initial inoculation of the local microbes begins. (One note: this takes place deep in the interior of the brewery; there appears to be little direct exposure to outdoor air.) I recall a comment that the wort sits in this overnight. After exiting the coolship, the wort is transferred into one of two large primary fermentation tanks, constructed of metal. After a primary fermentation period, the beer is racked into Chestnut casks--the brewer swears by them and recoiled with horror at the possibility of using oak. The casks are marked and stored in the lambic way, noting the dates and contents on the face of the cask.

Of note in this brewery is the wall full of hand cooperage tools from the mid nineteenth century. Also of note is the old barrel cleaning device, a frame in which the cask is suspended, allowing it to be rotated with hot water and chains inside to "knock" off the gunk. This is nearly identical to the arrangement at the Cantillon brewery.

The brewer himself (presumably Mr. Vandervelden) is getting on in years, though hardly decrepit. He informed us that his young nephew was now in the business, which is likely to stay open for a good while. They're not getting rich, but the brewery makes enough money to stay open and support their families. Most sales are to serious beer connoisseurs--the popular market provides little if any support.

The beers:

In my opinion, these beers are certainly traditional lambics, dry nearly to austerity, and exhibiting a flavor and aroma profile that has some horsehair and saddle notes. This is not to say I disliked them; on the contrary, they are good, enjoyable lambics.

The Kriek had definite cherry notes and flavor, but not in the dominant way that a Frank Boon or Hannsens does. It is more of a subdued and blended flavor. It's color is almost fluorescent pink. The gueuze is a good example of a traditional lambic, but nowhere near as tart and acidic as a Cantillon, nor as sweet as the Belle Vue-like beers.

In comparison with other lambic products, the Oud Beersel beers are less rich than some others (if this is a word that can be used to describe beers as attenuated as these!). The beers are certainly less horsey than the Girardin products, less fruity than Hannsens, less extreme than Cantillon but also lacking in some of Cantillon's satisfying lactic character. Obviously, though, none of these are what the average lager drinkers are going to warm up to, and if you're into lambic beers the differences are ones that you'd enjoy exploring.

Oud Beersel products do not appear to be widely distributed, but can be purchased at the brewery, and also in some stores in Beersel (of which there are not many). We saw them for sale in the delicatessen across from the church, next door to the 3 Fountains.

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Date: Mon, 25 Oct 1993 10:23:11 -0400 (EDT)  
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>  
Subject: Distillation/Grain Storage/Iodophor

Coyote writes:

> \*Can you say DEATH & BLINDNESS! Ethyl alcohol goes to a vapor within  
> a specific temperature range ( I ain't gonna quote it!) while OTHER  
> alcohols vaporize at different temps. While ethanol won't do us any  
> harm...well...maybe a little nausea in excess...a bit of a headache.  
..  
> some other alcohols, or components of a ferment could do some harm.

Isn't Methanol(wood alcohol) the usual culprit in death and blindness cases resulting from consumption of illegally distilled adult beverages? I always thought this was not a result of the distillation process, but due to the \*bad stuff\* that the moonshiners put in their mash i.e., "fermentables" other than corn, potatoes or rice, etc. Is this true? Perhaps other alcohols (fusel alcohols) could result in death in very high concentrations?

Mark Garti writes:

> what are people using to store their grain in?  
> how long, under good conditions, will the grain be  
> fresh? besides rats, are there any problems associated  
> with buying and keeping 50 lbs of grain?  
> mrgarti@xyplex.com

I have found that the food grade containers that deli's use are good for storage of grains. I think the square mayonnaise containers work best. They are the easy to clean and the lids are fairly easy to attach and remove. I recommend filling them to the top and purging with CO2 to keep the grain as dry as possible. I have tried to use containers that pickles and salad dressings are shipped in and could never get the vinegar odor out. I suggest using mayo containers or icing containers from bakeries if you go this route. Scrub them several times to make sure they are totally clean.

Question: Someone posted something regarding IODOPHOR in this or a previous HBD: what does the -phor designate in the name IODOPHOR? I have used BTF iodophor which doesn't contain phosphoric acid and I have recently obtained an iodine sanitizing solution that \*does\* contain phos. acid. What gives?

Rob

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Date: Mon, 25 Oct 93 09:40 CDT  
From: arf@mcs.com (Jack Schmidling)  
Subject: Grain,

>From: garti@mrg.xyplex.com (Mark Garti)  
>Subject: grain storage

>besides rats, are there any problems associated with buying and keeping  
50  
lbs of grain?

The most serious problem I have is with cereal moths. They are  
impossible to  
get rid of once they find you so prevention is the best cure. Keep the  
containers covered at all times.

>From: Steve Seaney <seaney@ie.engr.wisc.edu>  
>Subject: Plans for Grain Mill

>The other day I saw one of Jack Schmedling's (sp?).....  
.....Schmidling...

> grain mills at a brew store. It doesn't appear to be that hard to  
make.

It's not if you have all the equipment and skills needed; lots of people  
have  
but don't confuse making one for your own use with making them to sell  
to the  
public.

>The cost seems extremely high.

I think you mean price as you don't seem to have a handle on the costs  
involved in making them.

Keep in mind that when one decides to retail something, the stores have  
to  
mark it up and if you sell through distributors who sell to the stores,  
they  
also take their cut. Add your own profit on to that and you will  
understand  
why the market is not flooded with inexpensive roller mills.

The two that have come out since the MM should give you a clue. One has  
only  
a single roller and both are less than half the size of the MM but are  
only  
\$20 less at the retail level.

>Has anyone out there ever made a roller mill?

Yes. I made one and it cost me \$10 and a weekend. But when strangers  
started to buy them I had to put a value on that weekend.....

> Do you have any plans handy?

What do you need plans for? Just look at a MM and copy it. Nothing  
could be

simpler :)

>From: Wolfe@act-12-po.act.org  
>Subject: Going all-grain

> First, I am considering mashing on a burner rather than using a cooler for a mash tun. Is the primary reason for using the cooler rather than a burner the reduced investment in time and money?

I won't attempt to define primary reasons but the only reason I know of for using a cooler is because they are about the right form factor and being insulated, they retain heat well. I don't see how it can be less expensive than stove top mashing because you must have a kettle in either case.

> I guess I want to know how much of a hassle is it to mash on the stove as opposed to mashing in a cooler and if there are any differences in the quality of the brew.

Both of these are subjective but as there are proponents of both, there is a good reason to ask. The cooler requires little attention but has limited flexibility while the opposite is true of kettle mashing.

> Second, because I want to mash on the stove I need to invest in a larger brew kettle. So far, I've only done high density extract & partial mash brewing so I've gotten by with only a 2.5 gallon kettle. I've found a medium-duty 7.5 gallon SS kettle with a lid and a spigot for about \$100.

It would be fine but you can do just as well with a \$40 enamel on steel 8 gal kettle for mashing and boiling. When you want to move up to larger batches, just buy a larger boiler and use the original as a mash tun.

>Third, I read a comment a while back about trying to get a 5 gallon batch of all-grain brew into a 5 gallon carboy.

My suggestion is to use the kettle as a primary fermenter and move the beer to the carboy after primary is over and you will have no problem with the carboy size. I have been fermenting in my mash tun for several years now and find it terribly convenient.

> I've been using a stopper and a racking can as my blowoff valve, but have heard a number of people report using a 1" pipe attached to the top of the carboy. Any insights?

Take a Ritilin and pack your blowoff stuff away for one batch and try my suggestion. My guess is you will never unpack it.

js

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Date: Mon, 25 Oct 1993 10:12:07 -0500 (CDT)  
From: tony@spss.com (Tony Babinec 312 329-3570)  
Subject: barleywine yeast-handling

You should be able to brew a barleywine using a suitable ale yeast. Pitching a second yeast, such as a champagne yeast, is not necessary.

The yeast you use must be alcohol-tolerant and moderately attenuative. If there is any doubt about these properties in the yeast you intend to use, then you should try it out in a test wort first. Apparent attenuation should be about 70%, as with any beer you make.

It is important to pitch an adequate amount of yeast, and this is especially true for barleywines. As a rule of thumb, for any ale, consider pitching a one-quart starter. For the typical 5-gallon batch, this represents a 1:20 volume pitch, and is easy to remember. For high-gravity beers, pitch a half-gallon starter, which represents a 1:10 volume pitch.

I feel it is important to aerate the wort. The home-made aquarium pump aerator works well.

Yeast that work include Wyeast "American" ale and Wyeast "British" ale. Regarding "American," consider that Chico Brewing uses it in all their ales including Bigfoot Ale, a high-gravity barleywine. Regarding "British," it is an amalgam of three yeasts: one is a fast starter that quits at low alcohol levels, a second is a slower-starting alcohol-tolerant fermenter, and the third is a "chainer" that causes the yeast to flocculate.

So, if you use the right yeast and help them get started, they'll produce a barleywine with no added champagne or wine yeast.

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Date: Mon, 25 Oct 1993 11:19:19 -0500 (EDT)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: 120F sweet wort??

In the last digest:

<Date: Thu, 21 Oct 93 10:50 CDT  
From: arf@mcs.com (Jack Schmidling)  
Subject: Polyethylene Mashout

<I am using Low Density Polyethylene tubing for transferring wort. It is FDA approved and has a temp range of -70 to 120F and it handles sweet wort temp just fine.

I can assure you that my sweet wort is above 120F, so I wonder the wisdom of using 120F rated tubing in this manner. I use a cut off plastic turkey baster.

Best, Jim Busch

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Date: Mon, 25 Oct 93 15:32:00 +0000  
From: SCHREMPP\_MIKE/HP4200\_42@ptp.hp.com  
Subject: wort chillers

In HBD 1253, Greg Demkowicz asks about coiling a copper tube inside a 4" PVC pipe to make a counter-flow chiller. Here's my 2cents worth:

Your idea sounds like a lot less frustration than trying to slide 30 feet of copper pipe through 30 feet of garden hose. I've done it and it isn't fun. If anyone does try this, definitely use a lubricant, like soap, and plan a few hours of frustration. I'd suggest that you also put a length of 2" PVC (capped at both ends) down the inside of your cooling coil. This will keep the cooling water flowing around the copper coils and not down the center of your chiller.

That being said, I'd also advise you to think through whether it's worth the effort of brewing with the counter flow device instead of an immersion chiller. I've gone full circle with wort chillers, from immersion to counterflow, and finally (just this weekend) back to immersion. I've found that counterflow chillers are the fastest to cool the wort, but immersion chillers are the easiest to use.

My counterflow chiller was outside and was hooked to the garden hose. Using it meant sanitizing it, carrying a pot of boiling wort outside, getting the flow running, figuring out what to do with the water, and finally cleaning the thing out. What a pain in the butt!

This weekend I bought the cheapest immersible pump I could get at the hardware store (\$33.95 for 120gallons/hour) and I made a coil out of some 3/8" copper tubing. I use the pump to circulate water from an ice chest filled with ice and water (actually I ran the outflow into the kitchen sink, and added cold water to keep the ice chest topped up). With 20' of plastic tubing (10 at each end of the chiller), and the chiller (20' of copper), the actual flow rate of the pump was about 2q/min. I left the recirculating setup running while I sanitized my carboy. It took about 45 minutes to get from boiling down to 70F, not fast, but then I'm not into speed-brewing. Plus, the big advantages: no moving a pot of boiling wort, no sanitization hassles (I put the chiller into the boiling wort),

and no flowing water to put somewhere. All told, a major improvement in lowering the stress of the brew day.

Mike Schremp

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Date: Mon, 25 Oct 93 11:25:19 EDT

From: btalk@aol.com

Subject: wyeast2308

Phil Brushaber asks about this.

I've made two award winning doppelbocks w/ this yeast. First made into starter culture. Fermented 3 weeks @46-47 F, then 1 wk @ 55F, rack into secondary & lager ~32 for 3 weeks.

the 1 wk @ 55 is called 'dicetyl rest' (sp?).

Try longer lagering time if you are able.

Good luck. BobTalkiewicz

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Date: Mon, 25 Oct 93 08:51:11 PDT  
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)  
Subject: Plans for Grain Mill

>>>> On Thu, 21 Oct 1993 09:17:55 -0500 (CDT),  
Steve Seaney <seaney@ie.engr.wisc.edu> said:

Steve> The other day I saw one of Jack Schmedling's (sp?) grain mills  
Steve> at a brew store. It doesn't appear to be that hard to make.  
Steve> The cost seems extremely high.

Steve> Has anyone out there ever made a roller mill? Do you have any  
Steve> plans handy?

Well, I can remain silent no longer. So many people look at a commercial product and say exactly what Steve has. What they fail to recognize is the difficulty of actually tracking down all the specialized parts and \*tools\* necessary to duplicate almost any commercial product available. How long will it take you to find a supplier of just the right allen head set screw to attach the handle? Will you have to get your end mill sharpened before cutting the flat on the roller to tighten the set screw up to? How many taps will you break tapping the hole for the set screw? How many drills will you dull? Do you have the correct router bit to round over the wooden edges. How much lubricating oil will you use in milling the grooves in the rollers? How many times will you have to re-make the rollers until you get them made out of just the right kind of steel (or are you a metallurgist)? How much electricity will you use running your machines and lights while you make it? How much is your time worth? You probably will take at least 5 times longer to make a roller mill than a commercial vendor takes. Do you have a lathe and mill? How much wear and tear will you put on these expensive machine tools?

Bottom line, you may be able to make any commercial product for much less than it is sold for if you ignore everything but the cost of the materials. On top of that, you are not trying to make a living out of it. If you really figure \*everything\* in, I would doubt you could beat the retail price by much if any at all since anyone who intends to remain in business will be buying in volume and getting prices on raw materials which you could never come close to at onese prices.

If you enjoy building things, by all means, you have my whole-hearted support to go ahead. I even wish you the good fortune to improve upon Jack's mill or any other brewing product for the betterment of all of us brewers. But, please do not make light of the effort that goes into producing the great products which are being offered to us. Knowing what it takes to produce these, I am quite satisfied that we as home-brewers are getting fair value for our money from the vast majority of brewing equipment manufacturers.

Steve, I do not mean to single you out, this thread has popped up so many times, I just took the opportunity of your post to reply to a topic which has been bugging me for a long time.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucsc!megatek!hollen

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Date: Mon, 25 Oct 93 9:59:38 MDT  
From: npyle@n33.stortek.com  
Subject: Filtering / Roller Mills

Jim Sims asks:

>Okay - I give up. How \*do\* I filter out those bits of gunk, fruit,  
>etc from the primary (or secondary) fermenter when ready to bottle,  
>without oxidizing? To say nothing of trying to filter out the hops,  
>etc \*before\* going into the primary....

Letting it fall out of suspension, then quiet racking is the usual solution.  
Using a racking cane, you leave the bottom 1/2" in the vessel (this is usually the stuff you don't want). You could put a hop bag over the end of your racking cane to help it out. Using whole hops eases filtering every step of the way, BTW.

Steve Seaney writes:

>The other day I saw one of Jack Schmedling's (sp?) grain mills at a  
>brew store. It doesn't appear to be that hard to make. The cost  
>seems extremely high.  
>  
>Has anyone out there ever made a roller mill? Do you have any plans  
>handy?

Steve, I've made two grain mills, with tons of help from my father-in-law the tinkerer. They are hard to make, if you are going to do it right. The rollers are the key, and getting a constant distance from the shaft to the surface of the roller is the hardest part. We are talking about some very small tolerances here. The mill I now use cost about \$75 in parts and many hours of labor. Jack's mill may or may not be better (I suspect it is a draw) but it is without a doubt a better "deal". IMHO, Jack's mill is worth the price. On the other hand, if you like making brewing equipment, then build it yourself. I did, and I love it! Oh, I don't have any plans handy, sorry!

norm

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Date: Mon, 25 Oct 93 12:24:35 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Hot Priming/Keg Request

Dion mentions SABCO as a source of kegs for brewing. Another vendor, with possibly lower prices, is pico-Brewing Systems (313)482-8565 / (313)485-BREW (Fax). I think they actually get their kegs from SABCO.

Disclaimer: the proprietors of pico-Brewing are friends of mine, but I've got no financial interest in the company.

=Spencer

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Date: Mon, 25 Oct 93 12:52:41 EDT  
From: Mark Stickler Internet Mail Name <mstickle@lvh.com>  
Subject: Beer Drinks

Just remembered a beer drink I had once. I think it was called a "Rocky Mountain Oyster Cocktail". You take a Pilsner glass, drop a tablespoon of cocktail sauce in the bottom, drop a raw oyster on top and then fill with a can of Coors. The idea is to then chug the whole thing without getting sick. The oyster usually travels down the side of the glass rather slowly and into your mouth. Not for the faint of heart or queesy.

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End of HOMEBREW Digest #1256, 10/27/93

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Date: Mon, 25 Oct 93 11:13:14 MDT  
From: npyle@n33.stortek.com  
Subject: Hops FAQ, Part 1/5

Here is part 1/5 of the Hops FAQ. I will send one part per day, but recent HBD activity may do any number of things to them (1 every other day, 2 in one day, ???). I'm looking for some Internet guru who can archive this thing for me in the near future (I have neither the time, inclination to learn, nor the facilities to do this). I will make one more revision if necessary, based on HBD feedback, but don't expect me to double the number of hours I've already put into this thing. Anyway, after the next revision, I'd like to email the whole thing to someone and have them archive it for me. Any takers? I hate to push off some of these hot discussions about mixing beer and Koolaid, but here goes:

\*\*\*\*\*  
\*\*\*\*\*

HOPS FAQ, Revision 2, 10/25/93  
Compiled/edited by Norm Pyle (npyle@n33.stortek.com)  
Reviewed/edited by Mark Garetz (mgaretz@hopstech.com)  
Reviewed/edited by Al Korzonas (korz@iepubj.att.com)

I do not have the means to credit each passage individually, nor do I think it would make for good reading were I to do so. The following people (and probably many more, sorry if I miss crediting you!) have contributed to this FAQ (some of them don't even know they contributed!):

Glenn Anderson (gande@slims.attmail.com)  
Scott Barrett (adiron!partech.com!scott@uunet.UU.NET)  
Nick Cuccia (Nick\_Cuccia@talamasca.berkeley.ca.us)  
John DeCarlo(jdecarlo@mitre.org)  
Alan Edwards(rush@xanadu.llnl.gov)  
Bill Flowers(waflowers@qnx.com)  
Russ Gelin(R\_GELINAS@UNHH.UNH.EDU)  
Rick Larson (rick@adc.com)  
Don Leonard (don@tellabs.com)  
John Palmer (palmer#d#john@ssdgwy.mdc.com)  
Bob Regent (b\_regent@holonet.net)  
Peter Soper (?)  
Patrick Weix(weix@swmed.edu)  
Carl West (eisen@kopf.HQ.Ileaf.COM)  
Ed Westemeier (westemeier@delphi.com)  
Dave Wiley (wiley@wiley.bll.ingr.com)  
Gene Zimmerman (EZIMMERM@UWYO.EDU)

Also, Messieurs Miller, Papazian, and Rager should not be overlooked. They have all contributed to this FAQ, directly and indirectly.

I thank you and the HBD thanks you. Here 'tis:

- - -

Q: What are hops?

A: Hops are cultivated flowers (*humulus lupulus*) used for preservative and flavoring characteristics in beer. The bitterness of the hop is used to balance the sweetness of the malt, and the essential oils add a flavor/aroma which cannot be achieved by any other plant. The hop plant is a perennial spiraling vine which will grow in almost any climate given enough water and sunlight. It can climb either string or poles and can reach heights of over 25 feet. The flowers (or cones as they are called sometimes) are usually dried before use.

- - -

Q: What are the compounds which provide the bittering? What about the aroma compounds?

A: Read on:

#### Bittering Compounds

One of the major contributions hops give to beer is a characteristic bitterness that provides a counterpoint to the rich sweetness provided by the malt. This bitter flavor is extracted from the hops during the boil. It is during this time that virtually insoluble Alpha Acids are isomerized (rearranged without changing their composition) into more soluble and stable iso-Alpha Acids, the main bittering substance in beer. Five different naturally occurring Alpha Acids have been isolated from hops which are:

humulone -  $\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2$   
cohumulone -  $\text{CH}(\text{CH}_3)_2$   
adhumulone -  $\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$   
prehumulone -  $\text{CH}_2\text{CH}_2\text{CH}(\text{CH}_3)_2$   
posthumulone -  $\text{CH}_2\text{CH}_3$

Although isomerized Alpha Acids are the biggest contributors, hops contain Beta Acids which also add bitterness to beer. The Beta Acids are similar to Alpha Acids both in structure and abundance. In contrast to Alpha Acids, it is not isomerized Beta Acids that add bitterness, is the oxidation products of the Beta Acids that make their presence felt.

Both the Alpha and Beta Acids are very susceptible to oxidation, especially at temperatures above freezing. Losses of Alpha Acids of up to 60% are not uncommon when hops are packaged and stored poorly. Once Alpha Acids have been oxidized they can no longer be isomerized into iso-Alpha Acid, thus decreasing the hop's bittering potential.

For this reason, the "storageability" of each hop variety is often provided, along with the Alpha and Beta Acid levels, by the hop broker. This parameter is usually given as a percentage of the Alpha Acids present after 6 months at 20C. Some good storage hops (usually high Alpha Acid) lose only 15-20% of their Alpha Acids: Cluster, and Galena are among the best. Most high quality aroma hops lose anywhere from 35-65% of their bitter acids unless anaerobic conditions and cold storage (<0c) are provided.

This is why it is imperative for brewers to buy the freshest hops available and store them in the freezer, properly packaged.

#### Essential Oils

Hops bring a lot more to beer than bitterness. The volatile oil, usually 0.5 - 3.0% (vol/wt) of hop cone, is an important part of many types of beer. Brewers seeking to maximize hop flavor and aroma generally make late kettle additions (0-15 min. before cooling) with high quality "aroma" hops. Dry hopping, i.e. the addition of hops to the secondary fermenter or serving tank, is another way to add hop character to a beer although the aroma components retained by this method differ from those obtained in late kettle additions. The maximum oil utilization is about 10 - 15% which decreases with increased boiling time.

The essential oils are what give hops their unique aroma; each variety has it's own distinct profile. The smell of hops freshly crushed in your hand is quite often different than that in a finished beer. This is due to the fact that the major components in hop oil, beta-pinene, myrcene, beta-caryophyllene, farnesene and alpha-humulene, are not usually found in beer. However, fermentation and the oxidation products of these compounds, especially humulene epoxides and diepoxides are considered contributors to "hoppy" flavors and aroma. The exception here is with dry-hopping, where some of the hop oil components do survive into the beer intact.

Researchers have not been able to duplicate the complexities of hoppy character by adding pure chemicals in any proportion or combination. Consensus is that there is a synergistic blend of several compounds, some of which may have not yet been discovered.

Hop researchers, using capillary gas chromatography, have detected and identified more than 250 essential oil components in hops. Twenty two of these have been pinpointed as being good indicators of hoppiness potential. They are subdivided into 3 groups, humulene and caryophyllene oxidative products, floral/estery compounds, and citrus/piney compounds, as listed below:

#### Oxidation Products:

caryolan-1-ol

caryophyllene oxide  
humulene diepoxide a  
humulene diepoxide b  
humulene diepoxide c  
humulene epoxide I  
humulene epoxide II  
humulene epoxide III  
humulenol II  
humulol

Floral/Estery Compounds:

geraniol  
geranyl acetate  
geranyl isobutyrate  
linalool

Citrus/Piney Compounds:

delta-cadinene  
gamma-cadinene  
citral  
limonene  
limonene-10-ol  
alpha-muurolene  
nerol  
beta-selenene

- - -

End of part 1/5

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Date: Mon, 25 Oct 93 11:55:20 MDT  
From: Nick\_Nikols@Novell.COM (Nick Nikols)  
Subject: Re: Liquid male extract

>>This formula uses 1.042 for a pound of  
>>DME (dry malt extract) in a gallon of water, about 1.034 for  
>>LME (liquid male extract), and about 1.029 for speciality grains.  
 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

>Yuck! I wouldn't put that stuff in my beer!

>Geoff

I guess this must be from a recipe for Smegmabrau.

Nick

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Date: Mon, 25 Oct 93 12:17:02 PST  
From: Bob W Surratt <Bob\_W\_Surratt@ccm.hf.intel.com>  
Subject: Watney's Red Barrel Clone

Text item: Text\_1

Does anyone have a recipe that they feel comes close to matching  
Watney's Red Barrel?? Please E-Mail any to me. Thanks! Bob Surratt

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Date: Mon, 25 Oct 1993 13:13:00 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Cider/Grain Storg/Sick Beer/NORM!/Sig.lines

\*\*\*\*\*  
meade@readmore.com  
asked about:  
Cider  
Sorbate/Sulphate

\* Potassium Sorbate is a "stabilizer" It will not STOP an active ferment but will inhibit initiation of growth. Both yeast and bacteria.

You Don't want cider with sorbate. Find an orchard and get the fresh pressed- unfiltered stuff. Much worth it!

\* Sulfating cider- hell why not! You DON'T want to BOIL it! I've done it. Personally I prefer CYSER to CIDER> Add honey. Makes MORE alcohol, and adds a sweeter complexity. Straight cider tends to become rather dry. Cinnamon is a nice addition too.

\*\*\*\*\*  
gartim@mrg.xyplex.com (Mark Garti)  
Subject: grain storage

>what are people using to store their grain in?  
how long, under good conditions, will the grain be fresh? besides rats, are there any problems associated with buying and keeping 50 lbs of grain?

\* I like metal cans with tight fitting lids. You can line them with a plastic bag to close down tighter as grain is used. IAMS pet food commonly has gifts of cans which will hold about 30# of grain. You may find old square metal flour cans. They fit better on shelves, and hold- 20#. Smaller cans are useful for dark and specialty grains. Check your local surplus store. Watch out for anything- wet, dirty, smelly, or which stored chemicals! Plastic buckets would work fine too.

Grain will store well under room temp and cooler UNGROUND for long periods of time. After grinding grain loses some of its potential. The big enemy- besides rats, in my case... MICE!- is MOISTURE. You want to be sure to keep it dry. Mold will do bad things to grain.

\*\*\*\*\*

>First, what kind of critters can invade a bad batch?  
What is the worst illness that you have heard of from drinking 'bad beer'?

\* Besides the normal nausea from drinking too much GOOD BEER!... there are multitudes of wild yeast and bacteria which can invade and create off FLAVORS. But as for getting sick...the only story I heard of was when toot ended up with a sour stomach after drinking the sediment from many bottles of spiced beer (clove, cinnamon...etc) and got sick from the excess spice bits reeking havoc in his tumtum.

Relax...Don't fret...Be cautious...but not 'noid! :) Then have a brew.

\*\*\*\*\*

To Norm Pyle- working on the HOPS faq:

\* Have you contacted Steiner's at all? I wrote for a catalog and price list and was sent a nice ~200pg HARDCOVER booklet on hops- varieties- growth- dristribution...etc. Kinda nice! and FREE! ok...it's actually 80 pages, with a spanish and german translation!

I believe they generally cater to BREWERIES not just brewers (like us) I don't have the address handy- but e-mail me if you want it. I've tried emailing you- but I get bounced. I hate getting bounced!

\*\*\*\*\*

About the sig. line re: Orgasms and baseball.

I guess some folks are a little sensitive. Personally I get a chuckle everytime I see it. I don't think sig.lines should be censored- just kept BRIEF! Maybe a disclaimer at the beginning- noting parental discesion and what not!

Here's to Screaming and Squirming!

\*\*\*\*\*

John (The Coyote) Wyllie SLK6P@cc.usu.edu  
\*\*\*\*\* Aaaaaaack! BtC \*\*\*\*\*

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Date: Mon, 25 Oct 1993 15:21:00 +0000  
From: "Rick (R.) Cavasin" <cav@bnr.ca>  
Subject: re: Brewing with nuts

Dave Lame gives an interesting description of the use of hazel nuts in a mead:

One caution Dave. You have assumed that people who lived over a thousand years ago did not do something because you think it would be impractical, and then conclude that the only shred of evidence you have (of what they did) is wrong based on your one experiment, when you admit that it yielded mixed results.

Perhaps they did collect immature hazel nuts and press the juice from them (and had some use for the leftover nuts). Perhaps the juice of the immature hazel nut produces a superior mead. Perhaps the juice from immature hazel nuts is water soluble. Maybe your source on the use of hazel nuts in 8th century Irish mead making is wrong and they never used nuts at all.

Admittedly, it would not be practical for most people to try using immature hazel nuts, but you shouldn't conclude that the oil produced by pouring boiling must on mature hazel nuts is the 'real' hazel milk. If your luck is anything like mine, somewhere down the road a source for immature hazel nuts will mysteriously appear. ;)

Good for you for going out and actually trying the experiment!  
Cheers, Rick C.

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Date: Mon, 25 Oct 93 14:44:49 EDT  
From: lyons%adc3@swlvx2.msd.ray.com  
Subject: Apparent attenuation ... function of yeast & malt.

Glenn Anderson in HBD 1254 asks about apparent attenuation numbers for various yeasts. I have had widely different apparent attenuations from my all grain batches, most likely due to variations in the mash temperatures from batch-to-batch. My records show apparent attenuations ranging from 52% to 78% using the same yeast (Whitbread dry ale yeast). I have had very consistent apparent attenuations over several batches with the same DME & same yeast. However, I get completely different apparent attenuations between different brands of DME (AA of Laaglander <> AA of M&F) with the same yeast. In my latest batches I have been using Wyeast 1338 (European) liquid yeast and have gotten apparent attenuations of 75% with M&F based recipes, and 56% with Laaglander based recipes. I guess my point is that although the yeast is important in determining the apparent attenuation, the percentage of fermentable sugars in the malt also plays a significant roll in determining the final gravity.

Question: When companys give apparent attenuation numbers for there yeasts, is there a standard malt (or recipe) that they are using?

Chris Lyons

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Date: Mon, 25 Oct 1993 14:01:21 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Good Head/Spruce BOIL/junk

\*\*\*\*\*

Tom said:

>The problems that a lot of people have with carbonation and head retention (including myself) may be related to infections that don't completely foul the beer, but just add off flavors.

...snip...

But why does an infection kill head? And what can I do with this 5 gallon batch of infected brew?

\* Good Beer Head (as compared to...\*slap\*) requires the presense of proteins to form stable bubbles. Proteins surround CO2 bubbles and establish a network structure stabilizing the bubble. Can you believe that researchers are funded to study this kind of thing! Maybe I should apply for a grant...Splitting the Beer Atom!

Bacteria and yeasts may choose to chew on the necessary proteins for food, or building materials and deplete the beer. Some of these same protein eaters may also produce products which result in what we consider "off flavors" or aromas. But to them...it's just what they do. Don't blame them- JUST ELIMINATE THEM! Call the TERMINATOR!

\*\*\*\*\*

Chris Cook praises boiling essence for SPRUCE BEER

>John mentioned using 6 oz of essence. I don't know the brand, but that sounds like a whole lot of essence.

\*I was thinking about that one. I think it was a 2 oz bottle. Good for up to 6 gallons??? Maybe I should have boiled it, and made a darker beer. Hmmm. Still don't think i want to try it again. Maybe I'll experiment with smoke instead! (RauchBier!)

BTW: Not to slam a style..Not me! Give it a try if it tickles your pickle. I'm DEFINITELY not Rheinheitsgebot myself! Anyone else ever tried Cajun Spice in a brew? Interesting.

\*\*\*\*\*

Jeremy Bergsman says:

>(can you say salivary amylase?), the fungal one is probably the cheapest.

\* You're not gonna start telling us to chew our grains in our mouths and then spit into our boiling kettles are you! Starts sounding like some wierd indian corn concoction! Hmmmmmmmm. So what if we add some fungus to our mashes- MushroomBrew?

\*\*\*\*\*

Oh Nuts...Yeah. Oil. Kills head. Maybe you should spit in it. That's coooool. Huh huh, heh, heh.

\*\*\*\*\*

Oh...and BTW

Norm mentioned his Barley wine was down to an OG of... Wait a minute here. OG= Original Gravity. How can it be down to...

FG= Final Gravity, SG= Specific Gravity. Let's be nittypicky! :)  
\*\*\*\*\*  
~~~~~ John (The Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~  
***** Aaaaaaack. BtC *****

Date: Mon, 25 Oct 93 15:04:00 CST
From: Montgomery_John@lanmail.ncsc.navy.mil
Subject: IPA request

I posted this question before, but got no response, so I thought I'd give it one more try before abandoning the idea altogether. I'm currently on a quest for the Holy Grail of India Pale Ales and am trying to replicate Hale's IPA. If anyone has any recipe suggestions for recreating this brew, could you please pass them along? Any suggestions would be greatly appreciated.

john m.

montgomery_john@lanmail.ncsc.navy.mil

Date: 25 Oct 1993 14:04:08 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: Fermenting Process question

Hello Group,
I have made a spiced Christmas Ale (de la Phleming), and I used Wyeast European Ale. I wanted a malty roundness to support the spices.

I would like your perceptions as to the quality of my fermentation.

I may have rushed things a bit. I squeeze the packet early Saturday, by evening it was plump and I added it to a high gravity starter (I haven't measured it, but from the remainder's color, I'd guess 1.06) Next morning It was foaming with a half inch of foam in the pint jar. I made my beer and pitched that afternoon. I had good activity afterwork the following day (monday). It had a sluggish fermentation overall judging from the meager three quarters inch krausen. Most visible churning had ceased by Thursday and the krausen is now settling back in.

Other particulars:

aeration: Liberal splashing of the bathtub cooled wort into the 7gal carboy.

And some shaking. a little.

OG: about 1.06 (measured warm and adjusted)

FG: as of sunday 1.03

Temp: Air Stat'd at 69F

Time Elapsed: 7 days as of 5pm Monday Oct.25

I am using the Brewcap system but am having a difficult time getting my sediment out of that teeny 1/4 inch hose. (hop pellet fine particles) I need to do that tonight. I am thinking of going ahead and racking it.

..

I can wait a while though, probably.

Does my fermentation seem too feeble to you? This is my first use of Liquid Yeast, the dry Red Star always had a furious krausen... The three point drop in gravity looks good, but is that the whole story? I appreciate any and all comments.

-John Palmer

** I think sex is more fun than basketball, too.**

** Fishing can be a tossup, though. **

*** (Depends on which is biting better) ***

Date: Mon, 25 Oct 93 17:07:15 EDT
From: Todd Anderson <TAND1698@URIACC.URI.EDU>
Subject: New England Brew Pubs

Long time reader, first time writer. I would greatly appreciate any info. on brewpubs in the Southern New England area. I've been to a couple in Boston, so I'm more interested in Rhode Island, Connecticut and Cape Cod areas. My E-Mail address is TAND1698@URIACC.URI.EDU.

Thanks a Bunch!

Todd Anderson
University of Rhode Island

Date: Mon, 25 Oct 93 16:23:36 -0500
From: bliss@pixel.convex.com (Brian Bliss)
Subject: Re: layered beer

Fritz Keinert <keinert@iastate.edu> writes:
>While we are on the subject of beer drinks: does anybody know how to
>get two differently colored beers (like Guinness and Bass Ale) in two
>layers in the same glass? We tried it once during a party, with no
>success.

You must use draft guinness, either from a tap or from the can.
Pour a layer of anything else on bottom, then pour the guinness
slowly & carefully over a spoon held against the wall of the glass.

Does it work if you try to put guinness on the bottom?
I'd go out and buy some, but they don't sell the cans in TX.

bb

Date: Mon, 25 Oct 93 17:52:16 EDT
From: mwithers@hannibal.ATL.GE.COM (W. Mark Witherspoon)
Subject: Update on "RCA"

Ok, folks my Rusty Cream Ale came out. The verdict...

It ain't cream ale. It looks and tastes like
a Killians Red clone.

To refresh everyone's memory here is the recipe..

2 lbs of pale malt
1 lbs of flaked corn
1 lbs of crystal malt (about 50 l)
4 lbs of Alexanders Pale Malt

1 oz of Tettanger Hops (3.8%) (boil @ 45 min)
1 oz of Liberty Hops (3.2%) (half and half boil/finish)

Whitbread ale yeast

OG = 1.052

FG = 1.012

It appears that the Whitbread yeast that I used was
really atteuntuave. The % alcohol/vol is around 6.5.
The preliminary tastes puts it nice, smooth, a bit thin
(its' been ageing about 2 weeks). It should have some
character in about 1-2 months.

Thanks for the reply's about it.

Mark Witherspoon

| / / | W. Mark Witherspoon | The opions expressed are of my
| / / | mwithers@hannibal.ATL.GE.COM | own not of my employer...
| / / | ATL (609)866-6672 | This sig will self destruct...*

Date: Mon, 25 Oct 93 19:22:51 EDT
From: sean v. taylor <sean@chemres.tn.cornell.edu>
Subject: Chapel Hill and Richmond Pubs/Brewpubs

Greetings:

I am going to be in the Chapel Hill, NC area for a few days in November and I was wondering if anyone out there in the HBD zone had any advice on good pubs/brewpubs anywhere in the area.

On my way down, I am stopping in Richmond for an evening and I was wondering the same thing (pubs/brewpubs?)

Any responses would be greatly appreciated.

Thanks,
Sean Taylor

Date: Mon, 25 Oct 93 11:57 CDT
From: korz@iepubj.att.com
Subject: Sheaf & Vine Brewing Supply

Please excuse the use of bandwidth, but due to the proliferation of my catalog via electronic means, I have no way of knowing who of you out there were planning to place a Sheaf & Vine order by mail.

It is with deep regret that I must report Sheaf & Vine Brewing Supply will be suspending mailorder operations until further notice.

As many of you know, I have been running Sheaf & Vine Brewing Supply (retail store AND mailorder) singlehandedly, evenings and weekends after putting in 40+ hours per week at AT&T Bell Laboratories. The reasons for suspending the mailorder side are:

1. health -- often I would be up till 3am packaging hops & grains and this has really taken a toll on me,
2. no time to spend with my wife -- we just celebrated our 1 year anniversary
(even on our anniversary day, I met with a potential customer)
and, most importantly,
3. decrease in quality -- the heavy load of mailorder requests has increased
turnaround time to unacceptable levels... if I cannot provide the best possible service to my customers, I would rather suspend operations rather than compromise quality.

If and when I make Sheaf & Vine a full-time business or if retail operations require the hiring of an employee, I will resume mailorder operations. Please accept my appologies.

Al.

Date: Mon, 25 Oct 93 13:41 CDT
From: korz@iepubj.att.com
Subject: Filtering/PitchTiming/GrainStorage/Critters/WyeastMunich/
ChimayYeast/HeadKillingInfection

Jim writes:

Okay - I give up. How *do* I filter out those bits of gunk, fruit, etc from the primary (or secondary) fermenter when ready to bottle, without oxidizing? To say nothing of trying to filter out the hops, etc *before* going into the primary....

Once the wort is cool you can splash all you want -- this is the time to filter out bits of hops and stuff you added during the boil. I use hop bags and thus get very little stuff to filter out. After primary fermentation, one way to filter the beer is to put a mesh over the end of the siphon hose. You can increase your filter surface area by first putting a sanitized copper scrubbie (like a Choreboy) over the end of the siphon tube and then covering that with something like a hop bag (thanks to Al Andrews and/or Kinney Baughman for this tip).

Domenick writes:

>It has been my experience that Wyeast is ready to pitch after about 24
>hrs, sometimes less. By the time the package is really puffed the
>yeast has gone way past high kraesen (sic?), and flocculated. It's had
>a
>good meal and dozed off. Pitching this means not only are you under
>pitching, but you are under pitching sleeping yeast that will need some
>time to wake up. By using a starter you can pitch more cells and
>perhaps
>better time your pitch to occur just before high kraesen. So I think
>that
>a 48 hr lag time (Sat-Mon) is not unexpected.

Actually, the ideal time to pitch is shortly AFTER high kraeusen. This is important enough to repost (something from Mike Sharp):

>What I referred to here as the 'stationary phase' is really
>the very beginning of the dormant phase. In other words,
>let your starter ferment out then pitch it. Don't let
>it sit too long or you'll have other problems.

>

>As far as the argument that vigorously multiplying yeast will
>start your wort faster, the yeast have a limited supply of glycogen
>and it gets depleted through culture growth (multiplication).
>If you then pitch this starter with an already depleted glycogen
>level into your wort then you'll have more of a lag since the
>cells won't be able to multiply as quickly (due to the low glycogen
>levels)
>[think of glycogen as the fuel that drives the cell] By letting
>the cells reach stationary phase they have stopped multiplying,
>begun storing up glycogen again, and just generally getting ready
>to go dormant.

>

>At least that's the Reader's Digest version of what I go out of:
>> Impact of Yeast Handling Procedures on Beer Flavor During Fermentation
>> Pickerell et. al.
>> American Society of Brewing Chemists (ASBC) Journal, Vol 49:2, 1991,
pp.87-92

Mark writes:

>what are people using to store their grain in?

I store it in white, 5-gallon, HDPE pails with gasketted lids (they are a bear to remove, even with the lid-lifter tool!) at about 60-65 degrees. You can get between 25 and 30 pounds of grain in a 5-gallon bucket. What else is nice, is that the pails stack much better than 110lb sacks!

Doug writes:

>First, what kind of critters can invade a bad batch?

Lots, but none that are dangerous. lactobacillus and pediococcus are the most common, but you can also have acetobacter, molds and sherry flor.

>What is the worst illness that you have heard of from drinking 'bad beer'?

The worst thing that can happen is you'll like it and develop 'bad taste.'

But seriously, a hangover is about the worst thing you can get.

>Second, what is a good McEwan's taste alike? I have had this beer and like it's

>style.

I assume you mean McEwan's Scotch Ale. There are very few beers that I know

of that are similar to McEwan's Scotch Ale and are imported into the US.

Note

that if you like MSA, you may also like a beer which is perhaps the lager counterpart to MSA, namely Doppelbock. Salvator Doppelbock is a bit less sweet

but in a similar vein. Celebrator by Ayinger is another good one you might

try.

Phil writes:

>Has anybody had experience with this yeast (Wyeast Munich Lager #2308)?

I don't know what they mean about the instability, but I can report a very intense "home perm solution" nose for the first 4 months of lagering.

I fermented at 50F and then later at 45F. After 4 months, the off aroma disappeared and the beer did well in a few competitions.

Jamie writes:

How does the Wyeast Belgian compare to cultured Chimay yeast? Which am

I better off using?

Judging from the flavor of two beers that I recently tasted, one brewed with

Wyeast Belgian and the other brewed with cultured Chimay dregs, I would say

that the yeasts are identical. There are trade-offs with each: going the Wyeast route is more expensive but the Chimay dreg route is a bit riskier,

since you don't know how much the bottle was abused on its way to you from

Belgium.

Tom writes:

>But why does an infection kill head?

Because part of what gives good head retention are dextrans and other more-complex carbohydrates which yeast can't eat, but some bacteria can. The bacteria cut up the large carbohydrates (and perhaps even proteins -- but this is just a guess, although small proteins are very important to head retention) into pieces that are edible by yeast (which is why infected beers often turn into gushers -- overcarbonation from the yeast eating stuff you wanted unfermented).

Al.

Date: Mon, 25 Oct 1993 22:03:14 -0400 (EDT)
From: FILTER@xavier.xu.edu
Subject: Hemlock Beer

There seems to be some confusion among some people as to the difference between Eastern Hemlock (an evergreen found in the far north down to Tennessee along the mountains,) and the Hemlock(& water Hemlock) 'weedy-type' plant. The two are not at all related, and I'm not at all sure how they gained the same name.

The evergreen tree is one of our most beautiful coniferous trees. It has small perfectly shaped cones. According to 'Euell Gibbon's Wild Foods Guide,' you may take a handful of the needles brew a delicious tea. It's good, I've tried it over the camp fire. 'Peterson's Wild Food Guide' agrees and goes on to state that a highly nutritious flour can be made from the inner bark. 'Peterson's North American Tree & Shrub Guide' states that both Native Americans & early frontiersmen brewed tea from the Eastern Hemlock. Unfortunately, the future of this tree is uncertain because of some ugly, little insects we've imported into this continent.

The weedy-type plants, Hemlock & Water Hemlock, are easily distinguished from the evergreen. They've got leaves, as opposed to needles. They may only grow a yard or two tall. And most of all, they look like Wild Carrot & Queen Anne's Lace. In fact, I think they're related to the latter. Both Hemlock & Water Hemlock are highly poisonous, requiring only a handful of the leaves to do in the average person.

Rest assured, if you can tell the difference between an evergreen and a weed, you can use the Hemlock in your brewing(like the spruce.) I've never made beer from either. Good Luck, Jeep (Filter@XU.XAVIER.EDU)

Date: Tue, 26 Oct 93 00:32:00 BST

From: r.mcglew3@genie.geis.com

Subject: Nut Beer

I judged specialty beers last year at the HOPS-BOPS HB contest held at the Sam Adams Brewpub. We gave a nut beer 1st place, it really was a good

beer. When we first tasted it we were not all that impressed, but after some re-calibration of our palates, we gave it a second try and voila.

I can't remember the recipe, I believe it was either walnut or pecan, and

I seem to remember that it was a brown ale. If anyone is connected with HOPS, maybe you can look back in your records.

For anyone that enters a specialty beer in a contest, be aware that the judges in that category are subjected to a lot of widely varying beers and

have a hard time picking the right one, the judges' taste preferences really are the major factor. So, if it doesn't do well, let your own taste buds determine if you should do it again.

Date: Mon, 25 Oct 1993 23:45:06 -0400 (EDT)
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
Subject: homebrew club gone stale! oxidation?

As a member, former vice president and president, and treasurer of our local homebrew club over the past half dozen years or so, I have been disappointed in the direction the club has gone presently. It has turned into more of a socializing and drinking club. Not to be too negative, I would like to address this problem in our club newsletter.

I'm thus asking for input from people on the HBD to share with me if they have

had similar experiences in their clubs, and possible ways to remedy this situation. In particular, I would hope some could share with me some of the activities that they partake of at their club meetings besides drinking homebrew. Specifically, where are meetings held, do they rotate from house to house or restaurant to restaurant? Are experiments done on a club basis? Etc. Since this may be of general interest to other

clubs, a reply by digest would seem appropriate. However, responses can be e-mailed to : kligerman%am%herlvx@mr.rtpnc.epa.gov

Thanks,
Andy Kligerman

Date: Mon, 25 Oct 1993 23:54:46 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Info on Yeast Labs Liq. Wanted

Hi,

I've been lurking (and drinking and brewing and then lurking some more) since composing the Yeast FAQ. I could find no data on the attenuation of many of the strains listed in the FAQ. If any one has data/impressions, I would be glad to amend the FAQ.

On a totally unrelated note: What are peoples impressions of the EKU Hefe-Weissen (Weizen, Weixen?). I thought it was great, just my conception

of what a Bavarian Wei*en should taste like, but then it was my first chance to try the style. (Goes great with pork roast, red cabbage, and hot

German potato salad--just like Grossmutti used to make!).

I think my confusion over the spelling would be resolved if I knew what Wei*en stood for. Weiss == white or Weiz == wheat. Anyone? Anyone?

Thanks,

Patrick

<weix@swmed.edu>

Hopfz und Maltz, Gott erhalts!

Date: Tue, 26 Oct 1993 00:55:50 -0600 (CST)

From: SWEENERB@msuvx2.memst.edu

Subject: clarifying in a keg

I am considering skipping the use of a secondary and siphoning straight into a Cornelius keg as an experiment. In the past I have used both Polychar and gelatin as clarifiers, but recently gelatin has been the method of choice.

I like gelatin because it seems to drop out of solution in only a couple of days and I don't like to wait for beer too long. My current batch is a wheat beer which has been in the primary for about a week with no activity for the last day or so.

Have any of you kegger types tried to add clarifiers directly into the keg and what kind of results/problems can I expect, particularly with respect to the use of gelatin? Thanks in advance folks.

As always,

Bob Sweeney

Memphis State University
sweenerb@memst.msuvx1.edu

Date: Mon, 25 Oct 93 13:43:27 PDT
From: "Victor Grigorieff" <VGRIGORI@us.oracle.com>
Subject: Thoughts on a recipe for standard American beers...

Howdy,

I was wondering what kind of a recipe one should use to make a beer like Bud or Henry's Reserve Ale. I am guessing that the standard American mass-produced beer is using a bunch of corn sugar instead of malt.

I usually make beers with 7-10 pounds of malt (per 5-gallon batch), sometimes substituting honey. Does anyone have ideas on substituting corn sugar?

Am I on the right track, or are these beers made with extremely light malt instead. Any thoughts?

Thanks,

- Vic

Victor Grigorieff vgrigori@oracle.com

Date: Tue, 26 Oct 1993 07:50:43 -0500 (CDT)
From: dspalme@mke.ab.com (Diane Palme x2617)
Subject: Faking orgasms and white knights

Hello all.

I would just like to say "thank you" for those of you out there in HBD-land who have a sense of humor and enjoy a bit of levity in your morning e-mail. It is refreshing to know that a woman is allowed to have a sense of humor, and even more so, <gasp!> to express it. For all of you who sent me personal mail, as well as those of you who posted, thanks. I'll try to come up with an even better .sig. For the person who was offended, well, um, pfffffftt! ;-P :) :-I :-D

Returning you to your regularly-scheduled HBD ...

D.

- - -
Diane Palme, EIT
Department Engineer, Central Inspection
Allen-Bradley Company
(414) 382-2617

dspalme@mke.ab.com

"In the beginning, it was the Plan."

You think A-B would be smart enough to accept my opinions as their own?
I mean really! <sheesh>

Date: Tue, 26 Oct 93 08:36:30 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium: Part 6 (Aged beer tasting)

Beer Hunting in Belgium: Part 6 of 7

Aged beer tasting
(by Phil Seitz)

On the last day of our trip we were able to arrange a tasting of aged beers. While we did request certain types of beer to sample, the final selection was made by our host. We cannot vouch for the actual age of the beers (the bottles were not labeled with dates), but can certify that they were certainly old, and looked it--covered with dust, well sedimented, corks all moldy, etc. As it turned out, the effects of ageing were a bit unpredictable anyway, so what follows here should probably be taken as a range of possibilities rather than a strict prediction of the effects of time on unusual beers.

Beer #1: 15 year-old gueuze from the Wets brewery (St. Genesius-Rhode); 75 cl corked bottle

This beer was completely flat, a medium caramel brown in color with a tart, rich, cherry-like aroma. It was surprisingly sweet, and at first taste we were convinced we'd been given a kriek. Our host explained to us that in some cases gueuze can get sweeter with age (!), and that, no, there were no cherries in this beer.

The initial flavor was quite full, tart, slightly caramel- and cherry-like, a bit like Rodenbach Grand Cru or Alexander but with more of the lambic funkiness, less acidity, and no oakiness.

The consensus at the table was that the beer had reached a state of maturity, or peak flavor and character.

As with older wines, exposure to oxygen produced some interesting effects. We drank our glasses over a 20-30 minute period, and different tastes and flavors would come forward and then retreat again. Most notable was a banana-like flavor that only lasted a few minutes.

The Wets brewery no longer exists. A line of gueuze products is still available under that name, but our host said these are made by the Brasserie Girardin. Later comparison showed that modern Wets and Girardin bottles are identical.

Beer #2: 10-year-old Liefman's Goudenband; 37.5 cl corked bottle

Here the effects of exposure to oxygen were very dramatic. Following the initial pour the beer was well carbonated, quite similar to the current Goudenband in body, but slightly darker and with brown tints in the head. Then there was the flavor and aroma. As beer snobs we had a hard time coming to agreement--did it taste more like a washcloth that's been laying around wet for three days, or just a really bad pair of smelly socks?

However, within ten minutes all the washcloth smell and flavor had vented off, leaving the beer with a rather convincing flavor of cabernet sauvignon. Slightly fruity, slightly tannic, very wine-like. Fortunately it stayed that way, at least until we were finished with our glasses. A remarkable performance.

Beer #3: 20-year-old gueuze from the Wets brewery; 75 cl corked bottle

Our host introduced this beer by saying it was the same style and type as the one we'd previously had, though obviously

the year of production (and therefore some of the microflora used in the brewing) were different. In fact, the two beers could hardly have been more different.

This beer was also flat, with the color of dark milk chocolate. The aroma and flavor were very pronounced, and featured bitter chocolate, coffee, and strong caramel. A lot like drinking strong coffee flavored with cocoa powder and butterscotch, rather bitter but not overpoweringly so. In fact, a lot like Mexican mole sauce.

Our surprise was evident, and we asked how two ostensibly similar beers could turn out so differently. The reply was that, well, after ten years the development gets unpredictable. I can't say I'd drink a beer like this very often, but it was not objectionable and certainly an interesting experience.

Beer #4: 25-year-old Orval; 33 cl capped bottle

Unfortunately no aged Trappist beers like Westvleteren Abt or Chimay Bleu were available, but a stock of Orval had been retained. At the time this bottle was produced Orval as 5.6% ABV; now it's 5.2%.

Despite the crown cap it had retained plenty of carbonation. In fact, it tasted a lot like Orval, particularly with regard to the "hair tonic" yeast flavors. If anything, it had just softened a little, possibly due to the decline in hop flavors. Any reasonably experienced beer drinker could have pegged this as Orval blindfolded. Was it really bottled in 1968? I had to wonder.

Date: Tue, 26 Oct 93 09:56:12 EDT
From: mferts@taec.com (Mike Fertsch)
Subject: RE: Steam injection

Ed Westemeier proposed a method of Steam injection:

>I recently watched a fellow homebrewer use what I consider an extremely
>clever gadget. He had an ordinary household pressure cooker that he
>modified to run a steam line out through a ball valve.

Be VERY careful modifying pressure cookers. High pressure steam can be
dangerous! The last thing you need is a hose rupturing, burning
yourself.

>By simply injecting live, low pressure steam into the bottom of his
>picnic cooler mash tun while stirring the mash, he was able to raise
>the temperature to the desired point very quickly.

>Has anyone experimented with this type of setup?

I once had the privledge of brewing a batch of beer at the Vermont Pub
and Brewery. The recipe called for a step mash. The VP&B mashtun is
equipped with hot water valves feeding the top, and steam valves
feeding the bottom. A combination of hot water and steam heated the
grain for the high temperature step. They force steam into the bottom
of the kettle - this helps heat the grain to the desired temperature.
One problem was mixing the grain. As would be expected, the bottom of
the grain bed gets very hot, and needs to be stirred up. We stirred
like mad (not easy with 1000 pounds of grain!), and also injected CO2
into the kettle from the bottom. The CO2 gave the grain a little more
mechanical motion and assisted mixing the mash. (Raising the
temperature was NOT fun - imagine standing on a ladder with a big oar,
stirring the mash. As the same time, steam and CO2 are comming off the
grain. If the stirring doesn't fatigue you, the steam doesn't burn
you, or the CO2 asphixiate you, you are destined to fall off the ladder
and break a leg!). Everything worked out well - the beer was
fantastic! (no one got hurt, but don't call OSHA!)

++++
Mike Fertsch

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End of HOMEBREW Digest #1257, 10/28/93

Date: Tue, 26 Oct 93 8:30:01 MDT
From: npyle@n33.stortek.com
Subject: Hops FAQ, Part 2/5

Hops FAQ, Part 2/5:
- - -

Q: Should I use pellets, or plugs, or loose hops?

A: Much has been written about what form of hops should be used. Loose hops are just that: loose cones which have been dried after picking. Plugs are loose hops which have been subsequently pressed into a bung, generally in 0.5 oz. sizes. Pellets are loose hops which have been ground to a fine powder and then pressed into rabbit-food-sized pellets.

LOOSE HOPS

Advantages: They are the most natural form of the ingredient. They float, which is good for siphoning out from under, and form a natural filter bed. When they are fresh, they beat all others in terms of aromatic hop oils.

Disadvantages: They float, so some contact with a still wort (as in dry hopping) is lost, when compared to pellets. This problem can be overcome, though by using weighted hop bags, or it can be ignored. Since they are loose, exposure to air is the greatest and they lose quality quickly when compared to the other forms of hops. When stored in vacuum-sealed or CO2 or nitrogen purged Oxygen barrier bags or jars, this problem can be avoided. They are bulkier than other forms.

PLUGS

Advantages: Are nearly the same as loose hops, in that, when hydrated, they become whole hop cones again. Like loose hops, they float. Unlike loose hops, they are better protected from air.

Disadvantages: Few hop varieties come in this form. Currently, any domestic varieties are first shipped to England where they are made into plugs and then shipped back to the U.S. This may negate any freshness advantage they have over loose hops (for U.S. varieties) It is difficult, but not impossible to separate into increments smaller than 0.5 oz.

PELLETS

Advantages: Convenient to measure and have the best protection from air. They sink, so they get maximum contact in a still wort, as when used for dry

hopping. This advantage may be mitigated though, if they are subsequently covered with dead yeast, so later additions are recommended. They reportedly contribute 10% more alpha acids to the wort because of maximized surface area, so are a more efficient use of this relatively expensive ingredient. They are generally available in more varieties and are generally a more consistent product.

Disadvantages: They sink, so it is sometimes difficult to avoid them when siphoning. The extra processing may reduce/change hop aromatics.

Given the pros and cons listed, the choice of which form of hop to use in a certain application is up to the individual brewer.

- - -

Q: What are AAU, HBU, and IBU's?

A: Alpha Acid Units (AAU) and Homebrew Bittering Units (HBU) are the same.

For the sake of discussion we will use AAU's, which are calculated as follows:

$$AAU = AA * W$$

where AA = alpha acid % provided with the hops
W = weight of the hops in ounces

The units of AAU's would be "percent-ounces". They are usually considered "unit-less". It is generally assumed that, when using AAU or HBU, the batch size is the standard homebrewing unit of 5 gallons. If a beer is said to have 10 AAU's of bitterness in it, and it is a 5 gallon batch, there would probably be no confusion. If on the other hand, it is a 10 gallon batch, there is actually half the AAU's per gallon when compared to the 5 gallon batch and the beer would be quite different. Another drawback to using AAU's is that they don't consider the utilization obtained from long, intermediate, or short boil times. Fudge factors are sometimes added but at best they offer a rough approximation.

To solve these problems, the International Bittering Unit (IBU) may be used.

With it, the brewer can get a more accurate approximation of the bitterness given up by a given quantity of a given AA hop for a given boil time. It is batch size dependent so that a 5 gallon batch with 29 IBU's has the same bitterness as a 50 barrel batch with 29 IBU's. The equations are commonly quoted from Jackie Rager's article in the Zymurgy "Hops and Beer" Special Edition published in 1990. The tables and formulae follow:

| Boiling Time (minutes) | % Utilization |
|------------------------|---------------|
| ----- | ----- |

| | |
|-------------|------|
| less than 5 | 5.0 |
| 6 - 10 | 6.0 |
| 11 - 15 | 8.0 |
| 16 - 20 | 10.1 |
| 21 - 25 | 12.1 |
| 26 - 30 | 15.3 |
| 31 - 35 | 18.8 |
| 36 - 40 | 22.8 |
| 41 - 45 | 26.9 |
| 46 - 50 | 28.1 |
| 51 - 60 | 30.0 |

Utilization can be reduced to the following smooth function, as opposed to the table, which produces many discontinuous lines. Either can be used with sufficient accuracy for the homebrewing operation.

$$\%UTILIZATION = 18.10907 + 13.86204 * \text{hyptan}[(MINUTES - 31.32275) / 18.26774]$$

(Of course, you can drop some of those significant figures.)

If the gravity of the boil exceeds 1.050:
 $ADJUSTMENT = (BOIL_GRAVITY - 1.050) / 0.2$
 otherwise,
 $ADJUSTMENT = 0$

$$IBU_PER_OZ = \%UTILIZATION * \%ALPHA * 7462 / (VOLUME * (1 + ADJUSTMENT))$$

UTILIZATION is the percent alpha acids expressed as a decimal fraction
 ALPHA is the percent alpha acids expressed as a decimal fraction
 VOLUME is the final number of gallons in the batch (usually 5).

To calculate IBU's if you know the number of ounces of hops to be used:

$$IBU = OUNCES * IBU_PER_OZ$$

To predict the number of ounces needed to hit a target IBU:

$$OUNCES = IBU / IBU_PER_OZ$$

Jackie Rager's numbers have been used successfully by hundreds of homebrewers and provide a consistent base with which to work. It is apparent that his constant 7462, derived from metric to US conversion, is actually closer to 7490. The ADJUSTMENT factor could be questioned as well, as it is intuitively obvious that a gravity of 1.049 does not affect utilization exactly the same as a gravity of 1.000 (water). It is assumed that the utilization table is corrected for this assumption and/or the difference is small enough that it has little effect on the final bitterness of the beer.

Note also that Mr. Rager's numbers are often used for pellet hops thrown loose in the boil. It is common to add 10% more hops if used in a hop bag, and 10% more than that if loose hops or plugs are used.

It has been reported that since iso-alpha acids possess a slight electrical charge, they can be lost in many ways. Among these are absorption into the yeast cell walls (and subsequent removal of the yeast), attachment to

coagulating proteins (and subsequent removal of this trub), attachment to filters, etc. It is unclear if Mr. Rager's utilization numbers have assumed these losses. A revised utilization table has been presented by Mark Garetz and can be used if desired. It is shown below for reference.

| Boiling Time (minutes)
(adjusted for
average yeast) | % Utilization |
|-----------------------------------------------------------|---------------|
| less than 5 | 0.0 |
| 6 - 10 | 0.0 |
| 11 - 15 | 1.0 |
| 16 - 20 | 4.0 |
| 21 - 25 | 6.0 |
| 26 - 30 | 11.0 |
| 31 - 35 | 13.0 |
| 36 - 40 | 19.0 |
| 41 - 45 | 23.0 |
| 46 - 50 | 24.0 |
| 51 - 60 | 25.0 |

The same IBU formulae from above can be used with this table. It represents one of the many arguable topics of hops in homebrewing.

- - -

Q: How do I store my hops?

A: At as low a temperature as possible, likely to be in your freezer. Also, attempt to remove as much air as possible from the package and use airtight, preferably oxygen-barrier packages.

- - -

End part 2/5

Date: Tue, 26 Oct 1993 10:40:04 -0500 (EDT)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: yeasts

> Date: Thu, 21 Oct 93 13:29:18 MDT
> From: npyle@n33.stortek.com
> Subject: Late Kettle Hop Additions
>

I've been thinking recently about hop additions (all this Hops FAQ stuff has forced me to think about some of this stuff). I just realized that there is an inherent advantage to immersion chillers (my old method) over counter-flow chillers (my current method). Yes, the immersion chiller leaves the cold break in the kettle but it does something else that I have not seen discussed in this forum.

With the counter-flow chiller the wort and hops remain near 100C the entire time the wort is being chilled. From experience I know the kettle is still extremely hot 20 minutes after turning off the flame. I would bet that finishing hops act more like flavoring hops and that flavoring hops act more like bittering hops with a counter-flow. Can anyone verify these assumptions? Do you know of any commercial brewers who use immersion chillers (they clearly have some advantages)? Probably not since immersion chillers are less efficient and I know of few commercial brewers (even micros) who care a lot about hop aroma.

This is certainly true, the time/temp can be long and high. Some pro and not pro brewers add finish hops to the whirlpool in an effort to get more aromatics in the beer. I whirlpool in the kettle, so when I add late hops, it does sit at 200+F for the 15 min whirlpool, and subsequent 35 min chill. You will still end up with aromatics, but if you want more, like I do in many beers, there is no substitute for dry hopping.

> -----
> Date: Thu, 21 Oct 1993 12:34:58 -0700 (PDT)
> From: Domenick Venezia <venezia@zgi.com>
> Subject: Yeast nutrients/pitching
>

>
> My goal in starting this enquiry was to somehow get my pitching rate into an acceptable range while NOT being forced to pitch a half gallon or more of some other wort into a carefully designed recipe. Remember a half gallon is > 10% of a 5 gallon batch and such a volume will affect your results. I would

> like to do an adequate pitch in about a pint of starter. Also, I wanted
> to avoid having to save and pitch yeast slurry from previous batches (Hey,
> I want it all).
>
> Generally, I pitch a pint starter (very seriously underpitching) and if I
> can get 10 times the pitching rate by using a little YNB (provided the yeast
> characteristics remain stable) I figure it's worth it.
>
> If one is not reusing slurry but using a starter what's involved in getting
> an adequate lager pitch of 10-15x10**6 cells/ml in a 5 gallon batch?

Well, if dilution of the bitter wort is an issue, then decant the still beer off of the starter/yeast slurry. If you dont have enough slurry, add more fresh wort, let ferment out, and decant. Mike Sharp is a big proponent of pitching after high krausen, so the ferment and decant method makes sense. With cell densities, you are kinda forced into successive steps up to get the cell count up, or reuse yeast from a previous ferment.

> > What kind of lag time did he get? I'll bet it was on the order of 10-12
> > hours, not bad, but greater than optimum.
>
> With Wyeast Chico Ale strain he got just what Dan expected, 10-12 hrs.
> However, with Wyeast London Ale strain he got a 3 hour lag.
>
> Speaking of lag time, how exactly are we determining the end of lag time?
> For my own purposes I have defined the EOLT as 2 bubbles/minute from my
> airlock, but this may be misleading in either direction. Jim? Dan? fg
>
> 3 hours is really great! I measure the transition by visible krausen on the top of the wort. With my brew schedule, I never see the transition, since I usually cast out into the fermenter at 10PM, pump oxygen for about
> 2 hours, and go to bed. By 7AM, the ferment is usually crawling out and over the floor! Got to get a bigger fermenter :-)
>
> In fact, I think its a pretty darn good one if you are brewing outside
> and pipe your wort into the basement. Mount that on the basement wall
> and you don't have to worry about hauling it around, setting it set up
> or it being in the way. I'd encourage you to make it at tell us how it
> works...

This is how I do it. I have a 12 foot prechiller counterflow from the kettle to the pipeline interface. This feeds 50 feet of counterflow pipeline, second stage, underground, into basement, cross basement, to fermentation area, where it goes through 15 feet of ice bath, ball valve into fermenter. I over-engineered it for several reasons: speed, high tap water temp in summer, and hopes of lagering some day. At the end of the transfer, I hook up 175°F water from my hot liquor tank and rinse the pipeline, often diluting the cast out wort.

> Subject: Steam injection

>
> I recently watched a fellow homebrewer use what I consider an extremely
> clever gadget. He had an ordinary household pressure cooker that he

> modified to run a steam line out through a ball valve. By simply
injecting
> live, low pressure steam into the bottom of his picnic cooler mash tun
while
> stirring the mash, he was able to raise the temperature to the desired
point
> very quickly. He also used the steam to heat his sparge water in the
same
> way. It all seemed so simple and logical that I wondered why I hadn't
seen
> it mentioned before.
>
> Has anyone experimented with this type of setup? What were the pros
and
> cons?
>
Sounds dangerous to me. How do you know when it is empty?

Best,
Jim Busch

Date: Tue, 26 Oct 93 08:37:28 -0600
From: John Adams <j_adams@hpfcjca.sde.hp.com>
Subject: You can't judge a beer by the bottle, but...

Good point. If you look in any copy of Zymergy you will find a few companies that produce custom labels but I've never seen anyone who makes caps, bottles, or wooden crates.

Personally I make my own labels using a graphics editor, a ray-tracer, a good collection of gif/jpeg "clip art" of beer labels, and a color printer.

I would also like to find an outfit that produces custom beer coasters.

John Adams

Date: Tue, 26 Oct 93 10:46:34 EDT
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: grain storage

garti@mrg.xyplex.com (Mark Garti) asks:

>what are people using to store their grain in?
>how long, under good conditions, will the grain be
>fresh? besides rats, are there any problems associated
>with buying and keeping 50 lbs of grain?
>mrgarti@xyplex.com

I store all my specialty grains in a 48 quart picnic cooler (I already have a good lauter tun :-). I find this really effective for storing small (1 to 5 pound bags of crystal, roasted, and other malts. As for base malts, I still don't have a good method for storage. I usually buy 55 pound bags of Munton & Fison malts and their bags are plastic lined. As long as you close the top well, insects aren't a problem. Rats are another matter. With 3 cats in the house, rodents are not my concern :-) but they could get into that bag with no problem at all. A good solution might be a heavy duty 30 gallon trash container with a tight fitting lid.

- --Tony Verhulst

Date: Tue, 26 Oct 1993 10:54:14 -0400 (EDT)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: CF Chiller Effects on Hop Character

Norm Pyle writes:

> With the counter-flow chiller the wort and hops remain near 100C the
entire
> time the wort is being chilled. From experience I know the kettle is
still
> extremely hot 20 minutes after turning off the flame. I would bet that
> finishing hops act more like flavoring hops and that flavoring hops act
more
> like bittering hops with a counter-flow. Can anyone verify these
assumptions?
<snip>
> I may alter my procedure a little bit to compensate for this. I
haven't yet
> decided how. Suggestions?

I noticed a similar change in late hop character when I changed to using
a CF
chiller: I found that to obtain the same hop flavor and aroma, I had to
add
more hops *later* in the process as compared to my previous process
that
used an immersion chiller. One technique that I have found useful is to
add
hops *during* the runoff. After my boil is complete, I stir the wort
vigorously
and wait 15 min for the trub and hops to settle. During the runoff -
about
25 min for 5.5 gal - I typically add whole hops in one or two additions.
This
has improved the intensity of my late hop character. I use a slotted
pick-up
tube in the boiler to avoid clogging the chiller.

I feel the CF chiller has pros and cons: I get a much better cold break
with
my CF unit using well water. My wort exit temp is ~55-60F. Another
benefit is that, given that my chiller and settling tank are disinfected,
there
is very little risk of infection because the wort in my boiler is still
above
160F at the end of runoff. On the downside, one must deal with the cold
break
in the fermentor and the late hop character is decreased in the 30-40
min.
the wort remains in the boiler.

Rob Reed

Date: Tue, 26 Oct 1993 09:13:40 -0600 (CST)
From: Robert Schultz <Robert.Schultz@usask.ca>
Subject: milling red hard spring wheat

I attempted Phil Seitz's Belgian White Ale on the weekend. I now know what Phil meant by grinding 5 lbs of wheat on a Corona. How do the roller mills perform on the hard unmalted grains (wheat, rye, rice)? Barley and oats are fairly soft.

Rob.

~~~~~

~ Robert.Schultz@usask.ca, University Studies Group, University of Saskatchewan~

~~~~~

~ "I'm going off half-cocked? I'm going off half-cocked? ... ~
~ Well, Mother was right - You can't argue with a shotgun."- Gary Larson
~

~~~~~

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Date: Tue, 26 Oct 93 10:53:41 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: Miscelaneous

With HBD bunged up worse than my sink was last week, should people be lecturing about humor or criticizing the humorless in the digest rather than by email?

Re brewing. Peter Just asks about lagering in bottle vs carboy (or keg)

.  
The advantage of the latter is clarity - and very little sediment, but a disadvantage is fresh yeast should be added. The advantage of the former is timesaving and less trouble with equipment. However, I think the advantages of bulk conditioning outweigh the trouble involved (1255).

Robert Urweiler asks about labels. There was an article in the last Zymurgy, which was nearly more useful than the entire last BT (IMHO). Was anyone else disappointed with it after their first 2 excellent issues?

Scott Weisler resonds to greg with criticism of a PVC pipe design wort chiller. The problems mentioned are easily overcome with baffles, and the design can be as or more effective than the garden hose method because the flow is more turbulent. I am considering such a device. However the outer part will be metal - not PVC - possibly an old paint can or something thicker with bulhead fittings and pieces of scrap metal for baffles. Sterilize by bunging the whole thing in the oven for half an hour. Pity one can't buy a nice small shell and tube heat exchanger cheaply.

Ulick Stafford - no sig to conserve bandwidth

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Date: Tue, 26 Oct 93 9:55:19 MDT  
From: npyle@n33.stortek.com  
Subject: Steam injection

Ed Westemeier mentions steam injection for heating sparge water and for step mashes. It sounds fine for sparge water heating (although I can think of more efficient means of heat transfer). My first thought in using it for stepping up mash temperature is Hot Side Aeration. This may or may not be a problem, though, on second thought. Does steam contain lots of free oxygen? It is not like hot water which can contain dissolved oxygen, but it is pushing along lots of (hot) air with it.

I suspect it is not a good idea to use steam directly but it gives me an idea for putting a radiator in my cooler/mash tun. This way you could add heat to the cooler for step mashes without the complications of electricity (for some reason a direct propane flame doesn't seem like a good idea). I have lots of 3/8" copper tubing in the garage, hmmm...

norm

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Date: Tue, 26 Oct 93 12:05:45 EDT  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: steam injection

Ed Westemeier writes:

>I recently watched a fellow homebrewer use what I consider an extremely  
>clever gadget. He had an ordinary household pressure cooker that he  
>modified to run a steam line out through a ball valve. By simply  
injecting  
>live, low pressure steam into the bottom of his picnic cooler mash tun  
while  
>stirring the mash, he was able to raise the temperature to the desired  
point  
>very quickly.....

This, sir, is just too wonderful for words. Thank you.  
BTW, what kind of tubing was being used?

- --Tony Verhulst

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Date: Tue, 26 Oct 1993 09:16:50 -0700 (PDT)

From: Domenick Venezia <venezia@zgi.com>

**Subject: Requesting Rum Distillation info**

I realize this is a forum for BREWING but the recent mini-thread on distillation indicated to me there may be some expertise in HBD-land that I could tap. I have been presented with a possible commercial endeavor and am looking for \*REAL\* information (with references) on the subject of distillation of spirits, particularly rum. Please use private Email. Thanks.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Tue, 26 Oct 93 09:41:56 PDT  
From: b\_roach@qlc.com (Brad Roach)  
Subject: Beer Drinks

I don't know if this qualifies as a beer drink, but when I make margaritas I always add a little beer before blending.

The advantages are: 1) the beer tends to hide the Tequila taste, and 2) makes the margaritas more foamy.

/\_/\_/ /  
/\_/\_/ /\_/\_/\_/\_/\_/  
/\_/\_/\_/\_/\_/\_/\_/\_/\_/\_/\_/

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Date: Tue, 26 Oct 93 12:20 CDT  
From: arf@mcs.com (Jack Schmidling)  
Subject: Chillers

>From: npyle@n33.stortek.com  
>Subject: Late Kettle Hop Additions

>I've been thinking recently about hop additions (all this Hops FAQ stuff has forced me to think about some of this stuff)... The immersion chiller cools the wort and hops fairly quickly from 100C to around 50C (maybe 10 minutes). The late kettle additions are boiled for a short time (1-10 minutes) and then within 10 more minutes they are at a relatively low temperature (50C).

It is unfortunate that those who do not read rec.crafts.brewing missed the recent great debate on immersion vs counter-flow chillers. Kinney Bauman did an admirable job of defending counter-flow in light of its obvious shortcomings and naturally lost to the Lighthouse of Wisdom and Truth.

I won't re-hash the whole argument here but in summary, not a single, UNARGUABLE advantage could be brought in defense of counter-flow for home brewers and most of the good reasons are only valid in large scale brewing. The only advantage to homebrewers was the OPINION that chilling faster made for clearer beer but no one had come up with any documentation to prove the point.

Before I get into the virtues of immersion chilling, it is necessary to point out that I would no more use a poorly designed immersion chiller than a poorly designed anythingelse and most people do not have proper immersion chillers. Mine is installed in the lid of the kettle with quick disconnects to water and drain lines. Once the lid and chiller are in place, they can stay there for hours or days without risk of contamination or loss of aroma laden vapor.

Now, ponder the possibilities this allows. You have an infinite number of post boil hopping schedules that you can play with. For example, shut off the heat, put on the lid and throw in some hops. This hops is at near boil temp which kills that herbal taste but the vapor and aroma can not escape. When you chill it down, the vapor and aroma are re-absorbed by the wort. Let's say you think that some shops should be added at 163.794 degs F and

allowed to naturally cool with the wort. No problem either. Maybe you want to add some every 10 degs as it cools or how bout chilling it down right away and adding it at pitching temp but letting it sit in the kettle for 24 hours to absorb the flavor. There are no end of possibilities to toy with.

>Do you know of any commercial brewers who use immersion chillers (they clearly have some advantages)?

They have only one disadvantage.... they are ponderous and totally impractical in a large operation. They require a removable lid to get it out or an impossible cleaning headache if installed permanently in the kettle. Counterflow chillers of a modest size can chill any amount of wort given enough time.

It is another good example of what can go wrong when people simply scale down what they see in a commercial operation and assume it must be better for homebrewers. The counter-flow "snobs" are simply wrong on this one.

BTW, you mentioned that the kettle stays hot awhile with the counterflow anyway but that is not the argument. There is no magic as to how long the wort stays hot. The issue CAN be, how hot? If it falls below pasturization temp and is open to the air, there is a risk of contamination. If it stays near boiling, it is no worse than extending the boil that amount of time. And keep in mind that PU simply air cools the wort till it reaches lower temps.

The counter-flow aficionados claim that it is the instantaneous chilling of each quantum of wort as it passes through the chiller that does the magic.

While this is certainly something one can not do with immersion chilling, no one, (at least in that discussion) was able to prove that it really makes any difference. Judging from the reputation of PU, it doesn't seem to have anything to do with how long it takes to get from boiling to 150F, so it needs to be proven that fast chilling from there to pitching temp is critical.

To me, the most obvious disadvantage of the counter-flow chiller is that most of what would have stayed behind in the kettle ends up in the fermenter unless one does an additional settling step.

So, I hereby challenge the counter-flowers to start your engines....

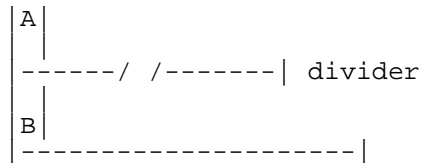
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Date: Tue, 26 Oct 1993 10:38:24 -0700 (PDT)  
From: "Bob Jones" <bjones@novax.llnl.gov>  
Subject: Show and Tell on my UK trip (Samuel Smith's)

Thought I would add a few more interesting observations about my recent UK trip. I dropped in at Samuel Smith's brewery in the afternoon and ask about a tour. They said they were all booked up. I mentioned I was a brewer from the states and the receptionist made a phone call and I was in. The tour was at 7pm that evening. My wife and I showed up in the adjoining pub with about 12 other people. Our tour began in the tack room. That's where they keep all the hardware for their horses. We heard all the details about their award winning horses before we went outside to see and feed and pet one of them. These are Shires, we're talking big horses here. I could just see over the horses back. I'm 5'8". Sam Smith's does no advertising and depends on their horses, which they show around everywhere, and public good will for their advertising. It seems to work. Afterward we entered the brew house and I got to see those famous Yorkshire slate squares I have heard so much about. I finally understand these damn things. One of them was empty and several of them were in full blown fermentation. They look like this.  
..



The unfermented wort is filled in chamber B just below the divider. As the fermentation proceeds, the foam and yeast are pushed up into chamber A. Because there is the cone shaped thing in the center, the yeast is skimmed from the beer. After a day of fermentation, they pump all the liquid from B back to A. This is just to rouse the fermentation. After this they just let the skimming action take place. Sort of neat, huh. I have no idea how they clean the B chamber. They told me they never repitch their yeast. They always grow up a fresh batch. I got to see their impressive steam generator and their gorgeous copper kettles. Then we entered the lager brewery. Yep you heard me right. They brew lagers under special contract for Ayinger. The lager brewhouse had a kettle and mash tun that was gigantic. We saw the other standard brew stuff, and made our way to the pump room. It is tucked away under the brewery. You have to almost crawl to get there. It was

easier when leaving :->. We drank their cask ales and saw a movie. After  
a  
few beers I found myself behind the bar pulling my own beers with those  
great beer engines. Lots of fun! I tasted NO diacetyl in any of their  
beers. I mentioned the skunkyness we get in their beers in the states due  
to their use of clear bottles for some beers. They seemed amazed.

Sam Smith's is located in the town of Tadcaster about 30 mins outside of  
York. There are about 4 breweries in Tadcaster, Bass, Magnet, Sam Smith's  
and John Smith's. All the breweries located there because of the water  
quality (the water is very hard). There is alot of rivalry between Sam  
Smith's and John Smith's. John was a brother and split off another  
brewery.

Sort of a family outcast. The John Smith's brewery was sucked up by  
Courage

in 1970. All of Sam Smith's beers I tasted in England were very good. I  
had

a pint of their Museum ale in London. It had a distinct woody character  
to

it. It was drawn from a wooden cask. The taste was sort of a young, green  
woody character. Maybe some of you brewers that have experimented with  
wood

chips in your IPA's would know what I mean. This was not an IPA, however.

Cheers,  
Bob Jones

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Date: Tue, 26 Oct 93 10:54:52 EDT  
From: softdesk!suez!trs@uunet.UU.NET (Tom Schwendler)  
Subject: Beer Shelf Life

Hello brewers,

I just read that sediment beers (beers with yeast sediment) have a shelf life of only 3 months. I know I have kept bottles longer than that, but does anyone know what the shelf life of homebrewed beer is? Let's say assuming you are keeping the beer in a cool dark place, how long should it store without turning sour, or acidic? Other than filtration or pasturization, are there ways the homebrewer can increase the shelf life of bottled beer?

Thanks for your help,

trs@softdesk.com  
Tom Schwendler  
Structural Product Manager  
Softdesk, Inc.

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Date: Tue, 26 Oct 1993 12:44:25 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Hop Storage & Growth/Quaff & Stir

\*\*\*\*\*

Hop Forms- Stability....

> Also, regarding the type, pellets tend to retain more of everything (AA and aromatics) than plugs, which retain more of everything than whole.

It's all a matter of exposed surface area.

\* Just a comment here: One of the disadvantages (not to open a can of worms! Old debate I know!) to pellets involves the process of pelletization. This process involves physical abuse, and some temp. stress to the hops. This results in some loss of aromatic qualities from the hop as compared to fresh cones. Plugs are a good in between since the hops are not first chopped, but just pressed into pellets. So to say that " pellets tend to retain more of everything" is a bit misleading. In terms of storage...YES, in terms of qualities lost from the time of harvest thru processing, to the store, NO.

It is true that handling of flake hops (cones) does have the potential to reduce quality more than handling of pellets. I commonly find a collection of yellow crystals at the bottom of my flake hop bags. So....my solution. Grow my own! See note below....

\*\*\*\*\*

From: Philip Proefrock <PSPROEFR@MIAMIU.ACS.MUOHIO.EDU>  
Subject: Growing Hops

>I am interested in growing my own hops for use in my homebrew. (I don't plan to use this exclusively, but it would be nice to have hops I had grown in the beer that I brew. I expect I would only use the homegrown hops for one part of the process, say boiling, and will continue to buy other varieties for flavor/aroma.) Does anyone else do this? Can you provide some pointers, suggestions as to where I can find seedlings or seeds, etc.? What varieties will grow best in the midwest?o I hope to get starters going indoors this fall, so that I can get them growing this coming spring.

\* Hop Growing Experience (1 year- first season, but what a thrill!) "exclusively"- You'd need a BIG vine yard to keep up- 1 harvest to last all year. That's asking a lot. BUt maybe after a few years. "boiling"- Personally I feel I get the best advantage out of the freshness of my homegrown hops by utilizing them at finishing. BOUQUET!!!! Plus I am able to spread out there use more that way.

Planting Time: Early spring. March-May depending on location.  
Form of starts: Rhizomes- segments of roots with sprouts. No Seeds! (I actually found a seed in one of my cones. I don't know what fertilized it, but it was a rather odd find! Haven't tried growing it. )  
Female plants are propogated. Males not found- except on research plots.  
Plan on some TALL vines. Very fast growing! Beautiful sight to watch. You can actually OBSERVE growth. 3 inches per day at the peak!  
The way to plant is dig a plot- fertilize/mulch, and lay the rhizome in a hole. Protect from frost until things warm up.  
No point in starting them inside. Just count on several years till "great growth and production" is observed. Well worth it!

I planted 4 varieties:

Cascade- Good grower. Excellent production. Hardy. BIG cones!  
Chinook- not too impressive. A friend had the reverse of these 2  
Mnt Hood- 2nd best growth. Yummy cones. Also quite hardy

Perle- Not too impressive. A bit better than Chinook. I like the hop though.

NOTE: This was the first year. Subsequent years will improve dramatically

I did have quite a bit of pest problems, but the cascade was able to tough it out! I'm looking forward to next year! Can't wait till the start up again!

I got starts from FreshHops in Philomath OR. 503-929-2736. No connection. Just a happy customer. There are other sources. Write to them or call and they will inform you when the starts are ready for shipment. It's about 2-4 \$ rhizome. I used 2/hill. There is a book on Growing Hops- dont have the author at hand. It's an ok book. More of a personal account than a hard-fast guide. Some good info. He did do some research for it. That shows. There is a hop primer floating around somewhere on the net. I could try to find/post it if desired.

\*\*\*\*\*

Stuart from Edinburgh says he:

> uses a plastic brewheat thingy and I think its crap, I want to brew bigger batches and I want to use gas to heat, cos I like flames!

\* I'm sure there's a few folks around willing and able to scorch a few flames. But that would never happen on HBD...right! :/  
A note for AL...That's one reason why I didn't include the commercial mash/lauter tuns in my rundown. Not that they don't exist but just that with a little creativity one can be fashioned cheaply at home. I don't have exp w/ the commercial ones...but they are out there. Have heard good things about Phil's false butt.

\*\*\*\*\*

Tom queries:

wanted to know if....needed to put down my homebrew to scape the hops off..side of kettle. It sure could save me a couple of minutes drinking time.

\* Hold a spoon/paddle in one hand, homebrew in the other and scrape away. I don't know for sure- but I would suggest that to get FULL extraction of hop oils you want to hop material in contact with hot liquor for the full boil. I use a mesh- hop bag, so I don't have that problem. I do plunge the bag to the bottom several times during the boil. But I can do that one handed. Use a beer mug with a handle if you don't feel comfortable with your dexterity. With a little practice you can master the techniques of continuous drinking during ANY activity. If you spill a little into your wort...don't worry.

\*\*\*\*\*

\*

~~~~~ John (The Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~

~

***** bonk bonk bonk *****

*

Date: Tue, 26 Oct 1993 12:05:14 -0700 (PDT)

From: "Bob Jones" <bjones@novax.llnl.gov>

Subject: Pitching large yeast starters

Domenick Venezia's concern about pitching large starters into fermentations was a concern of mine as well. What I have started doing is wait until the yeast has dropped and then decant (I have actually been removing the liquid above the yeast with a small siphon hose) and then add additional food. Then I do the same again or just pitch straight into the wort. Work G. Fix and a few others have done, has shown that there are actually ADVANTAGES to pitching yeast AFTER high kruesen. The viability issue does enter into the equation if one waits too long before pitching. I can't seem to locate any info on yeast viability with time.

Bob Jones

Date: Tue, 26 Oct 93 12:31:47 PDT
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Late Hops vs. Chiller, Homegrown Hops

Norm Pyle asked about immersion vs. counterflow chilling and late hop additions:

Just my 2 cents: There's no reason to go back to immersion chilling for late hop additions, unless you want to. If you like counterflow chilling, you can compensate for the effects of long "hot wort time" by either covering the wort so the volatiles aren't lost or simply adding a bit more hops. But in my opinion the difference is likely to be a small one regardless. I would think that a much more significant effect would come from those that cool their wort by immersing the pot in a sink or bathtub of ice water, which takes significantly longer than either immersion coils or counter-flow chilling. For the record, I use an immersion chiller and also cover the pot as the wort cools. A tip is that since the coils don't allow the actual lid to fit over the pot while cooling, I use about three strips of Stretch-tite (like Saran wrap) to cover the pot so that I get a good seal. Now I don't cover to keep in hop volatiles (but I suppose it does), but to keep airborne nasties out of the wort during cooling. I do not cover during the boil.

Philip Proefrock writes:

>I am interested in growing my own hops for use in my homebrew. (I don't
>plan to use this exclusively, but it would be nice to have hops I had
>grown in the beer that I brew. I expect I would only use the homegrown
>hops for one part of the process, say boiling, and will continue to
>buy other varieties for flavor/aroma.)

I would suggest you do just the opposite. Use the homegrown hops for aroma additions and use hops you know the alpha acid ratings on for bittering. You can at least get a sense of the aroma potential of your homegrown hops by using your nose, but there's really no practical way to know how much alpha acid is in there (without a lab analysis).

Mark

Date: Tue, 26 Oct 93 14:37:55 CDT
From: "Anthony Johnston" <anthony@chemsun.chem.umn.edu>
Subject: Carboy Alert!

Just a note of potential concern to you all:

Recently (about 5 mins ago) I was cleaning a carboy recruited from our stockroom that had previously held some (assumedly) harmless chemical solutions (KI in DI water and such). Anyway, after filling with approx 8 liters of water or so and dumping in about 250 g of potassium hydroxide pellets, I picked up the carboy to swirl and mix the contents. The second time I lifted the carboy, the entire bottom separated almost perfectly, dumping the contents. I am thankful that:

- 1) This occurred over my lab sink.
- 2) That the carboy contained only cheap chemicals rather than wort or (gasp!) finished beer.
- 3) That I didn't splash caustic KOH solution all over myself.

In the future, I will (and will recommend to others) to:

- 1) carefully inspect all new carboys before initial use (and used ones too.)
- 2) regularly inspect my old ones
- 3) exercise due caution when picking up or transferring my carboys.
- 4) avoid any sudden thermal shock to the glass carboys.
- 5) Avoid long-term contact with caustic soda solutions.

I am sure that most of these precautions are obvious and well-known and the others may seem like overkill, but after seeing the results of a broken carboy...

anthony johnston
not crying over spilt wort (yet!!)

Date: 26 Oct 1993 16:22:36 -0500
From: "Stephen Schember" <stephen_schember@terc.edu>
Subject: Favorite Beer Cocktail

Subject:Time: 4:00 PM
OFFICE MEMO Favorite Beer Cocktail Date: 10/26/93
I know this horse is probably quite dead but here's another wallop. The favorite (only) beer cocktail in my house is something called "Skip and Go Naked" which consists of:
3 Cans Coors extra gold (or similar grade/style beer)
1 8 oz Can frozen Lemonade
8 oz Jim Beam (+,- to taste and desire to expose oneself to those you are drinking with)
Ice to bring pitcher up to 2 quarts.
Don't know its origin but it sure is good and goes well with embarrassing board games.

Date: Tue, 26 Oct 93 13:29 PDT
From: hbaum@uts.amdahl.com (Michael Hohnbaum)
Subject: doppelbock

Around the end of August I asked for advice on priming a doppelbock, due to the concern that the yeast used to ferment would be wiped out by the high alcohol level. I received numerous responses, all of which said "pitch some more yeast when you bottle". Fortunately I had set aside a bottle of my original starter to use in a planned beer this winter, so I had yeast available. I made up a one pint starter, added this yeast and let it ferment. Then I made a primer from 3/4 cups dme added this and the yeast to the bottling bucket with 5 gallons of doppelbock and bottled. I am happy to report that a week later the beer was perfectly carbonated resulting in a very tasty brew to help me through the upcoming winter. Thanks to all who provided me advice on this.

For anyone interested, the recipe:

Baumerator
10 pounds Briesse 2 row malt
3 pounds munich malt
1/2 pound toasted malt
1/2 pound chocolate malt
1/4 pound roasted barley
1/4 pound black patent malt
1/2 crystal malt 80L
4 ounces Tettenger boiling hops
1/2 ounce Tettenger finishing hops
Yeast Labs Bavarian Lager Yeast
OG 1084, FG 1020

Protein rest 125, Mash 154, Mashout 168

Michael Hohnbaum hbaum@uts.amdahl.com
These opinions do not reflect amdahl's, but are completely mine.

End of HOMEBREW Digest #1258, 10/29/93

Date: Tue, 26 Oct 1993 21:27:55 -0400 (EDT)
From: WESTEMEIER@delphi.com
Subject: More on steam injection

I got deluged with queries about my posting on steam injection, so I'll try to respond here.

First, I should mention that the originator of the technique is Dan Listermann, maker of Phil's Philler, Phil's Phalse Bottom, Phil's Sparger, the Philmill, etc. etc. Dan is an extremely creative guy, and he is constantly coming up with something new.

I'm relying solely on memory here, since I wasn't taking notes, but as best as I can reconstruct it, the setup is like this:
An ordinary pressure cooker (about 2 gallon capacity, I would guess) is modified by removing the pressure release in the center of the lid (NOT the safety pressure release, which is offset from the center on this one) and replacing it with a compression fitting. From that is run a length of flexible metal hose (the kind used for a gas line to a kitchen stove, I think) about 4 or 5 feet long.

At the end of the hose is a fitting that connects to a short (8 inches) length of 1/4 or 3/8 inch copper tubing. The other end of the tubing is pinched shut, and many holes are drilled all over the length of the tubing (to let out the steam). A rubber stopper (with a hole drilled through it) is fitted over the tubing where it connects to the hose.

If you mash in a Gott (Rubbermaid) cylindrical cooler, you have probably already removed the original valve. Stick the tubing into the hole, letting the rubber stopper seal it. Mix up your grains and mash water in the cooler as you normally would. Place the pressure cooker on your Cajun Cooker, and let the steam raise the temperature of the mash.

Several people expressed fear that the steam would melt the plastic lining of the cooler, but in fact the steam doesn't touch it. Of course, you have to stir the mash constantly while you're raising the temperature with the steam, in order to circulate it, but it only takes a few minutes. Do this as often as you like. For me that would mean once, but it's just as easy to do a step temperature infusion with several steps.

Incidentally, a single filling of the pressure cooker (oops, I mean steam generator) was much more than enough to mash the grain for a five gallon batch. I'll bet it would have handled a ten gallon batch on that same filling. It really doesn't add any measurable amount of water to the mash tun.

After conversion, Dan used his steam generator again to heat the sparge water, by simply putting the steam probe in a bucket of water and stirring to circulate the heat. Then he sparged normally.

Dan says he only put this rig together as a "proof of concept" prototype, and I don't know if he has any plans to market anything along these lines.
It's an intriguing idea though.

Ed Westemeier
Cincinnati, Ohio
westemeier@delphi.com

Date: Tue, 26 Oct 93 22:14:50 EDT

From: pblshr@aol.com

Subject: "Clean It Up"

I assure the conversants (combatants) regarding the dialectic on "orgasm vs. basketball" that far raunchier things are cruising around the net and in the on-line services.

Nonetheless, I agree that while beer humor is appreciated, other comments (such as this one) are a waste of space. It's everything I can do as it is to get through the HBDS in my mailbox. If you're going to make off-color remarks, at least have the decency to confine them to off-color brews!

Date: Tue, 26 Oct 93 15:34 CDT
From: korz@iepubj.att.com
Subject: Channeling/Steam heat

Carl writes:

>> ...due to a fluid mechanics phenomenon called "channeling"
>
>Which is what?

As I'm sure we all know, liquid flowing through a porous substance will tend to take the route of least resistance. Channeling is one step further in the case of a substance like soil or a grain bed, in which if a much lower resistance path is found, then the liquid will tend to flow down that path, or channel. Two cases where channeling can cause a measurable loss to our extraction are:

1. when a 100% porous grain bag is used (i.e. as opposed to the type which is mesh only on the bottom), the runoff tends to go straight to the side of the bag and then run along the side of the vessel (between the bag and the vessel) down to the bottom, and
2. if you use a knife to cut a stiff mash -- the runoff will head straight for those channels you just created and tend to continue to use those channels, bypassing the other parts of the grain bed.

Ed writes:

>clever gadget. He had an ordinary household pressure cooker that he
>modified to run a steam line out through a ball valve. By simply
injecting
>live, low pressure steam into the bottom of his picnic cooler mash tun
while
>stirring the mash, he was able to raise the temperature to the desired
point
>very quickly. He also used the steam to heat his sparge water in the
same
>way. It all seemed so simple and logical that I wondered why I hadn't
seen
>it mentioned before.

The only "con" I can think of is the danger of scalding the brewmaster or his/her family. Live steam can really do a number on skin and worse on your eyes. I once scalded my arm just by removing the kettle lid at full boil in the wrong direction. It took a good two weeks for the 1st degree burns to stop being tender to the touch.

Al.

Date: Wed, 27 Oct 93 08:33:31 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium: Part 7 (General information)

Beer Hunting in Belgium: Part 7 of 7

General Information
(by Phil Seitz)

The following information is offered for anybody considering travel to Belgium. These are the bars we like, sources we found useful, and a few additional places we went that you might not find in the guidebooks.

Cafes:

L'Eblouissant. 27, rue Armees Grouchy, Namur. 081/73.71.39.

A small cafe run by a very particular publican. Extensive beer selection, well cared for. Good meals during lunch, with food also available during dinner. Frequent concerts of Irish music. Previously called one of Belgium's best cafes by CAMRA, now relocated due to high rents but still very comfortable. Closed Sundays.

Musee de la Biere (The Beer Museum). 19, rue de la Gare B/2, Lustin, on Route #947. 081/41.11.02

A funky place in a small town. Until last year nobody I know in the area had ever been there, though everybody knew about it. The reason is that it looks a bit weird from the outside. The exterior has hand-painted signs advertising over 1,000 Belgian beer glasses on exhibit, and God knows how many bottles, some of them dating from the 19th century. Looks a little like those roadside attractions advertising plaster-of-Paris dinosaurs and two-headed cows. Admission is 35 francs, which can be applied to a purchase in the, er, gift shop. The gift shop features 11 beers on tap (including the formidable Liefmans' framboise), as well as a good 100-200 in bottles. The interior is crammed with shelves of bottles and glasses, and many of these will actually be of substantial interest to beer geeks. Overall, a very pleasant atmosphere.

If you speak French, the woman who runs the place is famous for being talkative and very well informed with regard to beer issues and developments in Belgium. The cafe is also home to a tasting club, the Guilde des Tates-Biere, whose final exam is rumored to include identification of certain beers by year of production.

Lustin is south of Namur, on the Meuse river. The museum is open weekends and student holidays only, but special openings can be arranged for larger groups.

De Stillegentier. Mechelen.

We did not visit this cafe, but it was recommended to us as stocking nearly all the lambic and gueuze products currently on the market. Hey, we had to save something for next time!

Beer stores:

La Cave de Wallonie. 6, rue de la Halle, Namur

Near the Place au marche de legumes. A specialty beer store run by one of the brewers of the Brasserie Caracole. The proprietor speaks some English, and if time permits is quite willing to discuss brewing issues and beers.

Drinks Wets. 209 Steenweg op Halle, St. Genesius-Rode.

02/380.32.27

This one's a whopper. We ran into it when we got lost on the way to Beersel, and Jim accurately described it as the Belgian liquor barn. They sell a mind-boggling variety of Belgian beers and beer glasses, as well as selected imported beers. (Good: We found Anchor Liberty. Bad: They stock Rolling Rock.) The proprietors do speak some English, and they take Visa but no other credit cards. You'll need a car to get there, but a truck might be better. The gueuze/kriek selection alone ran along an entire 35-foot wall. Perhaps the most unusual of these was the Gueuze and Kriek Girardin in polypins. Just the thing for Mike Sharp's next party!

Some notes: check expiration dates. Some of the old bottles you'll find are aged; others are just old and out of date, and taste that way. Keep an eye out for the Hanssens gueuze products; we considered these a major discovery, and their mention met with respect from our more knowledgeable Belgian beer sources. The Wets gueuze products are also available (presumably the owners of the store are the Wets of lambic blending fame, though we were told by others that the beer is now made by the still-formidable Brasserie Girardin).

Other stores

1) Spice stores sometimes sell bitter (curacao) orange peel. It's hard and white, and bitter tasting. One such store is L'Herbier in Namur, around the corner from La Cave de Wallonie.

2) Don't forget the ordinary supermarkets. Most of them sell dark and light candy sugar in 1 lb boxes, and many have formidable beer selections, including local brews and glassware. Jereboams (3-liter bottles) are widely available, and the Sarma Star hypermarket outside of Namur must stock at least 100 beers--and the glasses. Keep in mind that a charge for the deposit on each bottle will be added at the cash register. On the other hand, the larger supermarkets take credit cards, so you can spend now and pay later.

Books

We really only used two books and a map as constant reference materials. One book was Michael Jackson's Beers of Belgium, which is available from a variety of sources. The other book was Peter Crombecq's Bier Yaarboek, which is not easy to find (check better bookstores in Brussels and Flanders). The former provided us with general information in a language we could read, and proved to be reasonably comprehensive in scope, if not always providing the obsessive depth we craved. The Crombecq comes in handy here, with detailed information on the breweries (in Flemish), as well as lists of all their products and the names these are sold under. This is extremely useful information that beer hunters can draw upon to make sure they don't unwittingly buy ten bottles of the same beer.

CAMRA now has a good beer guide to Belgium and Holland, which lists much of the above information and includes reviews of cafes. As far as I know copies are only available in England, L'Eblouissant had one.

THATS ALL FOLKS!

This concludes our Belgian series. If you have any questions we hope you'll let us know; Jim [BUSCH@DAACDEV1.STX.COM] may be better for the technical brewing ones, and me for the ones on Belgium in general.

Date: Wed, 27 Oct 93 8:56:26 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: PH Malt

In #1256, David Holsclaw asks:

> Has anyone else had problems like this with mash PH? What do you
> do?

WARNING! I HAVE NOT TRIED THIS. I JUST VAGUELY REMEMBER READING ABOUT THIS!

If I remember correctly, Dave Miller talks about using an acid rest in order to lower the pH of the mash. This is before the protein rest (& at lower temps of course). Using an acid rest is what allowed German brewers to brew lighter colored beers with the water they had. Check out the chapter titled "Mashing In, Acid Rest" (or something like that) in Dave's "The Complete Handbook of Home Brewing." Sorry, I don't have my copy on hand.

- - -
Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Wed, 27 Oct 93 10:04:03 EDT
From: mberger@wellfleet.com (Michael Berger)
Subject: Post-boil wort handling question.

I've been brewing (occasionally) for about three years now. Just about every batch I've ever made has had an off taste (except for a particularly memorable batch of Bruce's Dogbolter during my "kit" days). I started out with new equipment and have good cleaning practices...I sanitize anything that touches the wort/beer.

After going through the HBD digests, I've gotten LOTS of great information on mashing techniques and plan to try some. However, I think my problems come after the mash. There's very little information on post boil handling of the wort and I'd like some suggestions on good technique.

After the boil, I let things settle for about 15 minutes. I then strain the wort through cheesecloth in a colander which is suspended over my plastic bucket primary. The straining through the cheesecloth takes a long time since I usually use pelletized hops which combined with the other solids quickly make up a semi-impermeable barrier. I then let it cool overnight and pitch a starter in the morning. I transfer into a carboy after the kreusening settles down. I usually bottle after the bubbling through my airlock stops.

I'd like some suggestions on better techniques so that I might eliminate my off-taste. Thanx in advance for any help.

PS. How does new pub/store information get submitted to the "publist" digest????

Date: Wed, 27 Oct 93 09:04:02 CDT
From: "Edward F. Loewenstein" <SNREDLOW@MIZZOU1.missouri.edu>
Subject: Tree parts and an occasional herb

Greetings,

Just wanted to shed some light (hopefully) on a few botanical points that have come up over the past few weeks.

First, concerning spruce beer. Spruce is in the family *Pinaceae*, genus *picea*. Pines are in the same family, but the genus *pinus*. The resins produced by individual species between these genus differ, so for the gentleman who was planning on substituting pine for spruce, take care. Remember, pine resins are used to produce turpentine and lacquer! Your best bet is to use commercially available extract.

For those brewers who think they might like to try a conifer flavored beer but are not sure they would care for the taste and don't want to risk pouring 5-gallons down the drain, let me suggest you go to a Greek restrurant and sample some retsina which is a liquor flavored with resins.

The flavor is stronger than that of some spruce beers I have tried, but essentially the same.

As far as hemlock (the tree) is concerned, genus *Tsuga*, it is not related to the famous poison cocktail of antiquity which was made from the herbaceous poison hemlock, *Centella conium*.

Concerning the posting a few days ago about Woodruff ale. I must assume that the herb added is Sweet Woodruff, a wonderfully aromatic herb of the genus *Galium*, commonly known as the 'bedstraw family'. I have had good luck growing this plant here in central Missouri and believe it is able to be grown throughout the continental US. I plan on trying a Woodruff ale myself in the near future, I'll post the results. For those who are interested, sweet woodruff is perfectly safe for consumption. The FDA has listed it as "safe for use only in alcoholic beverages."

Phillip Priefrock recently asked about growing hops in the midwest. I can assure you that few plants are easier to grow. Two years ago I purchased four rhizomes (root cuttings) from Freshhops (*insert standard disclaimer*), and harvested over five pounds of flowers this season. Freshhops advertizes in Zymurgy, but I don't have a phone number handy.

Concerning starting the plants inside during the winter, don't bother. First of all, the rhizomes are only available in the Spring, and more important, actively growing hop bines grow VERY quickly and would soon take over most light tables (mine were all over 25 feet tall this year). I have had best luckgrowing, cascade, nugget, and pearle.

Concerned about credentials? I am a research forester, currently finishing a PhD at the Univ. of Missouri.

EFL

Date: Wed, 27 Oct 93 10:13:56 -0400
From: matth@bedford.progress.COM
Subject: Plans for Grain Mill

Dion Hollenbeck writes:

[SNIP of many questions regarding tool availability & time & materials]
>

>Bottom line, you may be able to make any commercial product for much
>less than it is sold for if you ignore everything but the cost of the
>materials. On top of that, you are not trying to make a living out of
>it. If you really figure *everything* in, I would doubt you could
>beat the retail price by much if any at all since anyone who intends
>to remain in business will be buying in volume and getting prices on
>raw materials which you could never come close to at oneseey prices.

Can you tell me why you brew beer then? Few people I've ever ,et who
brew &
keep purchasing *any* kind of equipment ever reach the level where the
money
they have spent on the brewing tools/materials makes it cost effective
over the
long run compared to just purchasing commercially available brews, even
micro-brews.

>
>If you enjoy building things, by all means, you have my whole-hearted
>support to go ahead. I even wish you the good fortune to improve upon
>Jack's mill or any other brewing product for the betterment of all of
>us brewers. But, please do not make light of the effort that goes
>into producing the great products which are being offered to us.
>Knowing what it takes to produce these, I am quite satisfied that we
>as home-brewers are getting fair value for our money from the vast
>majority of brewing equipment manufacturers.

>
>Steve, I do not mean to single you out, this thread has popped up so
>many times, I just took the opportunity of your post to reply to a
>topic which has been bugging me for a long time.
>

I haven't gotten the impression that anyone has made light of the
effort Jack
or anyone else has put into producing effectvie roller mills designs.
I've
seen & used a MM at one of the HB shops I get supplies from. Jack did a
good
job on it. Most of the reviews I have seen have been pretty close to the
mark
regarding usability of the device. It gives a great crush but as many
people
have indicated the design could be improved upon some.

Jack's a tinkerer, of that I am sure. A large majority of HB'ers *
are*
tinkerers and would rather spend the time doing something themself than
run out
& buy something. I don't see where this thread is any different than the
ones
from people designing/making better wort chillers, lauter tuns, keggig
setups,

or lager houses.

No one said we aren't getting fair value from manufactured brewing equipment. I would agree that most of it is a good deal. However: 1) Everyone does things different and has different needs and 2) most of the time a redesign of an existing device can be improved upon. This has been shown time & time again.

As for your questions regarding tools/time & materials for the task, the same can be said for *any* serious hobby that needs such things, such as wood working, electronics, automotive mechanics... (I know, I have too many of these expensive hobbies already!-)

ObHBD: I'm working on refinishing my basement & plan to set aside an area dedicated to brewing & beer storage (with the wife's consent no less!-). I'd like to hear from anyone who has done such a thing regarding they're ideas and/or experiences in a couple of areas:

1) How do you store carboys when not in use?
I'm planning on building cabinets to store them upside down to cut down on pre-brew cleaning (such as is done for bottles). Anyone try this yet?

2) Since it will be in the basement dust could (will) be a problem. How do you keep it to a minimum on a *continual* basis, not just when brewing?

3) How many square feet does your brewery area take up?

4) What would you have done differently now that you've got it built and have been using it.

If people desire I'll summarize the responses and post it (if it's small) or put it in the archives if it's larger. (I'm also working on getting info like this out of back HBD issues but that's not exactly the quickest task I've ever taken up...)

Thanks for any & all input.

-Matth

Matthew J. Harper ! Progress Software Corp. ! [disclaimer.i]

God created heaven and earth to grow barley and hops. Now he homebrews !-)

Date: Wed, 27 Oct 93 09:48 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: PVC wort chillery

To the brewer constructing the PVC pipe chiller.

Could filling the hollow of the copper coil with individual packets of reusable ice (that blue stuff you can freeze/refreeze) serve your needs? You could find the small ones (approx 1 X 3 X 1/2) and they may cool things down as well as help channel water around the coils.

Keep up the shadetree brewing and let us know how your new-fangled chiller works out.

David

Date: Wed, 27 Oct 93 10:00:13 EST
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>
Subject: Wyeast

Brian Bliss (1256) writes of disappointment with Wyeast. I am quite happy with the products. The trick is having a supplier who looks after them with TLC. My local homebrew store orders on the one day a week they package, gets the packages by 2 day air, and refrigerates them immediatly. The last pack I bought was 2 days old. I have never had any delay in getting a puff up, and generally use via a starter in 36 hours.

RE hoppy starters what I do is can all the bottom sludge, boiling with my bottled wort for priming. When I have quite a few cans I throw 'em all into my pot and dilute to 5 or 7 Balling and boil up for a while. I then bottle the clear wort, cap, and 'can' for a while. Hey presto, I have enough bottles of the hoppiest sterile wort necessary for 3-6 months of starters.

To make a starter all I do is drop a bottle into my chlorine bath to sterilize the outside and add it to the yeast in a she may bottle, shake the bejesus out of it and cap with an airlock in a 1.5 stopper. I will usually end up adding this to 2 or 3 bottles of starter juice in gallon jug for lager starters, and I always dump most of the wort off the top before pitching.

I recently purchased a Maltmill to benefit from Jacks October special. I am very happy with the crush, although there are one or two minor problems. The mill has a hard time with wheat malt (well Briess red winter wheat, anyway), and I had to dilute with barley to crush. js did tell me this was a problem with cara-pils, so for very hard grain dilution is the solution. The other problem also related to cranking is the mill's lack of rigidity and short handle. I found that I had to kneel on the mill on the bucket, while holding it with my left hand and cranking with my right hand. It was nearly as bad as the Corona (although I was crushing 17lb of grain for a Doppelbock). I will have to mount it in some way prior to its next use.

On that doppelbock, I got impatient and finished my boil too quickly. I put it in a acid carboy primary and I guess it was at least 6 gallons. I added a blowoff next morning (it was at high kraeusen after less than 8 hours at 48F - trick pitch with entire sediment from primary of previous lager) but the blowoff container was inaduate and it blew over putting a puddle of doppelbock wort all over my conditioning beer cases in the freezer. While cleaning the freezer I became very dizzy and light headed, and realized that I was asphyxiating in the CO2. I went away got my breath and allowed the air to mix a bit more. It occurred to me that ashyxiation could be a problem in larger breweries. Comments?

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Wed, 27 Oct 93 10:42:24 EDT
From: mferts@taec.com (Mike Fertsch)
Subject: Who Put the phor in Iodophor?

"Robert H. Reed" <rhreed@icdc.delcoelect.com>asks about the 'phor' in Iodophor:

>Question: what does the -phor designate in the name IODOPHOR? I have
>used BTF iodophor which doesn't contain phosphoric acid and I have
>recently obtained an iodine sanitizing solution that *does* contain
>phos. acid. What gives?

We've been through this before, but the -phor has NOTHING to do with phosphoric acid. The '-phor' suffix means 'carrier of'. Iodophor means 'carrier of iodine'. Period. FWIW - 'phosphorus' means 'carrier of light' ('phos' meaning 'light', and 'phor' meaning carrier). Phosphorus tends to radiate light. Check your Webster's dictionary and look up '-phore'

The fact that SOME iodophors also contain phosphoric acid is purely coincidental. My Iodophor has no phosphoric, but I'd prefer one that does.

Mike Fertsch

Date: Wed, 27 Oct 1993 11:12:00 +0000
From: "Rick (R.) Cavasin" <cav@bnr.ca>
Subject: re:Beer hunting in Belgium: Part 5

In Jim Busch's interesting Belgian travelogue, he mentions:

>After a primary fermentation period, the beer is racked into
>Chestnut casks--the brewer swears by them and recoiled with
>horror at the possibility of using oak.

This is interesting given the fact that Chestnut is one of the few woods that contain a *really* high amount of tannin. Oak has alot lower (with oak, only the bark contains enough tannin to make extraction for leather tanning worthwhile, Chestnut wood contains enough to be useful in this application) though not insignificant amount.

I wonder if chestnut is chosen for this reason, or if the casks are so old that most of the tannin has already been removed.

Hmmmm....

Cheers, Rick C.

Date: Wed, 27 Oct 93 9:29:55 MDT
From: npyle@n33.stortek.com
Subject: Hops FAQ, Part 3/5

Hops FAQ, Part 3/5:
- - -

Q: Can I grow my own hops? How?

A: Read this...

Hops for beer-making grow from the rhizomes of female hop plants. Rhizomes look like root cuttings but have buds growing from them that will become new vines. Rhizomes also contain stored nutrients to support initial growth.

Hops grow vertically as one or more vines that spiral up a twine or other support. Depending on latitude, location, and variety, they sprout from March or April and grow through the summer and early fall. A single plant can easily grow 40 feet tall when it is mature but growth in the first year is usually much less. In most instances by the second or third year the plants will exhibit full growth. Height is very closely linked to the amount of sunshine the plant gets.

Hops grow best in full sun and you should pick a spot with the best possible southern exposure. Hops grow best in loose, well drained soil. Blended peat moss and sand make a good growing environment. In cases of poor soil drainage, it can be helpful to create a mound of soil a foot or so tall which will aid drainage.

Hops need lots of water. As they grow be sure to give them a very good soaking at least once a week. There are reports that once-a-day waterings (up to 6.5 gallons per mound) give greater growth and yield. Mulch in the summer helps with weed control and also holds water. Hops also have big appetites; composted cow manure is an excellent well-balanced fertilizer for them.

Once a bed has been prepared the rhizomes are planted about 4 inches below the soil surface with any obvious buds coming from the rhizome oriented to point upward.

After several inches the new vines should be thinned so that just the most healthy and vigorous three vines are left to continue growing. This will be an ongoing process as new shoots may show up later, but the initial thinning is important. It's been reported that the young shoots that are culled may be

steamed and eaten like asparagus. On the other hand, some growers espouse cutting the new shoots at all, allowing all vines to grow to full height.

As the vines grow over a foot tall they should be trained to grow up a twine. This can be done by twisting the vine around the line. This may have to be repeated for a few days before the vine gets the idea. Hops will have a natural tendency to wrap clockwise looking down.

The most common hops trellis consists of strings running from the roof of a building down to stakes driven into the soil near the plants. Another option, often used by commercial growers, consists of a large central pole, with strings running from the top of the pole down to the foot of each plant, similar to the spokes on a wheel. Expect the string or twine to hold a lot of weight as the vines grow tall. A 25+ foot plant may weigh 20+ pounds.

Hop blossoms start out looking like large sand burrs, and then take on a characteristic cone shape as they grow in size. The size of a fully developed cone depends on the variety, varying from 1 to 2 inches long by 1/2 to 1 inch in diameter.

The hops are fully mature and ready for picking when two changes take place. First, immature hops have a damp, soft feel and when squeezed slightly tend to stay compressed. Mature hops feel more like paper, spring back when squeezed, and feel noticeably lighter. The second key test is to pick an average hop and cut it lengthwise down the center with a knife. When ready to pick, the yellow powder (the lupulin sacs containing the essential oils and bitter compounds) will be a dark shade of yellow, like the stripes on a highway, and it will be pungent. If a light shade of yellow then its likely the hops are immature.

When ready to pick it is best to snip the stems of the cones with scissors or a knife to avoid jarring the hops and knocking lupulin powder out or worse, pulling the center of the cone out with the stem, causing a great loss of lupulin. Touching hops plants can cause skin irritation in some people; gloves and long sleeves can help in this matter.

Just-picked hops are roughly 80 percent water; if left alone they spoil rapidly. For proper storage most of the water is removed by drying. A good drying method is to lie the hops on a card or screen in an attic. Just a few hours during the heat of summer or a few hours more in cooler weather is enough to dry the hops. Use a before and after weighing (and trial and error) to try to achieve about 7-10 percent residual moisture after drying.

After drying, hops keep best at low temperatures and away from oxygen. A kitchen freezer easily takes care of temperature but to get the hops away from oxygen is difficult. Tightly packing hops in canning jars will minimize the trapped air but be careful not to use too much force and break the all important lupulin sacs since this accelerates oxidation. Purging the canning jar of oxygen by blowing in carbon dioxide from a keggung system will also help prolong freshness.

It's common to get 4 or 5 harvests per year by picking the biggest, most mature hops every 2 weeks or so as the flowers ripen. Patience and judgement are important since cones left on the vine too long turn brown and begin to oxidize and spoil, while immature hops have little lupulin to give.

At the end of the growing season when the leaves have fallen or turned brown, cut the vines at the surface of the soil and if possible remove the twine. After cutting back the vines a layer of 3 or 4 inches of mulch and composted manure can be put over the exposed vines for insulation and nutrition during the winter.

Japanese beetles are the number one nuisance in many areas. A common remedy is to position a "Bag a Bug" type beetle trap about 30 feet directly up wind from the hop vines. There is some concern that the "Bag a Bug" traps may actually attract more beetles than they catch, but that probably depends on the situation. Certain plants such as rose bushes may also attract the beetles, so it's best to keep those plants away from your hops. Also, the beetles' larvae live in the ground, and in cases of extreme Japanese Beetle infestation the surrounding lawn may need to be treated accordingly. A number of other pests, such as aphids, can harm hops, and can be treated with any number of pesticides. Since you will be consuming these hops, you should use low toxicity natural pesticides, such as 1% Rotenone dust, for direct pest control on the plants. As with any consumable, you should ensure that any pesticide is well washed before using the hops.

Ladybugs are the best, most natural way to get rid of aphids and a lot of other bugs. However, it can be difficult to keep them on your hop plants once you run out of food for them. A good idea is to plant some cilantro/coriander between your hop hills. Ladybugs are attracted to this plant and it will keep their attention between feedings of aphids. You can even harvest the cilantro (the leaves) for cooking and use the coriander (the seeds) in Witbier.

One other hazard is animals. A short fence of rabbit wire will keep cats, dogs, rabbits, etc. at bay, but won't do much against deer.

Rhizomes are available from an increasing number of sources. American Brewmaster in Raleigh, NC and Freshops in Philomath, OR are two well-known suppliers. Cost is usually a few dollars each. They should be kept in plastic bags, moist and cold in your refrigerator until they are planted.

Additional information about hop growing can be found in "Homegrown Hops" by David R. Beach. Also, the 1990 special issue of "Zymurgy" is devoted to hops and contains an article about growing hops by Pierre Rajotte. The AHA also has additional hops-oriented publications.

Date: Wed, 27 Oct 93 11:29:55 -0400
From: cm199@cleveland.Freenet.Edu (Thomas G. Moore)
Subject: DLB Homebrew Competition

Announcing DLB Homebrewers 2nd Annual Homebrew Competition on Nov. 20, 1993 in Westlake, Ohio. Judging begins 10:00 am. Entry fee is \$5.00 per entry. Three or more entries-\$4.00 per entry. Entries must be i 10-17 oz. green or brown bottles (Grolsch bottles ok) without labels. Drop off or ship entries to DLB Vineyards. 30311 Clemens Drive. Westlake, Oh. 44145. Entry deadline is Nov. 17 at 5:00 pm.

For more info or competiton entry forms, contact:
cm199@cleveland.freenet.edu
or
70334.3721@compuserve.com (Pete Wilson-organizer)

This is an AHA sanctioned competition. All entries will be judged according to the AHA style definitions. Sorry. No mead, cider or sake will be judged.

- - -

Will work for homebrew!

Thomas G. Moore
cm199@cleveland.freenet.edu

Date: Wed, 27 Oct 1993 08:15:56 -0700 (PDT)
From: Paul deArmond <paulf@henson.cc.wvu.edu>
Subject: Re: Agrees with COPS show, et al.

Whoa, now! Before everybody starts slagging John (the Coyote) Wyllie, let me say a few words on his behalf:

Mr. Wyllie holds an important position at the ACME (tm) Co, as a product tester and risk analyst. Some of you may have seen his product demonstrations on Saturday morning TV, where he gets run over by steam-rollers, hit by large spring-powered boxing gloves, zooms around on jet roller skates, rides enormous sky-rockets, has close encounters with falling anvils, explosives, catapults, giant mouse traps, etc., and falls off cliffs a lot. His expertise in risk assessment is unparalleled and gives him a unique viewpoint that is denied to many of us.

Higher alcohols are poisonous and many distilling companies adjust their fermentation processes to produce more of them, since they have considerable economic value as solvents, paint thinners, etc. They also take careful steps to make sure that it doesn't get into the potables. Some are a little less careful than others; the "cheap booze" hangover is one result.

Reading Snuffy Smith cartoons does not constitute a good education in distilling, nor does watching TV. If you let the temperature on your slobber box get too high, just be sure that you take the first drink.

As regards to regulations, think for a moment how regulations come about. The vast majority of regulations come into being because something bad has happened, and people don't want it to happen again. So they go to an enormous amount of trouble to get some pack of legislative critters to pass a regulation. Just try getting a law passed that prevents some fat-cats from ripping off the rest of us, and you will see exactly how troublesome a process regulation is.

When taxation is involved, it gets even stickier, because the regulating agencies now have an interest in the outcome. Can you say "conflict of interest?" Higher taxes frequently mean bigger budgets, larger staffs, higher salaries. This sometimes leads the regulatory process astray.

Here in Washington State, where the notorious COPS ephisode took place, we are priviledged to have some of the highest alcohol taxes in the US. We also have the Washington Liquor Control Board, which keeps us amused with continuing tales of pilferage, bribery, crime and corruption.

I remember several years ago, when one of the commissioners was caught red handed replentishing his private stocks out of a State warehouse. More recently, a Seattle TV station ran a muck-raking piece on a "training conference" that the liquor industry threw for all the State Liquor Store managers. It was held at a resort in Coer d'Alene (bad move, taking the business out of the state) and mostly consisted of getting falling down drunk while being harangued by liquor sales reps.

I'm waiting to see this on COPS. I suspect it will be a long wait.

Paul.

Date: Wed, 27 Oct 93 11:54:50 EST
From: Bob_McIlvaine@keyfile.com
Subject: Make Your Own ...

What with all the comments about making your own malt mill going round, I had to chime in.

A roller mill is a pretty basic mechanical device. If your looking for ideas for designs, check out Dave Gingerys' book about building your own sheet metal roller. He shows you how to make it with hardware store stuff and hand tools. This book is part of a series he wrote about making your own metal working shop from scrap. The series includes a book for each of the following: make your own foundry, uses the foundry and hand tools to make a metal lathe, use these to make a drill press, use these to make a milling machine, and use these to make deeelux accessories for all of the above. Daves' books are available from Lindsay Publishing. By the way, I have the entire set and it can be done.

Be forwarned, as those who have noted in previous postings, making it for yourself ..IS.. different than producing a retail product. When I designed the BruTemp digital brewing thermometer, I found out first hand!

Date: Wed, 27 Oct 93 09:20:49 -0700
From: Drew Lynch <drew@chronologic.com>
Subject: Wyeast lag times / viability / dry yeast

Lately, there has been a bit of liquid yeast bashing going on. I, for one, use it nearly all the time. The only time I revert to dried yeast is when I decide to brew on short notice. I encourage other folks to use liquid yeast as well.

The more I thought about it, the more I realized that there are several issues not clearly defined, that may well effect brewer's success using the liquid yeast.

Wyeast advertises that the older the package, the longer it takes to swell. The age of the package is an indication of the efficiency of your retail source. I purchased a package of Wyeast American Ale last night from The Fermentation Frenzy in Los Altos Ca. It was dated Oct 20. I burst the inner pouch at about 7pm last night, and it was quite swollen by 7am this morning. I have had older packages take 3-4 days to reach the same point.

Aerate, Aerate, Aerate! I use a pump driven CF chiller. After reading a few posts on the subject (thanks!) I attached a small homemade nozzle to the outflow. I now get huge amounts of foam and (I assume) dissolved oxygen in the wort.

I have found that lag times increase drastically with increased temperature differential between pitched yeast and receiving wort. I have gotten < 8 hr lag times pitching just a swollen Wyeast package (no starter) when the temperatures are well matched. Remember that dry yeast benefits from a higher rehydration temperature, and therefore may be more tolerant of warmer wort.

I usually do use one or two steps between swollen package and pitching. I like to be certain. There is one gotcha here...each step is an opportunity for infection. Be vigilant.

I am also curious as to when people consider the package swollen. If an older package is procured, folks may see that the package has marginally increased in size, and then use it -- dont! Wait until it is difficult to compress the package between thumb and forefinger. I have been tempted to let one package go until it bursts, just to see how far I can push it.

Drew Lynch
Chronologic Simulation, Los Altos, Ca.
(415)965-3312x18
drew@chronologic.com

End of HOMEBREW Digest #1259, 10/30/93

Date: Wed, 27 Oct 93 11:37:01 -0700
From: "Stephen E. Hansen" <hansen@Sierra.Stanford.EDU>
Subject: YACFC, Yet Another Counter Flow Chiller.

Last week I decided to build a counterflow chiller (I had been using an immersion unit previously). I debated whether to use a garden hose or a piece of large diameter PVC pipe to enclose the copper tubing and went with the hose for simplicity's sake. I have seen one or two commercial versions of counterflow chillers that use something that looks like coiled copper in a section of PVC pipe but I couldn't find end caps that looked like they would work without more work than I wanted to put in.

What I did was buy a 50' 5/8" ID garden hose and 50' of 3/8" OD copper tubing. In addition I bought two hose end replacement connectors, one male and one female, and two of those Y hose connectors with the built in ball shutoff on each leg of the Y.

I took the hose and cut it in two with 30' left on the piece with the male connector. I slid the copper tubing through the hose from the cut-off end until about 12" stuck through past the other end. Then I cut the copper tubing leaving about 12" on both ends. The male hose repair connector went on the cut end. Getting the last ten feet or so of tubing through the hose took some elbow grease but persistence paid off.

Next I took the Y adapters and slid the copper tubing up the trunk of the Y and out through one of the legs until I could screw the Y onto the hose end. This was a bit tricky but if you counter-twist the hose before mating the ends it works pretty well. The hard part was getting the copper tubing past the ball valves in the Y. One fit perfectly but the other had to be drilled out with a 3/8" bit. The fit of the copper tubing in the Y is essentially watertight on one of the connectors but the other leaks a bit. I'll probably put some silicone sealer in that one. Once the Y connectors were on tight I just recoiled hose to about a 12" diameter and loosely tied the coils together.

As for the female replacement connector. That goes on the cut off end of the 20' piece. giving me a short hose with two female connectors on each end. You need this to connect to the inlet of the chiller.

The remaining copper got turned into a siphon cane and an aerator. The aerator was build from the description by Spencer Thomas in HBD 1081 and it works great.

The next day I made an IPAR (an IPA with Rye) and the chiller worked like a champ. Compared to my immersion chiller this is MUCH easier and faster. The wort outflow wasn't much warmer, if any, than the tap water inflow. The tap water flow rate is your temperature adjustment in this setup and I was able to use a fairly slow flow of water. Obviously, with my current water temperature I could have gotten away with a shorter chiller but the water temp will warm up a bit in the summer.

I siphoned the hot wort off the hops and hot break material in the kettle and into a plastic bucket with a tap valve at the bottom. The copper scrubber in a mesh bag tied to the end of the copper siphon wand did a good job of keeping things clear. I took the bucket full of hot wort and set it on top of the washing machine. The chiller sat just below it on a stool, a 5 gallon carboy sat on the floor. Plastic tubing went from the outlet of the tap valve to the inlet of the

chiller. More plastic tubing went from the outflow to the aerator wand stuck in the carboy.

Stephen Hansen
Homebrewer, Archivist

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Stephen E. Hansen - hansen@sierra.Stanford.EDU | "The church is near,  
Electrical Engineering Computer Facility | but the road is icy.  
Applied Electronics Laboratory, Room 218 | The bar is far away,  
Stanford University, Stanford, CA 94305-4055 | but I will walk  
carefully."  
Phone: +1-415-723-1058 Fax: +1-415-723-1294 | -- Russian Proverb  
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Date: Wed, 27 Oct 1993 12:35:03 -0700 (PDT)

From: Eric Wade <ericwade@CLASS.ORG>

Subject: Beer Drinks

Mark Stickler describes a Rocky Mountain Oyster Cocktail (Coors, raw oyster, etc.). I always thought Rocky Mountain Oysters were what was left over after you removed the steer from the bull. Don't know how they go with beer though.

Friends of mine who frequent Barclay's pub in Oakland, CA (28 taps of micros, regionals, and imports only) have been experimenting with topping various brews with a few ounces of Old Foghorn, e.g., Foggy Night in Dublin (Guinness & Old Foghorn), etc.

Eric

Date: Wed, 27 Oct 93 13:09:51 PDT
From: nexgen!bart@olivea.ATC.Olivetti.Com (Bart Thielges)
Subject: Immersion chillers / Brewkit ingredients

For those of you using immersion chillers out there, here's a way to get much higher performance. Stirring the hot wort periodically REALLY speeds the chilling. If you have enough clearance between the chiller coil and the sides of the brewpot, you can stir the wort simply by grasping the ends of the chiller and swishing the wort around. You will notice that you'll feel the outflow pipe suddenly get warmer : a sure sign that you've increased heat transfer.

If you leave the chiller sitting in the bottom of a still brewpot, the wort will tend to stratify into hot and cold layers. Since a large part if not all of the chiller rests on the bottom, convection does not aid in chilling. Conduction is the primary mechanism for transferring heat from the upper layers of wort to the lower coil, and that is sloooow.

I've found that a couple of seconds of swishing once a minute is more than enough.

Here's a question that's been bothering me for a while. I have two cans of hopped malt extract from England (Geordie and Boots). On the list of ingredients, both of them list "Barley and Malt extract" as the first two ingredients. I thought that "malt extract" was made from barley. Why are they listed as two different ingredients ? Is there some other fermentable in the can that didn't come from barley ?

Thanks for all of the advice on hot priming. I used this technique on my last batch and have yet to receive the court summons. The bottles seem to be carbonating well.

Bart

(Brewing equipment destroyed while hot priming : 0)

Date: Wed, 27 Oct 93 17:29:57 EDT
From: edwards100@aol.com
Subject: Re: #2(2) Homebrew Digest #12...

I recently converted a 15.5 gall. SS keg with a ball valve spigot. The end of the SS nipple with 90 Deg. elbow inside the keg ends about 2 inches away from the center of the keg. Will the trub that is formed by whirlpooling be likely sucked out of the drain because of it's location? What is the proper way to whirlpool? Alternately, would it be easier to remove trub by adjusting the 90 Deg. elbow so that it's is just above the settled trub layer if not whirlpooling? COMMENTS APPRECIATED.

Date: Wed, 27 Oct 1993 17:10:46 -0500 (CDT)
From: Cree-ee-py Boy <BIRMINGH@FNALV.FNAL.GOV>
Subject: What do 'phor' mean?

>Question: Someone posted something regarding IODOPHOR in this or a
>previous HBD: what does the -phor designate in the name IODOPHOR? I
>have used BTF iodophor which doesn't contain phosphoric acid and I have
>recently obtained an iodine sanitizing solution that *does* contain
>phos. acid. What gives?

My best guess was that it comes from the Greek root '-phoros' for
'to bear' so that iodophor is a substance that bears iodine. My
dictionary seems to confirm that.

I'm not sure what the hell they put phosphoric acid in it phor
(snicker.) Probably it's to act as a surfactant, as it is an
ingredient
in some soaps and detergents.

ObDiane'sSig: Not to pile on Mr. Lyons or anything, but I got no
problem with Diane's .sig. I mean, 'orgasm' comes from a Greek word;
it
HAS to be respectable. :-)

ObMashoutJihad: For the most part, I'm with Imam Campanelli on
this issue. My only exception (so far) is for oatmeal stout; skip the
mashout when so brewing and the Great Satan known as Set Mash (*
ptui*)
will plague you for hours.

Later...

- - -

Phillip J. "Noah Webster" Birmingham birmingham@fne683.fnal.gov
Just bought a pound of '93 Cascade.. almost never got my head outta
that bag

Date: Wed, 27 Oct 1993 17:01:15 +0700
From: Brian.Smithey@Central.Sun.COM (Brian Smithey)
Subject: Re: Belgian Special B (Matthew Rowley)

>>>> ROWLEY@kuhub.cc.ukans.edu writes:

Matt> I've just snagged some Belgian Special B to use in an Irish
Matt> red. This will be the first time I've ever worked with the
Matt> stuff, but look forward to it. Does anyone have any experience
Matt> using Special B? I thought that I might put some into my next
Matt> porter or stout, but would like to hear from you if you've any
Matt> suggestions on how/how not to handle this grain: Temperatures,
Matt> proportions, that sort of thing.

Matt> Matt Rowley
Matt> rowley@kuhub.cc.ukans.edu

A while back I bought some Special B to "experiment" with. I took an old Anchor Steam clone recipe and replaced 1.5# 40L domestic crystal malt with 1# Special B. The resulting beer is roughly the color of a typical brown ale, and the contribution of the Special B is pretty apparent -- a sweet toffee flavor, not at all the "burnt" flavor of darker roasted malts (chocolate, black). This beer is probably more like a Scotch ale than a Steam beer, but the big load of Northern Brewer hops are pretty evident too (note that I haven't yet used the words "pleasant" or "balanced" to describe this beer :-)

I think a full pound of this stuff would be a great way to get started on a Scotch ale recipe, but for just about any other style I'd scale it way back, and I can't think of a reason to EVER use more than a pound in 5 gal. I'm planning a sweetish Brown ale next, and expect to use about 3 oz special B in that one.

While we're on the subject, I just received an order of DeWolf-Cosyns malts (hi Al!), and would like to hear what others have found with the other specialty grains -- I'm planning on "kitchen sinking" the brown ale with some of the buiscit malt, aromatic malt, and chocolate malt on top of the base pale ale malt and Special B. Any suggestions?

Brian

- - -

Brian Smithey / Sun Microsystems / Colorado Springs, CO
smithey@rmtc.Central.Sun.COM

Date: Wednesday, 27 October 93 21:00:20 CST
From: LLDSC@utxdp.dp.utexas.edu
Subject: Spruce essence

I made a spruce beer not too long ago. It was a honey/spruce ale, going off the recipe in TNCJOH with a few modifications. I was all set to buy my bottle of spruce essence at my local homebrew shop (It was a two ounce bottle-I don't remember the brand) when my friendly homebrew guy told me that I didn't need the whole thing. He said to ignore what TNCJOH said because it just came out way too powerful.

Being a friendly homebrew guy, he put just a few drops of essence into a plastic bag and sold that to me (saving me some bucks in the process). I put the essence in my wort, adding it at the end of the boil (I think)

After brewing, I took a tour of the Celis brewery and, well, to put it frankly, imbibed a bit that evening. I was a little under the weather the next day and all I can remember smelling was that damn spruce essence. Everytime I had one of those damn beers it made my head ache.

My friends, however, seem to enjoy the beers. They didn't think there was too much spruce in them. So I guess my point is that just a few drops should do the trick. At least that's my experience.

P.S. I made a Wheat beer with the Wyeast and it came out great.
P.P.S. Our first brewpubs are opening up late this month/early next
Keep on truckin'

Scott, UT AUSTIN
LLDSC@UTXDP.DP.UTEXAS.EDU

Date: Wed, 27 Oct 93 02:53:00 BST
From: mike.keller@genie.geis.com
Subject: You can't judge a beer...

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|| It seems to me that there would be an excellent market for    ||  
|| custom packaging supplies for the home brewer such as high    ||  
|| quality, custom screen labeled bottles, caps, and quality||  
|| wooden cases. The same    ||
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In the latest _Barleycorn_ (a bimonthly tabloid for brewing, micros and brewpubs in the Mid Atlantic states), there is an ad for Graphik Conspiracy for color labels.

"We will make labels to your specifications, with any design, theme or lettering...Custom-designed, full color labels start at \$90 for quantities of 150 or more."

Graphik Conspiracy, PO Box 2332, Centreville, VA 22020, 703-222-8492.

I present this for information only. Please note the price quoted is for "custom-designed," if you have your own design ready to go, it should be a lot cheaper, but then you could prolly visit any decent print shop and get good work. Color labels would generally be spot color, not four color seps work. A brewing friend had a label designed by a mutual friend who is a printmaker, and had the the labels (black and grey halftone, no color) printed at a local shop. Looks nice.

Mike Keller, Beer Sysop, GENie

Date: Wed, 27 Oct 93 13:00 CDT
From: korz@iepubj.att.com
Subject: CO2-purging/HBD topics

Rob writes:

>I have found that the food grade containers that deli's use are good
>for storage of grains. I think the square mayonnaise containers work
>best. They are the easy to clean and the lids are fairly easy to
>attach and remove. I recommend filling them to the top and purging
>with CO2 to keep the grain as dry as possible.

I had thought about purging my grain buckets with CO2 also, but before I did, I filled a empty bucket with CO2, threw in a humidity meter and sealed the bucket. After 15 minutes, it read about 55% humidity.

Granted,
this was a cheap, dimestore humidity meter, but it convinced me that CO2 is not dry. Instead, I've purchased some, reusable, dessicant canisters (about \$8.00 each from a lab supply place) and put one in the bucket just after pouring in the grain. I've measured the humidity inside the bucket after a day with the dessicant and it was around 25-28%

Lately, there have been a lot of articles posted on fringe topics. I suggest that we try to restrain ourselves and try to concentrate on homebrewing, especially when the digest begins to slow down as it has recently. Fast turnaround for questions is rather important since sometimes many posters are tempted to answer a question when they notice it hasn't been answered for a while and then suddenly, two days later, there are ten responses.

Al.

Date: Thu, 28 Oct 93 8:31:24 EDT
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: Going all-grain

Ed Wolfe asks about all grain equipment in HBD #1254 (sorry to take so long, I'm behind in my reading :-() :

I just recently went all-grain and have tried 2 approaches for an insulated mash/lauter tun. One was a Coleman 40 qt. rectangular cooler and the other was a 5 gal SS stockpot in an insulated box. I found that over a 90 min mash, the cooler lost ~5 F degrees. The insulated box lost 0 F degrees. I am sticking with the insulated box! The other advantage of the insulated box is that I can take the pot out to raise the temp (say to go from protein rest to sacchrification rest). Here is how I built mine:

1. Buy a Hewlett-Packard 700 series workstation. Throw out the workstation and keep the box. (Note 1)
2. Get some styrofoam sheets from your local building supply store. I got 2"x2'x8' sheets and some 1"x2'x8' sheets.
3. Cut the styrofoam to put a 7" layer of styrofoam on the bottom of the box. I found a wallboard saw worked best for cutting the styrofoam (especially the 2" stuff!).
4. The next section is for the pot. Put down enough 2" layers to cover the depth of the pot. Then cut a hole in the middle that just fits your mash tun. Cut the hole a little tight and use a propane torch to "seal" the edge so you are not plagued with little styrofoam balls every time you put the pot in/out. My hole is a little off-center but the minimum wall thickness is 3".
5. Cut the styrofoam so there is a 7" layer for the top.
6. Tape the layers that make up the top together so you don't go crazy trying to take the top off. BTW, I also taped the "pot" section together so that the layers don't come apart when I take the pot out.

Note 1: OF COURSE I have a financial interest in Hewlett-Packard! How do you think I got my box?

Second of all, I would recommend getting the stuff to allow 10 gal batches right away if you expect to go that route. If you build an insulated box as I described above, you might need to build that over as well as buying lots of new pots. I don't think that 7.5 gal will be enough for a mash tun for a 10 gal batch though. With my 5 gal stockpot, 8# of grain & 8 qts of water (which is a rather thick mash) takes up about 4 - 4.5 gal.

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

Date: Thu, 28 Oct 1993 08:17:17 -0500 (EST)

From: COCKERHAM SANDRA L@Lilly.com

Subject: Maiden Voyage + gadget help

Last night I brewed a mild and used my new wort chiller for the first time. In my usual fashion, I didn't make sure of details ahead of time. I was going to hook up to the laundry faucet in the basement, but had leaks. Ended up going outside and hooking up to my garden hose. Sooo, one of those neat kitchen faucet adaptors is in order... BUT I have to say, these things are great! If you don't have one, get one! BTW, mine is called Phyllis (groan..). I am modifying a Rubbermaid/Gott 5 gallon water jug for mashing. I bought a spigot at my local homebrew shop to put on it (twist to leave open). I had to enlarge the hole to fit this spigot. The SAD thing is....the threaded part is too short and doesn't go all the way through. I need a longer one! Does anyone know where to get these? Has anyone else had this problem and come up with a good solution?

Thanks,
Sandy C.

From: COCKERHAM SANDRA L (MCVAX0::RX31852)

To: VMS MAIL ADDRESSEE (IN::"homebrew@hpfcmi.fc.hp.com")

Date: Thu, 28 Oct 1993 09:23:05 -0400 (EDT)
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
Subject: airlines, porter, brewbup, Sheath and Vine

Just a few interesting tidbits:

Yesterday my wife tried to take 4 homebrews on American airlines out of Raleigh-Durham and was stopped at security. Although the bottles were capped, since they had no label she was not allowed to bring them into the passenger cabin. They said they could be stowed in the luggage but we declined, fearing depressurization problems.

On the DIScovery channel last night (Oct.27), they had a small piece on salvaging 1825 Flagg Porter from a sunken ship off the coast of England, saving the yeast, bringing it up to "health" for 6 months, and culturing a true porter using a Victorian era recipe.

Re: Swan V. Taylor's request for info on brewpubs in the Chapel Hill area. There are none in Chapel Hill, one in Raleigh (Greenshields)

, and one in the Winston-Salem area (Lagerhead or Loggerhead?) that I know of. the one in Durham (aka:Weeping Radish,etc.) bit the big one!

Also sorry to hear Al's mailorder is shutting down.

Andy Kligerman

Date: Thu, 28 Oct 1993 09:52:39 -0400 (EDT)
From: Scott Benton <sbenton@telerama.pgh.pa.us>
Subject: re: Oysters and sports

In HBD1256 Mark Stickler Internet Mail Name <mstickle@lvh.com> said:

>Just remembered a beer drink I had once. I think it was called a "Rocky
>Mountain Oyster Cocktail". You take a Pilsner glass, drop a tablespoon
>of cocktail sauce in the bottom, drop a raw oyster on top and then fill
>with a can of Coors. The idea is to then chug the whole thing without
>getting sick. The oyster usually travels down the side of the glass
>rather slowly and into your mouth. Not for the faint of heart or queesy.
^.....^

This applies to drinking Coors, oyster or no.

In HBD1257 COYOTE <SLK6P@cc.usu.edu> said:

>About the sig. line re: Orgasms and baseball.
^.....^

Actually, it was basketball, but baseball would likely be more difficult to fake an interest in. Perhaps, since we're enhancing our sensitivity here, Diane would like to rank some of her least favorite sports.

Scott D. Benton sbenton@telerama.pgh.pa.us

Date: Thu, 28 Oct 93 09:40:44 -0400
From: "Phillip Seitz" <p00644@psilink.com>
Subject: Beer hunting in Belgium: Part 7 (General information)

(My apologies if this gets posted twice--with a 4 day wait between posting and appearance I forget. Must be getting a cold...)

Beer Hunting in Belgium: Part 7 of 7

General Information
(by Phil Seitz)

The following information is offered for anybody considering travel to Belgium. These are the bars we like, sources we found useful, and a few additional places we went that you might not find in the guidebooks.

Cafes:

L'Eblouissant. 27, rue Armee Grouchy, Namur. 081/73.71.39.

A small cafe run by a very particular publican. Extensive beer selection, well cared for. Good meals during lunch, with food also available during dinner. Frequent concerts of Irish music. Previously called one of Belgium's best cafes by CAMRA, now relocated due to high rents but still very comfortable. Closed Sundays.

Musee de la Biere (The Beer Museum). 19, rue de la Gare B/2, Lustin, on Route #947. 081/41.11.02

A funky place in a small town. Until last year nobody I know in the area had ever been there, though everybody knew about it. The reason is that it looks a bit weird from the outside. The exterior has hand-painted signs advertising over 1,000 Belgian beer glasses on exhibit, and God knows how many bottles, some of them dating from the 19th century. Looks a little like those roadside attractions advertising plaster-of-Paris dinosaurs and two-headed cows. Admission is 35 francs, which can be applied to a purchase in the, er, gift shop. The gift shop features 11 beers on tap (including the formidable Liefmans' framboise), as well as a good 100-200 in bottles. The interior is crammed with shelves of bottles and glasses, and many of these will actually be of substantial interest to beer geeks. Overall, a very pleasant atmosphere.

If you speak French, the woman who runs the place is famous for being talkative and very well informed with regard to beer issues and developments in Belgium. The cafe is also home to a tasting club, the Guilde des Tates-Biere, whose final exam is rumored to include identification of certain beers by year of production.

Lustin is south of Namur, on the Meuse river. The museum is open weekends and student holidays only, but special openings can be arranged for larger groups.

De Stillegentier. Mechelen.

We did not visit this cafe, but it was recommended to us as stocking nearly all the lambic and gueuze products currently on the market. Hey, we had to save something for next time!

Beer stores:

La Cave de Wallonie. 6, rue de la Halle, Namur
Near the Place au marche de legumes. A specialty beer

store run by one of the brewers of the Brasserie Caracole. The proprietor speaks some English, and if time permits is quite willing to discuss brewing issues and beers.

Drinks Wets. 209 Steenweg op Halle, St. Genesius-Rode.
02/380.32.27

This one's a whopper. We ran into it when we got lost on the way to Beersel, and Jim accurately described it as the Belgian liquor barn. They sell a mind-boggling variety of Belgian beers and beer glasses, as well as selected imported beers. (Good: We found Anchor Liberty. Bad: They stock Rolling Rock.) The proprietors do speak some English, and they take Visa but no other credit cards. You'll need a car to get there, but a truck might be better. The gueuze/kriek selection alone ran along an entire 35-foot wall. Perhaps the most unusual of these was the Gueuze and Kriek Girardin in polypins. Just the thing for Mike Sharp's next party!

Some notes: check expiration dates. Some of the old bottles you'll find are aged; others are just old and out of date, and taste that way. Keep an eye out for the Hanssens gueuze products; we considered these a major discovery, and their mention met with respect from our more knowledgeable Belgian beer sources. The Wets gueuze products are also available (presumably the owners of the store are the Wets of lambic blending fame, though we were told by others that the beer is now made by the still-formidable Brasserie Girardin).

Other stores

1) Spice stores sometimes sell bitter (curacao) orange peel. It's hard and white, and bitter tasting. One such store is L'Herbier in Namur, around the corner from La Cave de Wallonie.

2) Don't forget the ordinary supermarkets. Most of them sell dark and light candy sugar in 1 lb boxes, and many have formidable beer selections, including local brews and glassware. Jereboams (3-liter bottles) are widely available, and the Sarma Star hypermarket outside of Namur must stock at least 100 beers--and the glasses. Keep in mind that a charge for the deposit on each bottle will be added at the cash register. On the other hand, the larger supermarkets take credit cards, so you can spend now and pay later.

Books

We really only used two books and a map as constant reference materials. One book was Michael Jackson's Beers of Belgium, which is available from a variety of sources. The other book was Peter Crombecq's Bier Yaarboek, which is not easy to find (check better bookstores in Brussels and Flanders). The former provided us with general information in a language we could read, and proved to be reasonably comprehensive in scope, if not always providing the obsessive depth we craved. The Crombecq comes in handy here, with detailed information on the breweries (in Flemish), as well as lists of all their products and the names these are sold under. This is extremely useful information that beer hunters can draw upon to make sure they don't unwittingly buy ten bottles of the same beer.

CAMRA now has a good beer guide to Belgium and Holland, which lists much of the above information and includes reviews of cafes. As far as I know copies are only available in England, L'Eblouissant had one.

THATS ALL FOLKS!

This concludes our Belgian series. If you have any questions we hope you'll let us know; Jim [BUSCH@DAACDEV1.STX.COM] may be better for the technical brewing ones, and me for the ones on Belgium in general.

Date: Thu, 28 Oct 93 10:21:53 -0400
From: djt2@po.cwru.edu (Dennis J. Templeton)
Subject: Re: Filth in brewing

Re: Liquid male extract

>>>LME (liquid male extract), and about 1.029 for speciality grains.

> ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

>I guess this must be from a recipe for Smegmabrau.

Hey! Don't you know kids read this group!

Keep it clean! (and then you won't have this problem)

(Dedicated to Diane "Double Dribble" Palme)

dennis

Date: Thu, 28 Oct 93 10:57:17 EDT
From: Spencer.W.Thomas@med.umich.edu
Subject: Judging specialties (was Nut Beer)

r.mcglew3@genie.geis.com writes:

> For anyone that enters a specialty beer in a contest, be aware that
the
> judges in that category are subjected to a lot of widely varying
beers and
> have a hard time picking the right one, the judges' taste preferences
> really are the major factor.

Speaking as one who recently judged specialty beers in a competition, I have to mildly disagree with this statement. We tried hard to evaluate each beer on its merits, according to the "style" it said it was supposed to be. Thus, a "Vanilla Ale" would be expected to have evident vanilla flavor, blending nicely with some malt, and almost certainly low hop flavor (this is where my personal taste may come in, as I can't see vanilla and hops going too well together, although I'm willing to be convinced otherwise -- send bottles!) And, of course, it should be a well-made beer.

Still, the two of us ended up having to negotiate on the top three in the category (as I recall, the first place was "obvious", but there were three beers in contention for the next two places).

And, there were beers that were really hard, because we didn't know what the specialty ingredients "should" taste like. One example was a really nice "wild ginger" beer. It didn't taste anything like ginger, but neither of us knew what "wild ginger" should taste like. In any case, it was a good, well-made, very drinkable beer, that ended up taking fourth place (out of 12).

=Spencer

Date: Thu, 28 Oct 1993 09:14:05 -0600
From: c-amb@csc-sun.math.utah.edu
Subject: Re: PitchTiming

> >What I referred to here as the 'stationary phase' is really
> >the very beginning of the dormant phase. In other words,
> >let you starter ferment out _then_ pitch it. Don't let
> >it sit too long or you'll have other problems.
> >

O.K. I'll bite. What are these other problems. I find that the only way I can effectively use liquid yeast in my schedule is to pitch it into a starter in advance and then brew the moment I have the time. Sometimes it is just after Krausen but other times it is several days after the yeast has fermented out.

-Thanks,
Mark Alston
c-amb@math.utah.edu

Date: Thu, 28 Oct 93 9:41:24 MDT
From: Jason Goldman <jason@gibson.sde.hp.com>
Subject: Re: homebrew club gone stale! oxidation?

> From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
> Subject: homebrew club gone stale! oxidation?
>
> As a member, former vice president and president, and treasurer of
> our local homebrew club over the past half dozen years or so, I have
> been disappointed in the direction the club has gone presently. It
> has turned into more of a socializing and drinking club. Not to be
> too negative, I would like to address this problem in our club
newsletter.
> I'm thus asking for input from people on the HBD to share with me if
they have
> had similar experiences in their clubs, and possible ways to remedy
this
> situation. In particular, I would hope some could share with me some
> of the activities that they partake of at their club meetings besides
> drinking homebrew. Specifically, where are meetings held, do they
> rotate from house to house or restaurant to restaurant? Are
experiments
> done on a club basis? Etc. Since this may be of general interest to
other
> clubs, a reply by digest would seem appropriate. However, responses
can
> be e-mailed to : kligerman%am%herlvx@mr.rtpnc.epa.gov

I am familiar with a number of homebrew clubs, each with varying degrees of formality. The least formal of these would meet in a different member's house each month, had an occasional presentation (every 3rd month or so), and mostly drank and *critiqued* beer and socialized. Other more formal clubs have a specific meeting place, follow a clear agenda for each meeting, always have presentations, and treat socializing as what you do *after* the meeting.

My own club, the Mash Tongues (Ft. Collins) is somewhere in the middle. Over the last year or so, the number of presentations has dropped off a little bit and the club has lost a lot of focus. So what did we do? Well, a number of us who wanted to see more things happen ran for office and are doing something about that. We've been fairly successful at getting the members to contribute ideas and add to our planning sessions so that the club meetings are more interesting. Here are some of the ideas that we've talked about/started:

- * presentations aimed at beginning brewers

Many of our members are just getting started, so presentations on general extract brewing techniques and ingredients are valuable.

- * presentations aimed at sophisticated brewers

Among the more experienced brewers, there is an interest in subjects like decoction mashing and yeast culturing.

- * beer judging sessions

These sessions teach members about flavor/aroma perception and the judging forms, etc.

- * club-only beer selection

We set up a panel to judge which beer should represent our club in the nationals.

- * beer tastings

Some of the beer drinking at our meetings takes place somewhat formally, where a majority of the club members can all taste the beer and offer opinions and feedback.

- * presentations by local (professional) brewers

Here in Ft. Collins, we have a great resource with the multitude of local brewers.

Other presentation ideas include brewing gadgets, cooking with beer, beer styles, a yeast experiment, etc. Until recently, we've been meeting in the back of a local bar (which isn't very good) and before that, we met at the local breweries. We've finally found space with the local homebrew shop so we can meet there regularly starting in January. I think that drinking beer and socializing are an important part of what I want from my club, but certainly not the only thing.

Jason "That's *Mr* Prez" Goldman
jason@gibson.sde.hp.com

Date: Thu, 28 Oct 1993 08:43:36 -0700 (MST)
From: Cisco <FRANCISCO@osmo.CCIT.Arizona.EDU>
Subject: Clarifying in Cornelius Kegs

> Bob Sweeny asks:
> From: SWEENERB@suvx2.memst.edu
>
> Have any of you kegger types tried to add clarifiers directly into the
> keg and what kind of results/problems can I expect, particularly with
respect
> to the use of gelatin? Thanks in advance folks.

>
I used to clarify in my kegs using gelatin. It works fine but leaves a lot of sediment on the bottom that the pickup tube draws upon giving very cloudy beer for quite a while. My cornelius kegs have tapered bottoms so the yeast sediment just kept being drawn to the pickup tube. My solution was to cut one inch off the pickup tube and that cured a lot of the problem. Now I clarify in a glass carboy with gelatin and then transfer after a week to the keg just because it leaves a lot less sludge in the keg. I still cut off an inch on the pickup tubes on any new (used actually) kegs I acquire, that way any amount of sludge stays on the bottom where it belongs, not in your beer (this only wastes about a cup of beer when you've finished the keg). You'll also notice that if you keep your keg cold that any slight appearance of protein haze will settle out after a week and the beer will be sparkling clear, just another great benefit of keggering!

May your beer give you great head!!!!
Cisco (John Francisco)

Date: Thu, 28 Oct 93 9:47:54 MDT
From: npyle@n33.stortek.com
Subject: Hops FAQ, Part 4/5

Hops FAQ, Part 4/5:
- - -

Q: What is dry-hopping? How do I do it? How much do I use? What type? What form of hops?

A: Dry hopping can be defined as adding hops to a cooled wort at sometime during the fermentation process. It adds a fresh hops aroma/flavor to the beer which cannot be matched with hop additions into hot wort. It is not to be confused with finish/aroma hopping, which is done on the hot wort while still in the kettle. The use of a hop-back, where hot wort is passed through the hops, is another form of finish hopping; it is not dry hopping. Dry hopping gives little or no alpha acids to the wort, so it contributes little or no bitterness to the final product.

There are several ways to dry hop, if one considers the variations of making hop teas, etc. The best time to dry hop is generally considered to be after primary fermentation has slowed and little CO2 is being driven off the wort. Dry hopping earlier than this point is inefficient as the volatile hop oils are scrubbed away by the exiting CO2. Also, if using pellets, dry hopping early in the fermentation phase may result in the hops (which will sink to the bottom) being covered with yeast and inefficient extraction of aroma.

The proper length of time for dry hopping is dependent on the temperature. At ale temperatures, 7-14 days of contact time is widely used. At lager temperatures, although little data is available, it seems obvious that longer contact times, on the order of 14-21 days, are called for. It is common to use 0.5 - 2.0 oz. or more in a 5 gallon batch, but as always it is up the individual's preferences.

Fuggles, Northern Brewer, Saaz, Cascades, all Hallertau variants, and many other hops have been used successfully. It should be noted that the aroma of the beer greatly influences the profile, and that the "correct" aroma hop should be used to match the style (i.e. English hops for English ales, German hops for German lagers, etc.). American brewers have traditionally used hops from all

over the globe so European hops, for example, can be used without much fear of an ungodly mismatch.

The first and foremost way to dry hop is to simply put the hops into the fermenter. The most common worry with this method is about infecting a beer which is nearly ready to bottle/keg. Hops are natural preservatives, and infections from this method are unheard of. If loose hops or plugs are used, they will float, and many use a sanitized hop bag and marbles to sink the hops for maximum contact. If pellets are used they will sink, but may be difficult to avoid when bottling/kegging. Also, the pellet hops can be easily covered by yeast falling out of suspension, so they should be added after virtually all fermentation activity has ceased, and a good amount of the yeast has fallen.

Another method used to dry hop is to steep the hops in a warm white alcohol (grain, vodka, etc.) and sometimes water solution for hours or days, then pour this solution into the fermenter. This is a common practice among those who want to protect against the remote possibility of infection with normal dry hopping. It should be noted that as the temperature of the alcohol/water/hops mixture is raised, the effect approaches that of finish hopping, as the most volatile hop oils are driven off.

Adding hop oil, a product recently introduced to the homebrewing market, is another way of "dry-hopping". It should be done after primary fermentation has slowed for the same reasons.

These dry hopping methods, and others, will produce different results, mainly because the desired compounds are so volatile. The variety of reactions taking place during processing and fermentation will affect the results. The "best" method is the one which gives the desired result to the individual homebrewer.

A final note about dry-hopping: the volatile hop compounds will react quickly with oxygen. For this reason, extra measures should be taken to avoid mixing with air during bottling, in order to retain the hop aroma in the bottle for extended periods of time. These extra measures may include the use of CO₂ purging the bottling vessel, very quiet siphoning, oxygen scavenging caps, and possibly delayed capping (up to one hour). This method allows any CO₂ coming out of solution during the bottling process to push the oxygen out of the

bottle before the caps are secured. This method is used by some homebrewers but the results are inconclusive. The simplest method is to use the oxygen scavenging caps, which requires no extra effort and little extra cost. For further reference, the Summer 1993 Zymurgy contains an article by Mark Garetz on this subject.

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Q: What is a "hop-back"? How is it used?

A: A homebrewer's hop-back is a reservoir connected in-line between the kettle and counter-flow chiller. It is filled with fresh hops before the flow is started. The hot wort flows through the fresh hops and is quickly chilled by the counter-flow before entering the fermenter. Many of the volatile hop aroma compounds are extracted and brought into the fermenter with this process. It is generally thought to produce a flavor/aroma profile somewhere between late kettle additions and dry-hopping.

- - -

Q: Can I use fresh hops rather than dried hops? How much do I use?

A: Yes, you can but at best it is a rough guess as to how much. The rule of thumb is to use 6 times as much (by weight) as you would dry hops. A safer rule would be to do this and to only use them for finish/dry hopping. This is because the AA% is unknown, and later additions are less sensitive to AA%. It should be noted that homebrewers have had mixed results when using fresh hops (poor AA approximation for bittering, grassy aroma for finishing).

End part 4/5

Date: Thu, 28 Oct 93 08:47:50 PDT
From: tima@wv.MENTORG.COM (Tim Anderson)
Subject: Trip Report

My wife and I just got back from 2 weeks in Belgium and The Netherlands, mostly Belgium.

Q: Is Belgium beer heaven?
A: Yes.

It wasn't a beer hunt, just vacation, but I'm guessing that I consumed 30 or 40 different beers, mostly in towns and small cities, in whatever tavern or cafe we happened to be walking past when hunger or thirst happened to strike.

High points:

- o They ALWAYS served the beer in the appropriate glass. Not just the right size and shape, but it also had to have the beer's logo on it.
- o Rochefort 8.
- o The lady at the desk in our hotel in Leuven was very proud of the fact that Pierre Celis used to brew beer in her town. She was pleased that I knew of his beer.
- o The coffee.
- o Chimay Bleue was about 2 bucks in a bar, a little over a dollar (33 cl bottle) in the grocery store (about the same as American Bud).
- o Budvar in the grocery stores.
- o We rented bikes in Oudenaarde and stopped for a breather at a tavern way out in the sticks. I was sucking on a Liefmanns Oud Bruin, and my frau was attacking a Liefmanns Kriek, both "van het vat" (on tap). She was the designated kriek taster; this one turned out to be her favorite. The beer delivery guy dropped off a couple of kegs, proceeded to sit down to the bar and down a couple, hopped back in his truck and was off to his next stop.
- o Bartenders are mostly quite knowledgeable about the beer they serve. And they drink it while serving.
- o Maastricht.
- o On schedule trains.
- o Domus, a brewpub in Leuven.
- o Brand Emperor.

Low points:

- o Belle Vue anything.

- o Most Belgians drink Jupiler (the country's industrial swill) or Stella Artois (a regional industrial swill).

- o Amsterdam.

Q: Is Heineken better in The Netherlands?

A: I'd probably have to be there at least a month before I could work my way down to a Heineken. Although I did try their Tarwebock, and it didn't suck.

I'll submit my impressions of Amsterdam in alt.sex.drugs.rock.and.roll.

tim

End of HOMEBREW Digest #1260, 11/01/93

Date: Thu, 28 Oct 93 9:51:56 MDT
From: npyle@n33.stortek.com
Subject: Brass in the boil

A week ago, Andrew asked about brass in the boil. I have a brass fitting inside of my boiler as well, so I'm also curious to hear the answer. As far as your ball valve attached to the outside, if it gets anywhere near as hot as mine, it will be sanitized. I put a 4" nipple between my pot and valve to get it away from the heat (I also hang a wet rag over the nipple to keep it cooler). I use a CF chiller with this system, though, so mine gets piping hot wort run through it (no sanitation worries).

Old Lucifer update: 1.036 after 5.5 weeks. The yeast (started with Wyeast London Ale, pitched Wyeast British Ale later) is apparently giving up, since this beer is starting to get very clear. As much as I hate to do it, I may have to punt (i.e. pitch a frog yeast). And that's SG for the nitpicky coyote!:)

Cheers,
Norm

Date: Thu, 28 Oct 93 9:55:40 MDT
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Re: Thoughts on a recipe for standard American beers...

> I am guessing that the standard American mass-produced beer is using a
> bunch of corn sugar instead of malt.... Am I on the right track, or
are
> these beers made with extremely light malt instead.

You're close. Most American mega-brewers use large percentages of corn or rice, but usually flaked or powdered grains rather than sugar. The corn or rice adjuncts are converted to sugar by the barley enzymes. This is one way of providing more fermentables without adding much color or flavor (or cost; processed sugar is comparatively expensive). Too much sugar can also produce undesirable "cidery" flavors in your beer.

Also, the mega-brewers (at least around here, Coors and Anheuser-Busch) often have specially grown varieties of barley that are specially malted. Typically, the malt is not cured, or roasted after drying, resulting in malt that is paler than you can usually find at the homebrew shop.

My advice on making a mega-brew clone: use the palest malt you can find, and use a large portion (maybe 25-30%) of flaked corn or rice extract. Most mega-beer also has less alcohol than a typical homebrew, so shoot for a lower gravity beer, maybe 1.035-40 OG. This means a higher ratio of water to grain, which will also lighten it.

Your beer may not end up quite as pale as a Bud, but I'd rather have my homebrew a few shades darker in color and a few shades higher in taste!

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Thu, 28 Oct 1993 11:57:11 -0400
From: esonn1@cc.swarthmore.edu
Subject: Carbonation

What's up?

I'm currently brewing a brown ale and would like to ask the HBD brain trust about how much I should fee my yeast before bottling. I have always used 3/4 cup of priming sugar for a 5 gallon batch. I read in the Papazian book that you could use as much as one cup, but that you have to chill the bottles and risk some gushers. Should I read "gushers" as bottle explosions, or does it refer to overcarbonation? (I have never had a bottle explode on my and I would rather keep it that way) I would like this beer to carbonate earlier than my other batches, if possible. Once ready, the beer will not stay around long because I'm brewing it for a party, so I'm not worried about it sitting too long and building up too much pressure. Would using extract rather than priming sugar make it carbonate faster? Would I be better off just using the usual 3/4 cup of sugar and making sure the bottles are at the higher end of the suggested temperature range? Should I just stick with my old tried and true method and push off the party an extra week?

Responses through the digest or directly to me would both be fine.
Thanks in advance.
Eugene
esonn1@cc.swarthmore.edu

Date: Thu, 28 Oct 1993 16:16:29 +0000
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)
Subject: Sorbate, .sigs

COYOTE <SLK6P@cc.usu.edu> writes:

>meade@readmore.com asked about:
>Sorbate/Sulphate
>
>* Potassium Sorbate is a "stabilizer" It will not STOP an
>active ferment but will inhibit initiation of growth. Both
>yeast and bacteria.

Not quite true. Although sorbate does inhibit yeast (only a small amount is needed to prevent your starter culture from working on your wort/must) it does *not* inhibit bacteria. Well, not all bacteria if it does stop some.

In particular, some strains of Lactobacillus remain unaffected. In wine/cider making, sorbate should be avoided in the initial ingredients. It can be added at (or near) the end of ferment in order to stabilise a brew containing residual fermentable sugars - you might be wanting a sweet cider. But in wine making, it should *always* be used in conjunction with campden tablets. (That might also be true for cider!). The reason: sorbate can be decomposed, by a bacterium, to create geraniol which gives a very strong smell of geraniums; the campden is needed to knock out the bacteria.

>You Don't want cider with sorbate. Find an orchard and get
>the fresh pressed- unfiltered stuff. Much worth it!

That's very good advice.

And dspalme@mke.ab.com (Diane Palme x2617) now signs off with:

"In the beginning, it was the Plan."

Now that's not funny! Not the slightest hint of the wry little smile twitched the corners of my mouth like it used to when Diane previously wrote. :-(
(snip, snip... <- that's the sound of my removing the bit about humourless moral policemen and PC speakers. It's the wrong forum. Shrug shoulders, carry on ...)

It's not true either Diane. Didn't John the Evangelist start

"In the beginning was the wort, and the wort was good"

Geoff

Date: Thu, 28 Oct 93 08:51:04 PDT
From: ELQ1%Maint%HBPP@cts27.comp.pge.com
Subject: DRE, Wyeast, Etna lables

Hello All,

In HBD #1257 Vic asks about brewing a Bud like beer, and its recipe.
I did a batch very similer with fair results, [although more Miller
like]
and if you notice the ingredients on a Bud it says right there, Rice
Extract, I used 3 lbs DRE or Dried Rice Extract, 3 lbs DME Light Aust.
and
pitched with Wyeast #2308 Munich, useing DRE instead of sugar will
improve
crispness and will prevent the nasty cider taste of the sugar.

I have used both Wyeast #2308 Munich and #2306 Bavarian and have had
good
results, and strange fermentation rates, but still had good brew.

One comment on using Ammonia to remove lables, works great one them,
except, an Etna Lager lable, they use a rubbery glue, the ammonia
helps,
butt... let'em soak a day or two.
p.s. M. Nelson@HSU? your local, call me 4-8659

Ed Quier, ELQ1@MAINT@HBPP

Date: Thu, 28 Oct 93 10:42:39 MDT
From: npyle@n33.stortek.com
Subject: Mash Out (again!)

I had to add some ammo to the recent mash out wars. Note that I do not mash out; I'm looking for reasons to do it. In that vein, I found these sniglets in the Winter 1992 Zymurgy, in an article titled "Beer Stability" by Micah Millspaw (formerly of HBD-fame) and Bob Jones (currently of HBD-fame). Reproduced without permission (typos are mine):

"What is an unstable beer and why should we be concerned about not brewing one? Unstable beers are ones that tend to throw a haze and later have flavor staling and oxidation problems. Oxidation plays an important role in the formation of protein haze and melanoidins function as antioxidants to prevent the oxidation of protein. Melanoidins are compounds formed by amino acid - carbohydrate reactions induced by heat. Oxidation also plays an important part in the production of colloidal haze, hence the name "oxidation haze", first coined by Helm, a German brewing scientist, in the early part of this century. Colloids are particulate matter in a solution. Moreover, the formation of chill haze is considerably increased by oxidation."

"Unstable colloids promote chill haze and permanent haze in beer."

"Melanoidins are stable complexes formed at high (mash-out) temperatures, they are colloidal in nature and are powerful reducing agents giving an acid reaction in aqueous solutions."

"Their colloidal nature enables them to 'protect' unstable colloids present in beer and to prevent haze formation. At the same time, melanoidins are powerful reducing agents and this too can prevent beer from throwing a haze. In addition, the acid character of melanoidins helps to improve the quality of beer. Melanoidins formed at 170 degrees F (76.5 degrees C) are more stable than those formed at the lower temperatures of conventional mashing. Adding specialty malts only in the mash-out can make the mash more efficient by maximizing the formation of melandoidins, optimizing saccharifications and eliminating steeping vessels and/or grain bags."

"In 1922, Visez, a brewing scientist at Louvain, in Belgium, showed that dextrans also act as protective colloids to diminish colloidal haze. This means that beer with higher dextrin levels are much less subject to colloidal haze than beers with low dextrin levels."

"This method of using dark and crystal malts (adding them at mash-out) will increase the quantity of melanoidins in your finished beer, thereby leading to smoother and rounder flavors from the specialty grains as well as more stable and clearer beers. The use of this mash-out technique also can reduce metallic flavors that often occur in dark beers but are not actually caused by metal ions in the brewing process."

So, according to this article (color commentary in parentheses):

- 1) Oxidation plays an important role in haze and other stability problems (no surprise here),
- 2) Unstable colloids promote haze,
- 3) Melanoidins are colloidal in nature, and when stable, can protect against haze and other stability problems, (melanoidins are our friends)
- 4) Melanoidins formed at mash-out temperatures are more stable than those formed at normal mash temperatures, (mash-out helps our friends?)
- 5) Specialty grains added at mash-out help with this stable melanoidin formation, and contribute to smoother, more stable beer (I knew about the smoothness part, didn't know it would help with stability)
- 6) The higher the dextrin level, the less colloidal haze (mash-out stops dextrans from breaking down)

Interesting stuff, eh? Maybe mash-out helps? One could argue that if proper procedures are followed with respect to HSA avoidance, the mash-out may not be as critical. On the flip side, I've had haze problems in the past with very careful attention to HSA (of course, there are other factors involved in hazes). If I continue to have haze problems, I may find a way to do a proper mash-out as an experiment. I highly recommend this article as well as George Fix's HSA article in the same issue. They go into much more than what I've shown (I just wanted to provide some info on the current discussion).

Norm

Date: Thu, 28 Oct 1993 10:08:41 -0700
From: haist@cogsci.UCSD.EDU (Frank Haist)
Subject: Kraeusening

Next weekend I'm going to make my initial foray into all-grain brewing, but first I'd like to tap some of sage advice from this group. My current set-up for fermenting includes two 5-gallon carboys. After spending the money for most of the all-grain equipment, I decided to wait on a 7-gallon cb. Based on most recipes it looks like I can expect about 5.5 gallons of wort after the boil. that will yield about 5 gal after fermenting blowoff. I'm planning to take the initial 1/2 gallon excess, store it (via standard canning procedures for sanitation), and then use it to kraeusen the beer prior to bottling. This seems to have three immediate advantages: 1) I can continue my preferred method of primary and secondary fermentation in glass carboys, 2) I will end up with a true "all-malt" ale, and 3) the final volume will still be about 5 gallons. I have two main questions. What are people's experiences, good and bad, with kraeusening? Second, how accurate is the equation given by Papazian for determining the amount of wort (I guess now called gyle) in getting similar carbonation to 3/4 c corn sugar (Appendix 3, pp. 331-332)? Thanks in advance.

- ---Frank
haist@cogsci.ucsd.edu

Date: 28 Oct 1993 14:56:24 -0500 (EST)
From: "SHAMAN@WHARTON" <SHAMAN@wharton.upenn.edu>
Subject: HELP

I'm a new brewer working on my second batch. I started this one 7 days ago and so far there has been no fermentation that I can detect-- the airlock hasn't bubbled once. A few days ago someone suggested adding more yeast but only after starting some of it in warm water. The yeast bubbled in the water and I poured it into the wort, but still nothing. Anyone have any suggestions?

Thanks.
Patrick Kelly
shaman@wharton.upenn.edu

Date: Thu, 28 Oct 93 13:04:21 MDT
From: bacco@md.fsl.noaa.gov (Corby Bacco)
Subject: Re: Late Kettle Hop Additions

O.K. I'm a little behind on my HBD (lot of traffic on Lambic digest lately).

In Tuesday`s HBD Norm asked about extracting more bittering compounds due to the bulk of the wort sitting at a higher temp longer with a counter-flow setup. During a recent beer tasting held here in Boulder I got to talk with a brewer from one of the newer micros in the area (Lonetree, I believe) who is a homebrewer turned pro. I asked him about the transition and one of the things he mentioned was having to adjust his hop schedule because hops added late at the micro actually ended up being in contact with hot wort for quite some time while it passed through the heat exchanger etc. and therefore bittering compounds were extracted and the final beer was more bitter than he had wanted. I believe his solution was to cut back on late additions of hops.

Hope this helps,
Corby

Date: Thu, 28 Oct 93 14:17:53 EDT
From: chuck@synchro.com (Chuck Cox)
Subject: More Beer. Less Tax.

The Libertarian Party of Massachusetts has some cool T-shirts left over that they made for their booth at the New England Brewers Fall Festival.

\$13 (\$10 donation + \$3 S&H) gets you an extra large (only) black on white Hanes Heavyweight 50/50 T-shirt. It shows the statue of liberty holding a beer mug with the legend "More Beer. Less Tax." across the top in large letters, and "Libertarian Party of Massachusetts" across the bottom in tiny letters.

Send your check made out to "Libertarian Party of Mass" to:
Lee Nason, LP Mass, 515 Revere Beach Blvd. #808, Revere, MA 02151

- - -

Chuck Cox <chuck@synchro.com>
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

Date: Thu, 28 Oct 93 11:57:52 CDT
From: hplabs!mcdcup!tellabs.com!don
Subject: Re: scraping hops

> Scraping hops from the sides of the kettle...

I always scrape them back in. Even if you use bags like I do, some always seem come through the bags. If you don't shove them back in you can't expect the boil to extract their bitterness.

don

Date: Thu, 28 Oct 1993 13:59:33 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: IPA/Keg Clarity/Sigs/Distill COPS NOT!

montgomery_john had an IPA Request.

* no one answered?! Jeeez, if this ain't one of the most
common types in the Cats Meow don't know what is! Pale Ales...
A general recipe I've repeated (but never exactly) several times

5 gallon mash

8 # 2 row pale malt (preferably English malt)

1.5 # light crystal (20-40L)

BOIL: 1 oz chinook hops (~10 alpha)

1.5 oz Cascade (or centennial) 4-6 alpha

Finish 1 oz Cascade

A good pale ale yeast. English brewery maybe.

The key- keep it simple, light, and HOP THE HELL OUT OF IT!
I really like the grassy/flowery bouquet of cascade. Several
variations in hops can be used, but make it bitter, and add
lots of finishing hops. If you want extract, Williams english pale
is probably a good one.

-John Palmer's new sig.line:

>** I think sex is more fun than basketball, too.**

** Fishing can be a tossup, though. **

*** (Depends on which is biting better) *** OUCH!! " Pain Captain! "

*Makes me think of that look on Picard's face when that Cardacian (sp?)
interrogator kept pressing the red button on the remote! Sorry wrong
group!

Subject: clarifying in a keg

>Have any of you kegger types tried to add clarifiers directly into the
keg and what kind of results/problems can I expect,...

* I haven't practiced this. I live in a cloud. BUT I would
reccommend adding the clarifier to the carboy- let it sediment, then
rack OFF of the sediment. Excess goop in the bottom of a keg can
keep your beer cloudy- or worse, clog the exit valve. Bad news!
I would think part of the idea here is to keep sediment OUT of the keg.

Diane says:

>It is refreshing to know that a woman is allowed to have a sense
of humor, and even more so, <gasp!> to express it. ...snip...I'll try to
come up with an even better .sig. For the person who was offended, well,
um, pffffftt! ;-P :) :-I :-D

* Well said! Right-o! I too think a woman should have the right
to express humor, and experience orgasms as they see fit! Isn't
it in the constitution somewhere? ...pursuit of happiness and
whatnot! Looking forward to the new sig. Bound to be a winner!

NOTE: THIS coming from the guy who "agrees" with that COPS show. NOT!!!

Mike Fertsch cautions:

>Be VERY careful modifying pressure cookers. High pressure steam can be

dangerous! The last thing you need is a hose rupturing, burning yourself.

* Oh come-on Mikey. What worry? We brewers are immunized from all harm by the magical virtues imbibed with the beverages we brewed! Far would it be from me to express or agree with cautions and safeguards!

BUT REALLY: Good point. Propane burns can be bad too. Always wear shoes when transferring boiling water around. Ask my left foot!

PUBLIC NOTICE: I have been accused of agreeing with the show COPS. Now hold on just a minute there buddy. Don't put words or anything but homebrew in my mouth! I stated (w/o proper proof) that there "could" be "potential" dangers involved in distilling. Steam can KILL! for one. And I've seen some agreement that depending on what's mashed or added after the fact, harmful items can be included in moonshine. I'm SURE the government is greedy, and want taxes. OF course! BUT... sometimes there are reasons for laws and regulations. Just ask the guy who lit the Altadena fire and DAMNED NEAR burned my parents house down (neighbors on either side are GONE!) yesterday! I might never have been able to inherit all those pewter beer steins they have and quaff my way to severe brain damage!

I DO NOT AGREE WITH THE SHOW COPS. I DISAGREE WITH THE WHOLE CONCEPT OF THE SHOW. Protraying violent/graphic scenes of husbands bashing wives with baseball bats and what not (oh that's americas most wanted...)

and invading peoples homes- many of whom turn out to be innocent.... I don't think the show should be on the air. I don't think they have been fair to the art of homebrewing. I even think people should have the right to grow plants if they want to. I personally wouldn't reccommend trying distilling at home w/o proper knowledge and equipment. I do encourage homebrewing, even of wines! I wouldn't tell someone how to change a light bulb w/o first cautioning them to turn OFF the switch FIRST! Common sense. Take it as you will.

Now-- off my soapbox...Sorry for any indication of public flaming. I've seen more than enough flames in the last day to last a lifetime! Tanx CNN

FYI: My cheap dictionary defines DISTILLATION as the process of separation by vaporizing then condensing a liquid. I DON'T think that Ice beer, or any concentration of that type is considered Distilling, according to the definition. That is not to say that it is legal. I think it is less "potentially hazardous", unless you stick your tongue to the ice...oooooh that smarts! And if cops invaded your house and confiscated your latest zymurgy I don't think they'd bust you for a bucket of frozen beer they way they'll take you down for your cooling coil! So...that said. I'll shut up and crawl back in my hole now.

//////////////////// Run THAT up you flagpole why dontcha! //////////////////////
/
~~~~~John (The Rambling Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~  
~  
////////////////////////////////////  
/

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Date: Thu, 28 Oct 93 13:18:00 -0600  
From: phil.brushaber@lunatic.metronet.com (Phil Brushaber)  
Subject: Dopplebock

I am currently brewing a Dopplebock and am hoping for a final flavor profile similar to Salvator. I've got a few questions related to this project and thought you could help me out.

1. How do you get that German super-malty flavor?

My recipe was based pretty much on Miller's suggestion. My grain bill (for 6.5 gallons) was something like:

4# Alexander's Pale Malt extract  
6# American 2-row  
3# German Munich  
2# American Cara-Pils  
2# 70L Crystal Malt

My hopping (7HBU in 5 gals) was exclusively German Hallertau, and no finishing hops.

Can I expect to get that malty flavor. Or should I have used some other ingredients?

2. Attenuation of yeast

I used Wyeast Bavarian as my yeast, and used a one gallon starter. I am told that you can expect about 75% attenuation. Does this refer to how much of the fermentables it will process regardless of alcohol in the environment? 75% attenuation would imply that it would take a 1.040 brew to about 1.010 (I have found this to be true, OK maybe 1.014). Can I expect this yeast to take my 1.080 start down to 1.020 (which is where I would like it.)?

3. Speed of fermentation

This dopplebock is fermenting at 50°F. In five days it has gone from 1.080 to 1.040, does this seem right? What's your best guess on how long it will take to get to 1.020? I don't want to get my expectations too high.

Thanks!

... (C) Brushaber Brewing Ltd.  
\_\_\_ Blue Wave/QWK v2.11

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Date: Thu, 28 Oct 93 19:21:16 -0700

From: eurquhar@sfu.ca

Subject: "Scotch Ale" by Greg Noonan

Looked through the new Classic Beer styles book "Scotch Ales by Greg Noonan". It seemed good but I was wondering what the collective opinion of the HBD readers was. Is it worth buying ?

Eric Urquhart (eurquhar@sfu.ca)  
Centre for Pest Management,  
Dept. of Biological Sciences  
Simon Fraser University,  
Burnaby , B.C. Canada

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Date: Thu, 28 Oct 1993 17:57:12 -0500  
From: Bruce.Feist@f615.n109.z1.fidonet.org (Bruce Feist)  
Subject: Homebrew Digest

Andy Kligerman wrote:

h> Subject: homebrew club gone stale! oxidation?

AK> As a member, former vice president and president, and  
AK> treasurer of our local homebrew club over the past half  
AK> dozen years or so, I have been disappointed in the direction  
AK> the club has gone presently. It has turned into more of a  
AK> socializing and drinking club.

I'm half the newsletter editor of BURP (Brewers United for Real Potables)  
, a  
Washington DC metro area homebrew club. We have this problem as well --  
if it  
is indeed a problem; I'm not completely convinced of that (I'll get back  
to  
this). Our club is a large one, with around 300 members; we can easily  
have  
over 60 people at any given meeting. This introduces problems of its  
own; it  
can be difficult trying to do something educational with this many  
people.

We're constantly experimenting with new things to do. We've had  
educational  
programs at the meetings (for instance, identification of off flavors via  
doctored beers, and culturing yeast), and also competitions both at the  
meetings  
and offline. The meetings, BTW, are almost all held at members' homes.

There are also other events which don't occur at the meetings, and which  
may not  
be formally associated with the club. For instance, some of our members  
occasionally have private beer tastings at their homes. Another example:  
our  
Most Esteemed Minister of Education, the illustrious Rick Garvin (are you  
reading this, Rick?), is currently holding a series of classes in beer  
judging,  
which is subsidized by BURP.

Above I indicated that I wasn't sure that the bias during meetings  
towards  
drinking and socializing was such a bad thing. When viewed in  
conjunction with  
the other activities, it works out well. The large groups are best  
suited for  
exactly that; for the educational events which are held at meetings, a  
sub-group  
splits out for a while. That's good because there aren't all that many  
topics  
that would really be appropriate for \*everyone\*. Meanwhile, the drinking  
lets  
us know what everyone is brewing, which is interesting, and the  
socializing can  
lead to more offline activities.

Best club I ever joined!

Bruce

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Date: Fri, 29 Oct 1993 01:56:27 -0600 (MDT)  
From: J. Michael Diehl <mdiehl@triton.unm.edu>  
Subject: Beer drink...

I recall once having a "black and tan." I just wish I could remember what was in it. It was a dark beer and a light beer floating on each other. Wonderfull drink, if I'm remembering it right. Any one know how to make one?

Lagers,

|                          |  |                                            |
|--------------------------|--|--------------------------------------------|
| J. Michael Diehl ;^)     |  | *The 2nd Amendment is there in case the    |
| mdiehl@triton.unm.edu    |  | Government forgets about the 1st! <RL>     |
| Mike.Diehl@f29.n301.z1   |  | *God is a good Physicist, and an even      |
| .fidonet.org             |  | better Mathematician. <Me>                 |
| al945@cwms9.ins.cwru.edu |  | *I'm just looking for the opportunity to   |
| (505) 299-2282 (voice)   |  | be Politically Incorrect! <Me>             |
| Can we impeach him yet?  |  | *Protected by 18 USC 2511 and 18 USC 2703. |

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Date: Fri, 29 Oct 93 7:49:22 EDT  
From: Jim Grady <grady@hpangrt.an.hp.com>  
Subject: Re: hops & counterflow

Norm Pyle and Jim Busch have both mentioned that a lot of aromatics can be lost from hops if they are added at the end of the boil and you use a counterflow chiller.

I just bought the gadgets special issue of zymurgy. Kinney Baughman has an article about building a hop back. This is to allow the brewer to add hop aromatics and then immediately chill the wort with a counterflow chiller. In this case, the beer is not exposed to air when the oils are being added to the volatiles cannot escape. This might be a good alternative if you want to continue using a counterflow chiller and get good hop aroma. I believe Kinney said that this is what Sierra Nevada does to get the hop aroma in thier beers (I've also heard that they dry hop). I'm sorry, I do not have my copy here; Kinney, did I misquote you?

WARNING! Once again, I am offering advice from something I read and have not tried yet!

- - -

Jim Grady | "Root beer burps don't have to be said 'Excuse me'."  
grady@hp-mpg.an.hp.com | Robert Grady, age 4.75

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Date: Fri, 29 Oct 1993 05:40:33 PDT  
From: John\_D.\_Sullivan.wbst311@xerox.com  
Subject: Re:Beer Shelf Life

>Tom Schwendler asks:Other than filtration or  
pasturization, are there ways the homebrewer can increase the shelf life  
of bottled beer?

I have noticed quart bottles stay fresh much longer than 12 ozers. I'm  
not sure  
if it's due to less headspace/volume or what. Whaddaya think?

John

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Date: Fri, 29 Oct 93 7:52:48 MDT  
From: npyle@n33.stortek.com  
Subject: Hops FAQ, Part 5/5

- - -

Q: What type of hops are available to the homebrewer? Where are they grown? What do they taste/smell like? Who uses them in commercial beers? How much bitterness do they contribute? How do I use them? What are good substitutes?

A: The following table lists many common hops available to the homebrewer:

\*\*\*\*\*  
\*\*\*\*\*

The following hops are generally considered aroma hops although in recent years they have started to gain a following in the homebrew community for bittering as well:

\*\*\*\*\*  
\*\*\*\*\*

Name: CASCADE  
Grown: US  
Profile: spicy, floral, citrus (esp. grapefruit) aroma  
Typical use: bittering, finishing, dry hopping for American style ales  
Example: Sierra Nevada Pale Ale, Anchor Liberty Ale, Old Foghorn  
AA Range: 4.5 - 7%  
Substitute: Centennial

Name: CRYSTAL (CFJ-HALLERTAU)  
Grown: US  
Profile: mild, pleasant, slightly spicy  
Typical use: aroma/finishing/flavoring  
Example: ???  
AA Range: 2 - 5%  
Substitute: Imported Hallertau, Mount Hood, Liberty.

Name: EAST KENT GOLDINGS  
Grown: UK  
Profile: rounded, pungent aroma  
Typical use: bittering, finishing, dry hopping for British style ales  
Example: Young's Special London Ale, Samuel Smith's Pale Ale  
AA Range: ???  
Substitute: BC Goldings, English Fuggles

Name: FUGGLES  
Grown: UK, US, and other areas  
Profile: mild, soft, floral aroma  
Typical use: finishing / dry hopping for all ales, dark lagers  
Example: Samuel Smith's Pale Ale, Old Peculiar, Thomas Hardy's Ale  
AA Range: 4 - 5.5%  
Substitute: East Kent Goldings, Willamette

Name: HALLERTAU HERSBRUCKER  
Grown: Germany  
Profile: pleasant, mild aroma

Typical use: finishing / dry hopping for German style lagers  
Example: ???  
AA Range:3 - 5%  
Substitute: Hallertau Mittelfrueh, Mt. Hood, Liberty, Crystal

Name: HALLERTAU MITTELF RUEH  
Grown: Germany  
Profile: pleasant, spicy, mild herbal aroma  
Typical use: finishing / dry hopping for German style lagers  
Example: ???  
AA Range:3 - 5%  
Substitute: Hallertau Hersbrucker, Mt. Hood, Liberty, Crystal

Name: LIBERTY  
Grown: US  
Profile: fine, mild aroma  
Typical use: finishing / dry hopping for German style lagers  
Example: Pete's Wicked Lager  
AA Range:3 - 5%  
Substitute: Hallertau Mittelfrueh, Hallertau Hersbrucker, Mt. Hood, Crystal

Name: LUBLIN  
Grown: Poland  
Profile: reported to be a substitute for noble varieties.  
Typical use: aroma/finishing  
Example: ???  
AA Range:2 - 4%  
Substitute: Saaz, Hallertau, Tettnanger, Mount Hood, Liberty, Crystal.

Name: MT. HOOD  
Grown: US  
Profile: mild, clean aroma  
Typical use: finishing / dry hopping for German style lagers  
Example: ???  
AA Range:3.5 - 5.5%  
Substitute: Hallertau Mittelfrueh, Hallertau Hersbrucker, Liberty, Tettnanger

Name: NORTHERN BREWER  
Grown: UK, US, Germany (called Hallertau NB), and other areas  
(growing region affects profile greatly)  
Profile: fine, fragrant aroma; dry, clean bittering hop  
Typical use: bittering and finishing for a wide variety of beers  
Example: Old Peculiar(UK), Anchor Liberty(US), Anchor Steam(US)  
AA Range:7 - 10%  
Substitute: ???

Name: SAAZ  
Grown: Czechoslovakia  
Profile: delicate, mild, floral aroma  
Typical use: finishing / dry hopping for Bavarian style lagers  
Example: Pilsener Urquell  
AA Range:3 - 4.5%  
Substitute: None

Name: SPALT  
Grown: Germany/US  
Profile: mild, pleasant, slightly spicy  
Typical use: aroma/finishing/flavoring  
Example: ???  
AA Range:3 - 6%  
Substitute: Saaz, Tettnanger.

Name: STRISSELSPALT  
Grown: France -- Alsace area  
Profile: medium intensity, pleasant, similar to Hersbrucker  
Typical use: aroma/finishing  
Example: ???  
AA Range:3 - 5%  
Substitute: Hersbrucker, German Spalt

Name: STYRIAN GOLDINGS  
Grown: Yugoslavia (Fuggles grown in Yugoslavia), also grown in US  
Profile: similar to Fuggles  
Typical use: bittering, aroma for a wide variety of beers, popular in Europe  
Example: ???  
AA Range:5.5 - 7  
Substitute: Fuggles, Willamette

Name: TETTNANGER  
Grown: Germany, US  
Profile: fine, very spicy aroma  
Typical use: finishing / dry hopping for German style lagers  
Example: Gulpener Pilsener  
AA Range:4 - 6%  
Substitute: Saaz, Spalt

Name: WILLAMETTE  
Grown: US  
Profile: mild, spicy, floral aroma  
Typical use: finishing / dry hopping for American / British style ales  
Example: Redhook ESB  
AA Range:4 - 6%  
Substitute: Fuggles

\*\*\*\*\*  
\*\*\*\*\*  
The following hops are generally considered bittering hops:  
\*\*\*\*\*  
\*\*\*\*\*

Name: BREWER'S GOLD  
Grown: UK, US  
Profile: poor aroma  
Typical use: bittering for ales  
Example: ???  
AA Range:8 - 9%  
Substitute: Bullion

Name: BULLION  
Grown: UK, US  
Profile: poor aroma  
Typical use: bittering hop for British style ales, perhaps some finishing  
Example: ???  
AA Range:8 - 11%  
Substitute: Brewer's Gold

Name: CENTENNIAL  
Grown: US  
Profile: spicy, floral aroma, clean bittering hop (Super Cascade?)  
Typical use: general purpose bittering, aroma, some dry hopping  
Example: ???  
AA Range:9 - 11.5%  
Substitute: Cascade



Name: CHINOOK  
Grown: US  
Profile: heavy spicy aroma, strong bittering hop, astringent in large quantities  
Typical use: strong bittering  
Example: ???  
AA Range:12 - 14%  
Substitute: Galena, Eroica, Brewer's Gold, Nugget, Bullion

Name: CLUSTER  
Grown: US, Australia  
Profile: poor, sharp aroma, clean bittering hop  
Typical use: general purpose bittering (Aussie version used as finishing hop)  
Example: ???  
AA Range:5.5 - 8.5%  
Substitute: Galena, Cascade, Eroica

Name: EROICA  
Grown: US  
Profile: clean bittering hop  
Typical use: general purpose bittering  
Example: ???  
AA Range:12 - 14%  
Substitute: Northern Brewer, Galena

Name: GALENA  
Grown: US  
Profile: clean bittering hop  
Typical use: general purpose bittering  
Example: ???  
AA Range:12 - 14%  
Substitute: Northern Brewer, Eroica, Cluster

Name: NUGGET  
Grown: US  
Profile: heavy, spicy, herbal aroma, strong bittering hop  
Typical use: strong bittering, some aroma uses  
Example: ???  
AA Range:12 - 14  
Substitute: ???

Name: PERLE  
Grown: Germany, US  
Profile: pleasant aroma, almost minty bittering hop  
Typical use: general purpose bittering for all lagers except pilsener  
Example: ???  
AA Range:7 - 9.5%  
Substitute: ???

Name: PRIDE OF RINGWOOD  
Grown: Australia  
Profile: citric aroma, clean bittering hop  
Typical use: general purpose bittering  
Example: ???  
AA Range:9 - 11%  
Substitute: ???

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\*\*\*\*\*

End, part 5/5  
End, Hops FAQ, Rev. 2

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Date: Fri, 29 Oct 1993 10:04:50 -0400 (EDT)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: Jack & the perfect chiller

> From: arf@mcs.com (Jack Schmidling)  
> Subject: Chillers  
>

It is unfortunate that those who do not read rec.crafts.brewing missed the recent great debate on immersion vs counter-flow chillers. Kinney Bauman did an admirable job of defending counter-flow in light of its obvious shortcomings and naturally lost to the Lighthouse of Wisdom and Truth.

Not this again!!

> I won't re-hash the whole argument here but in summary, not a single, UNARGUABLE advantage could be brought in defense of counter-flow for home

MY UNARGUABLE ADVANTAGE TO A COUNTERFLOW CHILLER: IT TRANSPORTS MY CAST WORT FROM MY SUDHAUS TO MY FERMENTATION AREA, WITHOUT RISK OF INFECTION. It also uses less time and water (for my volume of brewing). By using this technique, I can run all kinds of caustics/acids/boiling water through a permanently installed pipeline, and rinse hot water through, diluting the bitter wort.

> homebrewers. The counter-flow "snobs" are simply wrong on this one.

Thats it, Jack has spoken, I must trash my equipment, send a Easycheck to the EasySalesman, get a EasyBrewery, and make easily chilled beer. Boy was I stupid to build my own brewery, when Jack had all the answers for me.

> wort stays hot. The issue CAN be, how hot? If it falls below pasturization temp and is open to the air, there is a risk of contamination. If it stays near boiling, it is no worse than extending the boil that amount of time. And keep in mind that PU simply air cools the wort till it reaches lower temps.

Probably garbage statements, certainly not a big issue if you have plenty of clean healthy yeast to pitch (like PU).

> To me, the most obvious disadvantage of the counter-flow chiller is that most of what would have stayed behind in the kettle ends up in the fermenter unless one does an additional settling step.

Where it is scrubbed away during high krausen, and prior to this, is actually beneficial to yeast metabolism.

Lets hope this thread is less tiresome than what soft drink mix's with which malt beverage.

Good Chilling,  
Jim Busch

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Date: Fri, 29 Oct 93 10:29:32 EDT  
From: Keith MacNeal 29-Oct-1993 1021 <macneal@pate.enet.dec.com>  
Subject: Wit Bier recipe

There was a recent question about a recipe for a Wit Bier. Given that and the nice articles on Belgian Brewing lately I figured I'd post this recipe. It's based on one of Dave Miller's recipes in "Brewing the World's Great Beers" and some suggestions from HBD and the Cat's Meow.

It was quite popular with my friends this summer. The only things I might do differently next time would be switch the yeast to a Belgian Ale yeast and try one of the German wheat extracts like the one that comes in a 2 kg can (actually, since I've made the switch to all grain for my last few batches I'd go all grain instead of using extract). The American Eagle Amber DME is very light -- about as light as most other brands' Light DME. If you use another brand, get a light. The only precaution I took with sanitation and the spices was to swab down my mortar and pestle with a bleach solution before crushing the coriander in it. If I remember correctly, the dried orange peel was from Spice Islands.

3.3 lbs. Munton & Fison Wheat Malt Extract  
2 lbs. American Eagle Amber DME  
1 oz. American Hallertau hop pellets (4.3% AA)  
1 pkg. Wyeast Labs #1007 German Ale Yeast  
1 oz. crushed coriander  
= oz. dried orange peel  
1 cup corn sugar to prime

OG = 1.038  
FG = 1.012

Bring 2 gals. water to boil and add extracts. Add 2/3 oz. hops when it returns to boil and boil for 45 minutes. Add remaining 1/3 oz. hops and boil 15 minutes. Cool and strain into 3 gals. cold water in primary. Pitch yeast and ferment at 65-68°F for about 1 week. Add coriander and orange peel to secondary and rack beer on top (either use a 6 gal. secondary or put a blowoff tube on it -- I clogged the airlock a couple of times before finally putting a blowoff tube on it).

I bottled mine after 10 days in the secondary. The beer came out light in body and color. The carbonation, light body, and citrusy flavors from the spices made for a nice light, refreshing brew. I don't know how it stacks up

to commercial brews of this type since I haven't had an opportunity to  
taste  
any.

Enjoy,

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Fri, 29 Oct 93 10:38:19 -0400

From: lincecum@med-biochem.bu.edu

Subject: Advantages of ascorbic acid?

I have been reading the forum for several weeks now and am impressed with the depth of experience and willingness to help fellow homebrewers with their questions.

I have just brewed my first all-grain barley wine and will be aging it for several months. Unlike most of my beers which get sucked down by my thirsty friends as soon as they are carbonated I am a little concerned about long term oxidation problems with the barley wine.

Will the addition of ascorbic acid (vitamin C) at bottling time improve the longevity of the beer? Also what are the general advantages and disadvantages of ascorbic acid addition? Much thanks.

John Lincecum  
lincecum@med-biochem.bu.edu

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Date: Fri, 29 Oct 93 11:00:40 EDT  
From: Spencer.W.Thomas@med.umich.edu  
Subject: CF Chiller Effects on Hop Character

All this discussion sounds like a good argument for a hop-back.

=S

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Date: Fri, 29 Oct 93 11:14:41 EDT  
From: pavao@ptsWS1 (John D. Pavao)  
Subject: THE NEW ENGLAND BEER CLUB

Hi,  
Is the NEW ENGLAND BEER CLUB list still active? If so, could someone  
please send me the address to use when requesting a subscription.  
Thanks.

John  
pavao@ptsWS1.npt.nuwc.navy.mil

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Date: Fri, 29 Oct 93 09:53:25 -0700  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Chillers

>>>> On Tue, 26 Oct 93 12:20 CDT, arf@mcs.com (Jack Schmidling) said:

Jack> I won't re-hash the whole argument here but in summary,  
Jack> not a single, UNARGUABLE advantage could be brought in  
Jack> defense of counter-flow for home brewers and most of the

Jack, I'm quite sure that in your case there is no\_such\_thing\_ as an  
UNARGUABLE anything\_ :-)

Jack> So, I hereby challenge the counter-flowers to start  
Jack> your engines....

Silent long enough I guess....

I would love to have stayed with my immersion chiller. It is easier  
to sanitize, use and store. The problem is that it simply did not  
work well enough. My tap water is barely below desired pitching  
temperatures most of the year. As long as the temperature  
differential between the wort and water is high, immersion chillers  
work great. As that differential decreases, the advantage goes to CF  
chillers.

The bottom line here (at least for me) is water conservation.  
My 50' immersion chiller used in excess of 30 gallons of water to  
chill a 5 gallon batch of boiling wort, and my pump driven 40' CF  
chiller uses less than half that, and\_ gets the wort colder. As a  
side benefit, I finally get the cornflake sized cold break that I  
never\_ witnessed before.

Also, remember, we all brew a little differently. What is ideal for  
one persons style is useless for another. I cannot think of one thing  
I could change in my brewery that would not demand some other  
compensating change. Every method has advantages and drawbacks, and  
each brewer must make his or her own choices.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312x18  
drew@chronologic.com

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End of HOMEBREW Digest #1261, 11/02/93  
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Date: Fri, 29 Oct 93 10:57:21 PDT  
From: mri10@mfg.amdahl.com (Michael Inglis)  
Subject: Growing Hops

I would very much like to grow my own hops this next season but I have a slight problem. I live in a Condo without a back yard but I have a very large porch that has access to plenty of sunlight (my other plants are very happy :). If I was to grow hops, it would have to be from some sort of planter box. I would have plenty of room to set up a vine path that would be adequate but my concern is the planting. Will planting the rhizomes in a planter box work? Has anyone else done this successfully?

Also, I brewed an all extract beer several weeks ago (my third attempt at an SNPA clone) and the OG was 1.030! (my local homebrew store packaged DME in 3 lb. bags and when I actually weighed them they came out to about 2 lbs. 10oz :( ) Guess where I'm not going anymore for my supplies? Anyway my FG after two weeks was 1.016!! I was a little scared as I'd never seen such a low gravity loss but I bottled anyway. What I have now is IMHO an excellent ale that has a pronounced buttery taste and goes down like water. The sweetness with a fairly aggressive hop bitterness combined to make a flavor that I never expected and it's great. Just goes to show that even an apparent disaster can come out smelling roses (figuratively of course). Anyone else had horror stories that have come out to be a surprisingly good brew?

Mike Inglis  
mri10@mfg.amdahl.com

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Date: Fri, 29 Oct 1993 12:00:47 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Steam/Labels&Coaster/alpha test?/Sheer Carboys

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Best Jim Busch commented on the idea of steam sterilization with a pressure cooker:

"Sounds dangerous to me. How do you know when it is empty?"

\* No more steam. Simple.  
\* How does a melting pressure cooker and stovetop smell?  
\* I've seen what a teakettle can do to a stovetop. Not a pretty sight!  
\*\*\*\*\*

John Adams said:

>Personally I make my own labels using a graphics editor, a ray-tracer, a good collection of gif/jpeg "clip art" of beer labels, and a color printer.

\* Sound nifty. I'd love to see 'em. Are those beer labels YOU scanned? Or is there a commercial source, or disk copy others can obtain?

>I would also like to find an outfit that produces custom beer coasters.

\* Here's a couple- from an old issue of American Brewer (summer '92)

American Coaster Co., 527 Wheatfield St., P.P. Box 710  
North Tonawanda, NY. 14120 (716) 693-6540

NOTE: These fellers are directed at BREWERIES- Bulk orders of 10,000. I just saw it in a magazine, and besides all my cousins work there (NOT! )

ADMAT Coasters Johnson city Tennessee,  
Phone (615) 434-2373 Fax (615) 434-2210

There's even a place which does taps! I might have to look into that one!

Labels? Creative Labels 7413 Pulaski Hwy, Baltimore Maryland 21237  
Phone (301) 866-4700 FAX (310) 866-5672

I hope I'm not being too commercial. I always get a flood of e-mail when I mention these kinds of sources, so I'm shortcutting this time.  
\*\*\*\*\*

\* Random Comments on Comments... (just a little bw...pain cave?)  
> With 3 cats in the house, rodents are not my concern :-)  
but they could get into that bag with no problem at all.  
\*If you fed the cats more often you might not have them stealing grain!

>put on the lid and throw in some hops.  
\*Better reverse that.

"Skip and go naked" sounds like a fun name for a drink. But it sounds like a spruced up SHANDY. Coors/Lemonaid/Whiskey. Hmmm. Skip the board games. Play naked twister with vegetable oil!  
\*\*\*\*\*

Mark said:

> You can at least get a sense of the aroma potential of your homegrown hops by using your nose, but there's really no practical way to know how much alpha acid is in there (without a lab analysis).

\* Oh yeah. Nothing like cutting them in half and rubbing your

nose and fingers in it. sticky sticky. Smells like fresh buds!  
Has there been a practical way of testing developed for the homebrewer?  
I know you can send them off...but I'll save my money and guesstimate.

Arf...you were trying to come up with a pH test weren't you?  
Didn't you say something about a colorimetric test? Any luck w/it?  
\*\*\*\*\*

anthony johnston cried about a broken carboy:

>I am sure that most of these precautions are obvious and well-known and  
the others may seem like overkill, but after seeing the results of a  
broken carboy...waaaaaaaaaaaaaaaaah.

\* Don't be cautious. Someone might pounce you. Remember homebrew makes  
you immune! KOH would simply run off you skin since you're filled w/  
EtOH!

\* No really....good advise. How big was the carboy? Did you shift  
temps  
drastically and suddenly? Was it scratched?

I once had a 1 gallon EtOH bottle (brown...nice!) that was full of cold  
spiced cider- happily fermented out- awaiting bottling. (~45-50 deg)  
I had splashed hot water on a barstool from bottle washing, then  
placed the jug on the stool. Just a little bit of hot water was enough  
to cleanly sheer the bottom from the rest of the bottle. I was able to  
rack the precious fluid out before moving the bottle. There must have  
been an adequate temp differential to shock the glass. I was blessed  
by the grace of my brew lord for the survival! One bottle remains.  
I think I'll have to celebrate halloween w/it! Pumpkin brew too!'course.  
BTW I still have the top of the bottle. Could make a good funnel.

Also: The one batch (in my early days) of beer which became explosive  
(scary experience, ~~SHUDDER~~) I had one bottle which broke/blew  
exactly the same way. The bottom sheered off cleanly. The top shot up  
into my underarm! At least it didn't shatter like the one in my car!  
(no one was in it at the time. Good thing.)  
The point here...The connection between sides and bottom is a stress  
point for bottles. Thin to thick glass is my guess. Be wary!

/\*\*\*\*\* Hoppy Halloween \*\*\*\*\*/  
~~~~~ John (the Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~  
/***** Dress up as John Barleycorn for the hallowed eve! *****/
----- Live On BarleyMan! -----

Date: Fri, 29 Oct 1993 11:39:07 -0700 (PDT)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: Beer Shelf Life

Tom Schwendler asks about shelf life. 3 months life sounds ridiculous to me unless there is something wrong with the beer. Award-winning beers are frequently 6 months old when judged. From my own experience I am drinking a beer that I made 12 months ago and it's superb: better than fresh when it was a little harsh. Most of my brews end up being 6 months old by the time the last bottle is drunk and none have shown any sign of going off.

Peter

Date: Fri, 29 Oct 93 12:16:39 PDT
From: Ed.Falk@Eng.Sun.COM (Ed Falk)
Subject: Budweiser & Adjuncts

I heard a Budweiser ad on the radio the other day that really made my hair curl. They were BRAGGING about how they added rice to the beer. They also mentioned barley as an afterthought.

I worry about the future.

Date: Fri, 29 Oct 93 15:52:26 -0400
From: edo@marcam.com (Ed Oriordan)
Subject: Questions

Did my first all grain last weekend. Everything went well, but now I have two questions. One on sparging the other on grain.

Sparging -

What is the best way to sparge. Should you?

- 1) Completely drain the bed, then sparge in one of the following ways?
- 2) Just match the additions to the drainings?
- 3) Sprinkle in all the water at once?
- 4) Others.

I have a feeling that 2 and 3 are going to be a tie. What's the difference besides my effort. As I see it all the water goes through the bed either way, and if you can maintain the temp why not do 3? Maybe, more weight so compacted filter bed? What about 1? On one hand I would fear compacting the filter bed, but on the other hand I would be getting the first drawings that I would assume would be extract rich. I used a rectangular cooler and slotted pipe manifold(fantastic tool), so I am not real worried about a stuck sparge, but I would think clarity could be a problem. Also method 1 would cause more shifting in the grain bed, perhaps more astringency?

For a 5 gallon batch I drained off 1 gallon of wort and recirculated this because it was cloudy. Was this correct? I ended up with clearer wort, but I am assuming that the first drawings contain the most extract, which I then poured on the top of the bed, and now it has to be washed through the entire bed and out again.

Grain -

As a full mash novice I want to stay with simple infusion mashes for a while. What kind of grain does this mean I am restricted to. I used Pale (2-row english). The day after I went to another brew store and they had two Pales(2-row from Germany and from America). Pale is Pale??? The grain from the second brew store had a lot less flour already mixed in (i.e. if you dropped a handfull of the english Pale you saw some flour dust) and appeared to be good clean grain. Will it be as modified as the english Pale? Is it an oversimplification to say Pale == you can do an infusion? I was reading Miller last night and he explains the difference between Pale, Mild, Vienna, Munich, Lager, Klages etc.. But what I want to know is, what can I infusion mash as a base grain for recipe (obviously not specialty grains and adjuncts)

Pale is Pale??? No adjuncts used currently, so I don't need extra enzymes.

Describe how to tell if grain is good? Miller goes into it some (or was it Noonan?), but what do you look for?

If you are gonna answer my questions I would love to hear how you do it, and especially why you do it this way and not this way. I don't want to just follow recipes or steps, I would like to know why I am going to do something.

Fun, fun, fun. If you are contemplating trying all grain, I would
recomend
a cajun cooker burner and a slotted copper pipe manifold system. They
made
the job a LOT easier. Also if you live near a drag-strip, you can slap
that
cajun cooker on the back of your car and campaign it as a jet dragster.
NASA called and said the crew of the space shuttle saw it. Man, is that
thing
powerful!!! Comes with a nifty recipe for a deep fried turkey (is it
just me
or does the thought of deep frying a whole turkey sound odd?).

Thanks

Ed O'

edo@marcam.com

Date: 29 Oct 93 15:07:00 EST
From: "Anderso_A" <Anderso_A@hq.navy.mil>
Subject: Pilsner extract

The following attachments were included with this message:

TYPE: FILE
NAME: PIL

Greetings,
A few friends and I will be running an experiment in recipe formulation where we are trying to match a style with extract brewing as well as all-grain. The problem: the all-grain version will require pilsner malt and the extracts I've been able to find (DME & LME [No, not Male extract]) are all based on Pale Malt. Does anyone out there in HBD-land know of Pilsner Malt extracts that are Unhopped and (hopefully) no adjuncts?

TIA,
Andy A

Date: Fri, 29 Oct 93 20:52:57 PDT
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Hunter Airstats

Thanks to an alert by Kieran O'Connor, I have confirmed that the Hunter Airstat is no longer being produced and there are no plans for a replacement product.

For those that don't know, the Hunter Airstat is a reasonably priced "line voltage thermostat" that was originally designed to add thermostatic control to a room air conditioner. Homebrewers, however, have been using it to control refrigerators/freezers.

The Hunter was unique in it's price range featuring a remote sensor and digital setpoint and temperature readouts. Homebrew suppliers are selling them for \$30 to \$40, and hardware superstores (such as Home Depot) had them as low as \$19.50. The main disadvantage of the Hunter was that it only went down to 40 degrees F, not considered low enough by lager afficianados. But it could be easily modified to go lower, and instructions have been published in this digest.

Homebrew rumor had it that the Hunter has been discontinued due to a lack of reliability. Hunter denies this and claims lack of sales is the sole reason.

Hunter has no more inventory on this item, but some inventory does exist in hardware stores, and I would bet even more is still in stock at homebrew shops. The reason for this post is that if you were thinking of getting a temperature controller someday, or like me are a happy user of an Airstat and want a "backup" or two, now is the time to buy. Armed with the info that they have been discontinued, you may be able to get an even better price on any remaining inventory, at least from a hardware store. I went down to my local Home Depot and bought their remaining two units at \$15 each (one had no packaging and the other's package was pretty beat up).

Some enterprising homebrew supplier might want to contact Hunter about picking up the manufacturing rights and making them again (and possibly modifying the software to allow 30 F operation). Hunter is in Memphis, TN.

Note that you don't have to panic. There *are* alternatives. Williams Brewing in San Leandro sells a Penn line voltage thermostat that has been modified specifically for Williams, but Penn has "standard" models that will also work. WW Graingers has a few pages of these, of which a few are suitable for our needs and not too expensive. Most will need to have a line cord added. You can also check local heating/air conditioning parts suppliers. What you want is a "line voltage thermostat" that is designed for either "cooling only" or "heating/cooling" (the key words are the switch contacts "close on rise"). Sometimes they are listed as SPDT, which means single pole double throw and is a technical way of saying they work for heating or cooling. The switch contacts need to be rated high enough for your fridge (usually this is not a problem). And the temperature range needs to be right. You also want a "remote bulb" or "remote sensor" unit. A "snap action" or "bimetallic" thermostat would

need to be entirely mounted inside the fridge, not very practical.
Lastly, make sure the "differential" is in the 4 degree range or
adjustable to it. You don't want one with a 25 degree fixed
differential.

Disclaimer: I have no affiliation with Hunter, nor do I sell temperature
controllers of any kind. I just think that for the price, it was a great
deal, and I really like having the digital temperature readout on my keg
fridge. And no, none of my "spares" are for sale, so don't ask.

Mark

Date: Fri, 29 Oct 93 8:49:30 MDT
From: npyle@n33.stortek.com
Subject: Grinding Wheat / Chillers

Robert Schultz writes:

> I attempted Phil Seitz's Belgian White Ale on the weekend. I now know what Phil meant by grinding 5 lbs of wheat on a Corona.
> How do the roller mills perform on the hard unmalted grains (wheat, rye, rice)? Barley and oats are fairly soft.

My homemade roller mill works fine crushing hard stuff like wheat. I use a special (simple) modification to my mill when I crush wheat. The mod is two blocks of wood which restrict the amount of feed onto the rollers. It allows the rollers to crush less grain at any instant. For example, if the rollers are 8" long, this takes the working length down to about 5", so only 5" of the rollers have grain between them at a time. Without this mod, crushing wheat causes the motor to stop (and this is a washing machine motor!). Wheat is indeed a tougher nut to crack than barley.

**

JS comments about immersion vs. CF chillers:

>The counter-flow "snobs" are simply wrong on this one.
(and other similar comments)

Jack, this is abrasive and counter-productive at best; its out and out flame bait at worst. The HBD will now be tied up with tons of inane arguing at a time when 3 day turn around times are commonplace. You were the one griping about the yeast FAQ because you couldn't get a quick turnaround from the HBD. This will tie up the HBD for much longer than one FAQ.

I brought up this subject for serious discussion, not flame wars. I appreciate your well thought out comments regarding versatility of the immersion chiller, but I would have appreciated more if you had tempered your comments to a civil level. Do you talk this way in person?

One of the great advantages of CF chilling is efficiency of the water used. Has anyone out there measured your cooling water? It took me over 30 gallons of cooling water with my immersion chiller, less than half that with my CF chiller. That's 6 times the volume of the beer just to cool it with the immersion chiller! This is a big reason I like CF chilling. Combining this with other water conservation methods can amount to a considerable water

savings in one brewing session. I'm not claiming one method beats the hell out of the other, just that there are pros and cons. You have to pick your poison.

norm

Date: Sat, 30 Oct 93 23:32 CDT
From: arf@mcs.com (Jack Schmidling)
Subject: Blindness, Yeast, Polyethelene

>From: mikel@netlink.nix.com (Mike Lemons)

>Somebody doesn't realize that methyl alcohol was intentionally added to "bathtub gin" during prohibition to increase its intoxicating ability. Poisonous, but it will get you drunk.

>The government arrests people who operate a still because they want their alcohol taxes. If they tell you that they do it for your protection, just remember that they told Indians the same thing when they took their land.

Well put. Just because methanol boils off when distilling, does not mean there is any to boil off in the mash. For a simple example, ponder making brandy.... You start out with a nice drinkable wine and distill it to leave most of the water behind. If there were enough methanol to cause blindness in the distillate, you wouldn't want to drink the wine in the first place. The same thing applies to whiskey mash. Methanol comes from petroleum or from distilling trees. That's why it's called wood alcohol. If you put trees in your wine, you might be in trouble.

The industrial world needs grain alcohol but has enough clout to avoid paying taxes on it. To keep everyone honest, Big Brother mandates that a certain amount of methanol is added to industrial ethanol to make it undrinkable. The bad guys put this stuff in booz because it is cheap and people got sick and might have gone blind.

There is nothing you can do to a still full of wine to make it produce dangerous quantities of methanol and you can consider a kettle full of whiskey mash just a very new "wine" for the sake of this discussion.
.....

Sorry but I lost the source line (bb Brian Bliss?) for the following..

>Subject: wyeast/spruce/distillation temps/and more...

>6) I still buy wyeast and try to use it for those batches which require a special flavor from the yeast. I wish there were an alternative... It would not take that much more work to provide us with a packaging that has a larger yeast population developed before you open it.

There is an alternative and its called culturing. However, it's sort of like all grain brewing, viz., sounds real spooky till you try it. Not only does it save big bucks but it becomes as much of an obsession as brewing itself.

You can do it in the kitchen in simple stuff or a lab full of equipment.
The
bottom line is, yeast is free, it's clean and you can produce any
population
you feel is needed. Check out the archives for my article on Culturing
for
Beginners.
.....

Not sure where this one ends and Jim Busch's begins but this is his..

>From: arf@mcs.com (Jack Schmidling)

<I am using Low Density Polyethylene tubing for transferring wort. It
is FDA
approved and has a temp range of -70 to 120F and it handles sweet wort
temp
just fine.

>I can assure you that my sweet wort is above 120F, so I wonder the
wisdom of
using 120F rated tubing in this manner. I use a cut off plastic turkey
baster.

As I was unable to find a 20 foot turkey baster, I had to take drastic
measures.

I cited the specification for the record and then pointed out that it
works
fine at "sweet wort temp" and presumed we all knew what that meant. The
specification is obviously very conservative.

Furthermore, I would be interested in knowing just what your sweet wort
temp
is as it flows through the tubing. I suspect it is a lot cooler than
you
think. By the time mine gets down to the kettle, it probably is around
there somewhere. The copper tubing at the end is to protect it from the
boiling wort not the stuff coming down from the kitchen.

>From: Robert Schultz <Robert.Schultz@usask.ca>

>Subject: milling red hard spring wheat

> I attempted Phil Seitz's Belgian White Ale on the weekend. I now
know what Phil meant by grinding 5 lbs of wheat on a Corona.

> How do the roller mills perform on the hard unmalted grains (wheat,
rye,
rice)? Barley and oats are fairly soft.

I could swear I just answered this but it also appeared in Ulich
Stafford's
comments on his new mm.

Malted grain is friable and crumbly. When gently squeezed, it falls
apart,
exposing the malt to mash water. This is definitely not true of
unmalted
grains. If you have the strength to run it through a roller mill, the
best
you will get is something like thick oatmeal. As there usually is no
husk
involved, there is little advantage to a roller mill over a grinder. I

suspect, a Corona me be more efficient if your lauter tun can handle the
fine
grinst. That is, after all what they were designed for but it won't be
any
easier to crank.

js

Date: Sat, 30 Oct 93 19:04:00 -0600
From: phil.brushaber@lunatic.metronet.com (Phil Brushaber)
Subject: Freezing Wort

Do you see any problem with freezing homemade wort (extract)?

Next weekend I am going to make another try at a Dopplebock. (This time with German Pilsner grain as the base, not 2-row in my quest for that malty sweet German flavor).

My lauter tun can not handle more than about 12-13 lbs of grain at a time. So this weekend I mashed 10 lbs. of German Pilsner. Boiled it down to about 3 gallons, put it in a 4 gallon kettle, covered the kettle and stuck it in the deep freeze.

I suppose there are more convenient alternatives to making your own extract, but I wanted all-german grain.

My plan next weekend is to mash the remaining 13 lbs of grain I will need to make this Dopplebock, thaw the "extract" and add it to the boil.

Anyone see any problems with this procedure. (Other than spending an extra brewday mashing grain?

- ----

| The Lunatic Fringe BBS * 214-235-5288 * 3 nodes * Richardson, TX * 24
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| UseNet, ILink, RIME, FIDO, Annex, Intelec, LuciferNet, PlanoNet, and
more!|

Date: Sun, 31 Oct 93 11:38:21 CST
From: odie@cattle.mn.org (Rick Anderson)
Subject: Beer Drinks

Here's another beer drink to add to the list

1 oz of vodka

1 oz Southern Comfort

2 oz 7-up

1 oz sweet & sour mix

1/4 oz grenadine

2 cups of crushed ice. Blend all of the above in a blender till it resembles a slush. Pour into a 20-24 oz glass. Fill the remainder of the glass with your favorite beer. The drink was introduced to me as a Combat. Its a good one.

Rick Anderson

Date: Fri, 29 Oct 1993 23:13:33 -0400 (EDT)

From: ed fromohio <NEGATIVE3@unh.edu>

Subject: Bread from mash recipe request

HI, I was wondering if anyone has a recipe or idea for bread from the spent mash....

any help would be most appreciated,

thanks,

-chris (dcm@kepler.unh.edu)

P.S. feels good to be back on the net again after a year or so....

Date: Sun, 31 Oct 93 13:39:29 PST
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Re: Plans for Grain Mill

>>>> "matth" == matth <matth@bedford.progress.COM> writes:

matth> Dion Hollenbeck writes:

matth> [SNIP of many questions regarding tool availability & time &
matth> materials]
>> Bottom line, you may be able to make any commercial product for
>> much less than it is sold for if you ignore everything but the cost
>> of the materials. On top of that, you are not trying to make a
>> living out of it. If you really figure **everything** in, I would
>> doubt you could beat the retail price by much if any at all since
>> anyone who intends to remain in business will be buying in volume
>> and getting prices on raw materials which you could never come
>> close to at onesey prices.

matth> Can you tell me why you brew beer then? Few people I've ever
matth> ,et who brew & keep purchasing **any** kind of equipment ever
matth> reach the level where the money they have spent on the brewing
matth> tools/materials makes it cost effective over the long run
matth> compared to just purchasing commercially available brews, even
matth> micro-brews.

I brew beer, not because it is cheaper, but because I can make
**exactly ** the beer I want to and I will be moving to the boonies soon
and wanted to not be dependent on specialty liquor stores or
microbreweries within 10 min of my house here in urban America.

>> If you enjoy building things, by all means, you have my
>> whole-hearted support to go ahead. I even wish you the good
>> fortune to improve upon Jack's mill or any other brewing product
>> for the betterment of all of us brewers. But, please do not make
>> light of the effort that goes into producing the great products
>> which are being offered to us. Knowing what it takes to produce
>> these, I am quite satisfied that we as home-brewers are getting
>> fair value for our money from the vast majority of brewing
>> equipment manufacturers.
>>
>> Steve, I do not mean to single you out, this thread has popped up
>> so many times, I just took the opportunity of your post to reply to
>> a topic which has been bugging me for a long time.
>>

matth> I haven't gotten the impression that anyone has made light of
matth> the effort Jack or anyone else has put into producing effectvie
matth> roller mills designs. I've seen & used a MM at one of the HB
matth> shops I get supplies from. Jack did a good job on it. Most of
matth> the reviews I have seen have been pretty close to the mark
matth> regarding usability of the device. It gives a great crush but
matth> as many people have indicated the design could be improved upon
matth> some.

I feel that Steve made light of Jack's efforts because he complained
about the cost and said right after that he could do a good without
much effort (this is a paraphrase). A lot of other people complain
about the retail prices of equipment like Jack's and state that they
could do as good for a lot less. I was just pointing out why retail
prices are generally extremely fair and what really goes into making a

product, rather than a one-off copy of someone's design. If you make it yourself and it does not last or does not work quite up to snuff, then you generally don't complain. Jack and other inventors have to make a product which works well and lasts, which most of them do.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucsc!megatek!hollen

Date: Sun, 31 Oct 93 13:47:44 PST
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: RIMS sparge techniques

I just did a trial mash in my RIMS system using manual temp control by turning the heater on and off by hand. When finished, I did the sparge, but because of the speed of my pump, it only lasted about 10 min. I can't control the rate of sparge by only introducing sparge water slowly because the pump does not do well with pumping dry and it does not go down to extremely slow either. I have heard of adding all the sparge water at once and recirculating for 30 minutes and then just pumping the resulting wort on out.

Any other ideas. My extraction rate was a rather poor 22 points per pound per gallon from domestic 2 row, if I go by Dave Miller's rate of 35 ppg. Residual grain was slightly sweet after sparge completed.

Thanks for the help.

Date: Sun, 31 Oct 93 13:48:13 PST
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: RIMS sparge techniques

I just did a trial mash in my RIMS system using manual temp control by turning the heater on and off by hand. When finished, I did the sparge, but because of the speed of my pump, it only lasted about 10 min. I can't control the rate of sparge by only introducing sparge water slowly because the pump does not do well with pumping dry and it does not go down to extremely slow either. I have heard of adding all the sparge water at once and recirculating for 30 minutes and then just pumping the resulting wort on out.

Any other ideas. My extraction rate was a rather poor 22 points per pound per gallon from domestic 2 row, if I go by Dave Miller's rate of 35 ppg. Residual grain was slightly sweet after sparge completed.

Thanks for the help.

Date: Sun, 31 Oct 1993 21:34:31 -0400 (EDT)
From: Kinney Baughman <BAUGHMANKR@conrad.appstate.edu>
Subject: An arguable defense of CF chillers

Jack sez:

> It is unfortunate that those who do not read rec.crafts.brewing missed
the
> recent great debate on immersion vs counter-flow chillers. Kinney
Bauman did
> an admirable job of defending counter-flow in light of its obvious
> shortcomings and naturally lost to the Lighthouse of Wisdom and Truth.

To which I must add: Jack, you're a legend in your own mind.

> I won't re-hash the whole argument here but in summary, not a single,
> UNARGUABLE advantage could be brought in defense of counter-flow for
home
> brewers and most of the good reasons are only valid in large scale
brewing.
> The only advantage to homebrewers was the OPINION that chilling faster
made
> for clearer beer but no one had come up with any documentation to prove
the
> point.

Oh, I might point out that you can immediately start siphoning into
the fermenter without waiting on the immersion chiller to chill the
wort and THEN siphoning into the fermenter. But who cares about
saving time?

Moreover, after we all agree on the importance of sanitation, good
recipes, good ingredients, and decent equipment, pray tell what ISN'T
arguable in homebrewing?! Isn't that why we love this hobby? Because
of its diversity?

> Now, ponder the possibilities this allows. You have an infinite number
of
> post boil hopping schedules that you can play with. For example, shut
off
> the heat, put on the lid and throw in some hops. This hops is at near
boil
> temp which kills that herbal taste but the vapor and aroma can not
escape.
> When you chill it down, the vapor and aroma are re-absorbed by the
wort.

Re-absorbed by the wort, huh? I'm sure you can pull the documentation
out on that one, can't you, Jack? And while we're pondering
possibilities, ponder the reality of having the hop aroma absorbed
directly into the wort with a nice little hopback hooked inline
between your kettle and CF wort chiller. Works great for me at home
and my little brewpub in town.

All this is not to say that a well-designed immersion chiller won't
function fine when used properly. But "not one unarguable advantage
(can) be brought in defense of counter-flow for home brewers"?! Come
now, Jack. Methinks you've been dipping into your homebrew a wee much
this evening.

Cheers to one and all!

| | Kinney Baughman | |
| | baughmankr@conrad.appstate.edu | |
| / / / / |
| "Beer is my business and I'm late for work" |

Date: Sun, 31 Oct 1993 23:34:23 -0800 (PST)

From: Jack Thompson <jct@reed.edu>

Subject: Re: steam

When I was in the US Navy, during the 1960's I was told that the difference between a fairy tale and a sea story was that a fairy tale begins: "Once upon a time..." and a sea tale begins: "This ain't no shit. ..."

As an electrician, I had occassion to spend a few hours, now and again, in the engine room, where electricity was manufactured by steam turbines. It was hot and noisy there, but one learned to read sounds. A pin hole leak in a live steam line has a special sound. Once heard, it is indelible. One stops moving. In the fullness of time, a person will reach out for a broomstick and begin looking for the source of the leak by passing the broomstick over and around the steam lines. When the broom stick is cut in half, the live, pinhole steam leak has been found.

Live steam is a very useful tool, but one which must be brought into play with caution and understanding.

This ain't no shit.

Jack C. Thompson
who thinks orgasms are fine

Date: Mon, 1 Nov 93 05:32:59 PST
From: Jonathan Labaree <jonlab@igc.apc.org>
Subject: RE: Short spigot on Gott

Sandy Cockerham in HB 1260 asks about a too-short spigot on a Gott mashing setup.

I, too, added a spigot to a cooler and ran into a similar problem -- I drilled a hole for the spigot and found that the spigot's threading was not long enough to fit all the way through. By this time, I had to find a solution because I had just forked over a good 14 bucks for the thing at Sears. So I drilled a second hole in the outer skin of the cooler large enough to accommodate the spigot's largest outside diameter (I used a paddle bit which chowdered the thing up a bit, but it ain't exactly a Chippendale to begin with). Then I fastened the spigot on the inside skin. I had to remove quite a bit of the Styrofoam insulation. In order to prevent the insulation from pouring out, I filled the void with a product called "Great Stuff." This is an expanding insulation foam that comes in a can (the package says no CFCs, by the way). It's pretty gooey stuff and it doesn't take much to fill the gap around the spigot to seal in the insulation.

It works quite well, though you must be careful about preventing grains from getting in as the spigot will clog very easily. I use a rectangular plastic needlepoint screen (cut to fit the bottom of the cooler --) which I fasten to the exposed spigot threads with a bit of picture wire so it stays in place. I'm looking for a better solution to that problem, though.

[Credit goes to Alice and John @ Brewers,Asso.,
Portsmouth, NH for the needlepoint screen idea, thanks!]

Jonathan Labaree
jonlab@igc.org
August West Brewery, Newburyport, MA

Date: Mon, 1 Nov 1993 09:44:23 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Hops FAQ

A couple of questions/comments wrt the Hops FAQ:

<At the end of the growing season when the leaves have fallen or turned brown,
<cut the vines at the surface of the soil and if possible remove the twine.
<After cutting back the vines a layer of 3 or 4 inches of mulch and composted
<manure can be put over the exposed vines for insulation and nutrition during
<the winter.

I read in Brewing Techniques that if the vines are allowed to remain uncut at the end of the season, the rootstock will build up energy stores for the upcoming winter season, and be healthier next year. This is obviously not practical for big farms, but due to my inherent procrastination, it is exactly how my plants are now. Comments?

<The proper length of time for dry hopping is dependent on the temperature. At ale temperatures, 7-14 days of contact time is widely used. At lager temperatures, although little data is available, it seems obvious that longer contact times, on the order of 14-21 days, are called for. It is common to use 0.5 - 2.0 oz. or more in a 5 gallon batch, but as always it is up the individual's preferences.

OK, how does temperature affect hop aroma wrt dry hopping? This doesn't seem intuitively obvious to me. I also would point out that I have dry hopped 1 BBl batches in the primary (after high krausen and skimming) for a mere 3 days with excellent results, and I know of a local brewpub that has dry hopped with pellets (I use whole) for one day, filtered and served online the next, so this will work. The point is that dry hopping times vary all over the spectrum, and I suspect if a heavy hand is used in the amounts, time is less important. I'm still wondering about the lager comment???

Best,
Jim Busch

Date: Mon, 1 Nov 93 10:25:36 EST
From: lconrad@epoch.com (Laura Conrad)
Subject: Spruce beer

I think of spruce beer as one of those seasonal things. I've only done it with new spruce growth in the spring. The color, texture and smell are all quite pleasant to work with.

The recipe I started with (Papazian?) said 1 quart of new spruce growth, but I just pick a plastic bag full. You will find that when you are communing with an actual spruce tree, you will not want to pick all the easily accessible growth, and you will get tired of getting scratched by the old growth before you have picked too much of the less accessible stuff.

I did one batch where I was less careful about not using any old needles. It had a much more aggressive and less delicate (although still not unpleasant) spruce character.

All this is more fun and probably less likely to lead to overspruced beer than buying bottles of essence at the home brew store. Of course, you can only do it in late May and June.

Laura

Date: Mon, 1 Nov 93 10:25:36 EST
From: epochsys!lconrad@uunet.UU.NET (Laura Conrad)
Subject: Spruce beer

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Laura

Date: Mon, 1 Nov 93 10:45:39 EST
From: montanoa@vnet.IBM.COM
Subject: Brew Ha Ha's 5 liter mini keg system

Does anyone has experience (either good or bad) with the 5 liter mini keg system that Brew Ha Ha sells? I am looking to puchase one of these things and want to get a feel for the experiences of others. I'd appreciate any info-- either here or private email.

Tony Montano
Montanoa@Vnet.IBM.COM

Date: Mon, 1 Nov 93 09:07:25 -0700
From: Kelly Jones <k-jones@ee.utah.edu>
Subject: More on steam injection SAFETY!

In HBD #1259 we read:

>I'm relying solely on memory here, since I wasn't taking notes, but as
>best as I can reconstruct it, the setup is like this: An ordinary
>pressure cooker (about 2 gallon capacity, I would guess) is modified
>by removing the pressure release in the center of the lid (NOT the
>safety pressure release, which is offset from the center on this one)
>and replacing it with a compression fitting. From that is run a length
>of flexible metal hose (the kind used for a gas line to a kitchen
>stove, I think) about 4 or 5 feet long.

I hate to criticize a great idea, but if this description is accurate, it could be ****very dangerous****. The thingy in the center of the lid (a weight covering a small hole) is what regulates the pressure inside the chamber. (It basically works because the doohickey has a weight of 15 pounds for every square inch of hole that it covers. Thus if the pressure inside exceeds 15 PSI, the weight gets pushed aside a little, venting some steam, and thus reducing the pressure.) By modifying this, you are eliminating the pressure regulation of the pot! Sure there is still a safety valve, but this is set for a pressure somewhat higher than the cookers normal 15 psi operating pressure, also, if this valve becomes clogged (and it does happen) you now have zero pressure regulation! Add a little more heat to the cooker, and the pressure will go way up, until the kettle explodes violently.

Please, if you're going to try this, add the steam outlet somewhere else on the pot, but DO NOT MODIFY EITHER THE SAFETY RELEASE VALVE NOR THE PRESSURE REGULATOR!!!!

Lets be careful out there...
Kelly

Date: Mon, 1 Nov 93 9:16:26 MST
From: npyle@n33.stortek.com
Subject: Re: Plans for Grain Mill

Matt Harper wrote:

>Dion Hollenbeck writes:

>

>[SNIP of many questions regarding tool availability & time & materials
]

[MORE SNIPS done by me...]

>>us brewers. But, please do not make light of the effort that goes
>>into producing the great products which are being offered to us.
>>Knowing what it takes to produce these, I am quite satisfied that we
>>as home-brewers are getting fair value for our money from the vast
>>majority of brewing equipment manufacturers.

>>

>>Steve, I do not mean to single you out, this thread has popped up so
>>many times, I just took the opportunity of your post to reply to a
>>topic which has been bugging me for a long time.

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> I haven't gotten the impression that anyone has made light of the
effort Jack

>or anyone else has put into producing effective roller mills designs.
I've

>seen & used a MM at one of the HB shops I get supplies from. Jack did a
good

>job on it. Most of the reviews I have seen have been pretty close to
the mark

>regarding usability of the device. It gives a great crush but as many
people

>have indicated the design could be improved upon some.

Matt, you didn't read the original article (from Steve Seaney) that
started the
thread did you? Here is what Dion was talking about:

>The other day I saw one of Jack Schmedling's (sp?) grain mills at a
>brew store. It doesn't appear to be that hard to make. The cost
>seems extremely high.

Now, doesn't that appear to you that Steve is making light of Jack's
efforts?

It does to me, which is why I also wrote to defend Jack's mill (having
made a

couple of roller mills myself). All your talk about building it yourself
for

the hobby of it all is perfectly accurate. Just don't make light of the
commercial side. Dion was right on with his remarks.

Cheers,
Norm

End of HOMEBREW Digest #1262, 11/03/93

Date: Mon, 1 Nov 1993 08:22:30 -0800 (PST)
From: alm@ibeam.jf.intel.com (Al Marshall)
Subject: **Breweries & Pubs in Manchester UK**

If anyone could be of help suggesting breweries or pubs worthy of
visit in the vicinity of Manchester, please reply to:

ketans@ibeam.intel.com

Date: Mon, 1 Nov 1993 11:41:53 -0500 (EST)

From: Jill Martz <SAL_MARTZ@sals.edu>

Subject: malt powder

We are relativey new at homebrewing and I was wondering if anyone could tell me about diastatic malt powder. Can it be used in homebrewing? What would be the effect?

Reply to: SAL_MARTZ@SALS.EDU

Thanks...Jill

Date: Mon, 1 Nov 93 08:42:42 PST
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: **Bottle labels**

I would like to make some labels for my bottles, but a little more creatively than I currently make with WordPerfect. A friend has Corel Draw and that would be fine, but I do not have several hundred dollars to spend on software. Can anyone suggest software for DOS or Windows, (or even X for that matter) which would be suitable to make *really* nice bottle labels with? Must have lots of fonts available and it would be really nice to be able to fit text into any shape (like in a crescent shaped banner).

thanks,
dion

Date: Mon, 1 Nov 93 10:51:37 EST
From: Lee=A.=Menegoni@nectech.com
Subject: PH malt / acid rest / carboy storage

RE: PH malt

The poster claimed to have problems getting his Ph in the appropriate range even with the addition of a large amount of gypsum.

I am no chemist but this sounds like a water chemistry problem. I don't know if the term "buffering" describes what is happening but something in the water is preventing the gypsum from lowering the Ph.

Brewers I know of with similar, but not as severe, problems with their private well water do the following.

Boil 7-8 gallons of water the night before brewing.
Let it cool over nite and let the percipitate settle too.
Siphon all but the last couple inches the next morning.
They also use a gallon of distilled water in the mash and the rest from the preboiled and siphoned suply thus diluting the offending ingredients.
Don't sparge to the limit, 1.010 temp adjusted, to limit tannin extraction.

They have also had water analysis done and brew styles that are appropriate for the water chemistry. There are ways of getting the water analysis done for free or near free. Many plumbing supply stores provised this service if you are shopping for a water treatment system.

Acid rest:

This step is described by Noonan in Brewing Lagers, most texts provide this information for theoretical completeness, it is rarley done in commercial brewing. The recent beer styles book on Wheat Beers also includes a discussion of multiple steps of acid rest as important in producing certain components of a wheat beers flavor and aroma. These all involve ezymatic reactions resulting in the generation of specific acids.

Carboy storage:

After cleaning I cover the carboy opening with a sandwich bag held on with an elastic band. I cover the carboy with a second large bag and store it on an open shelf.

Date: Mon, 1 Nov 1993 12:20:29 -0500
From: holloway@ezmail2.ucs.indiana.edu (Jan Holloway)
Subject: Brewpubs in San Diego?

Greetings, brewfolk. I'm attending a conference in San Diego at the end of this week (though most of next) and would greatly appreciate your recommendations for brewpubs and microbreweries in the area.

Thanks in advance!

- --Jan

Date: Mon, 1 Nov 1993 11:00:29 CST
From: "Roger Deschner " <U52983%UICVM@UIC.EDU>
Subject: Re: Homebrew Club Gone Stale? Probably not.

Your club is probably doing just fine, as long as you keep everything in some kind of beery perspective.

The Chicago Beer Society *STARTED* in 1977 as a beer drinking and socializing club, and wound up with a bunch of us weirdo homebrewers joining and taking over. We haven't taken over completely, and probably never will - the Chicago Beer Society continues to bill itself as a beer appreciation AND homebrewing club. The serious homebrewers operate as a committee within the club - with a lot of overlap with the aficionado segment.

Is this an entirely peaceful arrangement? No. There are periodic disagreements about the future direction of the club, and the answer to the question: "Which way will it go?" is usually "Yes." And finally, are we the ideal model? Probably not. But we are quite comfortable with the fairly large number of Chicago Beer Society events which are not specifically related to homebrew, as long as things stay in balance. For instance, this month, November, we are having our annual homebrew competition, the AHA-sanctioned Spooky Brew Review, and we are also having our annual International Tasting. I'll be judging at one, and indulging at the other.

I know I haven't answered your question; in fact, I may have made it more difficult to answer. Just another perspective, though.

Roger Deschner, Member, Chicago Beer Society.

Date: Mon, 1 Nov 93 11:26 CST
From: korz@iepubj.att.com
Subject: Re: Post-boil wort handling question.

Michael writes:

>I've been brewing (occasionally) for about three years now. Just about
>every batch I've ever made has had an off taste (except for a
particularly
>memorable batch of Bruce's Dogbolter during my "kit" days). I started
>out with new equipment and have good cleaning practices...I sanitize
>anything that touches the wort/beer.

<snip>

>After the boil, I let things settle for about 15 minutes. I then strain
>the wort through cheescloth in a colander which is suspended over my
>plastic bucket primary. The straining through the cheescloth takes a
>long time since I usually use pelletized hops which combined with the
>other solids quickly make up a semi-impermeable barrier. I then let
>it cool overnight and pitch a starter in the morning. I transfer into
>a carboy after the kreusening settles down. I usually bottle after
>the bubbling through my airlock stops.

<snip>

It would help make it easier to assess the source your off-flavor if you had described it a bit more. In any event, I see two areas in your technique that could cause off-flavors: 1) Hot-Side Aeration (HSA) and 2) slow cooling.

Both of these problems can be solved simply by building/buying a wort chiller. You should really avoid aeration of wort until you have cooled it below 80F (of course some oxidation still occurs, even at 80F, but 80F seems to be a generally accepted temperature). Oxidation of hot wort will give you off-flavors and darken the beer. The off-flavors associated with HSA are sherry-like and wet cardboard. The long time between the time that your wort stops boiling and the time that it drops below 140F is not good since DMS (a cooked-corn-like aroma) is being produced while the wort is between boiling and 140F. Finally, the long time between the wort dropping below 140F (or so) and the time that the yeast are really going is an invitation for infection. No matter how well you sanitize, you probably cannot sterilize your equipment (or the air around it) and something gets in. If you can have your cultured yeast eat up all the sugars and make some alcohol and lower the pH before the uninvited visitors get established, you can keep the off-flavors from nasties below the flavor threshold. A long, slow cooling of the wort is just an invitation for the nasties to get a jump on your yeast and to create enough off-flavors to be perceptible. Get a wort chiller.

A1.

Date: Mon, 1 Nov 93 12:35:19 EST
From: franc!kstiles@woomera.att.com
Subject: Evergreens in beer

There has been quite a bit of discussion about spruce beer lately, with comments about hemlock (the evergreen) tea, and most recently an interesting botany lesson from Edward F. Loewenstein <SNREDLOW@MIZZOU1.missouri.edu> on the Pinaceae family. Every year when I make my annual Spruce beer I wonder about other evergreens - pines, hemlock, and especially fir. I have some balsalm fir and Douglas fir, but since all references are to Spruce beer, I've confined my experiments to the picea genus - Blue, Norway, White and Black Spruces. I never tried the spruce extract that you can buy; maybe too much of that can give you a solvent taste, but it is virtually impossible to get anything like that with fresh sprigs. Most of the flavor seems to be extracted by the boil - I don't notice much affect from late kettle additions or "dry sprucing". You can definitely make a beer that's too sprucy, but it's not unlike making a beer that's too hoppy - a lot depends on the preference of the drinker, and in any case the solution to "too sprucy" is the same as for "too hoppy": dilution with a more conventional beer.

Any insight on the use of evergreens besides spruce? Will I be forced to pilot brew a balsalm fir ale? What would Euell Gibbons have done?

-Kevin Stiles

Date: Mon, 1 Nov 93 14:16:15 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Re: Belgian Special B (Matthew Rowley)

Brian comments that Special B would probably make a good start on a Scotch Ale recipe. Well, I had the same thought recently. Tasting notes follow.

Scottish 120/70

Made 3 gallons 120/- ("Wee Heavy") and 4.5 gallons 70/-

12 lbs Pale Ale Malt (Hugh Baird)
2 lbs Munich Malt (DeWolf-Cosyns)
1 lb Special B (DeWolf-Cosyns)

Single temp infusion mash @ 67C for 1 hour (1 quart H2O/lb)

120/-:

Sparge 4 gallons in two batches. I drained the mash tun once, then added a couple gallons of 77C water and drained it again.

Boil 1 hour, adding 1 oz Goldings at beginning, and finishing with 1/2 oz Goldings (10 min). (Target IBUs 35) O.G. 1096. Force chill, pitch YeastLab Irish Ale yeast from 1qt starter. Fermented at about 55F. At 2 weeks, gravity was down to 1032, and I pitched the slurry from another quart starter of YeastLab London Ale yeast. Tasted nicely malty and alcoholic. I'll probably pitch new yeast at bottling time, as beer this alcoholic seems to have trouble carbonating.

70/-:

Sparge 5.5 gallons (normal technique, keeping water about 1" above grain).

Boil 1 hour, with 1 oz Goldings at start and 1/2 oz at finish. (Target IBUs 24) O.G. 1038. Fermented at "cellar temp" (65F?) for 2 weeks, then "mini-kegged" with gelatin finings, as it seemed to still be a little cloudy. Finished at 1010.

Tasting notes: nice malty notes, with a medium-low hop bitterness (probably a little high for the style). Color medium amber. Easy to drink a lot of it.

I served this at a party for a Scottish friend who is leaving town, and I was a little nervous about its reception. However, they thought it was pretty closely on target, although the color was light. I got compliments on the beer from all the Brits (Scottish and English) present.

Date: Mon, 1 Nov 93 13:30 CST
From: fjdobner@ihlpa.att.com
Subject: Basement Brewing

Mathew Harper asked for tips on planning an area in your basement for dedicated brewing. I do not have a dedicated area, but rather serves several purposes. One of the things I did put in was a range hood. I had heard from other homebrewers that they spend hours wiping down walss from all the moisture that is generated from the boil. The moisture is an open invitation for mildew and all types of creapy crawlers to take root in the floor joists.

I went out looking for a range hood at a garage sale and found one for \$10 at the first place I stopped. I suspended it from the ceiling with cables. I used a dryer vent package that includes the 4" hose and the actual vent itself that goes to the outside.

I used it fro the first time two weeks ago. Works like a champ. I really recommend it. Write me if you want to know more.

Frank

Date: Mon, 1 Nov 93 12:21:07 -0800
From: bpeck@ash.cisco.com (Barrett Peck)
Subject: CNY Clubs

Brewers -

I am a relatively new brewer having made my first beer last month. I'd like to get more info and understand more of what I'm doing and what the beer is doing throughout the process. Is there a club in Syracuse, NY of Brewers? If so, please let me know. This appears to be something I'd like to get better at doing.

- -- Barrett Peck --
bpeck@cisco.com

Date: Mon, 1 Nov 93 15:48:28 EST
From: John DeCarlo<jdecarlo@homebrew.mitre.org>
Subject: Wyeast Packages And Bursting

Drew Lynch mentioned he would be curious to see if the Wyeast package would burst. Thus my story.

I forgot about a package of Wyeast American Ale (don't ask me how, but I have small children). I ended up using some of my existing yeast stock on that batch. Two weeks ago, cleaning up around the computer (I keep them warm by wrapping in a towel and keeping near the computer until they get big), I found one that I had "burst" three and a half months earlier. "What the hey", I said, and pitched it into a starter anyway. The package was *less* puffed up than it would normally be at max--don't ask me why. The starter tasted and smelled fine and the beer tasted fine going into the secondary. I suspect the yeast suffered but pulled through like troopers. I *don't* think the current packages will explode under normal temperatures and pressures.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org
If I were you, who would be reading this sentence?

Date: Mon, 1 Nov 93 14:01:35 MST
From: npyle@n33.stortek.com
Subject: Hops FAQ, Postmortem

This is regarding the recently published Hops FAQ. I welcome all comments so that I may take one more shot at revising it before turning it over to the archives. Keep in mind, though, that it is a list of Frequently Asked Questions. The answers are generally available around the net, and were (mostly) NOT just dreamed up by me. I tried to present the "net.wisdom" side of most things, which doesn't imply, by any stretch of the imagination, that it is correct in every aspect. Most of the answers have been considered helpful my many, but in need of some discussion and changing. That is the purpose of active involvement in the HomeBrew Digest, not the purpose of the FAQ. Take it for what it is and discuss controversial topics on the HBD. I will be glad to discuss anything and everything in the FAQ, but I may or may not wish to make changes to it (editorial privilege?).

I welcome anyone who wants to take it, once archived, and revise it to your heart's content. I realize it is not perfect; never will be. It is the best that my current time and resources allow and I am happy with it. Comments welcome, but see my side of it. As always we thank you for your support!

I should mention that Glenn Tinseth from The Hop Source, unbeknownst (is that a word?) to me, wrote the bulk, if not all, of Part 1/5. He was not credited, but he will be in Rev. 3. Sorry, Glenn. My fault for not keeping better care of the sources of the info. I hope you don't feel too ripped off. In hindsight, separating the credits from each passage may not have been the best idea I've ever had.

Cheers,
Norm

P.S. To anyone who may consider doing something like this: I learned as much about hops in the last 2 months as I did in the last 2 years. Lots of work but worth every minute.

Date: Mon, 01 Nov 1993 13:03:22 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: Beer Head/ Best Bitter Recipe/Pnts AAU Calcs?

Cisco (John Francisco)'s new sig.line says:
>May your beer give you great head!!!!

* Now that's kinky! I find it works better the other way around.
* Question: Does "liquid male extract" increase head retention?

Also- Thanks to the JOKER for offering such a splendid accounting of a typical workday in the life of Wyllie Coyote. I just hate it when I fall to the bottom of those canyons, especially when a big rock- or worse- LARGE pot of boiling wort- falls on my head. You think all that sounds bad- you should see what ACME has offered me to "smooth" my way through a brewday. Rocket powered Racking canes!

Ok, but really. I Brewed a Best Bitter yesterday...following (roughly) a recipe for an IPA type bitter I posted the other day.
for 12 gallons

Best Bitter:
14# 2 Row Pale malt (only had american on hand.)
1.5# 60L Xtal
.3 # Victory Malt
.5 # Wheat malt

BOIL: 2 oz Chinook (13% alpha)
2 oz Centennial (10%)
2 oz Cascade (7.3%)
These were all flake hops stored in freezer ~ 2 months (or more)

FINISH: 2 oz Cascade- homegrown. Smells YUMMY and fresh. Good xtal devpt.

German Alt Yeast (dregs from previous ferements)

OG 1.035. Temp 25 deg C.

Question: In calculating points what grains are included, or do you just use the WHOLE grain bill? I can see wheat, and munich contributing fermentables, but what about things like chocolate which don't?

Calculation: 35 sp.gr. x 12 gall. / 16.33 #'s = 25.72 pts/lb
Is this right? It seems reasonable to me. That's within the range I expect from my cooler/lauter tun. But I'm not sure If I got the equation right. (I always get confused...maybe ACME has a kit...hmm...scratch chin)

AAU's...(13 x 2)+ 20 + 14.6 = 60.6 => 25.25 AAU (5 gallon conversion)
QUESTION: Is this right? I need to dig up the HopsFaq and check.

This is gonna be one bitter mo-fo. But ooooooh my house smelled delicious after the 1.5 hr boil! Everything is hoppily underway this morning.

I think I need to try a RauchBier before I retire the BBQ&Smoker for the winter. Plus it seems a fitting celebration to my folks house surviving the Altadena fire last week. (what a nightmare!) That'll be MUCH stronger!

```
/******  
/  
~~~~~ John (The Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~  
/* I finally got everything all together, then I forgot where I put it! *  
/  
*****
```

Date: Mon, 1 Nov 93 14:31:58 MST
From: npyle@n33.stortek.com
Subject: Plumbing

Well, it appears we have a real HBD plumbing problem on our hands. I scanned the HBDs for the last seven days and I was quite impressed. I expected to see at least 25% wasted space (wasted space defined as articles which apply not at all to homebrewing). The beer drinks thread qualifies (who would really do any of this to your homebrew?), as do the complaints about people's .sig files. Those two topics were virtually all of the badness on the HBD recently. I expect that amounted to less than 10% of the total HBD bandwidth, a wonderful S/N ratio, IMHO.

So, what do we do? Quit posting junk like this one? Maybe. Two-a-days are possible, although I don't know Rob's limitations nor inclinations. I did notice his change to Six-a-weeks. That is a good start and it may prove to be all that is necessary. It is the brewing season and that increases brewing questions, thus HBD traffic. I suggest no panics yet, use email whenever general interest is not served, and wait. I suppose we could ask everyone to use as much self-restraint as possible with things like "Are there any good pubs in XXX?", but as I said before the S/N ratio is still quite good. Long .sigs, orgasmic ones or not, should be avoided whenever possible. Other than that, I say, "Keep up the good work!".

Old Lucifer update: OG 1085; SG 1035 after 6 weeks. I may rename it Old Energizer Bunny (keeps going, and going,...). Pitched dry frog yeast this weekend (I'm a jerk, I know). Anyone want 5 gallons of all-grain liquid candy with 6% alcohol? I want my carboy back!

Norm

Date: 01 Nov 1993 16:46:54 -0700 (MST)
From: "Steven W. Smith" <SMITH_S@gc.maricopa.edu>
Subject: Another immersion chiller

I've been lurking for awhile, so I thought I'd finally break down and be sociable. I recently built my first immersion chiller, and it occurred to me that I may have done something marginally innovative (it could happen)

The chillers I've seen for sale seem designed to sit in the bottom of a pot. Mine hangs over either side, so that the coil is suspended near the top - where it's hot. The idea being that the cooled wort will fall to the bottom and encourage circulation, giving faster cooling without stirring. I've only used it once, but it worked well (faster than a bathtub full o' icewater)

For your viewing pleasure, I include the crudest possible ascii rendering of said chiller. It can be adjusted for different pot sizes by stretching or compressing the coils (refrigeration copper tubing).

```
  //  //  
_/ /00000/ /_
```

```
  _/_/|  
 /o.O;  Steven W. Smith, Programmer/Analyst  
=(__)=  Glendale Community College, Glendale Az. USA  
        USMITH_S@GC.BITNET  
smith_s@gc.maricopa.edu  
Hoppy trails. (ouch)
```

Date: Mon, 01 Nov 1993 18:35:44 -0400 (EDT)
From: WESTEMEIER@delphi.com
Subject: Keeping the club healthy

Andy Kligerman asked for input about keeping a homebrew club healthy.

Our club is very healthy, if growth is a good measure. The Bloatarian Brewing League (of Cincinnati) was founded by Ray Spangler, 1987 Homebrewer of the Year.

We are extraordinarily lucky to have the support of the Oldenberg microbrewery and Drawbridge Estate complex. They give us a meeting room each month at no charge, in return for putting on a couple of homebrew demonstrations each year for the Oldenberg Beer Camp.

It seems to me that the best method for keeping a club from degenerating into a beer drinking club is to have a well planned program for every meeting. The socializing part is great, but there has to be more. We occasionally do a "Dr. Beer" seminar to demonstrate specific off-flavors in beer, helping to educate members' taste buds. We also have an organized tasting each month, wherein members bring samples of their latest brews which are tasted by a panel of experts (and anyone else who cares to participate) with feedback provided as a distinct part of the meeting.

That lets everyone in on the secrets of evaluating beers, provides a useful function to keep the experienced members from being bored, educates the newcomers, and keeps things fairly organized.

We also invite local merchants to attend and give tastings of special beers, which is great advertising for them (and almost free) and a treat for us (as well as being educational).

We have various members give presentations on equipment construction, describe specific beer styles, discuss yeast culturing, etc.

Road trips are another great tool. We plan on a meeting place, then carpool to interesting brewpubs or other places of interest to homebrewers. These are very informal, lots of fun, and a nice supplement to meetings

It's also important to have something planned for each meeting that involves beginners as well as for the more advanced members. That can be an activity related to identifying a specific problem in a beer or maybe something about equipment or ingredients.

Make sure that your club leadership includes everyone in discussions, as beginners can be intimidated by a lot of the arcane that concern the more advanced brewers. Try to define highly technical terms the first time they are used at each meeting, at least when you have newcomers present. Don't criticize the efforts of beginners, but make them opportunities to suggest ways to improve.

Finally, use the mails. We have an 8 page monthly

newsletter that covers lots of ground, but you can do much the same thing with a single sheet of paper that describes what went on at the last meeting (for those who missed it) and what is planned for the next one. Many people need that kind of reminder between meetings.

Ed Westemeier
Cincinnati, Ohio
westemeier@delphi.com

Date: Mon, 1 Nov 93 20:53:00 -0600
From: phil.brushaber@lunatic.metronet.com (Phil Brushaber)
Subject: The Two Millers

I have both of Dave Miller's books. He seems to have alternate grain bills for Dopplebock in the two books. In one he suggests 100% Munich as the main grain, in the other he suggests about 80% Lager/Pilsner malt and 20% Munich (about 3 lbs Munich). (and of course cara-pils and crystal).

I've been going with the Pilsner/Munich mix. Has anyone brewed with 100% Munich? Flavor profile? Results? Warnings?

... All, known to his friends as Captain Capper!
___ Blue Wave/QWK v2.11

- ----

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more! |

Date: Tue, 2 Nov 1993 06:14:00 PST
From: John_D._Sullivan.wbst311@xerox.com
Subject: California Common

Hi all,

I'm hoping someone has a good All-Grain recipe for St__m beer or California Common Beer. Private E-mail please. Thanks very much,
John

Date: Tue, 02 Nov 1993 08:24:09 -0600 (CST)
From: Robert Schultz <Robert.Schultz@usask.ca>
Subject: informal get together in San Diego Dec 7-10?

Any of you folks out there planning to attend the CAUSE '93 conference in San Diego on December 7-10, 1993? If yes, email me and maybe we could get together for brew or two.

The conference is being held at the Sheraton on Harbor Island. I have extracted the list of brew pubs in the San Diego area (circa 1991 ?). Any of you folks that are familiar with the area have any suggestions of must see/don't waste your time brew pubs????

Comments appreciated.

Rob.

~~~~~  
~ Robert.Schultz@usask.ca, University Studies Group, University of Saskatchewan~  
~~~~~  
~ "I'm going off half-cocked? I'm going off half-cocked? ... ~
~ Well, Mother was right - You can't argue with a shotgun."- Gary Larson
~
~~~~~

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Date: Tue, 2 Nov 1993 09:47:34 -0500 (EST)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: Hops FAQ

Since this Hops thing is a FAQ, I feel obliged to put on my Monty Python act and NIT, NIT....

> Subject: Hops FAQ, Part 5/5  
>  
> Name: CASCADE  
> Grown: US  
> Profile: spicy, floral, citrus (esp. grapefruit) aroma  
> Typical use: bittering, finishing, dry hopping for American style ales  
> Example: Sierra Nevada Pale Ale, Anchor Liberty Ale, Old Foghorn  
> AA Range: 4.5 - 7%  
> Substitute: Centennial

Centennial is a great hop, and certainly similar in some respects to Cascade, but they are not really \*substitutes\*. Centennial is much spicier, and contributes a different citrusy essence to the beer. I usually like to mix the two hops, and while Centennial is a pretty high alpha hop (~10%) it can still be used as a dry hop quite successfully.

>  
> Name: CRYSTAL (CFJ-HALLERTAUE)  
> Substitute: Imported Hallertau, Mount Hood, Liberty.

"Imported Hallertau" does not mean much today. The region the hop variety is grown in is what counts, as "Hallertau" hops are grown all over Germany as are Tettanger, hence the names, Hersbruecker Hallertau, Hallertau Hallertau, Tettang Hallertau, Tettanger Tettanger, etc.... I encourage brewers to use the correct terminology, as it is a real difference which hop a brewer uses in a given recipe.

>  
> Name: EAST KENT GOLDINGS  
> Grown: UK  
> Profile: rounded, pungent aroma

also "earthy"

> Typical use: bittering, finishing, dry hopping for British style ales  
> Example: Young's Special London Ale, Samuel Smith's Pale Ale

LaChouffe!!

> AA Range: ???

4-6%

> Substitute: BC Goldings, English Fuggles

There is none!!

> Name: HALLERTAUE HERSBRUCKER

Reverse, HERSBRUCKER HALLERTAU

> Grown: Germany  
> Profile: pleasant, mild aroma  
earthy, can be quite spicy, ummmmmmm, and quite aromatic, Pils anyone??  
> Typical use: finishing / dry hopping for German style lagers

only "German style lagers" brewed in the US are dry hopped :-) BTW, most german lagers are finished at 15 minutes to end of boil, not at the very end as many of us do. This, in conjunction with the whirlpool, will add bitterness, and aroma to the beers. Many german brewers dislike the very late additions of this hop.

> Example: ???

Pils.

> AA Range:3 - 5%  
sometimes less than 3, I currently have 2.3-2.6  
>  
> Name: HALLERTAU MITTELFRUEH  
> Example: ???

Sam Adams

>  
> Name: MT. HOOD  
> Grown: US  
> Profile: mild, clean aroma  
> Typical use: finishing / dry hopping for German style lagers  
> Example: ???

Mt Hood Ale??

> Name: NORTHERN BREWER  
> Grown: UK, US, Germany (called Hallertau NB), and other areas  
Now we got it right, Hallertau NB. NB grown in the Hallertau region of Germany.  
>(growing region affects profile greatly)  
Exactly!!  
>  
> Name: SPALT  
> Grown: Germany/US  
> Profile: mild, pleasant, slightly spicy  
> Typical use: aroma/finishing/flavoring

Bittering too!!

> Example: ???

Alt bier of course, thats the bittering hop commonly used.

> Substitute: Saaz, Tettnanger.  
Saaz???

>  
> Name: STYRIAN GOLDINGS  
> Grown: Yugoslavia (Fuggles grown in Yugoslavia), also grown in US  
> Profile: similar to Fuggles  
> Typical use: bittering, aroma for a wide variety of beers, popular in Europe  
> Example: ???

Belgium ales, Rochefort,

>  
> Name: CENTENNIAL  
> Grown: US  
> Profile: spicy, floral aroma, clean bittering hop (Super Cascade?)  
> Typical use: general purpose bittering, aroma, some dry hopping



> Example: ???

Sierra Nevada Celebration ale, Old Crustaceon Barley Wine (Rogue), Jim  
Busch  
New American Ales :-)

> Name: PERLE  
> Grown: Germany, US  
> Profile: pleasant aroma, almost minty bittering hop  
> Typical use: general purpose bittering for all lagers except pilsener  
> Example: ???

Sierra Nevada Pale Ale

This is good info, just nitting around here, lots to know about hops...  
..

Best,  
Jim Busch

-----

Date: Mon, 1 Nov 1993 09:47:17 -0600 (CST)  
From: jim@n5ial.mythical.com (Jim Graham)  
Subject: Oatmeal Stout results!

Ok, it's been a few weeks now since I brewed my oatmeal stout, and a bit longer since I asked the HBD for assistance in this area. Well, we now have some results...and they're very \*GOOD\* results. :-) Thanks to all who provided me with valuable information that led up to this batch.

I also have a question regarding the sediment in the bottle, but I'll leave that to the end.

I went with the following:

6 lbs Oatmeal Dark extract (from William's)  
1 lb Dry American Dark extract (also from William's)  
1/4 oz English Fuggles (60 minutes)  
1 oz English Fuggles (30 minutes)  
1 packet Burton Ale liquid yeast (William's)  
corn sugar for priming, as always....

The recipe called for 4 oz of Lactose (add during last 10 minutes of boil), but I didn't have that, so I skipped it. :-) This recipe was what the guy I talked to a William's said would be closest to Sam Smith's Oatmeal Stout, so that's what I went with (he'd given me a slight variation of this over the phone---it included Hallertauer hops, which this doesn't).

Result: I'll do a side-by-side comparison with Sam Smith's Oatmeal Stout tonight, if I can find any (SS isn't easy to find, due to how expensive it is---the stores don't stock much, and they don't always stock it at all)

But just from memory, I'd have to say that it is either a very close match, or is dead on. And it's very, very good. Yummmm....

It's also particularly appropriate now, since we just got hit with the first real signs of winter (about a month early, too), and actually went into the 30s last night. Yuck! But, in the evenings, I have a nice oatmeal stout (served at proper cellar temps, thanks to the fact that the apartment isn't approaching 800F) to warm me up.

Ok, I mentioned a question.... This is the first time I've used liquid yeast. I've noticed that the sediment in the bottle seems to be a lot finer than normal (i.e., much smaller bits, and more of them). Is this a characteristic of the liquid yeast? Or is it just a characteristic of that particular liquid yeast? Just curious. Btw, I haven't really decided whether it makes pouring the beer easier or more difficult.... but you certainly have to pay a lot more attention to where the sediment is when you pour (my first glass had a bunch of sediment at the bottom).

Later,  
--jim

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-- --
#include <std_disclaimer.h>      73 DE N5IAL (/4)
-----< Running Linux 0.99 PL10 >-----
-----
INTERNET: jim@n5ial.mythical.com | j.graham@ieee.orgICBM: 30.23N 86.
32W
AMATEUR RADIO: (packet station temporarily offline)  AMTOR SELCAL: NIAL
-----
-----
E-mail me for information about KAMterm (host mode for Kantronics TNCs).

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Date: 2 Nov 1993 08:20:27 U  
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>  
Subject: Brass in the boil

Hi Group,  
I noticed the Brass post today, and I can come up with an answer I think.  
First, are you noticing ANY corrosion? Any roughening of the surface?  
IF your fitting is an alloy containing Lead (unlikely) that would be a  
big  
problem. The leaded alloys are UNS # C3X000 series. These alloys are used  
when  
increased machinability is desired.

Hopefully, the brass fitting alloy being used is Red Brass aka UNS #  
C23000  
aka ASTM B43. That alloy is all Copper-Zinc and will pose no health  
hazard. The  
zinc is in solid solution for this alloy and is not subject to leaching.  
Other  
alloys such as Admirality Brass (copper zinc tin) may be in use and are  
acceptable.

With Red Brass or Admirality Brass, any corrosion you may be seeing would  
not  
be toxic. Corrosion in this case may be the Brightening of the fitting  
during  
use, the same as your wort chillers.

-John Palmer  
600 laid off the Space Station last Friday, but fortunatly I made the  
cut.  
Invest in the Space Program, folks, tell your congressmen. It promotes  
good  
jobs through transfer of technology for a good future. It also inspires  
our  
children toward higher education. Keep America Strong.

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Date: Tue, 02 Nov 93 11:25:09 EST  
From: dweller@GVSU.EDU (RONALD DWELLE)  
Subject: one-pot brews

I just met an older fellow (80+) who's been brewing forever. Offered a nice lager (a bit cloudy) which is all he makes. Among other things, he said that he never uses two containers (primary and secondary fermenters) but instead puts the whole batch in 5 gallon carboy, airlocks it, and then waits till it's all done. He said that using two fermenters (I use a plastic bucket, then a carboy) was foolishness and the best chance to get contamination.

Since all the procedure's I've heard about recommend two--a primary and secondary--this fellow's method seems peculiar.

I wonder if anyone else has experience using only a single jug.

Cheers,

Ron Dwelle (dweller@gvsu.edu)

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Date: Tue, 02 Nov 1993 11:31:11 EST  
From: Y Y Zed <fini@bigvax.alfred.edu>  
Subject: sterilization options/procedures

Hi all - I'd like to get some input on the methods you use for sterilizing/disinfecting equipment and bottles. I've been told by a few people that bleach is to be avoided due to the risk of residual bleach solution killing off yeast. An alternative is B-Brite, but I don't know how effective it is at killing everything off compared to bleach, which is very strong. I'm relatively new at the game, and since I like to experiment I disinfected the bottles for my first and second batches with rubbing alcohol and then rinsed well. The first batch turned out well, but the second had a weird aftertaste (due to bacterial infection, I assume). What's the best method for sterilizing mass quantities of bottles? bleach solution in a bathtub?

thanks -

Paul Fini

fini@bigvax.alfred.edu

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Date: Tue, 02 Nov 1993 09:33:07 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Frogs?/Cider/Scotch Ales

Norm says: "...have to punt (i.e. pitch a frog yeast).

And that's SG for the nitpicky coyote!:)")

\* Pardon my ignorance...What's a "frog yeast"?  
\* Norm...sounds like you can use FG pretty soon!

\*\*\*\*\*

>You Don't want cider with sorbate. Find an orchard and get  
>the fresh pressed- unfiltered stuff. Much worth it!

That's very good advice. \* (but of course!!!! :) )

\* I submit: I over-stated sorbate's effectiveness.

\* It inhibits yeast budding=reproduction. Bacteria don't bud.

\* A note on cider sources...and hg apples....There have been cases  
of E.coli infections from apples which had fallen, sat on the ground  
prior to pressing. E.coli may be a common component of the flora of  
your bowels...but it's better to keep it at that end, not at the other!

The point here...it may be safer to campden your cider, then pitch.  
Rather than try to rely on the normal flora of yeast/bacteria/other bugs  
which might reside in fresh cider. I'll be starting up this years cyser  
pretty darn soon (payday!!! pant...groan...)

Also: It's worth bugging your presser to inquire about the types  
of apples used. Many orchards will press what's on hand. That may  
vary from day to week. You might get a better deal if you:

1. Go in with friends and buy LOTS! We walk off with up to ~20gals!

2. Arrange to come in on pressing day. You get fresher cider, and  
you won't depleat their stock. Bargain and you might get a better  
deal. The best I've run into is \$2.50 / gallon.

\*\*\*\*\*

Eric Urquhart (eurquhar@sfu.ca)

Centre for Pest Management,\* Sounds like you'd have your work cut

RE: Noonan's Scotch Ale book \* out to deal with the likes of me!

\* I was quite pleased with it. The history is interesting...ok so  
I found the water chapter kinda boring...and didn't feel like he gave  
a good explanation of the process of double mashing...just assumed we  
knew all about it! The book passed around a couple of friends and  
resulted

in the finest products out of these brewers I've seen in quite some time.

I made a 90 shilling first runnings, and continued to sparge a 2  
penny.

I didn't have the exact ingredients called for, but was pleased with the  
result. A strong- malty sweet, deep rich brew. I must try it again  
soon.

I won't bother posting the recipe unless there is a call for it. (i did a  
recipe yesterday...)

One thing I found intersting was that the dark malt flavors came from  
roasted malt, not crystal. I always assumed it would be a heavily xtal'd  
grain bill. Not so. Also...I would've assumed good 'ol greg would've  
promoted the Decoction- being a master of it himself...ok at least a  
previous author on the subject.

I did find the book to be more clearly written than his Lager book.  
I think I still like Porter/Pale ale the best. Mr. Fix's Oktober etc.  
is also a very nicely written piece. I do find these books to inspire  
the desire to explore a style in greater detail. It also gives ideas  
on how to name your ferments...even if you drift away from the style a  
bit!

/\*\*\*\*\*/

~~~~~ John (The Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~  
/***** Brew on you bums! *****/

Date: Tue, 2 Nov 1993 8:36:29 -0800 (PST)
From: Jim Cave <CAVE@PSC.ORG>
Subject: Counterflow chillers

There has been considerable debate recently on the relative merits of immersion vs. counterflow chillers. While I do not intend to try and convince others to switch to the counterflow design, it is the one that I use for the following reasons:

1) About 50% of the beers (all-grain) that I brew are lagers. I prefer very cold ferments to these beers (45 F). For much of the year, I can get my beer close to this temperature with this design. During the summer months I use an additional coil (after the counter current) which runs through an ice bath. This drops the beer an additional 10 F. This rapid drop in temperature makes for remarkable cold breaks.

2) Much of the trub falls out in the kettle. I have a hop-back and a second screen in at the outlet-valve to prevent the occasional errant hop from entering the chiller. I give the wort a quick stir to generate a whirlpool. The counter-current flows into glass carboys. I then rack off the trub and into glass carboys (Yes I rack off the trub; the breweries I have talked to estimate that they remove 95% or more of their trub prior to ferment).

3) The unchilled beer remains well above 160F and is therefore sterile. Gravity checks can be rapidly made at the exit of the chiller and gently re-introduced to the boiler without fear of contamination.

4) When 2/3's of the wort remains in the kettle, I throw in hops for aroma (hot soak). This gives excellent aroma. A hop-back in-line with the chiller would be a better way to go but I have't come up with a rugged design yet.

5) With my boils, I always seem to end up with a gravity 4 or 5 points higher than target (and correspondingly less volume). I have recently come up with a gentle way of adjusting gravity. I fire up the sparge tank and boil water. This is introduced with a tube into the boiler with the beer (when the beer has nearly all gone through the chiller). This gently washes the hops and trub of fermentable extract.

One disadvantage that I see with the counter current chiller is that the Irish moss addition is less effective, as it doesn't really enter the collecting carboys. Consequently, the beer in the collecting carboys takes longer to drop bright than it otherwise would in the boiler. However, as I

mentioned, trub is also settled and filtered out in the boiler.

I guess you pays your money and takes your chances!!

Jim Cave 684-684-8081 "I brew.....I am"

End of HOMEBREW Digest #1263, 11/04/93

Date: 2 Nov 93 10:33 CST
From: Wolfe@act-12-po.act.org
Subject: SS Kegs

Thanks to everyone who responded to my questions about mashing/lautering. I located 2 15.5 gallon SS kegs, so I bought them with the intent of turning one into a mash/lauter tun and the other into a boiling kettle. I'll probably be doing 10 gallon batches by the new year! The mash/lauter tun will probably be of the EasyMasher variety, and the boiling kettle will have a spigot so that I can also use it as a settling tank.

Can anyone out there offer guidance in converting these kegs? I need answers to questions like: How should they be cut? Which end should be cut (on the valved end, I suppose)? Where on the keg should the cut be made (top or side)? How many inches from the bottom should I install the manifold outlet on the mash/lauter tun (right AT the bottom, I suppose)? How many inches from the bottom of the boiler should I install the spigot (i.e., How much sediment can I expect from a 10 gallon batch)?

Thanks in advance,

Ed Wolfe
WOLFE@act-12-po.ACT.org

Date: Tue, 2 Nov 1993 08:53:10 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: Counterflow Wort Chillers

I only chime in because I don't want anyone to get the impression that just because Jack Schmidling is adamant he is also correct. There are a good many reasons why someone would choose a counter-flow wort chiller over an immersion chiller, that have nothing to do with scale. If Jack had come to my presentation last year in Milwaukee, he'd know that.

Briefly, my reasons are simple: it's faster, the wort arrives in the fermenter at the correct temperature without being unduly exposed to the air or sitting around in a kettle while I stir the damn thing, and <important> the only "stuff" that arrives in the fermenter besides the wort is some cold break, which precipitates out magnificently and from then on doesn't pose any problems, because IT WILL NOT BE REABSORBED INTO THE WORT. The wort does not have to be racked off the cold break.

That presentation, by the way, was published in the last volume from the AHA, and includes scientific references, instructions on how to build an inexpensive counter-flow wort chiller, how to siphon bright wort out of the kettle (hint: whirlpool), and a number of variations on immersion wort chillers, courtesy of the internet homebrew crowd.

But, once again JACK HAS SPOKEN. Be advised, however, that in the past Jack has spoken through his hat more than once. More than twice, for that matter. But I can see it now: "Real brewers only brew all-grain." "Real brewers culture their own yeast (although once upon a time liquid yeast was for snobs, remember, Jack?)." and now: "Real brewers use an immersion chiller." Pffft.

- --Jeff Frane

Date: Tue, 2 Nov 93 11:37:59 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Hop Flavor

I have always had a strong preference for low alpha aroma hops, even for early additions for bittering. I find that they give (if fresh!) a clean and mellow bitter, which contrasts with the crude effects I pick up from high alphas.

There is a large literature on this subject. Perhaps the most influential has been the paper by Rigby which appeared in the 1970s (ASBC Proc., 1972).

He identified co-humulone as the hop resin that was responsible for the "high alpha taste". Bishop, et al (J. Inst. Br., 1974) reproduced these results, and in addition showed the isomerized fraction from co-humulone was foam negative. The other humulone analogs exert a positive influence on beer foam. All of this jives with my own brewing experiences. In addition, all of the high alpha varieties known to me have much higher co-humulone values than aroma hops.

Recently Wachesbauer (Berlin) has called these results into question. The original papers appeared in Monatsschrift fur Brauwissenschaft, although English translations can be found in the 1993 editions of Brauwelt. He brewed beers with each of the humulone analogs added as pure extracts. No differences in the hop flavors were detected, although his study confirmed Bishop's findings about effects on beer foam.

These findings are consistent with the work of Professor Narziss and his students. They have long insisted it is the hop oils that are the most important. While most of these are removed during the boil (and possibly the fermentation as well), residuals coming even from early hop additions have been measured in finished beer. They tend to have very low flavor thresholds, so their effect on taste may be way out of proportion to their concentration. In terms of the hydrocarbon fraction, they cited the ratio

alpha-humulene/ myrcene

as an important parameter. Values >1.5 were reported to give a "refined flavor" (for Narziss, flavor= smell and taste), while values <1.0 had the opposite effect. Some oxidation products such as beta-farnesene and trans-geranoil were also cited as negative factors. They reported the following:

KEY: Hmfr = Hallentauer Mittelfruh (German), S = Saaz , Cas = Cascade (US),
Clu = Cluster (US) (Ugh!), BG = Brewer's Gold (German) (Double Ugh!).
UNITS: mg/kg

| | HMfr | S | Cas | Clu | BG |
|----------|------|------|------|------|------|
| myrcene | 2642 | 1049 | 3194 | 2536 | 7767 |
| humulene | 5095 | 3512 | 4341 | 1689 | 5092 |

ratio 1.93 3.35 1.36 .67 .66
geranoil10 1253 80 186

The numbers speak for themselves. While Clusters are technically a moderate alpha hop, my experiences with them have been similar to those with BG, and in both cases the results have not been very happy ones. This is of course a highly subjective evaluation. What may be "crude" to one palate may be "complex and interesting" to another.

I talked to Glenn Tinseth on Monday (ordering hops from the new crop), and the values he reported look good. Particularly impressive are how well the new aroma varieties (Liberty and Mt. Hood) are doing vis-a-vis the above criteria. He mentioned that the European aroma hops from the 1993 crop will be available in ~month.

Glenn also noted that his sales of Styrian Golding have been very slow, and that many brewers are uncertain what to do with this variety. In this regard, permit me to cite Michael Jackson's new book (which BTW is excellent). He mentions this hop quite a few times, and notes it is highly prized in the UK both as a finishing and dry hop. I completely agree with this, and feel it does well in select lagers as well. It is certainly worth exploring for those who have not done so.

-George Fix

Date: Tue, 2 Nov 93 09:06:28 PST
From: troy@scubed.scubed.com (Troy Howard)
Subject: Re: Kraeusening

haist@cogsci.UCSD.EDU (Frank Haist) says:

> Next weekend I'm going to make my initial foray into all-grain
> brewing, but first I'd like to tap some of sage advice from this
> group. My current set-up for fermenting includes two 5-gallon
> carboys. After spending the money for most of the all-grain
> equipment, I decided to wait on a 7-gallon cb. Based on most recipes
> it looks like I can expect about 5.5 gallons of wort after the boil.
> that will yield about 5 gal after fermenting blowoff. I'm planning to
> take the initial 1/2 gallon excess, store it (via standard canning
> procedures for sanitation), and then use it to krausen the beer
> prior to bottling. This seems to have three immediate advantages:
> 1) I can continue my preferred method of primary and secondary
> fermentation in glass carboys, 2) I will end up with a true "all-malt"
> ale, and 3) the final volume will still be about 5 gallons. I have
> two main questions. What are people's experiences, good and bad,
> with kraeusening? Second, how accurate is the equation given by
> Papazian for determining the amount of wort (I guess now called
>> gyle) in getting similar carbonation to 3/4 c corn sugar (Appendix
> 3, pp. 331-332)? Thanks in advance.
>
>- ---Frank
>haist@cogsci.ucsd.edu

Sounds like a great idea. I have used Papazian's formula for priming with gyle in a previous batch and it worked out just fine. The brew carbonated quite well.

Miller, on the other hand, suggests that priming with gyle or malt extract can be unpredictable. I have primed several times with DME and had no problems. I have only primed once with gyle so I cannot comment on its repeatability. Note, though, the reason I did not continue with gyle priming was because it was inconvenient, not for any performance-related problems.

On the other hand, one advantage to priming with either DME or gyle instead of corn sugar is that, if you prime with corn sugar the yeast will exhibit what is known as the Crabtree effect and (even in the presence of oxygen) will ferment (instead of respire) thus leaving oxygen in your bottles. If you prime with DME or gyle, the yeast will first go through a minor respiration phase, consuming the oxygen, before they transition to fermentation.

-Troy

Date: Tue, 02 Nov 1993 18:52:49 +0100
From: KENT@lecs.ericsson.se
Subject: Chiller Tip, Second on Salvator

I have a small immersion chiller (used some copper tubing I already had) that was not working quickly enough. I connect the chiller to the kitchen faucet while the boiling pot is in one basin of a two-basin kitchen sink. What I did to improve the performance of the chiller is run the output back into the basin with the pot, and run a small siphon from the first basin to the second. The water coming out of the siphon is really hot! This cut my cooling times at least in half. (your mileage may vary - a decent chiller probably wouldnt gain as much from this). Much cheaper than building a new one! I also appreciated the tips about shaking the chiller to stir the wort (I'm going to try that next time), and installing the chiller in your kettle LID (The cops would really bust you for that setup ;^).

I would like to second the recent request for a Salvator type recipe . How do they make that stuff so sweet ? I thought it tasted of licorice (sp?) as well. Any time I try to make a high gravity dark beer it ends up becoming to dry (and sometimes even harsh) after a few months in the bottle. (Havent been able to maintain cold temperatures for real lagering yet ;(

This sig intentionally left blank.
Jim Kent
kent@lecs.ericsson.se

Date: Tue, 2 Nov 93 12:53:45 EST
From: Keith MacNeal 02-Nov-1993 1243 <macneal@pate.enet.dec.com>
Subject: No airlock activity & Black and Tan

In Homebrew Digest #1261 (November 02, 1993) SHAMAN@WHARTON writes:

;I'm a new brewer working on my second batch. I started this one 7
;days ago and so far there has been no fermentation that I can detect--
;the airlock hasn't bubbled once.

I had this problem in a recent batch. Turns out I didn't have the lid of
my
plastic primary snapped down tightly. It might have fermented just fine.
Look for other signs of fermentation such as a heavy sediment, signs of
krausen (foam), a drop in the specific gravity.

Also in Homebrew Digest #1261 (November 02, 1993) J. Michael Diehl
writes:

>I recall once having a "black and tan." I just wish I could remember
what
>was in it. It was a dark beer and a light beer floating on each other.
>Wonderfull drink, if I'm remembering it right. Any one know how to make
one?

Take a pint glass and fill it half way with Bass Ale. Finish filling the
glass with Guinness Stout. To prevent the layers from mixing while doing
this, pour the Guinness over the back of a spoon. Other variations can
be
made by varying the ale and stout used.

There is a Black & Tan available in bottles. It's put out by a brewery
in
Saranac, NY (USA). Obviously it's not layered. I believe the label says
they
mix one of their lagers with one of their porters and bottle it. Not a
bad
brew.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Mon, 01 Nov 93 20:31:22 EST
From: Heather <ST101834@BROWNVN.BROWN.EDU>
Subject: Your opinion on kits...?

Hello all -

I'm interested in buying my father a (smallish) homebrewing kit for Christmas. Although we both love beer, neither of us has ever attempted to make it before, and I'd like to know what your opinions are:

- 1) Should I buy a kit? Or are there a few essential pieces I can put together myself?
- 2) What's the approxiamet cost of it all?
- 3) What are considered "good brands" by the market?

Thanks! Heather Seal - st101834@brownvm.brown.edu

Date: Tue, 2 Nov 93 20:37 EST
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)
Subject: Making plugs from homegrown hops

Hi All,

The recent Hops FAQ has got me wondering again about hop plugs. For those of you who are not familiar with them, they consist of dried whole hops, compressed into a 1-inch diameter cylinder that's 3 or 4 inches long.

The plugs are segmented so that it is easy to break off smaller chunks. Plugs have the storage and convenience advantages of pelletized hops, and the advantages of whole hops in the boil (i.e. no pulp to clog filters, strainers, etc.). However, they are only available at a few places, usually only come in 5 or 6 varieties of imported hops, and are a little more expensive: \$6-\$7 for a 5-ounce package.

Now for my question: has anybody tried making their own plugs with homegrown hops? It seems like you would just need a press of some sort, and a mold to form the hops into a convenient shape (i.e. plugs). Any ideas?

Tom Kaltenbach
Rochester, New York, USA
tom@kalten.bach1.sai.com

Date: Tue, 2 Nov 1993 21:05:22 -0500 (EST)
From: "Tim Tillman (BIO)" <tillman@chuma.cas.usf.edu>
Subject: Labels and Florida Homebrew Weekender

>> One comment on using Ammonia to remove lables, works great one them,
>> except, an Etna Lager lable, they use a rubbery glue, the ammonia
helps,
>> butt... let'em soak a day or two.

The easiest way to remove labels that I have ound is this. First, buy a large plastic garbage can with lid. You know, the Rubbermaid type. Then take about one cup of tri-sodium phosphate and put it into the garbage can. Fill the garbage can about 2/3 - 3/4 full of water. Add 1 cup of bleach, and mix well.

Next, as you get empty bottles, just put them in the can. After about one day, maybe two the labels will slide right off. Rinse well and their ready for beer. Labels with a layer of foil such as Negra Modelo, may take longer.

- - - - -

BTW, I got no response to my request for homebrewers in Florida to contact me if they were interested in a homebrewer's weekend meet. So, I'll ask again...

Is anyone interested in setting up a Florida homebrewer's weekend meet? I see possibly having the following:

1. Local venders. (The Home Brewery, Hart's, Best Brew, others)
2. A seminar for new brewers.
3. A seminar for advanced brewers.
4. A beer contest, if we can get qualified judges. Possibly merchandise prizes.

Who's interested?

Tim Tillman - Assistant Beer SYSOP, GENIE

M.TILLMAN1@genie.geis.com
tillman@chuma.cas.usf.edu

Date: Tue, 2 Nov 93 10:28:48 TZ
From: Darryl Richman <darrylri@microsoft.com>
Subject: RE: melanoidins

I just want to go on a bit about melanoidins... Please keep in mind that I am discussing points in Jones' and Millspaw's article and not any conclusions Norm Pyle may have come to as a result of them in the following.

npyle@n33.stortek.com writes, quoting Jones and Millspaw's "Beer Stability" in Zymurgy winter 1992:
> "Melanoidins are stable complexes formed at high (mash-out) temperatures, they
> are colloidal in nature and are powerful reducing agents giving an acid
> reaction in aqueous solutions."

Melanoidins can be formed at nearly any temperature, but they really take off at boiling temperature. You can (and do) get melanoidin formation in your malt extract syrup at room temperature, if you wait a bit. But they need to be in a "drying" or relatively low moisture environment to make it happen. Melanoidin formation, or nonenzymatic browning (NEB) as it is more generally known in the food industry, is responsible for a large number of reactions. Bread crust formation, meat browning, and baked potato character are all results of NEB. You can see that these are surface reactions, where water is being evaporated out of the food (a drying situation).

That's why microwaved meat is so unappetizing: there is very little NEB going on, so there is little of that roasted meat aroma and caramel brown color. Similarly, this is not the situation in infusion mashing. Decoction mashing, on the other hand, would seem to have more of the right conditions, and is noted for the malty character of the beers it produces.

Each combination of an amino acid and a sugar molecule forms a different melanoidin, so you can see that there are many thousands of possible resulting ones. Also, if the reaction is not strongly driven by the right situation (temperature, low moisture), it has a tendency to fall back into its component ingredients. Unless you have a long time, temperatures under 100C just won't produce a lot of melanoidins. Pale malt, for example, is kilned at 80C for a number of hours, and produces only small amounts of melanoidins. Darker malts, Viennas and Munichs, are dried to 10% moisture at 80C and then raised to as much as 120C to enhance the melanoidin formation and, therefore, color and flavor.

In infusion mashed beers, most of the melanoidin content is coming from the original malt and perhaps the boil, if a kettle is in use that isn't wetted by wort (where the metal temperature will get significantly above 100C and the wort will caramelize or undergo NEB).

> beer. Melanoidins formed at 170 degrees F (76.5 degrees C) are more stable
> than those formed at the lower temperatures of conventional mashing. Adding
> specialty malts only in the mash-out can make the mash more efficient by
> maximizing the formation of melanoidins, optimizing saccharifications and
> eliminating steeping vessels and/or grain bags."

I would really like to know why holding these grains back is necessary; the reaction is less favored at lower temperatures, so little of it goes on. When the situation becomes appropriate, there are still plenty of raw ingredients (simple sugars, amino acids) to continue. (Narziss, in "der Bierbrauerei" volume 1, claims that only a few percent of the FAN (free amino nitrogen, a measure of simple amino acids) and the reducing sugars are consumed in making even the darkest of malts.)

--Darryl Richman

Date: Tue, 2 Nov 93 18:41:18 PST
From: klein@physics.Berkeley.EDU (David Klein)
Subject: krausing

On Kraeusining...

I've been toying with the idea of krausing my higher gravity beers just before botteling with fresh yeast (not with raw malt extract as Charlie P claims is the way to do it).

My reason for doing this follows from reports of better carbonation of high gravity brews with fresh yeast at time of priming (this is bottle carbonation obviously). I have noticed that normal priming levels are unreliable for high gravity brews and often undercarbonate, and sometimes leave some bottles with very low carbonation.

I am a practical brewer however, and don't feel like bringing up yeast solely to krause. I do, however, tend to brew the same day that I bottle and thus have a starter ready to pitch anyway. BUT my worry is that this new yeast will like some stuff the old yeast did not, and in a high gravity brew will eat some more of the "unfermentables" leaving me with bottle bombs. (I tend to bring up different yeast for each brew)

I would like to keep from making an extra starter (but will if needed) so I was curious what experiences have been with using different yeast to prime than to ferment.. any bottle bombs? (with high gravity beer in particular)

also even with another starter, the possibility of mutations, or just young eager yeast seems to open the door for further attenuation, has anyone had trouble with bottle bombs when krausing with the same yeast?

Dave

Date: Wed, 03 Nov 93 05:23:28 EST
From: gbgg5tt5@ibmmail.COM
Subject: Stainless Steel Kegs in the UK

- ----- Mail item text follows -----

To: INTERNET--IBMMAIL

From: Paul Slater (PWS)
(0242-236111) Ext. 2296
CMS33 @ GBMGRC00, GBGG5TT5 @ IBMMAIL
Subject: Stainless Steel Kegs in the UK

>Does anyone know IF you can get stainless steel kegs in the UK? and if
not are
there any UK people who can suggest a cheap source of stainless brew
kettles
etc?

I use a stainless steel Burco Boiler (wash boiler) that holds about 6
gallons.
It has an electric element like a kettle and a tap near the bottom. Some
have
a tap about half-way up the side which isn't as handy. If I were to
modify it
I would fit a proper perforated false bottom, and a simmer control rather
than
the on-off thermostat control it already has. I've seen 3 or 4 in second-
hand
junk shops, and mine cost 15 pounds. Well worth it, especially when I get
round to modifying it to stop the tap clogging occasionally.

Paul Slater
gbgg5tt5@ibmmail.com

Date: Wed, 3 Nov 1993 06:25:54 -0500 (EST)
From: "Tim Tillman (BIO)" <tillman@chuma.cas.usf.edu>
Subject: Re: Short bags of DME

Mike I. wrote recently that he accidentally made a low gravity ale because he was shorted on the weight of his DME bags. I suggest that you first contact the vender and explain the problem before writing them off as a source of supplies. It could have been an honest mistake. If they make the deal good, and often a small business man will do just that, then he comes out ahead. If not, well, take your business elsewhere.

Just my opinion.

Tim Tillman, Assistant Beer SYSOP, GENie.

Date: Wed, 3 Nov 93 7:09:34 EST
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: Sparging Questions

In HBD #1261 Ed asks:

- > Sparging -
- > What is the best way to sparge. Should you?
- > 1) Completely drain the bed, then sparge in one of the following ways?
- > 2) Just match the additions to the drainings?
- > 3) Sprinkle in all the water at once?
- > 4) Others.

I have made 3 all-grain batches (you can use that to qualify my answer) and have tried 2 & 3. My understanding is that with option 1 you run the risk of compacting your grain bed and may be more prone to a stuck sparge. I think option 2 is the way sparging is most frequently described and that is what I did for my first 2 batches. What I have gleaned from others is that the water level should remain at least 1" above the top of the grain bed and that water being added should not disturb the grain bed. I found that running the sparge water through a colander does a nice job of keeping the grain bed undisturbed.

On my last batch, I tried option 3; this has also been referred to as batch sparging. I put all the sparge water into a picnic cooler with a slotted copper manifold, added the mash and waited about a half an hour. Overall, it worked quite well but I would offer this caution. When I made my first two batches, I had not preheated enough sparge water so I did not get as much wort as I expected. When I did a batch sparge, I increased the sparge water and I overshot & had to stop draining before all the sparge water was gone - no more room in the brewpot and I was not ready to sign up for a 3 hour boil. Thus I ended up with a lower gravity wort than I anticipated (1.040 instead of 1.050; still quite respectable though). The reason there is any difference between the two methods is that when you add all the sparge water at once, the sugars are mixed pretty uniformly through out the sparge water. When you add sparge water as you drain off the wort, the first runnings will have more sugar in them than the last. Thus if you stop early, you have left fewer sugars behind.

Once you have your recipe down and know how much sparge water you need, I don't think it makes too much difference except that batch sparging will require less attention from the brewer.

- - -
Jim Grady | "Immediately after Orville Wright's historic 12 second
grady@an.hp.com | flight, his luggage could not be located."
| S. Harris

Date: Wed, 3 Nov 93 09:21 EST

From: gcw@lydian.att.com

Subject: Business Week Article

In the October 25 Business Week (page 95) there is a article in the "Developments to Watch" section about gene-splicing and how Shiladitya Dassarma (professor of molecular genetics at U. Mass (Amherst)) spliced genes from bacteria that float to oil eating bacterium that didn't so that these bacterium would stay at the water surface and keep eating oil. The article goes on to say how "Next may come reengineered yeast for beer-making. Dassarma says the yeast would float to the top of the vat to be skimmed off - so the beer wouldn't have to be filtered."

This will most likely work for lager yeast, but for ale yeast I would think that the dead yeast cells would reduce the available surface area for the live yeast cells to do there thing.

Geoff Woods

Date: Wed, 3 Nov 93 09:31:15 EST
From: taylor@e5sf.hweng.syr.ge.com (taylor)
Subject: Going all grain,questions

I have some questions about all grain brewing, Hopfully I will be able to brew my first batch of all grain this weekend but first I have some questions.

I plan on using a cooler for a lauter tun, the problem I have is that my boiling pot is only 3-4 gallons.

My question is, can I make an initial wort of 3 - 3.5 gallons in the cooler and add more water to my fermenter after the boil to make a 5 gallon batch?

This is what I do for extracts and it works good. I realize that it's better to add water for the hole batch up-front but I don't want to spend alot of \$\$ for equipment until I know what I'm doing. Or should I just make a 3 gallon batch to start with?

How much grain would I use if I can add water to the wort later? Would I use enough grain for a 5 gallon batch up-front? Which is ? What would the brewer community recommand I do?

How much grain should be used per gallon of water?

What temp is good in the lauter tun and for how long?

Any info would be appreciated.. Todd I realize this info is available in books but I don't have mine a neighbor borrowed it? I hope I understand the process.....thanks

Date: Wed, 03 Nov 93 10:44:59 EST
From: Bob_McIlvaine@keyfile.com
Subject: maplbrew.txt

I mentioned that I had a couple of maple sap brew recipes and several people asked for them...so here they are. Taken from a maple sap cook book found at a sappers festival.

SAP BREW #1:

Leona Foote - Warren , NH
Use the last run sap and boil down about half way. Boil checkerberry leaves, pipsis-o-way and hemlock tips separately and then add sap. Put in barrell to work, put in bung when fully worked. In the middle of summer, during haying, chill and enjoy. (sorry no amounts were available on the ingredients.

SAP BREW #2:

Althea Clark - Bridgewater, NH
1 lb. hops
10 lbs. malt
6 yeast cakes
2 oz. checkerberry
Boil down sap, 5 gal. to make 1gal.
Boil enough sap to fill a 50 gal. barrel. This is an 1885 family recipe and came with no instructions.
Good Luck!

Date: Wed, 3 Nov 1993 09:55:51 -0500
From: holloway@ezmail2.ucs.indiana.edu (Jan Holloway)
Subject: On making bread (et al) from spent grain

Chris (dcm@kepler.unh.edu, HBD 1262, 11/3) asks about bread ideas from spent grain. Good question.

During a spate of all-grain brewing (ah those were the days) I'd wonder what to do with all the good-looking grain leftovers. I tried 'em as porridge with half & half and brown sugar. Didn't work. They were too woody, and they look better than they taste by themselves. After all, by the time they're leftovers, you've mashed & sparged out most of the flavor.

So I tried mixing quantities of the stuff into a basic bran muffin recipe.

Just substitute some of the grain for some of the flour (I played quantities by feel). I added lots of raisins to boost the moisture and counteract the woodiness. But I found the texture pleasantly rough (a delightful gastrointestinal massage). Most of all, I found the muffins completed the beer experience in a satisfying way. After all, if you eat the mash from whence cometh the beer you drink, you're living your beer. Beer: the complete food.

Bon appetit. --Jan (holloway@indiana.edu)

Date: Wed, 03 Nov 93 10:03:48 EST

From: andrewwf@aol.com

Subject: German Wheat Yeast

As a long-time reader of the HBD I now have the access to send questions,
so
here goes: I have recently finished a pumpkin wheat beer using a german
wheat
yeast (complete with clove taste) however it seems that the clove taste
might
be a little too strong. I remember reading somewhere that if the yeast is
reused then the clove taste will be mellowed, is this true?

Thanks for the help.

Andrew Fee

Date: Wed, 3 Nov 93 8:33:49 MST
From: npyle@n33.stortek.com
Subject: Dry hopping temperatures

Jim Busch comments on this from the Hops FAQ:

>>The proper length of time for dry hopping is dependent on the temperature.
>>At ale temperatures, 7-14 days of contact time is widely used. At lager
>>temperatures, although little data is available, it seems obvious that longer
>>contact times, on the order of 14-21 days, are called for. It is common to
>>use 0.5 - 2.0 oz. or more in a 5 gallon batch, but as always it is up to the
>>individual's preferences.

>
>OK, how does temperature affect hop aroma wrt dry hopping? This doesn't seem
>intuitively obvious to me. I also would point out that I have dry hopped
>1 BBl batches in the primary (after high krausen and skimming) for a mere
>3 days with excellent results, and I know of a local brewpub that has dry
>hopped with pellets (I use whole) for one day, filtered and served online
>the next, so this will work. The point is that dry hopping times vary all
>over the spectrum, and I suspect if a heavy hand is used in the amounts, >
>time is less important. I'm still wondering about the lager comment???

I've been taught that virtually all reactions, physical and chemical, are quickened by higher temperatures (I'm sure there are exceptions). The process of dry hopping involves aromatic oils dissolving into solution and probably reacting chemically as well. Doesn't it seem obvious to you that higher temperatures cause this process to happen faster, and that lower temperatures would slow it down? When making tea, you can certainly dissolve the sugar quicker in hot tea than iced tea.

As far as quantities vs. contact times, it is also obvious to me that if you use more hops you can get away with less contact time. You have (at least) three variables (assuming a fixed amount of hop aromatics): time, temperature, quantity. Probably wort composition at that point has an effect as well. I was trying to give some guidelines, not write the New Brewing Bible.

Cheers,
Norm

Date: Wed, 03 Nov 93 09:40 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Hop Vines & extract storage

Jim Busch mentioned the practice of not cutting hop vines, allowing roots to store energy. Im no botanist, but Jim does make a good point. While my biology days were some time ago, I believe that the roots store many good plant things--such as chlorophylls, sugars etc--for their winter slumbers. When leaves and vines wither, these elements flow to the roots and await the spring.
If you do any leaf or vine cutting, as for any perennial, wait till they get all brown and dry before removing...or even wait till spring.

Extract storage: In planning for the days that I may not live near a homebrew shop and/or have not yet gotten into the swing of all grain full mash beering, could anyone offer tips on storing large quantities of liquid or dry extracts.

Thanks,
David Atkins
atkins@macc.wisc.edu

Date: Wed, 3 Nov 1993 10:01:42 CST
From: MWB5489@age2.age.uiuc.edu
Subject: Distilling alcohol

With all the talk about leality and taxes and what not I thought I'd add in my \$.02. I worked at an ethonal plant for a while before coming back to school. In the plant we made beer in a continuous process. It was not batch. The alcohol content usually ran between 10 and 11%. I never tasted it, but I was told that it tasted OK. Kind of surprizing since the main ingrediants were corn starch that was converted to dextrose, water, and light steep water (the water thats left over after soaking on corn for a day and a half). Oh, and yeast. Some of the bear was run through a massive centrifuge that would separate the yeast from the beer. We then put the yeast back in the first fermentor tank. The first tanks we added air. This was supposed to help the yeast reproduce. The later tanks we did not add air. The yeasts were supposedly switching over and producing alcohol. We ran the 10% beer thru a set of distilation columns at 2000+ GPM. Fusel oils were removed from the process, at only a few gallons per HOUR. There was not fusel oil in the stuff. We removed it because if we didn't it would block the column. The fusel oil comes off in certain trays which depend upon the pressure (temperature) that the column runs at. After the regular column we distilled it up to 200 proof by adding cyclohexane. I was told that the 200 proof mixed 50/50 with water tasted like a very good vodka, but I never tried it. To be used in gasoline the proof had to be 199.4 (or was it 199.6?). The small amount of fusel oils could be added back in. When it was sold to add to gasoline it was denatured with 5% gas. This is so the BATF is happy and no one will drink it. If it was sold for industrial used it was denatured with 5% methanol. If it was not denatured it had to be sold to some that was bonded so that they would worry about the taxes. The taxes that are so high are not paid if the alchohol is not for consumpsion.

As far as distillation by a private individual, I have a friend that was making ethonal to run in his car. He got free starch, free wood to run his still, etc. The only thing he had to buy was alpha amalose to convert the starch. In order to run his still he had to buy a \$500 liscense. This allowed him to run the still and use the ethanol for personal use, ie on his property or in his car. I don't know if it meant he could drink it, although I don't see why not. He finally gave up. With the liscense and the alpha amalose as his major costs he could come out slightly ahead. After the novelty wore off and he got tired of putting major amounts of time into it he quit. So,....Distillation is legal for individuals, but it costs big bucks.

Mark W. Blunier mwb5489@age2.age.uiuc.edu
Graduate work is a test. It is only a test.
If it had been an actual job it would have decent pay, decent hours,
and benefits. Mark W. Blunier
MWB5489@AGE2.AGE.UUUC.EDU

Date: Wed, 3 Nov 93 11:13:56 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Hop back effect

I said:

> All this discussion sounds like a good argument for a hop-back.

This morning, while I was looking for something else, I found a relevant comment from Donald O'Connor, who wrote:

> If you have any doubt about the incredibly vast difference
> of hop aroma and flavor between using the same type of hop in (I believe)
> nearly equal amounts in two different ways, just compare Sierra Nevada
> Pale Ale and Anchor Liberty Ale. Both use Cascade finishing hops.
> One is dry-hopped and the other uses a hop back.

Date: Wed, 3 Nov 93 11:24:15 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Celis Grand Cru a tripel?

I'm writing a "profile" article for our club newsletter on the Belgian Tripel style, and I like to include some commercial examples. One problem is that they have to be beers that are available in Michigan, and there are only a few that I know of: Affligem and Mateen for sure, and then some that are less clear.

For example, it seems to me that the Celis Grand Cru is close to a tripel in style, if perhaps not quite up to the usual alcohol level. What do you think?

And how about Corsendonk "Monk's Pale"?

Please respond by e-mail, I'll summarize to the digest if I get any interesting/useful responses.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

Date: Wed, 3 Nov 93 08:30:25 PST
From: todd@ted.hac.com (Todd Thompson)
Subject: Missing Hops FAQ 3/5

Was the Hops FAQ 3/5 ever posted? If so, could somebody please
repost 'cause it never made it here. Thanks.

Prost!

Todd
toddthom@hac2arpa.hac.com

Date: 3 Nov 1993 11:19:51 -0400
From: "Daniel F McConnell" <Daniel_F_McConnell@mailgw.surg.med.umich.edu>
Subject: methanol/unmalted wheat/spe

Subject: methanol/unmalted wheat/spent grain bread/Wilt

>From Jack:
>Well put. Just because methanol boils off when distilling, does not mean
>there is any to boil off in the mash. For a simple example, ponder making
>brandy.... You start out with a nice drinkable wine and distill it to leave
> most of the water behind. If there were enough methanol to cause blindness
> in the distillate, you wouldn't want to drink the wine in the first place.
> The same thing applies to whiskey mash. Methanol comes from petroleum
>
>There is nothing you can do to a still full of wine to make it produce
> dangerous quantities of methanol and you can consider a kettle full of
> whiskey mash just a very new "wine" for the sake of this discussion.

Yeast produce a number of alcohols during fermentation depending on the source of carbon (food), strain, ferment temp. etc etc. All alcohol causes intoxication and is poisonous-some forms much more than others. Lightin' distillations have been notorious for containing methanol. Why? 1-product adulteration by producers, 2-BATF scare tactics, ie. misinformation (anyone actually met a person blinded by an honest and clean home distillation? Or a jug of moonshine for that matter.
NOT
Sterno or Xerox fluid.) 3-poor distillation technique, or 4-Based on fact.
IMHO the real questions are: Does the fermentation of corn, rye or *other stuff* favor the increased production of methanol over ethanol? *other stuff* would be very significant.
I suspect the answer is yes. I also suspect that wine/brandy would be less of a problem in this regard.
Does the strain of yeast/bacteria (ie sour mash or whatever whiskey makers do) effect the increased production of methanol over ethanol?
Again I suspect the answer is yes. We all know what happens when beer fermentations are run at high

temperatures-high alcohol and other byproducts, some strains are much more prone to this behavior. Headaches are a symptom of this alcohol toxicity.

I assume that only GOOD, CLEAN BEER would make GOOD, CLEAN SCOTCH...Ah! a good question for Michael Jackson.

Distillation will concentrate only what you want it to by collection only during the temperature range that you want. Of course this is technique and equipment dependant. For alcohols, methanol comes off first (65C) followed by ethanol (78.5) propanol (97), water (100), butanol (117) etc. Don't drink the methanol, propanol or anything that boils higher. Don't ferment and distill garbage.

>Malted grain is friable and crumbly. When gently squeezed, it falls apart,
>exposing the malt to mash water. This is definitely not true of unmalted grains. If you have the strength to run it through a roller mill, the best you will get is something like thick oatmeal. As there usually is no husk involved, there is little advantage to a roller mill over a grinder. I suspect, a Corona me be more efficient if your lauter tun can handle the fine grinst. That is, after all what they were designed for but it won't be any easier to crank.

My last batch of lambik contained 20 lb Breiss 2-row and 10 lb unmalted wheat which was ground with *much* difficulty. The wheat was boiled for 30 min after which it was something like thick oatmeal. The kernals burst open and later vanished in the mash. Since the whole grain would cook (and burst) as well as the ground grain and probably still look something like thick oatmeal, my new attitude is *GRIND IT? NOT ME!*at least until I've tried it.

>From: ed fromohio <NEGATIVE3@unh.edu>

>HI, I was wondering if anyone has a recipe or idea for bread from the >spent mash....

I've tried it, but don't recomend it unless you are very careful to remove all those nasty little rocks that seem to slip into the grain on occasion. Ouch!

Did Wilt Chamberlain fake it? Oh.....but he *likes* basketball.

DanMcC

Date: Wed, 3 Nov 1993 11:46:41 -0500 (EST)
From: Bryan Kornreich <bkornrei@welchlink.welch.jhu.edu>
Subject: sake-brewing

Does anyone know anything about brewing sake? I'd like to try it 'coz I love it and I've got a lot of rice. Any recipies? With its high alcohol content(15-18%) does it require any sort of distillation? Or are there yeast that can pump out that high ethanol content?
thanks,
bryan

Date: Wed, 3 Nov 93 10:50:26 CST
From: pmiller@mmm.com (Philip . Miller)
Subject: Yet another Bud ad

>I heard a Budweiser ad on the radio the other day that really
>made my hair curl. The were BRAGGING about how they added rice
>to the beer.

That's nothing! I heard an ad that made fun of microbrewed beers
and -- heaven forbid -- beers made in people's basements.

Fortunately, I brew in my garage (I only ferment in the basement),
so I wasn't offended. :-)

Phil

End of HOMEBREW Digest #1264, 11/05/93

Date: Wed, 3 Nov 1993 11:32:26 -0600 (CST)
From: Steve Seaney <seaney@ie.engr.wisc.edu>
Subject: Re: Plans for Grain Mill

- - - - -
Dion Writes:

I feel that Steve made light of Jack's efforts because he complained about the cost and said right after that he could do a good without much effort (this is a paraphrase). A lot of other people complain about the retail prices of equipment like Jack's and state that they could do as good for a lot less. I was just pointing out why retail prices are generally extremely fair and what really goes into making a product, rather than a one-off copy of someone's design. If you make it yourself and it does not last or does not work quite up to snuff, then you generally don't complain. Jack and other inventors have to make a product which works well and last, which most of them do.

Jack's mill is a nice piece of work. My complaint about the cost doesn't counter the craftsmanship of the work. Jack however is making a profit in this mill. There's nothing wrong with profit -- if you want to pay the price. Most of the cost associated with the mill is in labor. The mill can be made much cheaper if you use your own time as labor. Furthermore, if you enjoy making things, the labor can be fun -- hence enjoyment becomes another reason to build the mill.

Jack's mill is nice, it's not the end all however. I'm sure we can put together another mill that will be better in some respects -- perhaps one of these respects will be manufacturability with a minimum number of tools. I have never intended to copy Jack's design, I would rather try to devise a mill that can be built with largely existing hardware. It would be nice if anyone could build it -- even w/o access to a decent mill and lathe. Then people will copy, improve, copy, improve, ad infinitum. It's always easy to build something with all the tools you need. I've always respected people who do things on a shoe string budget more than ones that do it by throwing money at it. People have been mechanically grinding grain since the 1400's (at least). I don't think they had stainless and carbide. Finally, Jack's mill isn't an invention, it's a craft. There's nothing that special or unique to it. It's simply a good piece of work.

I really don't understand Dion's hangup on building a mill. Please go throw water on someone else's parade. We are having fun over here.

I am still collecting ideas for parts of the mill. If there are any interesting ideas for the rollers I'd appreciate a note. It'd be nice to use parts that are available at hardware stores, etc.

Thanks,
Steve

- - -
Steve Seaney: 608/265-3954: seaney@engr.wisc.edu

Date: Wed, 03 Nov 93 13:35:57 EST
From: Bob_McIlvaine@keyfile.com
Subject: Hunter Airstat

The Hunter Airstat is a relatively simple electronic device. It has some nice facilities which monitor the on time for the current day, previous day, and total usage as well as maintaining the the temperature. It also has a digital display for the temperature. And as noted previously in these tombs, has been discontinued.

The plans for a similar device are available for \$10 from JB Distributing. The plans show the details of a device which will control your fridge temp as set by the owner. It doesn't have the nifty display and monitoring features. JB Distributing says the circuit boards for this design will be available soon and they have the plans for a more advanced model on the drawing boards. They also have plans and circuit boards for other items like a digital brewers thermometer with a 30" probe (great for deep vessels of hot stuff).

For more details contact:

JB Distributing
123 SilverLake Rd.
Hollis, NH 03049
603-465-7633

Date: Wed, 3 Nov 1993 10:44:00 -0700
From: c-amb@csc-sun.math.utah.edu
Subject: water adjustment questions

I have been going over my water analysis and Dave Miller's book to figure out what water adjustments I am going to need before my first all grain. However, Dave leaves out some quantitative information which I seem to need.

First let me give you the important numbers (3 year average):

Bicarbonate 251 ppm
Calcium 43 ppm
Sodium 5 ppm
Sulfate 12 ppm
Magnesium 17 ppm

Now, as you can see, the bicarb level is quite high. Moreover, there is not enough calcium to simply boil off the bicarbs. Thus, using Dave's formulas I have calculated that I would need to add approx 2 tsp. of gypsum for 5 gal. of water prior to boiling in order to remove the excess bicarbonate. This will also raise the sulfate level to 292 ppm and this is where I start to get nervous. Dave says that excess sulfate will add a dry edge to well hopped beers. Sulfate combined with sodium makes this quite harsh he tells me. This makes the hophead in me quite nervous. However, how much is too much? Because of my low sodium level am I o.k. with this high level of sulfates? Any info or pointers are greatly appreciated.

Thanks in advance,
Mark Alston
c-amb@math.utah.edu

Date: Wed, 3 Nov 93 11:53 CST
From: arf@mcs.com (Jack Schmidling)
Subject: Chilling Out, Hops, Brass

I decided to scrap my original responses to the ad hominem comments on my remarks about chillers and try something completely different.

Not only do I have strong feelings about chillers but I also think the net.sense.of.humor needs a little thrashing. I sold my business and retired at age forty because I got tired of kissing the world's behind and making sure that nothing I ever said offended anyone, anywhere on Earth.

I make beer and beer stuff and participate in these discussions because it is fun and mutually informative. When things get boring, I inject a little fun but everybody has their own idea of what fun is. If people do not like my humor, that's life and I accept it. The fact that I refuse to use these things :) is part of the fun because baiting the humor impaired is right up there with sex as far as I am concerned. It might even be as much fun as "beer drinks".

I find that using expressions like "the Lighthouse of Wisdom and Truth" and the "World's Greatest Beer" is a great way to bring the real weenies out of the closet. I have little sympathy for people who take them seriously.

I will bite my lip (fingers) and keep my responses non-personal and offer the following summary of the current comments that are worth repeating:

1. If the claims of efficiency are correct, water conservation is a good argument in defense of the C/F chiller.
2. A KB type HOP BACK (tm) will only work properly with a C/F chiller but it remains to be proven that it offers any advantage over a immersion chiller with a tight fitting lid.

End of list. No one even claimed that they make clearer beer this time.

I refer readers to my previous comments for the counter arguments in favor of the immersion chiller.

>From: ed fromohio <NEGATIVE3@unh.edu

>Subject: Bread from mash recipe request

>HI, I was wondering if anyone has a recipe or idea for bread from the spent mash....

BEER BREAD

3 cups spent grain (wet)
1 cup flour
1 cup warm water
1 tsp yeast
1/4 cup sugar

Mix and let ferment in warm place for several hours or overnight.

Add 1 tsp salt and knead in or mix flour, one cup at a time, until the dough will not stick to the fingers. This will take about 5 additional cups, the amount depending on the water content of the grain. Then continue to knead or mix until a silky texture that does not stick to fingers is achieved.

Let the dough rise (covered) in a warm place for at least an hour or till it doubles in volume. Then form into loaves and let rise again. When doubled in volume, bake at 375 for 25 min.

I roll the dough into bars about 2" in diameter and about 10" long and just lay them on a baking sheet. If you bake full size loaves in bread pans, the baking time would probably be longer.
.....

Since getting a Corona, I now dry the spent grain and grind it up with the Corona to get a more acceptable texture. One cup dry and three cups water works out for the above recipe.

>From: Jim Busch <busch@daacdev1.stx.com>

>I read in Brewing Techniques that if the vines are allowed to remain uncut at the end of the season, the rootstock will build up energy stores for the upcoming winter season, and be healthier next year. This is obviously not practical for big farms, but due to my inherent procrastination, it is exactly how my plants are now. Comments?

No comments here, just the ULTIMATE TRUTH....

From the plant's point of view, it is best to allow it to grow until it goes dormant. The root stock continues to develop as long as photosynthesis is going on. Once it goes dormant or freezes, the vines are dead and it makes no difference what you do with them. There are practical and economic reasons for cutting them earlier but it does compromise overall vigor.

>From: npyle@n33.stortek.com
>Subject: Brass in the boil

>A week ago, Andrew asked about brass in the boil. I have a brass fitting inside of my boiler as well, so I'm also curious to hear the answer.

Not sure what the question was but as the use of copper seems to be accepted since time time immemorial, the question ought to be the safety of using zinc in a boiler.

Zinc is a useful supplement both for humans and yeast so I guess we can assume that brass is also.

js

Date: Wed, 3 Nov 1993 10:21:26 -0800
From: thomask@ichips.intel.com
Subject: All-Grain FAQ???

With the recent proliferation of FAQ's, I've been wondering about a similar resource for grains. What I'm most interested in is some sort of comparative listing of the characteristics of various grains. Color, enzymes, and especially flavor/body profiles like those recently provided for hop varieties. Also interesting would be some sort of interaction guide, noting interesting or perhaps traditional mixes which achieve certain common goals in mashing.

Does anybody know a good book for this? Seems like the really excellent technical guides all focus on a single variety of beer, which is too restrictive (especially when I tend to throw style guides to the winds and INVENT)...

thomask@ichips.intel.com
@cs.washington.edu

Date: Wed, 03 Nov 1993 12:54:58 -0500 (EST)

From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov

Subject: Gott cooler fitting

An easy way to modify a Gott cooler is to remove the spigot, replace it with a rubber stopper with a hole in the center. Place a glass. metal or plastic tube through the center an attach the the valve you want to use with a length of plastic tubing. I've done this to make a copper coiled mash tun, and it is much superior to the 2 bucket method.

Andy Kligerman

Date: Wed, 3 Nov 93 13:32:26 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: replies and such from a newneophyte

Hello all-
maiden post. Excellent digest so far. Packed full of 411...

replies first:

*Date: Thu, 28 Oct 1993 09:23:05 -0400 (EDT)
*From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
*Subject: airlines, porter, brewbup, Sheath and Vine

*
*Just a few interesting tidbits:
*Yesterday my wife tried to take 4 homebrews on American airlines
*out of Raleigh-Durham and was stopped at security. Although the
*bottles were capped, since they had no label she was not allowed to
bring
*them into the passenger cabin. They said they could be stowed in the
luggage
* but we declined, fearing depressurization problems.

My family's experience with transporting beers has been much smoother.
Ah,

but of course they were labeled. If yer gonna take them, slap a
commercial
label on it just to get it on the plane (in the plane.) I do, however,
recall
at least one occassion where bee> r> s were stowed in luggage on a
transcontinental flight (smuggled much Maisel's) with no ill effects.
Just
luck I ask the faithful? What say yinz?

* Re: Swan V. Taylor's request for info on brewpubs in the Chapel
* Hill area. There are none in Chapel Hill, one in Raleigh
(Greenshields),
* and one in the Winston-Salem area (Lagerhead or Loggerhead?) that I
know
* of. the one in Durham (aka:Weeping Radish,etc.) bit the big one!

*
Bummer. So far Weeping Radish is the ony place I've been to in the
states
that serves by the liter krug. (Then again, the MidAtlantic is lame for
good
drinking establishments.)
As far as I know, the one in Manteo, NC is still open (Manteo is on the
Outer
Banks, across the sound from Nags Head/Kill Devil Hills). Really good
German
style drafts, darts, German pub grub, etc. A great diversion while at
the
beach, and a beautiful drive across the sound if you do it at sunset.

Neophyte's question, if not adequately covered in the FAQ: what is the
benefit of mashing, what's> > generally involved, and what
distinguishes a
mash-out from a normal mash?

And does anyone else do much substitution of honey for other priming
agents?

In small quantities, it's wonderful! Even in large quantities it's really good, but you get a really sweet beer, one that bears little resemblance to what the indians called, uh, beer.

--

Mark Bunster |Exchange conversation if you dare--
Survey Research Lab--VCU|Share an empty thought or a laugh.
Richmond, VA 23220 |
mbunster@hibbs.vcu.edu |
(804) 367-8813/353-1731 | -edFROM

Date:Wed, 3 Nov 1993 13:50:56 EST5EDT
From: REGINAH@SOCIOLOGY.Lan.McGill.CA
Subject: Re: cost-effecient brew

To all you fortunate folks south of the border--

Brewing may not be less expensive than store-bought for you, but up here in the land of excessive luxury tax you can make your own far superior brew for half the cost of commercial beer. Hard to see why anyone in their right mind still buys commercial-- they must put mind altering chemicals in it.

Date: Wed, 03 Nov 1993 13:58:41
From: axl@cherry-semi.com (Al Lingley)
Subject: patio hop growing

I live in a condo style apartment and have had limited success growing hops on my deck. I used a 1x3x1 planter box and ran twine up to my bedroom window one story up. I would recommend using larger planter box, as I feel my plants are now root bound. I planted hallertauer which I have been told is a lower yielding variety.

The first year netted a few shoots about 7 feet in length, due to my planting late in the spring. Year 2 (this year) netted many 20 ft. vines and about 3 ounces of dried hops. My low yield was mainly due to Japanese beetle infestation.

About the only advice I can give is to water daily (soaking), and shake those vines at least once a day (beetles). I fertilized about every 2 weeks with Miracle Grow.

Al Lingley
axl@cherry-semi.com

Date: Wed, 3 Nov 93 14:14:16 EST
From: mberger@wellfleet.com (Michael Berger)
Subject: RE:Post boil wort handling

My thanks to all those who replied to my recent posting of questions regarding the handling of the post-boil wort and the off-flavors that can come of it. The answers were essentially unanimous and I have summarized the recommendations below.

After the boil is complete, the wort should be chilled using your favorite chilling technique. The hot wort should be exposed to air as little as possible in order to avoid the dreaded HSA (hot side aeration). HSA is a common cause of a "cardboard-like" off-flavor. A rapid chilling of the wort also reduces the risk of bacterial "action" that could cause other off-flavors.

After chilling is complete, the wort should be racked into the primary using a racking tube with a "copper scrubby" on the end to filter out hops and other solids in the boiler. At this time, the *chilled* wort should be aerated.

The primary should be a carboy instead of an open plastic bucket. You can set up the carboy as a "blow-off/by" for the primary. Your chilling method should have brought the wort temperature down to pitching temp so you should immediately pitch your starter.

Thanx again.

Date: Wed, 03 Nov 1993 13:28:03 -0500 (CDT)

From: Paul Boor <PBOOR@BEACH.UTMB.EDU>

Subject: rice, the other light grain

Rice has been mentioned recently as a way to emulate "your bud". I advocate the use of rice in allgrain brews of all lighter type, and have used it lighten porters. It's not just for yaller-beers.

Good rice, like Indian Basmati, has a nice aroma as well. I use a half to a pound, cooked well and added to the mash with the regular grain bill. the amazing thing ishow it lowers the finishing gravity, like down around 1005 for a beer that might be expected to be 1015.

Rice is used by many commercial brewers, my favorite being The Utica Club Brewery in Utica NY, makers of such greats asSaranac Adirondack Lager. Try their beer if you get to upstate New York. The brewery has also done some nice contract brews in the past, jumpstarting such beers as New Amsterdam and Sam Adams (yes! the boston lager was orginally made in NY)

Date: Wed, 3 Nov 93 14:42 CST
From: korz@iepubj.att.com
Subject: Is Pale, Pale?/Pils malt-based extract

Ed writes:

>As a full mash novice I want to stay with simple infusion mashes for
>a while. What kind of grain does this mean I am restricted to.
>I used Pale (2-row english). The day after I went to another
>brew store and they had two Pales(2-row from Germany and from America).
>Pale is Pale???

<snip>

>Will it be as modified as the english Pale? Is it an oversimplification
>to say Pale == you can do an infusion? I was reading Miller last
>night and he explains the difference between Pale, Mild, Vienna, Munich,
>Lager, Klages etc.. But what I want to know is, what can I infusion mash
>as a base grain for recipe (obviously not specialty grains and adjuncts)

>Pale is Pale??? No adjuncts used currently, so I don't need extra
enzymes.

>Describe how to tell if grain is good? Miller goes into it some (or was
it

>Noonan?), but what do you look for?

When you say "simple infusion mashes" you probably mean "mashes with no
protein rest," right? You can do this with infusion mashing (raising the
temperatures with INFUSIONS of boiling water) or "stovetop" mashing
(raising
the temp with a heat source.

Whether or not you need a protein rest is dependent on how well modified
the malt is. Most modern malts that we get in the stores are well-
modified.

Perhaps some of the custom malts that A-B or Miller or Coors use are less
modified, but we certainly won't be getting any of that stuff normally.

You can tell how well modified a malt is by looking at how long the
acrosipire

has grown (I believe it was Noonan that described this in detail). What
you

do is rub off the husk on the acrosipire side of the grain and compare the
length of the acrosipire with the length of the whole kernel. If the
acrosipire

is 3/4 of the kernel length or more, then the malt is fully modified. If
it

is significantly less than 3/4 of the kernel length, then the malt is
less-

than-fully-modified. You need to do this on a couple of kernels and
consider

the average length.

Also, as you probably already know, more highly kilned malts (like Munich
malt)

have less remaining enzymes than the less kilned malts (like Pilsner
malt)..

Malts like DeWolf-Cosyns Aromatic is reported to be able to convert
itself

despite being a highly-kilned malt, whereas I believe that DWC Biscuit is
not

able to convert itself.

Andy writes:

extract brewing as well as all-grain. The problem: the all-grain version will require pilsner malt and the extracts I've been able to find (DME & LME [No, not Male extract]) are all based on Pale Malt. Does anyone out there in HBD-land know of Pilsner Malt extracts that are Unhopped and (hopefully) no adjuncts?

I think your best bet is perhaps might be Alexander's Malt Extract. It and Munton & Fison Extra Pale are the two lightest extracts that I know of.

The difference between the flavor of Pale and Pilsner malts is really just that the Pale malts tend to have a bit of caramel (just a bit) in the flavor, thanks to the higher kilning temperatures. I would suspect that these two really pale malt extracts will have used the palest malts the manufacturers had available. M&F is in England, so maybe the Alexanders may be the most Pilsner-like of the two. Another consideration may be to use German extracts such as Ireks Bavarian Light or Bierkeller Light, which are probably made from Pilsner malt.

Al.

Date: Wed, 3 Nov 93 14:07:12 MST
From: "Mark B. Alston" <c-amb@math.utah.edu>
Subject: What's wrong with white hoses?

I am always seeing warnings about soaking hoses in a bleach solution for too long of a period of time. These warnings are always in regards to the hoses turning chalky white. Well, this in itself does not seem like such a problem. I am not too concerned with the aesthetic problems of white hoses :) So, is there another concern that is behind these warnings? What is the problem with white hoses?

Thanks,
Mark Alston
c-amb@math.utah.edu

Date: Wed, 03 Nov 1993 18:42:31 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: AAU, IBU, and published numbers

I've been getting lots of use out of the hops FAQ, but I am left with a nagging question. I was trying to follow Pierre Rajotte's belgian ale recipes, but when using the formulae from the hops FAQ the numbers seem

way off. For example, one recipe calls for 7 HBU's or 22 IBU's of hops. Another calls for 10 HBU's or 30 IBU's. Now even being super conservative,

I get 10 HBU's is roughly equal to 38 IBU's. That's over 25% more! And using the equations unmodified, 10 HBU's is in the range of 48 IBU's, or 60% more. What gives?

Just so you can frustrate yourselves too, here are the (simplified) equations I've been using:

$\%Util = 13.11 + 13.86 * \text{TANH}((T-31.32)/18.23)$

$IBU's = \%Util * \%AA * Qty / Vol / 10$

Where: T is time in minutes,

$\%Util$ is in percentages (ie 0-100, not 0-1)

$\%AA$ is the alpha acid content in percentages

Qty is the quantity of hops in grams

Vol is the volume of wort in Litres

$\text{TANH}(x) = (e^x - e^{-x}) / (e^x + e^{-x})$, e being the mathematical constant epsilon, roughly 2.71828

Note the 13.11 value in $\%Util$, versus the 18.11 value in the hops FAQ. This is to convert to the modified utilization table presented by Mark Garetz.

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |
Dalhousie University, Halifax | _____ |

Date: Wed, 3 Nov 1993 18:03:04 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Cutting hop vines

Since I posted a question regarding hop vines/harvesting and the merits of cutting the vines at harvest, I received this excellent summary the issues. I found it interesting, hopefully you will too.

Jim Busch

> Date: Wed, 03 Nov 93 10:52:27 CST
> From: "Edward F. Loewenstein" <SNREDLOW@MIZZOU1.missouri.edu>
> Subject: Cutting hop vines

Jim,

Just read your posting on the homebrew net and hope I can be of some help.

Commercial growers of hops mechanically harvest their hops by cutting the vines off at ground line when the hops are ripe and separate the cones from the vines via a machine similar to a cotton gin. Of course some of the cones are a bit overripe, some underripe, but some allowances must be made for mechanization.

By picking the cones by hand, as most homegrowers do, you can pick all of the cones when they are ripe. Further, I have found that many hop varieties (Cluster, Nugget and Pearle) produce additional flushes of flowers following initial harvest.

Concerning leaving the vines in place after the end of the season. indeed, leaving the vines after picking the cones (while the leaves are still green) does allow the hop plant to produce and store extra carbohydrates in the root system for the following year. Once the plant senescens (leaves and vine turn brown), no additional benefit is derived. At this time, or shortly thereafter, it is wise to cut the vines and clean-up any fallen hop leaves from the area. The reason for this is that fungal organisms overwinter in and on the dead plant material and if left can infect/reinfect your plants the next growing season. Typically, downy and powdery mildew and verticilium wilt will follow this life cycle. Insect larvae such as aphids can also overwinter in infected dead plant tissue. I try to remove all hop leaves to my compost pile (located well away from my hop mounds), or if I have had a problem with an infection, burn any infected material (downwind from the mounds). I also use the dead vines to weave wreaths for Christmas decorations. My wife decorates these with dried flower arrangements. I've also heard of people selling these wreaths to craft stores.

Hope this helps.

Ed Loewenstein
SNREDLOW@mizzoul.missouri.edu
Department of Forestry

Date: Wed, 3 Nov 1993 18:58:02 -0500
From: jeff344@voodoo.lerc.nasa.gov (Jeff Berton)
Subject: Airplane Pressure and Beer

Andy writes:

> Yesterday my wife tried to take 4 homebrews on American airlines
> out of Raleigh-Durham and was stopped at security. Although the
> bottles were capped, since they had no label she was not allowed to
bring
> them into the passenger cabin. They said they could be stowed in the
luggage
> but we declined, fearing depressurization problems.

The cargo bay and passenger cabins of commercial aircraft are both
pressurized
and heated. From a structural point of view, with pressure differentials
dominating fuselage design, it's easier to pressurize everything between
the
forward and aft pressure bulkheads, the cargo bay included. (Bombers'
bomb
bays, by the way, which must be able to open at altitude, have all sorts
of
additional fuselage pressure structure that is unnecessary on commercial
aircraft.)

At cruising altitudes on commercial airplanes, this cabin/cargo pressure
is
maintained at about 11 psi; that which you'd experience at about 8000
feet
altitude. So, during the flight, an additional 4 psi would be added to
the
pressure differential already experienced by your bottle of homebrew (If
more
cabin depressurization occurs, you probably won't be worrying about your
homebrew!). That's not too large an additional load, considering that a
modestly-primed bottle of homebrew is already experiencing a pressure
differential of about 20 psi at sea level (This is according to my
back-of-the-envelope priming sugar calculation - maybe someone can
verify?).

So, taking your homebrew on an airplane, either in the cargo hold or as
carry-on luggage, shouldn't cause the bottle to blow unless you're
already
operating on the ragged edge of your bottle cap's safety factor! Given a
choice, I'd opt for carry-on luggage, since baggage handlers sometimes
lack
that delicate touch.

- - -

Jeff Berton, Aeropropulsion Analysis Office, NASA
Lewis Research Center jeff344@voodoo.lerc.nasa.gov

Date: Wed, 03 Nov 1993 19:05:03 -0400 (EDT)
From: WESTEMEIER@delphi.com
Subject: Steam injection (one more time)

Boy, am I sorry I ever mentioned this.

Please everyone, calm down and react to what you read, not what you think you read.

I know that high pressure steam is dangerous. That's why I specifically stated that this was low pressure steam. The 15 psi or less put out by a home pressure cooker is slightly dangerous, but only if it comes in contact with you or material that can't handle the temperature.

I know that modifying a pressure cooker's safety release valve is dangerous. That's why I specifically stated that we didn't modify it (that little valve with the weight on it is not in the center of this particular model).

Dan Listermann, who built this gadget, is still kinda computer-shy, so he can't handle direct contact yet. He 's beginning to get the hang of Compu\$pend, but isn't quite up to e-mail yet. That's why he asked me to post the original question here, as to whether anyone else had ever tried this technique. It appears that he's the first. OK, back to the drawing board, and he's working on a second version that will incorporate some more safeguards and be less prone to misuse. The fact remains though, that the initial attempt worked superbly when used with care!

- -- Ed Westemeier Cincinnati, Ohio westemeier@delphi.com

Date: Wed, 3 Nov 1993 19:07:38 -0800

From: robl <ROBL@outside.com>

Subject: Brewery Liturature

I'm interested in reading about the breweries that were around in the pre- and post prohibition area in the United States. Specifically historical accounts of Brewery size, specialty, even examples of their logos/labels.

I'm rather new to this group (this is my first posting :-) and I'm not sure if this topic was ever previously discussed, or in the archives. I'm looking for any titles of books or articles. Thanks group!

=====

Robert Linder
Crystal Point Inc
phone 206-487-3656 fax 206-487-3773

=====

Date: Wed, 3 Nov 93 21:55:44 CST
From: rick@adc.com (Rick Larson)
Subject: how I sparge

Ed asks about sparging:
> What is the best way to sparge.

Welcome to the world of all grain brewing!

Here is how I sparge (68qt cooler/copper manifold) (sorry about the steps :-). It may not be the best way, but I works for me.

1. Underlet mash with sparge water. I connect my hot liquor tank to the manifold outlet and fill the cooler to the brim. This will help raise the mash temp to mash out.
2. Add specialty grains if used.
3. Stir the mash for even temps.
4. Let sit for 15 minutes.
5. Connect pipe from cooler to brew kettle and draw off about 1 quart. I don't recirculate until clear but enough to remove the *big* chunks.
6. Carefully pour the quart on the top of the mash water.
7. Slowly drain sparge water into brew kettle.
8. I repeat steps 1-7 until I use all my sparge water or the gravity gets below 4P (about 1.020).

I find underletting the sparge water will help reduce HSA. Bob Jones and Micah Millspaw recommend underletting the mash for better beer stability in last winters Zymurgy and Norm Pyle restates Bob and Micah's article a recent digest.

The batch sparge is very easy and helps when I have other things going on (like wife, kids, house...). This was recommended by several other brewers in this digest.

Letting the mash sit for a bit (I use about 15 minutes) help settle the grain bed.

Chilling out with my counter-flow chiller,
rick

Date: Thu, 04 Nov 1993 08:07:22 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Re: Another immersion chiller

Steven Smith mentioned his 'hang from the edge of the pot' chiller, which sounds pretty cool. I would like to toot my horn once more and promote the joys of the planispiral chiller. It's a flat coil (like an electric stove burner) of 25' of 1/4" OD copper tubing, the last (outer) coil descends to the bottom of the pot as a support, and the in/out tubes hang over the side also for support. The disc/coil is suspended an inch or two below the surface. The cooled wort drops to the bottom, warm wort rises up the sides. I've never had to stir my wort to get it to chill properly, the convection currents are sufficient.

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |
Dalhousie University, Halifax | _____ |

Date: Thu, 4 Nov 1993 07:00:03 -0500 (EST)
From: "Richard J. Niziak" <rickn@copley.com>
Subject: Too long a fermentation time?..

At the end of September, I made a batch of Ocktoberfest and placed the work, etc into the carboy for fermentation. I have been extremely busy since than and haven't yet had the time to bottle it.. Could someone tell me what problems I could run into when I get around to bottling this weekend ??? Like all the yeast is dead and I won't get any carbonation, or the beer is overly fermented..??

And hopefully some answers to fix those problems...

Thanks in advance,

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#####  
+  
Richard J. Niziak +  
Senior Systems Engineer + e:mail -> rickn@copley.com  
Copley Systems + land mail -> Copley Systems, Inc  
+ 165 University Ave  
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+ voice mail -> (617)320-8300 x305  
+  
#####
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Date: Thu, 4 Nov 93 08:13:48 EST
From: mlobo@sentry.foxboro.com (Michael T. Lobo)
Subject: easy wort chilling method

Greetings:

After reading todays HBD, I figured I'd put in my 2 cents worth regarding wort chilling. I take the KISS approach (keep it simple, stupid)

After my boil, I take the 20 qt pot and stick the whole thing into my bathtub full of cold water (my cold water is VERY cold). I keep the lid on and in about 30-40 minutes the temp is down to pitching temp & all I do then is transfer to the primary, pitch the yeast and have a home brew [:^)

regards,
Michael

Michael T. Lobo 508 549 2487
Foxboro Co.
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,
my beer speaks for me" -Monty

Date: Thu, 4 Nov 93 09:42:26 EST
From: hellerpd@brutus.aa.ab.com (Dave(PD) Heller)
Subject: remove obrien@aa_macmail.aa.ab.com

Please remove all "obrien@aa.ab.com" or "obrien@aa_macmail.aa.ab.com" from your mailing list. It is a disabled account (for the last year) and the monthly digests bounce around our mail queue as the automatic return fails on the "reply-to" address.

P.D. Heller
Allen Bradley
Ann Arbor, MI 48103

hellerpd@aa.ab.com

Date: Wed, 3 Nov 1993 22:32:04 -0900
From: scott@fm.gi.alaska.edu (Scott Stihler (USGS analyst))
Subject: Eisbocks legal

I've discovered some interesting information regarding the legalities of making eisbocks. There has been some question as to the legality of making an eisbock since it does involve a form of distillation. Well, a friend of mine who is in the process of opening a microbrewery (Ravens Ridge) here in Fairbanks had an opportunity to talk to somebody with the BATF. According to this person the amount of alcohol concentrated would be insufficient to, in their books, be considered distillation. Therefore, it is legal for homebrewers to brew eisbocks. Now you can brew relaxed, not worried and guilt free.

Cheers,

Scott

Date: Thu, 4 Nov 1993 11:23:50 -0500 (EST)
From: Kieran O'Connor <koconnor@mailbox.syr.edu>
Subject: Clubs

A note about clubs. I recently moved and have been helping to re-energize our club in Syracuse, NY. It seems that the way to go is definitely to plan out in advance what will happen at each meeting. We are trying to have an educational aspect, then perhaps a tasting, and then the socializing part. These events are planned out 6 months in advance, and put in the newsletter for long range planning

Also, try to get free advertising. The local newspaper and the local weekly put in free ads. Also, the place we meet, Clark's Ale House, pays for 1/2 of any flyers, etc which have his name on it (as the meeting place). One other thought we got from the AHA annual book--we made business cards with our name and meeting place--they are in the brew shops and beer retailers. People can pick them up as a reminder for the meeting. They're cheap--about 20\$/500.

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu
Syracuse, N.Y. USA

Date: Thu, 04 Nov 93 10:50 CDT
From: Eric Saidel <SAIDEL@macc.wisc.edu>
Subject: Cider

Coyote suggests a few ways to get apples/and pressing cheap - here's another: if there are orchards in your area there are certainly *abandoned* orchards in your area - these offer a bit more challenge, but lots of apples - for free (or almost, usually the owners are happy if you give them a couple of gallons of your sweet cider).

The advantages - this greatly reduces your price to the price of pressing (it costs us 60 cents a gallon - for something like 140 gallons this year). And you get more variety - in my experience it's the variety that makes for good cider.

- eric saidel

Date: Thu, 4 Nov 93 08:57:26 PST
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)
Subject: Rye and Spruce

The last issue of Brewing Techniques has an article about using rye in beer.

Basically it sounds like you use rye as you would use wheat in a wheat beer.

This article has made me curious about using rye and I was wondering if anyone has tried it. If so, what's it like? Is it like wheat beer or is it totally different.

The article gave the following recipe:

8 lbs pale malt
4 lbs rye malt
1/2 oz Centennial (bittering)
3/4 oz Northern Brewer (finish)
1/2 oz Centennial (finish)
2 tsp Irish Moss
Wyeast 1056

Has anyone tried this recipe? Does anyone know of a source of malted rye? I checked my local homebrew shop (Steinbart's in Portland, Oregon), they didn't have malted rye but they did have flaked rye.

Regarding the recent thread on spruce beer, I have brewed spruce beer using fresh growths off of a spruce tree. The flavor you get from it does not remotely resemble pine-sol. From reading recent posts it sounds like the people who are using spruce essence are the ones with bad experiences. Maybe this says more about the quality of spruce essence than the flavor of spruce beer.

Darren Aaberge

Date: Thu, 4 Nov 1993 14:01:42 -0500

From: esonn1@cc.swarthmore.edu

Subject: College brewers

Hola,

As a college student I've noticed quite a few student brewers on campus here (Swarthmore College) and I wondered how many of the people in HBD land are student brewers. Considering the stereotype of college beer consumption is keg stands and funneling, it would be interesting to talk with students who actually drink good (home)brew rather than whatever's on

special. I've seen many addresses on postings from colleges and universities, but it seems most of the postings are written by people a bit

older than the average college student. If you're a student brewer, drop me a line via direct e-mail. I hope to do a features type article on college brewers and sell it to a newspaper or two.

Eugene

esonn1@cc.swarthmore.edu

Date: Thu, 4 Nov 1993 13:08:52 -0600 (CST)
From: Kenneth Wagner <WAGNER@LUB001.LAMAR.EDU>
Subject: help

Date: Thu, 4 Nov 1993 15:52:28 -0500 (EST)
From: "Tim Tillman (BIO)" <tillman@chuma.cas.usf.edu>
Subject: Re: diastatic malt powder/

In HBD #1263 Jill Martz asks...

>We are relativey new at homebrewing and I was wondering if anyone could
>tell me about diastatic malt powder.

Diastatic Malt Extract is an extract with the ability to hydrolyze
starches
into simple sugars. This is what the enzymes in malted grains do during
the mash cycle of all grain brewing.

Date: Thu, 4 Nov 93 14:36:48 +0100
From: steve_t@fleurie.inria.fr (Steven Tollefsrud)
Subject: Convert to all-grain?

I've been brewing with extract (usually Munton) on and off for about 6 years. I started with Williams Brewkits when I lived in Phoenix, then quit for about 3 years when I lived in Munich, Germany (seemed a bit pointless because the beer there is cheaper than water and I was "researching" the beers, the breweries, and the biergartens, leaving no time for even extract brewing). My brewing stuff collected dust in a german keller for three years. Then I moved to the south of France a couple of years ago and found myself in a relative beer desert (well, Munich would be a tough act to follow no matter where I moved). So I dusted off my fermenter and brewkettle, hunted down the address of a homebrew supply shop in the UK and picked up where I'd left off in Phoenix. I started with some basic IPAs and Steam beers, and started experimenting with various grains and yeast types. The results were surprisingly well received by the French natives (a discriminating people, especially in matters of the palate). This was very encouraging.

A colleague at work turned me on to the internet and HBD about a year ago. I tuned in just about the time of Jack Smegmling's [sp?] holier than thou pronouncements along the lines that extract brewers are ignorant, lazy, and not worthy to share the same bandwidth with real brewers (all-grain). This was very encouraging/.

Even while I put in a couple of cents in defense of extract brewing, I knew, deep down in my heart, that I would eventually move on to all-grain brewing myself: the more I learned about brewing, the more fascinated I became.

My only reservations are:

- 1) Cost of grain: Homebrewing is unheard of in France. I have to have my extract shipped from England. As I'm paying shipping costs for 8-10 lbs of extract per 5 gal. it can add up. How much grain is required to make 5 gallons of all-grain (say OG 1050) and what is the typical cost of the grain (\$ or Brit. lbs)?
- 2) Time: One excuse I've always used for not brewing all-grain is that it is very time intensive. I'm repelled by the image of slaving for hours over a steaming kettle, though I never knew how much time is really necessary to do all-grain brew. With a feisty two year old running around the house, I have even less time than before. Are we talking half a day or a couple of hours?
- 3) Information sources: Just lurking around the HBD provides a lot of information. You guys (and ladies) are great! But I would need a good, detailed 'How-to' manual. The problem is that I don't have a homebrew store to go to and would have to order books in English through the local French bookstore, ie: without seeing the book first. If I were to buy one book that details the equipment and procedures, what is the best one to order? Why? (publisher please)

Steve Tollefsrud

steve_t@fleurie.compass.fr

End of HOMEBREW Digest #1265, 11/06/93

Date: Thu, 4 Nov 93 16:22:24 EST
From: abaucom@fester.swales.com
Subject: bottle sterilizing...

Paul asks about mass sterilizing bottles... Here's my 1/50 of a \$1...

I used to sink 2 cases of bottles in a bleach solution and rinse but MANOMAN is that time consuming and I suppose could quickly turn one off of brewing BEER!

Check your dishwasher to see if it has a sani-cycle setting. I have used my dishwasher for many (>10) batches and have yet to have any infections. I load up the bottom rack of the dishwasher with all the bottles upside down each on their own peg (it fits about 2 cases) and run through a cycle. I use the water-miser and sani-cycle settings. The sani-cycle setting, according to the dw manual, raises the water temp to >140F for the last 5+ minutes of the rinse. I don't know if water manages to get up into all the bottles but the hi temp seems to sanitize them just fine. Hopefully, you rinse your bottles out fairly well right after you pour the beer (a sure sign of a homebrew addict!) If so, the bottles should be pretty clean to start with (no furry trees rooted in the bottle!).

BTW, I do use a small amount of dishwashing detergent in the cycle and have had no problems with beer heads or off-flavors. But you would have to experiment since your water may be too hard or soft to completely rinse the soap away. (a hi-temp cycle with no soap works ok too)

I have not tried a batch in a dw without the hi-temp-setting so I don't know if it would be sufficient to kill the enemy.

So, If you're thinking of buying a new dishwasher, check to see if it has a hi-temp (sani) setting. It's worth the extra \$\$\$.

l8r,
Andrew

+-----
-+
| Andrew W. Baucom Phone: (301) 572-1327
| Swales & Associates, Inc. FAX: (301) 595-2871
| 5050 Powder Mill Road
| Beltsville, MD 20705 "Rent this space for your quote!"
+-----
-+

Date: Thu, 4 Nov 93 15:25:00 -0600
From: phil.brushaber@lunatic.metronet.com (Phil Brushaber)
Subject: Decoction Mashing

Am I missing something here? Recently I asked how to develop that super malty flavor which comes from German Doppelbocks. Many people were kind enough to write me privately and suggest decoction mashing (along with low hop rates) as the answer.

Upon re-consulting Noonan's book on decoction mashing I am a bit confused. Simply put (although there appears to be nothing "simple" about it) it seems to me that Noonan suggests starting out with a low temperature for an initial dough in and then a temperature rise through each of the enzyme steps (protein, saccharification, mashout). It seems to me that he must be talking about mashing in a Coleman Cooler or something as the heat increases are brought about by removing some of the wort at each step, boiling it away from the grain, and adding it back to get the next temperature step. I suppose to a "cooler masher" this allows keeping the mash thick while raising temperatures.

I mash in a large canning kettle kept on a stovetop throughout the mash. By turning the stove on I can go through all the heat increase steps without removing ANY of the mash. Since the heat comes from an external source rather than hot wort or water I can keep the mash as thick as I want.

Am I missing something here? With my setup, won't I be accomplishing about the same thing as a decoction mash??

... 43 years old and still getting a keg out of life!
___ Blue Wave/QWK v2.11

- ----

| The Lunatic Fringe BBS * 214-235-5288 * 3 nodes * Richardson, TX * 24
hrs |
| UseNet, ILink, RIME, FIDO, Annex, Intelec, LuciferNet, PlanoNet, and
more! |

Date: Thu, 4 Nov 1993 21:55:51 -0600
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>
Subject: oxygen barrier caps

There was a question a few days ago on rcb about the proper use of the oxygen barrier caps. these caps are either sold as PureSeal or SmartCaps although I think the latter name may no longer be in effect due to some legal mumbo jumbo.

the caps have a substance which reacts with oxygen. obviously if the caps did not have some type of activation barrier, they would react with O₂ in the air and be useless. The caps are activated by moisture. therefore they should be kept dry before use. Each cap has the capacity to react with 1.2 ml (i presume this is at 1 atmosphere and a typical brewery ambient temperature). this equates to about 6 ml of air which aint much. in other words, if you boil these caps and activate them before bottling, you're wasting your money. the caps are properly used by capping dry and letting the beer activate the stuff.

there is no need to boil new caps of any type by the way. i used to do this but it's needless paranoia.

these caps really do lower oxygen levels in beer. as a result, the shelf life of beer is extended. this has some value to homebrewers but of course is of particular value to small breweries. it allows breweries like celis to be more flexible in the brewing schedule because it is now possible to store the beer longer and still maintain a fresh and delicious brew.

Date: Fri, 05 Nov 93 06:03:07 EST
From: gbgg5tt5@ibmmail.COM
Subject: NO SUBJECT

- ----- Mail item text follows -----

To: I1010141--IBMMAIL Homebrew Digest su

Subject: Extract storage

>Extract storage: In planning for the days that I may not live near a
>homebrew shop and/or have not yet gotten into the swing of all grain
full
>mash beering, could anyone offer tips on storing large quantities of
liquid
>or dry extracts.

Depends on how long you want to store it. My father bought 56lb of dried
malt extract. Very soon after, he gave up home brewing. The DME was in a
tough polythene sack, tied tightly with string, inside a strong cardboard
drum with a close fitting lid. I found it *13* years later, and that
persuaded me to start home-brewing.

On opening the bag, I found that the 56lbs DME had turned into 56-ish lbs
SSME (Solid Sticky Malt Extract). I assume that it had very slowly been
absorbing moisture, and compacting under its own weight, until it was one
rock-hard lump. I had to use a hammer and chisel to break it up. After 3-
4
hours I had weighed out about 50 1lb bags. There were chips of the stuff
within a 15 foot radius of where I was chiselling - thats how tough it
was.
However, I did then go on to make a dozen or so good dark malty brews
from
it and apart from an occasional excess of treacly taste, slightly lower
attenuation than expected, and difficulty dissolving it (even in boiling
water) I had no problems. Everyone loved the beer too.

Moral: Don't leave it 13 years in a bag in a cardboard drum.

Paul Slater
gbgg5ttg@ibmmail.com

Date: Fri, 5 Nov 93 07:30:06 CST
From: nfarrell@ppco.com (Norman Farrell)
Subject: George Fix Chill Haze Talk PART 1 of 2

Chill Haze and Fining Agents in Beer

Part 1 of 2

I was fortunate enough to catch George Fix's presentation at the 1993 Dixie Cup Milli-Conference. I even had a small enough hangover to take notes. George Fix spoke on chill haze and some recent work with common agents used to enhance beer clarity. I would call them finning agents. The work he presented is to be published in an upcoming sequel/update of Principles of Brewing Science. Since the good Dr. Fix scooped himself, I will try to convey the gist of his talk below including some tables of results. I am grateful for George's enthusiastic cooperation in proofing this posting. I have added further explanation and consulted other sources and as I felt was needed. I have also added editorial comments (you can tell where). Sorry to all for the delay but it was important for George to proof my note taking. This posting will be in 2 parts since the size is over 8k bytes.

This talk concerns the causes and treatment of chill haze that are not the result of some technical brewing error. We're talking about colloidal haze, protein/polyphenol complexes. We are not talking about:

1. Biological hazes caused by bacteria, non-culture(wild) yeast or mutant yeast.
2. Starch haze caused by the presence of gums like beta-glucans or unconverted starch. Over sparging, high sparge temperature or alkaline sparge water can all cause this kind of permanent haze.
3. Trace metals can also cause haze problems. Iron levels above 0.05 ppm or cooper above 0.10 ppm are common culprits. The most likely source is from your water supply. Your water character may be variable throughout the year. Seasonal haze problems may not be your imagination. Your water supply may also change sources (Norman's does). Check with your local water department at different times of the year to see if this could be a problem. Norman has found them more than willing to read off the most recent analysis over the phone (call the water plant, not City Hall).
4. Oxidation haze is cause by the time/temperature history of the beer after it has been bottled. Thermal abuse is the enemy here. The telltale sign is a dull lackluster appearance (not you and your drinking buddies; the beer). This problem is sometimes termed "European Import Haze".

We are talking about chill haze resulting from protein/polyphenol complexes (protein and tannins) and haze caused by yeast biomass. Note that chill proofing and reduction of yeast biomass are two separate things. Now, let's discuss some of the common fining agents.

Irish Moss

Irish moss is (according to Norman's dictionary) the dried and bleached seaweed of the red algae variety. The two most common species are *Chondrus crispus* and *Gigartina mamilliosa*. The active ingredient is called carrageen (carrageen) and is sometimes a synonym for the seaweed itself.

Irish moss is said to aid in precipitating coagulated proteins. It is normally added about 10 minutes before the end of the boil at the rate of 1/2 to 1 teaspoon per 5 gallons (by most homebrewers). Fix adds Irish moss at 15 minutes left in the boil. Some recipes call for a "pinch". The use of Irish moss has several advantages and raises some concerns for the (home)brewer.

Advantages:

1. Irish moss is a processing agent; not an ingredient. It will not survive the boil kettle. For this reason, it can be used under the "German Beer Purity Law".
2. Infections are not a concern since Irish moss is added during the boil.
3. A negative charge makes Irish moss selective for large molecular weight proteins.

Concerns:

Since proteins have important roles in the fermentation cycle and in the finished beer, any agent that removes proteins should give concern in the following areas:

1. Will it remove too many low molecular weight proteins (amino acids) and have a detrimental effect on the fermentation?
2. What effect will the protein removal have on the body, viscosity and head formation/retention of the finished beer?

The Punch Line

Sorry to say folks, but at the levels employed by "most" homebrewers, Irish moss has no effect whatsoever on chill haze, beer foam or body/viscosity.

So, I should give up using Irish moss? No way. The problem is not with the material but with the dosage. Irish moss dosage rates do not scale down linearly from commercial to homebrew brew length.

Norman's digression on scale up/down:

Malt or malt extract is an example of an ingredient that scales more or less linearly.

Ignoring efficiencies of size and equipment design, the amount you use (as dictated by desired initial gravity) can be easily estimated from the ratio of brew lengths to pounds of malt(extract). For instance, if your brewing buddy has a recipe for 10 gallons of Old Welding Glove Barley Wine that calls for 25 pounds of malt extract and you only wanted to make 5 gallons of Old Welding Glove, just use 25 pounds times (5 gallons divided by 10 gallons) equals 12.5 pounds. Scaling other things up and down is not always so easy. Sometimes assuming a simple linear relationship is way off.

And now, back to George:

Although it is not much of an increase (over what we normally use), the correct level seems to be about 1 tablespoon Irish moss for a 10 gallon batch. The result of experiments was a good hot and cold break. Fermentation with a "picky" yeast, Wyeast Bohemian Lager, produced little noticeable effects on body, beer foam or viscosity. Irish moss is available in several forms: large flakes, refined flakes and powder. Use slightly less powder than flakes. Rehydrate the flakes in plain water before using. DO NOT rehydrate the powder.

How good a job does it do? Let's talk first about units of haze. The American Society of Brewing Chemists has defined the following scale:

| ASBC Haze Units | Description |
|-----------------|------------------|
| 0 | brilliant |
| < 100 | very clear |
| < 200 | slight dullness |
| < 300 | see through haze |
| > 400 | murky |

Now, the next time you call your friend's brew murky, you'll know what your talking about. The DeClerk Test was used to evaluate various brews made with the different forms of Irish moss. The test is fairly severe: 5 days at 140 degrees F then 2 days at 32 deg. F and finally warm up to 50 deg. F and inspect the beer. The results are below.

| Batch | ASBC Haze Units |
|---------------------|-----------------|
| Control (no I. M.) | 400-500 |
| Powdered I. M. | 100-150 |
| Refined Flake I. M. | 150-200 |
| Large Flake I. M. | 170-200 |

As you can see, the proper use of Irish moss will help with chill haze in your brew.

End of part 1

Date: Fri, 5 Nov 93 07:31:34 CST
From: nfarrell@ppco.com (Norman Farrell)
Subject: George Fix Chill Haze Talk Part 2 of 2

George Fix Presentation on Chill Haze from the 1993
Dixie Cup Milliconference

Part 2 of 2

Isinglass

>From seaweed to fish parts. Isinglass is derived from the internal membrane of certain fish bladders (a Brazilian catfish and a Saigon kingfish). As you buy it, it is almost 100% collagen.

Isinglass has an isoelectric point of >5.0 and will have a positive charge in any medium whose pH is <5.0 (ie. in beer with a PH of 4.5). Yeast will have a negative charge. The rest is hopefully easy to figure out. Effectiveness may vary somewhat with yeast strain. Isinglass is most effective in reducing yeast biomass and is an excellent compliment to Irish moss. It is certainly better than beechwood chips or aluminum slats.

The dosage rate in the UK is 60 mg/l. Full effect will take about 48 hours. It is most commonly used in Great Britain's cask conditioned ales. George recommended 30 mg/l for a 5 gallon batch with preparation as follows. Drop the PH of 6.0 ounces of sterile water to 2.5- 3.0 PH with your choice of tartaric, citric or phosphoric acid. dissolve 1/2 teaspoon of isinglass. Hold in refrigerator over night. Do not let this material see any temperature above 50 degrees F. It will decompose and become useless. Norman has read other recipes and the directions on your package may be different. Siebel has isinglass already mixed with acid blend ready to go!

Those wishing to observe the German Beer Purity Law will have to lower the PH with the help of some critters. Norman wonders if those wishing to be vegans should leave all the cask conditioned ale for the rest of us.

Results of test brews treated as above in soda kegs with a 3 day contact time showed significant reduction in yeast biomass:

cells/ml in
mg/l isinglass dosagefinished beer
300.15 - 0.25 X (10)^6
600.01 - 0.10 X (10)^6

Other Possibilities

Polyvinylpyrrolidone, PVPP, or Polyclar is a positively charged plastic powder that works against the protein/polyphenol complexes. Tannins are adsorbed and fall to the bottom of the vessel where they can not complex with the

proteins. PVPP has no effect on foam or body but does reduce both hop bitterness and beer color. Add at the rate of 0.067 ounces per gallon of finished beer. PVPP may be added to the beer at the beginning of storage or mixed with diatomaceous earth in a filter.

Activated silica gel can also be used. It acts by collecting the proteins instead of the tannins. Norman assumes that Dr. Fix did not give it much air time because of limited availability to homebrewers.

Tannic acid has a large phenolic structure which selectively reacts with high molecular weight proteins. The bottom line is that this is the "active ingredient" in beechwood aging. Don't tell AB/Houston but there are those who say it does not work very well. Tannic acid has very little effect on beer foam.

Filtration

Now we're getting serious. Isn't this what the big brewers do? Norman remembers a good presentation on filtration by Steve Daniel from the 1992 AHA National meeting. It may be found (in written form) in the Just Brew It! book covering the meeting. Cartridge filters have gained popularity with homebrewers and if used with CO2 to push the beer will not cause aeration problems. Rinse your filter with sterile beer first.

Pumping the beer is another matter. Some pumps (Little Giant among them) have been found to introduce air. Air is drawn into the pump housing and vigorously forced into the beer. Not too good, especially when you thought you were improving your beer. Plastic filter housings can develop this capability over time and damage your beer. Fix prefers stainless steel (don't we all) but winces at the price (don't we all).

You may precoat the filter with sterile (cheap) beer and diatomaceous earth. Fix prefers a 3 micron stone (porcelain) filter cartridge over plastic (polypropylene).

Why a 3 micron filter? Consider what you are removing from your beer. That's right, a filter will impartially remove all particles above a certain size from your beer. A filter is a dumb device. In order to be smarter than your filter, look at the following table and then we will discuss.

Membrane filter results

| | Filter microns | | | | | |
|--------------------|----------------|------|------|------|-------|-----|
| Property | 0.22 | 0.45 | 1.0 | 3.0 | Cntrl | |
| Abs. Ext. (deg. P) | 2.25 | 2.25 | 2.3 | 2.43 | 2.5 | 2.5 |
| IBU (mg/l) | 26.1 | 25.9 | 26.2 | 27.1 | 27.5 | |
| Color (deg. L) | 2.9 | 3.2 | 3.9 | 4.6 | 4.6 | |

cells (mg/l) 000 1-10 10^5

The control beer is unfiltered so it gives a good idea of what you are starting with. There isn't much effect on gravity until you drop below 1 micron. Bitterness starts to be affected below 3 microns.

George interjects:

"Remarkably, IBUs are little affected by filtration. The small differences in the numbers reported are likely due to errors in measurement. I did these with the ASBC (chemical extraction) procedure, which is not as accurate as chromatography. Errors of the order 5% are not uncommon with the ASBC procedure."

Color takes a hit below 3 microns. Cell count is nearly zero at 3 microns. The results tell you that filtering to less than 3 microns is stripping color, flavor and body out of the beer. Three microns will not sterile filter (pediococcus is about 0.8 micron BTW) but it will leave the beer chill haze free but basically intact. You don't even want to know the degree to which some of the Mega brewers are filtering their beer. George told the sad tale and his time ran out. Next up was Paul Farnsworth to delve into cask conditioning but that will have to wait for another day.

As for me, I will revise my use of Irish moss as a result of this presentation and since I am an ale fanatic, I will try isinglass next time I keg (which will be soon).

End of Part 2 of 2

Norman (nfarrell@ppco.com)

Date: Fri, 5 Nov 1993 06:09:14 PST
From: John_D._Sullivan.wbst311@xerox.com
Subject: Black and Tan

Hi all,

Keith sez:

>There is a Black & Tan available in bottles. It's put out by a brewery
in

>Saranac, NY (USA). Obviously it's not layered. I believe the label
says they

>mix one of their lagers with one of their porters and bottle it. Not a
bad

>brew.

This is called Saranac Black and Tan, it's actually a German Lager and
Irish

Stout mixed, and it's quite good I think. It's made by FX Matt's in
Utica,

NY.They also contract out some beers, such as Sam__l Ad_ms (tm)-
Disclaimer,

etc.etc. (Hope I'm all legal now James).FX also makes a Saranac Golden
Pilsener (very light, nice hop nose), and a Saranac Lager (deeper color,
more

bittering hops, less hop nose). I think all are pretty good.

Be talkin to Ya,

John

Date: Fri, 05 Nov 93 09:58:48 EST
From: Walter O'Briant <WOBRIANT@UGA.CC.UGA.EDU>
Subject: Sticking to Business

I subscribe to HBD because I want to learn more about *beer, homebrewing, and DIRECTLY related issues*. What gives some subscribers/readers the idea that it is OK to introduce issues which are highly personal, have nothing to do with brewing good beer, and far too often resort to language which is almost certain to be offensive to some of us because it is vulgar and out of place in this forum?

Let's keep in mind that this is a *public* forum, and that not everyone has a tolerance for language which is crude in their judgment. In particular, maybe some of us need to re-think what we include in our signature line as well as how much space we are consuming with it.

It would also be helpful to me if headers or signatures gave a clearer indication of where the sender is located.

I look forward to continuing to receive HBD. I'm in the Department of Philosophy at the University of Georgia, and I've been brewing about twenty years.

Date: Fri, 5 Nov 1993 08:48:12 -0700
From: npyle@n33.stortek.com
Subject: Kegs/Crabs/Salvator/Plugs/etc.

Ed Wolfe asks about converting some SS kegs for brewing equipment. I seem to recall some sage advice in the Zymurgy Gadgets and Equipment issue. Check it out.

**

Just curious: has anyone ever seen a crabtree? Our yeast apparently know a bit about it; you'd think a species as advanced as ours would know more than yeast... I've seen crabs of all types (except those scratchy ones!) and trees of many types but no crabtrees.

**

Jim Kent asks about Salvator:

> . How do they make that stuff so sweet ? I thought it tasted of
>licorice (sp?) as well. Any time I try to make a high gravity
>dark beer it ends up becoming too dry (and sometimes even harsh)
>after a few months in the bottle. (Havent been able to maintain
>cold temperatures for real lagering yet ;())

I think you said it right there, Jim. You need the cold temperatures to knock the yeast down, where they can't keep working on your sugars. You might work especially hard on sanitation, too, as any wild yeast or bacteria may break down some dextrans into maltose and the like. Then the yeast will take it from there. Cold filtering would help. Drinking it in the first 3 months works well, too. I have the same problem, BTW.

**

Tom Kaltenbach says:

> The recent Hops FAQ has got me wondering again about hop plugs. For
>those of you who are not familiar with them, they consist of dried whole
>hops, compressed into a 1-inch diameter cylinder that's 3 or 4 inches
long.
>The plugs are segmented so that it is easy to break off smaller chunks.

This either misleading or Tom has seen some plugs I haven't seen. The standard plugs come in 0.5 oz. bungs, approx. 1" in diameter, approx. 0.5" long. They are stacked, usually, in two columns of 5 (I think), packaged in foil for a total weight of 5 oz. My point is that you "break" off a known quantity of 0.5 oz of hops, not just some unknown "smaller chunk".

**

Todd Taylor, I'd make a 3 gallon batch to start. The problem with making a 5

gallon batch with a small kettle is that you will leave lots of sugar in the grain because you don't have the means to boil more liquid. Its not a disaster but its very inefficient. It is typical to use about 2 pounds of grain (or less) per gallon of beer, but it all depends on your goal OG and your extract efficiency.

Cheers,
norm

Date: Fri, 5 Nov 93 08:25:01 PST
From: Bob W Surratt <Bob_W_Surratt@ccm.hf.intel.com>
Subject: Recipe Request

Text item: Text_1

I posted this last week & never heard from anyone. So here goes again.

I'm looking for a couple of extract recipes to clone Watneys Red Barrel AND Red Tail Ale. I looked in The Cats Meow II, but didn't find them. I'm sure that somebody out there in HBD land has attempted to duplicate these. So if you have and are willing to share, please send me a copy of these. I am an extract brewer, so please gear towards that.

Thanks for listening!! Bob Surratt Folsom, CA

Date: Fri, 5 Nov 93 11:11:28 -0500
From: Philip J Difalco <sxupjd@fnma.COM>
Subject: Difference between Priming w/ gyle and DME

I don't see too much difference between priming with gyle and DME,
especially if the gyle was originally malt extract based.

Could someone elaborate?

Date: Fri, 5 Nov 93 10:00:09 -0700
From: LPD1002%NYSHESCV.bitnet@UACSC2.ALBANY.EDU
Subject: Kriek/Sour Mash

After spending far too much money on bottles of kriek for my girlfriend, I decided that I should try to make a p-Lambic. Has anyone tried the sour mash method and kriek recipe in the back of TNCJOHB. It sounds like it should work, as long as I can get a hold of the 2 strains of Belgian yeast. If anyone has had successful results (or unsuccessful) or has made this type of beer with another method, I'd like to hear about it. Direct E-mail will be fine and much appreciated. At \$5.00 a bottle, I can make a lot of my own. ;-)

Steve Septer

LPD1002@NYSHESCV.BITNET@UACS2.ALBANY.EDU

Date: Fri, 5 Nov 93 03:28:00 BST
From: mike.keller@genie.geis.com
Subject: Bottle labels

In HBD 1163 Dion writes:

```
|| I would like to make some labels for my bottles, but a little ||  
|| more creatively than I currently make with WordPerfect. A ||  
|| friend has Corel Draw and that would be fine, but I do not ||  
|| have several hundred dollars to spend on software. Can ||  
|| anyone suggest software for DOS or Windows, (or even X for ||  
|| that matter) which would be suitable to make *really* nice ||  
|| bottle labels with? Must have lots of fonts available and it ||  
|| would be really nice to be able to fit text into any shape ||  
|| (like in a crescent shaped banner). ||
```

Well, my first choice would be to ask my friend if I could come over and play with Corel Draw on his machine.<g> The next option, if you have Windows already, is to try the Windows Paint program. If you stick to black and white, you'll be able to get some decent artwork going for your labels.

The one thing that IS going to cost you some bucks is getting exactly that "fit text into any shape" feature. That is a most desirable feature, and I don't know of any low-end software that allows you to do that.

BTW, I suggest option number one. I'm doing some labels in Corel Draw right now (I was working on my design as I captured this HBD, so I mean RIGHT NOW), and placing text on a curve looks really spiffy and is lots of fun!

mike keller, beer sysop, food and wine RT, GENie

"homebrewers don't just recycle, they refill!"

Date: 5 Nov 1993 08:26:13 U
From: "Bob Knetl" <bob_knetl@amber.spawar.navy.mil>
Subject: Bass Ale Recipe and Dry Hop

Subject: Time:08:15
OFFICE MEMOBass Ale Recipe and Dry Hopping Date:11/5/93
Does anyone have a reliable recipe for making a Bass ale using malt
extract
(non-all grain recipe). Also I am finishing up a Bohemian Pilsner and
dry
hopping it. In the past I have used whole hop plugs and never worried how
long
I left them in the chilled secondary fermenter. When using hop pellets
can you
also leave them in the secondary until ready to keg/bottle?
Bob Knetl

Date: Fri, 05 Nov 93 09:46:00 PST
From: "SIMPSON, Mark (x-4378)" <Simpson@po2.rb.unisys.com>
Subject: Judge Forum

Howdy Brewpeople!

I just received my judgemanship certificate from AHA this Spring. I have heard rumors that there is a forum dedicated to this sport. Does anyone out there know the subscription address???

Thanks,

Happy Brewing!

Mark Simpson

e-mail: simpson@rb.unisys.com

Date: Fri, 5 Nov 93 09:54:42 PST
From: Mike Peckar 05-Nov-1993 1252 <m_peckar@cscma.ENET.dec.com>
Subject: SS Keg Conversion, or How I learned to Love All-Grain. Part 1

All it took for me to convert from all-extract to all-grain brewing was stumbling across an orphan 1/2 bbl rounded stainless steel keg at a scrap yard. For, not only was I able to easily fabricate a simple brewpot from this keg, but an entire methodology for all grain brewing using a few extra contraptions in conjunction with the keg's faucet. Both the methodology for brewing and a detailed plan for modifying the keg are explained herein. But first, more about the keg itself.

The rounded type keg which I used is commonly known as a "Golden Gate"- type keg. This is to be distinguished from "Sankey" type kegs, which are characterized by their straight sides, built-in handles on top, and rounded top and bottom. Both hold 1/2 Barrel, or 15.5 gallons. While the flat-sided Sankey-type kegs have the advantage of built-in handles, they have the disadvantage of not having a built-in flat section on the bottom side for installing the drain faucet, as do the Golden Gate-type kegs. This may or may not be a problem if you are trying to repeat what I did, but there is no doubt that trying to install a faucet on the rounded bottom side of the Sankey-type keg may not work to well without first having a sleeve welded on. I do know of at least one person who managed to bang a flat in the bottom of a sankey keg so he could install the faucet with standard screw-thread plumbing fittings as I did.

So, with standard parts available at most any hardware store and simple tools (which if I didn't have, my neighbors or friends did), I was able to put together not just a big brewpot, but a simple, easy way to brew 10 to 13 gallon all-grain batches with little fuss and no welding. The only major new investment was for a Propane Burner. I of course had to move my brewery from the kitchen into the basement, and I located the burner under a window where a fan could vent the propane fumes, etc. Be warned, though, that the propane tank's label clearly discourages use of propane indoors. The keg conversion itself took one Saturday and cost less than \$20: In short, you cut a big hole in the top of the keg and install a drain in the bottom side using standard 1/2 inch I.D. standard thread plumbing supplies. I tried to bang out the hardwood bunghole, but it was in there so tight, I decided to just leave it be. No problems after 10 batches with that.

Because I used standard plumbing threads, with a nipple that extended out into the inside of the keg, I found that I could add removable accessories to the set-up so that in one vessel I could mash, brew, and even primary ferment. Only lautering would require the temporary transfer out of the keg into food buckets. For sparging, I used a standard toilet stand-off and attached a couple feet of copper tube, bent it into a pretzel, and drilled a series of 1/16th inch holes in it. This screws onto the inside of the faucet. I also fashioned what I call a "Trub Bypass", which is nothing more than another copper toilet floor stand-off with a

bend which I attach the same way as the "copper Pretzel". This allows me to primary ferment right in the keg so I can rack my beer directly from the faucet, bypassing the trub on the bottom of the keg. It works just great: input is adjustable from the very bottom of the keg up to about 7 inches above the bottom. I must rack as soon as possible off primary, though, to avoid infection. Also, this implies that I do not separate the wort from the cold break material before pitching. If this sounds distasteful, optionally you can use this trub bypass to rack off into another primary fermenter after the boil if you wish. If this be your preferred method, call the Trub Bypass a "Cold Break Bypass" instead.

The basic process I use for all grain brewing with my new toys is as follows: Crush your grain; install the Copper Pretzel, calculate your water requirements for mashing and put that amount of water in the keg, Heat sparge water with propane and mash-in. I find no heat is necessary to maintain mash temp, but I do wrap the keg in a camping pad. Next lauter out of the spigot into food buckets. You do need another source of hot water for sparging, such as hot tap water mixed with boiling water in food buckets. I use my old brewpot on the kitchen stove. Fwiw, I've never needed more than four food buckets for dealing with all this. Now, clean out the spent grains and remove the copper pretzel. Install the trub bypass and pour in the wort from the buckets. Brew as normal. Chill with wort chiller.

Option 1: Aerate, pitch yeast and cover the keg (I use aluminum foil). After fermentation stops, rack from the spigot directly into Cornelius kegs (I use a short section of sanitized garden hose fitted to the spigot to minimize aeration while racking). Or, rack into a bottling bucket, prime, then bottle. Option 2: after chilling the wort, let the break settle, then rack from the keg directly into carboys or fermentation buckets, allowing aeration during transfer.

If you use the keg as a fermentation vessel, you must get the hops out before you pitch. Simply use muslin bags. This also assures the plumbing won't clog up on racking. A friend who uses my system and prefers racking to primary just throws his hops in, but prior to attaching the Trub Bypass, fastens a Chore-Boy on the end with brass wire to filter out the hops. All sorts of fun experiments can be made, like centrifugal decanting ala the big boys.

Date: Fri, 5 Nov 93 10:03:49 PST
From: Mike Peckar 05-Nov-1993 1301 <m_peckar@cscma.ENET.dec.com>
Subject: SS Keg Conversion, or How I learned to Love All-Grain. Part 2

ASSEMBLING THE EQUIPMENT:

If you have trouble locating the parts in the list, it may behoove you go to a plumbing supplier first, as they are sure to have all the parts. The parts for the drain assembly are the same parts for a standard faucet you would see on the side of a house for a garden hose. The parts listed below are what I used; I chose brass fittings, but I see no reason why you couldn't chose any other standard material that can stand up to the heat from the propane burner. I found that keeping it as simple as possible worked well to my benefit since by selecting a standard plumbing thread, it allowed me to incorporate interchangeable and removable pieces into my design, making the whole process of brewing simpler and more relaxing! A friend prefers the Ball-type, lever-actuated faucets. These are a bit more expensive, but will definitely decrease the chances of clogging up the faucet. A good investment, but you'll have to use tubing other than a garden hose for racking as mentioned above.

Parts:

- 1 15.5 gal. Stainless steel Keg, Please obtain it legitimately.
- 1 1/2" faucet, flush-mount, brass. Inside-threaded. \$2.25
- 1 1/2" x 1" pipe nipple, brass, counter-threaded. \$1.17
- 1 brass nut to fit pipe nipple. Fits 11/16" wrench. \$0.75
- 2 washers, ~ID 1" ~OD 1 3/8". Galvanized. had these lying around.

Comments: You can substitute a faucet with the threaded nipple "built in", i.e. the faucet has an outside-threaded extension. The problem with these is that there is no flange for flush mounting against the outside of the keg. Ideal would be a faucet with a flush-mount flange and a built-in nipple extension with outside threads. I didn't bother asking for one at the plumbing supply shop since I had already bought the above parts.

Parts for optional Copper Pretzel and Trub bypass tube.

- 2 1' Copper floor stand for toilet or sink, w/ brass compression fitting on one end and flange to ID 5/8 on other. (\$2.25 ea.)
- 2 Feet of 5/8 OD soft copper tubing.
- 1 1/16" Drill bit. You'll burn out a couple drilling holes.

Comment: Feel free to use the "slotted pipe" method here, i.e., instead of drilling holes, hacksaw some slots. Also, many Homebrewers get fancy and build sparging devices analogous to really small septic leach fields. Knock yourself out.

Tools, etc.

- Flair pen.
- 11/16" wrench.
- Ear protection.

Eye protection.
Power Drill.
Drill bit, about 1/4", metal-cutting.
Reciprocating saw ("Sawzall"), preferably variable speed.
1/2 round metal file or honing wheel insert for power drill
Emory paper
3-in-1 oil.
Bimetal sawblade for reciprocating saw. (\$1.89)
7/8" bimetal hole saw. (\$6.97)
Mandrel for above to fit your power drill. (\$7.60)

Comments: Bimetal blades are a must for cutting stainless steel. You can

probably hack the drain hole by drilling a bunch of holes with the drill and then filing it round, but the \$15 investment in a good hole saw/mandrel is worth it, and can be re-used in the future for such things as installing a beer faucet in your fridge!

Use a reciprocating saw with variable speeds if you can find one. I found that at "6", my saw wouldn't cut at all, but cut through the steel like butter at "4".

Date: Fri, 5 Nov 93 10:07:31 PST
From: Mike Peckar 05-Nov-1993 1303 <m_peckar@cscma.UNET.dec.com>
Subject: SS Keg Conversion, or How I learned to Love All-Grain. Part 3

Procedure for converting keg:

Mark off your opening hole with the flair pen. try to find a lid you can use and size the hole based on your lid. You only have a little cheese here with a Golden Gate-type keg. Drill pilot holes for the saw blade using 1/4" drill bit and 3-in-1 oil. Have a helper steady keg while you drill the top with bi-metal blade in reciprocating saw. Both you and your helper should wear eye and ear protection. Use oil liberally at cutting edge and rest the saw every few minutes to prevent overheating. Relax, have a homebrew. Smooth edge with stone or hone then emory paper. Mark hole for faucet from inside high enough up from bottom of keg so that the flange will clear the bottom. Drill out 7/8" hole, hone, sand, and install faucet, using washers & nut w/ 11/16" wrench. The drain hole must be made on a flat surface. If using the cylindrically-shaped keg, i.e., Sankey, which does not have a flat section for a drain, you will have to bang a flat with a hammer or otherwise force a flat.

Procedure for fabricating Copper Pretzel for mashing.

The Sparging device. Basically a thing that allows the liquid stuff to be separated from the solid stuff in the mash. The holes or slots face down. sweat or clamp a two foot section of soft copper to flanged end of stand-off. Drill holes on one side only. I made three rows of holes with each hole about 3/8 inch apart. Optionally, use a hack saw to cut slots perpendicular to the length of the tube every 3/4 inch or so. Saw only 1/3rd through the diameter of the tube. Hammer down the open end to seal it shut. Carefully bend the tube into a pretzel shape, keeping in mind the holes will face down, and bending the tube such that gravity will help drain the liquid inside the tube, i.e., the part of the tube closest to the crimped end should cross over the top of the part of tube closest to the brass fitting. Make the thing any shape you want: I chose this design because it doesn't require futzing with too many different joints and tees and elbows, etc.

Procedure for fabricating the Trub Bypass for fermenting in the keg.

This device will allow you to ferment your beer in the same keg in which you brew. It allows for the draining of the fermented beer off the trub. Or, use it to rack from the keg into primary bypassing the cold break. The floor stand is simply a copper tube flared to 5/8" at one end and molded at

the other, with a 1/2" female compression fitting at one end. It just screws right onto the protruding nipple on the inside of the keg. Bend it with care so that when attached to the nipple, the flared end sticks up a couple of inches from the bottom of the keg. I got a little fancy and bent it so it followed the contour of the bottom of the keg into the center and then bent up from there. Take care not to kink the tube too badly while bending. Adjust the intake height for trub or break bypass simply by bending it up or down to the desired height. With practice, you'll get a better idea on what height to set it at for particular brews.

Comments on the whole setup.

The biggest advantage is simplicity. A single vessel for all your all-grain and/or extract needs up to bottling. A lot of friends have expressed concerns about unsealed fermentations, but as long as pitching rates are good, and you resist the temptation to "peak", i.e., disturb the headspace, there should be no problem. An initial purging of the headspace with CO2 helps, too. The disadvantage to this system is the fact that since it is both a mash/lauter tun and brew kettle, the whole process takes longer, as you have to decoct into buckets and then wait while you rinse out the spent grains before you can start to brew. Also, since the sweet wort is sitting in buckets, you can't start heating up the wort before sparging is complete. To work around this, the next obvious step is a separate mash/lauter tun. Since you have already built the sparging device, the logical choice is another half barrel keg with faucet. With two barrels, you essentially have a traditional brewery, but there are myriad setups and possibilities for improving on this very simple basic brewing set up, like a pump system from sparge water transfer, uC controls, ad nauseum.

>From crush to pitch usually takes four hours.

Another important note. At first, I built an easymasher ala Schmidling, though I preferred to call it a "screen penis". I had a couple problems with this. First, sparging rate was poor at lower mash temps (compared to what I got with the copper tubing device); in fact, I had a couple of stuck sparges. Second, the device didn't have the physical strength to stand up to mash-in, i.e., it deformed, and once, broke off while I was stirring in the grains. It's rather difficult to solidly clamp a screen around a pipe, even when the pipe is outside-threaded. In Schmidling's defense, though, the device was very simple to fabricate and yielded satisfactory results when it did work, though I got no higher than 30 pts extraction. All things being equal, the copper tube yielded consistently better results, and, though it was a PITA to fabricate, it was well worth it.

Mike Peckar, the penurious, paltry, parsimonious, yet pedantic picobrewer.

End of HOMEBREW Digest #1266, 11/08/93

Date: Fri, 05 Nov 1993 12:13:45 EST
From: "Mark T. Berard, Dow Plastics, LAD, TYRIN* CPE R&D"
Subject: Distillation

Hi all,

Been watching about a month. Lots to learn, I can see. I'd like to comment on the distillation thread. See examples below. Mark Blunier describes the industrial preparation of 200 proof Ethanol, and Daniel McConnell

comments on boiling point of various alcohols. I'd like to add something to

this. AZEOTROPES. While I agree with most of what has been said in this thread,

i.e. if it isn't in there to start, you shouldn't be able to distill it out,

just knowing the boiling point of various alcohols isn't enough. Mark's company probably added cyclohexane to the distillation because water/ethanol

forms a well known azeotrope. That is, you can't distill off the last 4% of

the water. You have to add something else to break this up, distill off the

water, and then distill off the other ingredient. In his case, cyclohexane.

Commonly for "Absolute" Ethanol or "100%" ethanol, benzene is used. This will

need a tax stamp, etc, but it contains trace benzene, a well know carcinogen.

Not the greatest for drinking. Well, you say, 96% ethanol is plenty good for

drinking. True (?). But, water forms lots of three way azeotropes, including

one with methanol and ethanol! So you might think you are getting rid of any

"bad" alcohol after going over the boiling point of your various nasties, but

you might not be.

Happily you can't really hurt yourself if you mess up making beer, but you

could REALLY HURT YOURSELF (or DIE) if you mess up trying to make your own

distilled alcohol. So while most of the fears like "you'll go blind", (Sounds like what I've heard about other activities ;-) are probably just as

Daniel said, scare tactics, there IS some reality in there. I'd stick to making great beer! (If only I could. I'll have to keep working on that.)

-Mark

>Subject: Distilling alcohol

>After the regular column we distilled it up to 200 proof by adding cyclohexane.

>I was told that the 200 proof mixed 50/50 with water tasted like a very good

>vodka, but I never tried it. To be used in gasoline the proof had to be 199.4

>(or was it 199.6?).

>Mark W. Blunier mwb5489@age2.age.uiuc.edu

>From: "Daniel F McConnell" <Daniel_F_McConnell@mailgw.surg.med.umich.edu>

>Subject: methanol/unmalted wheat/spe

>Distillation will concentrate only what you want it to by collection only
>during the temperature range that you want. Of course this is technique and
>equipment dependant. For alcohols, methanol comes off first (65C) followed by
>ethanol (78.5) propanol (97), water (100), butanol (117) etc. Don't drink the
>methanol, propanol or anything that boils higher. Don't ferment and distill
>garbage.

Dr. Mark T. Berard | Internet: mtberard@dow.com
Snailmail: | Voice:504-353-8418
Dow Chemical, La. R&D, Bldg. 2506 | FAX: 504-353-6608
PO Box 400, Plaquemine LA 70765 | SCIENCE!

Date: Fri, 5 Nov 93 10:12:26 PST
From: DJM1%CRPTech%D CPP@cts27.comp.pge.com
Subject: Immersion Chiller

Just though I would toss my hat into the ring. I use a "Double Immersion Chiller". I have two copper coils, (1) 30' length <the main chiller in the kettle>, and (1) 20' length. I place the 20' in a bucket/pot that is filled with ice/water. The cooling water flows from my faucet to the 20' coil (in the ice bucket) to the main coil in the brewing kettle and out to the sink. I used to use a counter flow chiller (the copper-in-a-hose type) but found that I had to use a very high flow rate of cooling water and a very slow rate of wortflow to get the temp down to ~70F (50' of counterflow cooler). I now use less water (but have to use 2 bags of ice) and it only takes ~15-20 min to get down to ~75F with minimal cooling water flow. My counter flow chiller is now collecting dust.

Somebody had to come to Jack's defense ;-)
Daniel Meaney

Date: Fri, 5 Nov 93 13:16:06 EST
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>
Subject: Greenplug

I saw this gadget that may be of interest to homebrewers like me who have many fridges and freezers. This device uses computer circuitry to work out how much electricity is actually needed to keep a motor running (it cuts up the sine wave in some way - ask an electrical power engineer). And not only does it save around 25-33% of electricity, the motor runs more smoothly as well (admittedly this was the demonstration motor with no load), and there is surge and brown out protection. It was \$31 in Builders' Square. I saw a similar device in a yuppy environmental catalog at home (amazing the junk mail fall out from certain magazine subscriptions!) and the price was around \$80.

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem.
Eng.
Pabst Blue Ribbon!' | Notre Dame IN 46556
| ulick@darwin.cc.nd.edu

Date: Fri, 5 Nov 93 13:33:59 -0600
From: gjfix@utam.uta.edu (George J Fix)
Subject: Northern Brewer Hops

I received some e-mail asking if Northern Brewer hops suffered any of the deficiencies of Clusters or Brewers Gold. On paper the Northern Brewer hop runs circles around the latter. I have not personally brewed with it, however a few months ago Jeff Frane sent me a few of his brews which used Northern Brewers in a highly advantageous way. These beers were outstanding, and their hop character was a major factor. This hop also has a very good reputation in Germany as an early addition bittering hop.

My post in HBD#1264 had the following spelling errors:
(1) geraniol (not -oil)
(2) Hallertauer (not -entauer)
(3) jibes

We installed a scientific spelling program, but I often forget to use it.

George Fix

Date: Friday, 5 November 93 13:25:24 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: hops/Ceils Grand Cru

Howdy, all,

In HBD #1264, George Fix discusses the advantages of low alpha hops over high alpha hops, using lots of formulas & stuff I got lost over. But initially he states he feels that low alpha hops impart a cleaner & more mellow taste. So, as a clarification, should larger amounts of low alpha hops be substituted for high alpha hops to impart these same qualities, or would I be defeating the purpose? What about using three times as much 2.5% hops over 7.5% hops to make a Sierra Nevada clone, for example?

Also, Spencer W. Thomas wants to know if Celis Crand Cru is a tripel. I don't think so; it's really considered it's own style. In M Jackson's NWGTB, he lists Hoegaarden Grand Cru (Celis' previous incarnation) as a separate style. I don't know if it's as strong as a tripel or not; it's about 7%.

Oh, back to George Fix & Micheal Jackson. What's his new book's name?

Happy brewin',

Alan, Austin

Date: Fri, 5 Nov 93 12:06:48 PST
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Liberty/SNPA and Hopbacks

Spencer.W.Thomas posted:

>I said:
> > All this discussion sounds like a good argument for a hop-back.
>
>This morning, while I was looking for something else, I found a
>relevant comment from Donald O'Connor, who wrote:
>
> > If you have any doubt about the incredibly vast difference
> > of hop aroma and flavor betwenn using the same type of hop in (I
believe)
> > nearly equal amounts in two different ways, just compare Sierra
Nevada
> > Pale Ale and Anchor Liberty Ale. Both use Cascade finishing hops.
> > One is dry-hopped and the other uses a hop back.

Two things. Firstly I'd like to make sure that the order of the comment
doesn't confuse people. SNPA used the hop back, Liberty is dry hopped.

Notice I used "used" in the above sentence in reference to SNPA. I have
heard (but not confirmed, yet) that when they opened their new brewery
they were having major problems with the hop back and abandoned it in
favor
of dry hopping. So both may now be dry hopped. My brew club is touring
Sierra Nevada next weekend, so I'll get a chance to ask and confirm. I'll
report back. Also reported that the only beers now hop-backed at Sierra
are the Barley Wine and Celebration (Xmas Ale) because these are produced
in such relatively low volume that they can put up with whatever problems
the hop back caused for the short time involved.

Mark

Date: Fri, 5 Nov 1993 23:36:52 +0300 (GMT+3:00)
From: dan@eng.kuniv.edu.kw (Daniel Kowalewski)
Subject: Beer in Kuwait

I write to you all as a fellow lover of home brew. And I am in desperate need of help. Desperate. The predicament that I am about to describe is not for the beer-loving faint of heart. I find myself in a country where all alcohol is illegal. I've been able to make one small batch of lager with the most gracious help of a friend who flew in from Belfast with a couple of bags of hops and a can of malt extract. And I've been making do with wine (lots 'o grape juice available) and eth (home made still and lots 'o sugar). But you know as well as I that it's just not the same. I have no access to net news. And I have just received my first issue of this forum. It looks good. I would appreciate any info on:

1. Growing Hops
2. Malt processing
3. Alternative methods of brewing (ie. no hops - is it possible?)
4. Names and addresses of folks in the home-brew business (supply shops)

Places I have most access to are Long Beach, Sacramento, Albuquerque, and Boulder. Discrete mail order would be great.

Any input would be greatly appreciated. I will try to sift through some of the back issues on the above subjects but as the network here is somewhat precarious in terms of both functionality and real internet functions (like ftp), the more 'live' forum info I get the better.

As an interesting addendum to the lifestyle in this part of the country:
A 12oz can of Heineken costs \$15 on the black market.

Thanks

Dan Kowalewski, dan@eng.kuniv.edu.kw
A misplaced EE from Cal to Kuwait.

Date: Fri, 5 Nov 93 14:11:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: SS keg cutting

In HBD Ed Wolfe asked about cutting SS kegs,

EW> Can anyone out there offer guidance in converting these kegs? I
> need answers to questions like: How should they be cut? Which

Having just gone through this, I can give you some pointers. There are a lot of ways to do this (like using a plasma torch or having someone else do it), but this is what worked for me.

Rent or (preferably) borrow and in-line reciprocating saw. The best known of these is a Sawzall. A Sears or B & D sabre saw will work, using 10 times as many blades and 20 times as much time (plus you won't be able to find bimetallic blades). Then buy some (5 maybe) bimetallic 32 TPI sawzall blades. I could only find 24 TPI and it worked fine, but I think 32 TPI would work better. The blades must be bimetallic for heat dissipation or the blades will rapidly wear out.

Insert a large screwdriver in the spring loaded valve where the tap goes in the keg. WATCH OUT! The keg will be under pressure from the decaying beer contained therein. Gas and maybe a few drops of old beer will shoot out when you do this so cover with a towel first and avert your eyes!

Also buy a 1/4" tungsten drill bit. Use a nail set or punch to mark your starting point. Use the drill bit to drill 2 or 3 holes next to each other so that you have one hole big enough to insert the Sawzall blade. The saws are usually variable speed so begin slowly until you get the hang of it. The saws will also cut in circles very easily so I marked my cut line first with an indelible marker so I would know where to cut. I got the blades at Ace Hdwr.

EW> end should be cut (on the valved end, I suppose)? Where on the
> keg should the cut be made (top or side)? How many inches from

My keg has an upper rim into which cut-out handles had been formed. My first cuts were vertical on either side of each handle so that I could retain them for lifting. I cut down to the top seam on the keg and then cut around that everywhere except directly below the handles. If I had it to do again, I would not have cut on the seam, but rather cut out higher on the domed top so that the I retained more of the sidewall. You'll have to judge where to cut based on the construction of your keg.

EW> the bottom should I install the manifold outlet on the
> mash/lauter tun (right AT the bottom, I suppose)? How many

Can't comment, I only made a boiler.

EW> inches from the bottom of the boiler should I install the spigot
> (i.e., How much sediment can I expect from a 10 gallon batch)?

My keg has a domed bottom and a rolled rim similar to the top. I installed a 1/2" X 4" SS pipe nipple butt welded up to a 1/2" hole drilled into the bottom seam. This provides 1 gallon of liquid that I have to tip the keg to drain. This isn't a problem because there's

only one gallon in the keg when I'm tipping it.

The pipe nipple was threaded with 1/2" pipe threads. Ace had a brass ball valve with chrome ball for about \$6. A brass 1/2" thread 90 deg angle extension was about \$2 and a 1/2" pipe threaded hose nipple was also about \$2. These were also found at ACE.

The bottom rim of my keg fits exactly inside the top rim of my cajun cooker. This means that the bottom dome (inside the lower rim) is suspended about 4" above the burner of the cooker. The heat coming out of the burner is concentrated under the rim. I can get 8 gallons of 50 degF water to full rolling boil in 30 minutes, BUT I cannot burn my wort. I've had the burner up to it's full 160,000 btu and had a hell-of-a boil, but the boil is so vigorous that it doesn't stay in contact long enough to scorch. My reduction rate is something like 1 1/2" gallons an hour.

Chuck

* RM 1.2 00946 * The sex was so good, even the neighbors lit cigarets

Date: Sat, 6 Nov 93 11:46:00 BST
From: r.mcglew3@genie.geis.com
Subject: Homebrew Digest #1260 (Novembe

My point on judging, or rather having your (specialty) beer judged was simply that specialty beers (i.e. what ever the organizer's can't place in another category) will be judged more by the judges' likes and dislikes than any of the other categories. If I don't like "American Light", I probably won't judge it. I like fruit etc. beers and each beer that we tasted we took the time to savor and try and get into the head of the brewer and figure out what he or she was trying to achieve. This took a lot longer per brew than other categories, but it was worth it. Bottom line was, however, with specialty beers just because it doesn't get raves from the judges doesn't mean that it wasn't good. If you and your friends like it brew some more!

Date: Sat, 6 Nov 93 07:38:22 EST
From: jwilliam@uhasun.hartford.edu (John Williams)
Subject: Recipe for SA Winter Lager

Does someone have a recipe for SA Winter lager? I think it is just a strong lager dry hopped with ?. An extract recipe would be nice but I could convert an all-grain recipe.

Mail direct if possible. Thanks!

John W

Date: Sat, 6 Nov 1993 10:22:46 -0600 (CST)
From: Steve Seaney <seaney@ie.engr.wisc.edu>
Subject: Wort Chiller Performance

Hello,

I have an immersion wort chiller I have been using June. It'll bring 4 gallons of boiling water to 70 degrees in about 8 minutes. It's a fairly simple design that I threw together over Memorial Day Weekend.

I don't have any other chillers to compare this too. Is this a decent performance?

Steve

- - -

Steve Seaney: 608/265-3954: seaney@engr.wisc.edu

Date: Sat, 6 Nov 1993 07:56:48 -0800 (PST)
From: Paul deArmond <paulf@henson.cc.wvu.edu>
Subject: BATF Outlaws Steam Injection

This showed up in the local paper--

FEDS SIEZE HOMEBREW BOMB FACTORY

(AP Seattle) Investigators from the Bureau of Alcohol, Tobacco and Firearms led a massive raid on a homemade bomb factory in Tacoma, Washington last night. Accompanied by local law enforcement and a camera crew from the COPS "real-crime" (tm) television show, BATF agents stormed a residence during the early morning hours. The object of the raid was a bomb factory being run by a crazed local homebrewer.

Siezed in the raid were several large stainless steel vessels that were identified as bomb components, a coil of copper tubing and other parts of an illegal still, copies of a child porography publication identified as "Boy's Life", as well as several plastic bags of a leafy green substance identified by experts as "hop", a dangerous narcotic drug. The owner of the house, Mr. Charlie Poopazian, was taken into custody after his house was crushed into matchwood by a flame-throwing M472 tank disguised as an Avon lady. The massive show of force is expected to boost the ratings of the COPS show, if they can only get Mr. Poopazian to stop screaming and rolling around on the floor long enough to sign the necessary release forms. Mr. Poopazian was yelling over and over again, "It's only hops!" , according to an unidentified BATF who expressed satisfaction at being able to extract a confession from the suspect.

The bomb was made of heavy aluminum and fitted with large black bakelite handles. An unidentified source close to the investigation stated that the bomb marked a new turning point in international drug terrorism, since it appeared to operate on "cold fusion" principles. "This is the first known case of drug traffickers attempting to build a thermonuclear weapon", said the source, speaking under conditions of anonymity. According to this source, the bomb has been taken to a secret DOE facility known as "Area 51", somewhere in Nevada.

At a press conference after the raid, a BATF spokesman indicated that the target of the bombing was a mysterious organization known as "Z". The suspect had originally been the head of this crime syndicate, which is based in the Rocky Mountains. Mr. Poopazian was deposed after a national "crime conference" held in Portland last summer. "Our sources indicate that the suspect was planning the bombing to regain control of his crime empire.", the spokesman said. According to confidential sources, Poopazian was replaced by a cadre of yuppie women dressed in K-mart business suits.

Well, there you have it. The COPS show will be shown sometime around Christmas.

At the FBI (Fairhaven Boatworks Inc.), they use a steam generator

for bending wood. It doesn't have a pressure vessel, so it's probably an end run around pressure cooker modifications. The steam generator is just a coil of 3/8" copper tube over a small propane burner. There is a piece of stovepipe around the coil to trap the heat. The inlet to the coil is fitted with a needle valve and a fitting so a garden hose can be attached. The outlet is unrestricted and feeds the steam into a small rubber hose (which I think is automobile gas line.)

They fire it up and then slowly open the needle valve until steam comes out the hose. When it's properly adjusted, you get real hot steam. If the valve is opened too much, it starts spitting hot water.

I think Bob Stewart (descended from the sheep-stealing Scottish clan) built the thing. In which case, it must be a least a hundred years old, since Bob is around a hundred and twenty himself. Actually, nobody is really sure how old he is, but he was caught last week whistling at a newspaper picture of a local woman who had just turned 100. He was making inappropriate comments about "look at the cute young babe." Shar took Bob behind the warehouse and gave him 20 lashes with the cat-o-nine-tails, but she says that it didn't do much good, 'cause Bob seemed to enjoy it....

Sorry I haven't included a diagram of the steam generator, but the idea of drawing a coil with ASCII graphics makes me break out in a rash.

Paul.

Date: Sat, 06 Nov 93 19:32:30 +0200
From: Nir Navot <LCNAVOT@WEIZMANN.WEIZMANN.AC.IL>
Subject: Address of Siebel Institute

Can someone please send me the address and fax or telephone numbers of
Siebel
Institute in Chicago?
Thanks much.
Nir Navot

Date: Sat, 06 Nov 1993 18:02:03 -0600 (UTC -06:00)
From: ROWLEY@kuhub.cc.ukans.edu
Subject: Nasty Brews

Hey all,

I'm taking a course now on the genetics of human behavior, and we got around to alcoholism last Thursday. It's a four hour seminar, so we sometimes drift around the topic of the week. One of us mentioned the inescapability of drinking alcohol in the field (anthropologists we are), even

when what the locals drink may be foul beyond words. I ventured that I'd

drink most anything "homebrewed." Tales from the field then included fermented

milk and cream from no-longer Soviet Georgia (I said I'd drink it, not that

I wouldn't gag), homemade absinthe from Switzerland, fermented kelp from the Aran Islands. OK, absinthe isn't really nasty, but bitter. I added scrumpy to the list altho' I've never had any, and I've read of horseflesh

being added to beer in the American Civil War.

Now then. What other funky, nasty things find their way into our fermentors around the globe? Anyone ever tried fermented milk? I thought that was something only seen in the movie "Alien Nation" What about fish?

I've heard tell that various Eskimo people bury fish for months, then return

to eat it. I guess I'm not looking just for nasty stuff, but also odd things.

Any recipes'd be appreciated, either private e-mail or posting here.

We were also comparing rates of alcoholism to length of contact with alcohol. Native Americans are said not have had any alcohol (I find this hard to believe since natural fermentation is so common: i forgot a cobbler

on the kitchen sink over the weekend and came back to blackberry melomush a 'bubblin' away). What about Australia? anyone know of aboriginal beer drinks there? Hawaii? Didn't Cook make beer of breadfruit on landing, which

the Hawaiians thought foul? There was a Polynesian kava drink, but to my knowledge it wasn't intoxicating. Anyone know?

Thanks to all who provided info on Belgian Special B. I racked my Irish red into the secondary a few days ago. Used Guy McConnel's recipe with

a full pound of Special B. Perhaps it was a wee too much. We'll see in about

three weeks how she turned out.

Matt RowleyRowley@kuhub.cc.ukans.edu

Date: Sun, 7 Nov 93 11:15:00 -0600
From: phil.brushaber@lunatic.com (Phil Brushaber)
Subject: STRONG Pitching Rates in Lagers

I am here to testify! I have become a believer. I think I now have an appreciation of what people have been talking about when they espouse STRONG pitching rates (especially for lagers).

Last week I made a Dopplebock using Wyeast Bavarian. I started with the foil pack and eventually stepped it up to 1 gallon of starter. I pitched the whole thing after cooling the wort and got my usual, fairly strong fermentation after about 10-12 hours. In 12 days the wort went from 1.080 to 1.030. A couple of days ago I racked to secondary and saved the yeast slurry at the bottom of the primary.

Yesterday, I brewed another Dopplebock (wanted to change the recipe slightly) and used the 1.5 pints of clean, yeast slurry (no beer, no trub). This time fermentation started in about 3-4 hours. Again no surprise from what I have read.

Here was the difference. Normally I brew lagers at about 50[^]-52[^] to start and get about a 1-2" head. This time not only was the onset of fermentation quick, it was extremely vigorous. About a 4-5" head, actually necessitating a blow off tube on a lager. To somewhat slow down activity I reduced the fermentation temp to about 46[^]. No slow down in activity, still blowing off. I suspect that this will also be a quick total fermentation, perhaps something like 10-14 days versus the usual 20-30 I have been experiencing for lagers.

The opportunity came in brewing with the same yeast a couple of weeks apart. My guess is that one could not save this slurry very long even if refrigerated (2 weeks before autolysis?), so unless I am brewing with the same strain regularly it could make it tough to achieve the same effect. I feel certain that I am not getting the same amount of yeast out of even a one gallon starter that I am out of the slurry from a five gallon batch.

I'm a believer. I now know what "STRONG pitching rates" means. Now I want to know how I can re-capture the effect if I am not brewing with the same strain every couple of weeks. Thoughts?

... Bubble! Bubble! Bubble! My brew is in trouble!
___ Blue Wave/QWK v2.11

- ----

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more! |

Date: Sun, 7 Nov 93 15:05:37 -0500
From: <geotex@engin.umich.edu>
Subject: Bad off flavor in beers

Ouch.

Not that I am worrying or anything, but I seem to have stumbled into my first brewing roadblock. A few weeks ago, I posted a message about my Old Ale that was having a vigorous second ferment about 2 weeks after it stopped fermenting in my glass primary. I went ahead and bottled it after it fermented out.

I tasted it this weekend and (not surprisingly) there was a bad flavor to it. Furthermore, the stout (which I racked to the same carboy after the Old Ale was done) had the same off flavor to it when I bottled yesterday.

The beer has a strong, medicine-like, alcohol-like, flavor to it. Like someone added some acetone to the secondary.

David Miller's book says this flavor can be attributed to Wild yeast strains or chlorine reacting with the wort. I imagine it could also be some sort of bacteria infection, also.

Has anyone experienced this type of horror before? I have to track it down before I can brew again.

I would appreciate any suggestions or comments that might help me out here.

Thanks!
Alex Ramos
geotex@engin.umich.edu

Date: Sun, 7 Nov 93 15:38:00 -0400
From: barry.miller@som.linnet.org (Barry Miller)
Subject: After bottling, what then?

I am new at homebrewing and have my first batch, a Brown Ale in the bottle for 2 weeks and my second batch, a Pale Ale still in the secondary.

Though my Brown Ale has the flavor and characteristics of a brown, it has a definite "aftertaste", possibly best described as a metallic "bitterness". The only metal it has come in contact with is my stainless brewpot so I don't think that has anything to do with it.

My question is this, and input from the experienced brewers here would be greatly appreciated by me and I am sure all new brewers. How does one tell (can one tell) whether a new batch is lousy or just needs more time in the bottle?

Thanks,

Barry Miller: barry.miller@som.linnet.org

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| SOM Premium Info Network 516-536-8723 Hayes v.32bis USR DS/Hayes
| Ultras|
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Date: Sun, 7 Nov 93 18:43:25 PST
From: ng570@andechs.pnl.gov
Subject: use of rye

Darren Aaberge writes:

>Does anyone know of a source of malted rye? I
>checked my local homebrew shop (Steinbart's in Portland, Oregon), they
didn't
>have malted rye but they did have flaked rye.

The only source for malted rye that I know of is The Malt Shop in
Cascade, WI
(1-800-235-0026). I haven't tried it yet, but I have a shipment coming
this
week and will brew a rye/wheat beer this weekend. One of my favorite
beers
from when I lived in Germany was a dunkel rye beer simply called Roggen
(rye in
german) and brewed in Schierling (Thurn and Taxis). I will attempt to
clone it
by brewing a dunkel weizen and start w/ about 45% rye/20% wheat instead
of my
usual 65% wheat. We'll see...
Anyone else have any experience in brewing with rye?

Prost!

Kirk Peterson
ng570@andechs.pnl.gov

Date: Sun, 7 Nov 1993 18:57:19 -0800
From: royh@netcom.com (Roy Harvey)
Subject: Information on Pete's Wicked Ale Recipe

Dear Homebrew Digest --

Could some provide me a recipe for Pete's Wicked Ale?

Thanks!

Roy Harvey
Mountain View, CA
royh@netcom.com

Date: Sun, 07 Nov 93 20:51:08 EST
From: Bob_McIlvaine@keyfile.com
Subject: HBD Morals Police

Just an observation...

I've seen a lot of people complaining
about submissions to HBD which
have offensive words...

It would seem to me that, to date,
there has been far (far, far) more space
used to complain than was used by the
original comment...sweet irony.

Let's stop wining about
offensive words and talk beer!

Date: Mon, 8 Nov 93 07:51 CST
From: arf@mcs.com (Jack Schmidling)
Subject: It aint easy being green

>From: gummitch@teleport.com (Jeff Frane)

>I only chime in because I don't want anyone to get the impression that just because Jack Schmidling is adamant he is also correct.

Yes, I know how Rush feels. It's just one of the burdens that the great and powerful must carry. People tend to believe the truth and that is very dangerous.

>There are a good many reasons why someone would choose a counter-flow wort chiller over an immersion chiller, that have nothing to do with scale.

Sounds like a serious challenge....

>Briefly, my reasons are simple: it's faster....

I have conceded that possibility but so is instant coffee.

> the wort arrives in the fermenter at the correct temperature without being unduly exposed to the air

This, of course, assumes that the kettle is open to the air which in a proper installation it is not. The immersion chiller should be installed in the lid to provide a sterile environment while cooling.

> or sitting around in a kettle while I stir the damn thing....

Not sure which of the Ten Commandments drives you to "stir the damn thing".

I turn on my chiller and come back in an hour or several or whenever convenient to transfer the wort. It makes no difference how long it sits there with a tight fitting lid on it.

>, and <important> the only "stuff" that arrives in the fermenter besides the wort is some cold break....

Now this one troubles me greatly. What happened to the "hot break"? I respectfully suggest that it is now what you call cold break. Not sure just what you are doing here or how you are drawing off the hot wort but everything that is suspended in the solution that can fit through your spigot/siphon/line and chiller, will end up in the fermenter.

For the record, I never said that was bad, just observed that if the wort is chilled and settled BEFORE transferring to the fermenter, it will contain less "stuff" than if the wort is transferred immediately after the boil.
I

can't believe you wish to argue that point.

>, which precipitates out magnificently and from then on doesn't pose any problems, because IT WILL NOT BE REABSORBED INTO THE WORT. The wort does not have to be racked off the cold break.

No argument. I have been wanting to ferment a batch on the whole mess without even transferring to a fermenter but I don't want to dash anymore
momilies at the moment.

>That presentation, by the way, was published in the last volume from the
AHA, and includes scientific references, instructions on how to build an inexpensive counter-flow wort chiller, how to siphon bright wort out of the
kettle (hint: whirlpool)...

But what about that evil demon, HSA?

>But, once again JACK HAS SPOKEN.

So why bother? No need for any further discussion.

> Be advised, however, that in the past Jack has spoken through his hat more
than once.

Who, me?

> More than twice, for that matter.

Now, that I challenge.

> But I can see it now: "Real brewers only brew all-grain."

YUP!

>"Real brewers culture their own yeast (although once upon a time liquid yeast was for snobs, remember, Jack?)."

Not sure what those quote marks are supposed to indicate but I never said
anything like that. I did not believe the stories about liquid yeast and to
a large extent, I still do not. I do however, believe that yeast can be eliminated as a source of infection if one cultures one's own yeast. I spent
a lot of time on the subject and my yeast article has made the process understandable to those intimidated by it. The arguing back and forth was
part of the learning process but never did I ridicule anyone for not using
liquid yeast.

> and now: "Real brewers use an immersion chiller." Pffft.

Again, you are taking liberty with the quote marks.

If anything, I implied that real brewers, i.e. commercial brewers use counter-flow chillers, but for reasons primarily based on scale.

Homebrewers who use counter-flow chillers do it because they like them for

some reason or other which has little or nothing to do with the quality of the beer they produce.

>From: Steve Seaney <seaney@ie.engr.wisc.edu>
>Subject: Re: Plans for Grain Mill

>Jack's mill is a nice piece of work. My complaint about the cost doesn't counter the craftsmanship of the work. Jack however is making a profit in this mill.

I don't want to beat this one to death but I would like to point out that I made the first mill in the spirit of the intrepid experimenter who would not take no for an answer. There simply was nothing available on the market and I wanted one. Having sold my real business and retired, I assure y'all, I had no intention of making more than one. Turns out though, that if you build a better mouse trap, people will indeed, beat a path to your door.

>I am still collecting ideas for parts of the mill. If there are any interesting ideas for the rollers I'd appreciate a note. It'd be nice to use parts that are available at hardware stores, etc.

The only roller I found practical is one used in Xerox machines. It requires a bit of ingenuity to make it work, but if you can find them in surplus stores, it will save you a lot of grief.

The conveyer belt ones will work for the passive roller but there is no way to put a crank on them. You can make them from water pipes, rolling pins and a host of other stuff for next to nothing and I admire people who do this.

For those who don't have the time or inclination, well... now there are alternatives.

js

Date: Mon, 8 Nov 93 06:57:17 -0700
From: John Adams <j_adams@hpfcjca.sde.hp.com>
Subject: Beer on Airplanes

Last summer I took 3 bottle of homebrew to my friends wedding in Vermont. I was flying USAir form Denver to Boston. At baggage checkin I informed him that I had homebrewed beer in my carry-on and I asked if it would be alright to take them onboard (I didn't want them to become handled my baggage handler's).

USAir informed me that it would be alright as long as I wasn't planning on drinking them onboard.

John Adams

Date: Mon, 8 Nov 93 10:48:33 EST
From: William Swetnam <wswetnam@capcon.net>
Subject: Suggestion for Dion's inexpensive label software

A few HBDs back, Dion asked for suggestions for an inexpensive software package with Corel Draw like capabilities. In Saturday's HBD Mike Keller suggested draw that was included w/ Windows. My suggestion, if you can part with around \$89 is Harvard Graphics v2.0 for Windows. It is a presentation graphics package which includes a Corel Draw/Adobe Illustrator/ or Aldus Freehand *like* drawing program called F/X. It CAN have text flow along a drawn curve. Draw the curve, draw the line, select them both and choose a menu option... Done. The low price is an introductory offer so I am not sure how long it will last, so check Egghead, CompUSA or you favorite mail order house...

Will Swetnam
(wswetnam@capcon.net)

Date: Mon, 8 Nov 1993 09:29:09 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: College brewers

Eugene at Swarthmore College writes:

>I've seen many addresses on postings from colleges and universities,
but it
>seems most of the postings are written by people a bit older than the
average
>college student.

Gee, what makes it seem that way? Most of the HDB posts come across as
at
least thoughtful, and mostly well-informed. Are these not traits of
"college
students"? Or are these traits found only in those "a bit older"? And
just
how much older is "a bit" anyway? Sounds to me like RMAMPANT AGE-ISM on
the
Swarthmore Campus. I do hope the administration can do something about
this
sad situation before those infected minds graduate and go forth to
perpetuate
myths and stereotypes, to the detriment of all the world. 8-)

tom leith
who is "a bit" older than
the "average" college student

Date: Mon, 8 Nov 93 10:37:33 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Spent grains = draff

Reading Clive LaPensee's Historical Companion to House Brewing last night, he claims that the spent grains are called "draff". I like it. Right up there with "wort" and "trub".

I haven't finished the book, but it seems to be an interesting combination of good information and out-and-out misinformation. It's the first book aimed at the home-brewer that has an in-depth discussion of malting your own.

I seem to recall that this book is available through the AHA; I bought mine from a local HB supplier who had picked up some copies on a trip to England.

=S

Date: Mon, 08 Nov 1993 11:19:42 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: cooling/chilling w/little w

cooling/chilling w/little water?
I've been closely following the chiller wars and, although all the designs seem fairly straight forward, I have a question:

Is there another method that doesn't require gallons upon gallons of water running from the tap to cool the wort? I'd rather not keep the local water authorities in business just to have quickly cooled wort.

Has someone come up with a chiller design that uses a closed system? Obviously you'd need a pump to circulate, but perhaps you could use ice as a heat exchanger for the chiller water? Does anyone know of a good cheap (and fairly quiet) pump for such an activity?

feel free to post or reply directly...

george tempel
908/544-2673

Date: Mon, 8 Nov 93 10:58:29 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Need your help!

I'm trying to refine my "double sparge" method. (Yes, I know this is a historically used method, but there seems to be very little in the HB literature that will help me.) In order to be able to better plan these batches, I need to do some experiments involving the SG resulting from various liquor-grain ratios. The results I get will be valid for my specific setup, but may vary from the results from other mashing/sparging setups.

Here's my basic assumption: Given a particular ratio of water to grain in the mash, if it is fully mixed, and drained without the addition of any sparge water, then the gravity of the resulting sweet wort will be essentially constant throughout the draining (lautering?), and will depend only on the initial water-grain ratio. The amount you get out depends on the amount of water and grain you put in, of course, but the gravity shouldn't. (Initial experimental evidence is in favor of this hypothesis.)

If I can build a table of water/grain ratio <-> O.G., then I can easily plan my double sparge batches to get a desired gravity in both the first runnings batch and the second, sparged batch.

So, I'd like to ask my fellow HBDers for help in this endeavor. Here's what you'd need to do:

1. Write down the ratio of water to grain when you're ready to start lautering. Make sure the mash is uniformly mixed.
2. Take a (temp corrected) SG reading of the first runnings.
3. After a while, but before adding any additional sparge water, take a second SG reading.
4. If you're willing, drain the entire tun, and record the "final" SG reading and the volume obtained.
5. Send me e-mail with the following information:
 - a. Grain bill
 - b. Water/grain ratio (or amount of water added to the mash)
 - c. Initial lauter SG
 - d. Additional lauter SG readings (and volume of sweet wort at that time).
 - e. If you know, total amount of sweet wort obtained from first runnings.
 - f. Your lautering set-up (zapap, copper manifold, easymash, etc.)

I am planning to write this up for (probably) Brewing Techniques, if the method works as I expect. Any contributors will be acknowledged, of course.

=Spencer W. Thomas | Info Tech and Networking, B1911 CFOB, 0704
"Genome Informatician" | Univ of Michigan, Ann Arbor, MI 48109
Spencer.W.Thomas@med.umich.edu | 313-764-8065, FAX 313-764-4133

Date: Mon, 8 Nov 93 11:10:30 EST
From: taylor@e5sf.hweng.syr.ge.com (taylor)
Subject: THE BEER MACHINE

Has anyone tried or heard off "THE BEER MACHINE"??
Sold by some place in Seattle. Sounds sort of different.
Has anyone out there tried this? I'm wondering if this
process is any good. THE BEER MACHINE for those who haven't
heard is a 2.5 gallon keg that is a fermenter and a dispenser
all in one. Just add the beer mix and yeast wait 3-5 days and
put it in the refrigerator for 3-5 days and you have beer. There is
a small CO2 injector on top for adding more cabonation. The injector
looks
like those CO2 canisters for pellet guns. Any info about "THE BEER
MACHINE" available out there?? I'm thinking of buying one to use for
and small keg system. Brew my own beer and just use it for a dispenser

Todd.....

Date: Mon, 8 Nov 93 10:46:09 -0600
From: gjfix@utam.uta.edu (George J Fix)
Subject: Help

Please forgive the use of bandwidth. On Monday (11/8/93) I received e-mail which inadvertently chewed up by our system. I conjecture it came from Chicago since the Spooky competition was mentioned. It also had questions about multi-strain yeast cultures. Unfortunately, the sender could not be identified. Hopefully the later is on HBD, and if so I would be grateful if they would send another copy of the message.

-George Fix

Date: Mon, 8 Nov 1993 09:04:11 -0800 (PST)
From: Gordon Baldwin <gbaldw@usin.com>
Subject: Homebrew on IRC

For those of you with access to the Internet and IRC there has been a homebrew channel forming most days. Come in and say hi. To get there join #homebrew.

- - -
Gordon Baldwin
gbaldw@usin.com

Date: Mon, 8 Nov 1993 08:15:55 -0800 (PST)
From: gbaldw@zaphod.usin.com (Gordon Baldwin)
Subject: Homebrew channel on irc

For those of you with access to the Internet and IRC there is a homebrew channel that has been forming most days. If you have access come in and joining #homebrew.

- --
Gordon Baldwin
gbaldw@usin.com

End of HOMEBREW Digest #1267, 11/09/93

Date: Mon, 8 Nov 93 12:47:03 EST

From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 08-Nov-1993 1243
<macneal@pate.enet.dec.com>

Subject: Wit Bier recipe clarification and info on pre-packaged Black & Tan

It was pointed out to me that the amount of dried orange peel I posted in my Wit Bier recipe didn't come out as I intended. I forgot that some specialty characters don't come out as intended when sent out over the net.

Anyway, the amount of dried orange peel I used in my Wit was 1/2 oz.

I mentioned that I had found a pre-mixed, commercially available Black & Tan

but was sketchy on the details. I saw it again at a local store. It is Saranac Black & Tan and is made by the F.X. Matt Brewery. It is a mix of stout and lager. I found it quite tasty.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Mon, 8 Nov 93 12:32 CST
From: korz@iepubj.att.com
Subject: Isinglass/homegrown plugs

Norman writes (regarding Isinglass):
>with preparation as follows. Drop the PH of
>6.0 ounces of sterile water to 2.5- 3.0 PH with
>your choice of tartaric, citric or phosphoric
>acid. dissolve 1/2 teaspoon of isinglass.
>Hold in refrigerator over night. Do not let
>this material see any temperature above 50
>degrees F. It will decompose and become
>useless. Norman has read other recipes and the

The Isinglass that I've found is pre-mixed and I specifically asked the wholesaler if it needed to be refridgerated. He said no. Now, I'm questioning this because of what Norman wrote. Could the pre-mixed isinglass be stabilized somehow or does my distributor need to change their instructions?

Tom asks about making hop plugs at home.

How about a *clean* pipe of some kind and a matching "plunger?" Fill the pipe with hops, pound the plunger down till the hops compress, remove the plug. I haven't tried this, but it seems like it could work.

Al.

Date: Mon, 08 Nov 93 13:53:09 -0500
From: paul@grammatech.com (Paul Anderson)
Subject: Commercially available hard ciders.

I am conducting a survey of commercially produced hard ciders available in the US. Currently I know of the following:

Woodchuck, made in Vermont, two varieties: Amber and Dark.
Woodpecker, imported from the UK
Strongbow, imported from the UK
Dry Blackthorn, imported from the UK
Wyders, made somewhere in the Northwest?
Seven Sisters, made in Idaho.

Does anyone know of any others? If so, please email me directly. If at all possible, please include the following information:

Name of cider:
Name and location of brewer:
Where sold:
Price (for what quantity):
Style (dry, sweet, etc):
Carbonation (still, sparkling):
Approx alcohol content (mild -- strong):

Finally, if you got a chance to taste any, let me know what your opinion was.

BTW, I already asked the same question of cider-digest readers, but I only got one reply.

Thanks in advance. If there is sufficient interest, I will post a summary.

Paul Anderson
paul@grammatech.com

Date: Mon, 8 Nov 1993 14:19:13 -0500 (EST)
From: roman@tix.timeplex.com (Daniel Roman)
Subject: Re: College brewers

Eugene:

Since over 75% of students at the average college are under 21 I imagine that articles on students brewing beer may not contribute favorably to the homebrewing culture. Maybe someone at the AHA could comment?

--

Dan Roman Internet: roman@tix.timeplex.com (prefered address) //
ccMail: roman_d@timeplex.com GENie: D.ROMAN1@genie.geis.com /X/ Only
AMIGA!

Date: Mon, 08 Nov 1993 14:56:55 -0500 (EST)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Kettle Mashing

Mike writes:

> First, sparging rate was poor at lower mash temps (compared to what I
> got with the copper tubing device); in fact, I had a couple of stuck
> sparges. Second, the device didn't have the physical strength to stand
up
> to mash-in, i.e., it deformed, and once, broke off while I was stirring
in
> the grains. Its rather difficult to solidly clamp a screen around a
pipe,
> even when the pipe is outsided-threaded. In Schmidlings's defense,
though,
> the device was very simple to fabricate and yielded satisfactory
results
> when it did work, though I got no higher than 30 pts extraction. All
things
> being equal, the copper tube yielded consistently better results, and,
> though it was a PITA to fabricate, it was well worth it.

In deference to the concept of kettle mashing, I thought I'd add my
comments:

My converted SANKE 1/2 BBL. keg has a union welded to the outside. The
1/2" SS
union has the threads exposed on the inside of the keg so that I can
attach a
sparging manifold based built from 3/4" copper pipe. I use an adapter to
neck
the manifold down to 1/2" for connection to the union. The sparging
manifold
is based conceptually on the JSP Easymasher and has numerous slits cut on
the
bottom.

Using this device in my keg gives me the same extraction rate as a false
bottom
system and this mash/lauter tun arrangement yields extract in the 28-32
pts/lb
range. In short, my runoff was clear w/o the use of a screen on the
manifold
and I found multi-step infusion mashes to be easy to carry-out. I find
the
manifold fab'ed from 3/4" copper to be quite durable and tolerated
stirring
and being "whacked" (brewing jargon) with a wooden paddle.

Finally, IMHO an extraction rate of 30 pts/lb is quite respectable from a
home brewing perspective.

Rob Reed

Date: Mon, 08 Nov 1993 13:52:28 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: HopShake/BrewLit/RyeMalt

Al Lingley sez:

axl@cherry-semi.com

>About the only advice I can give is to water daily (soaking), and "shake those vines at least once a day (beatles)." I fertilized about every 2 weeks with Miracle Grow.

* in general shaking/handling can stunt plants growth. They do sense "touch" and it causes similar responses as a "wound" in plants in terms of phytohormone responses (again). I'm not saying you'll kill your plants by shaking, just that excessive handling is best avoided. I had problems with them darned beatles too. Don't have a good solution, wish I did.

Did the beetles all fly away after shaking? Then what? They sneak back on when you turn your back to have a hb! Hmmm.

DOES ANYONE HAVE GOOD METHODS FOR DEALING WITH HOP PESTS/PATHOGENS?

From: robl <ROBL@outside.com>

Subject: Brewery Liturature

>I'm interested in reading about the breweries that were around in the pre- and post prohibition area in the United States. Specifically historical accounts of Brewery size, specialty, even examples of their logos/labels.

* Twenty Five Years of Brewing (1891) History of American Beer.
G. Ehret. TP 573.U7 E3 at Utah State's Library.
Historical discussion of early brewing - worldwide stats.
Neat pictures.

* References on Beer and Ale: Ancient and Modern Literature (1973)
I.M. Cooper TP 570.C66x at USU again.

*Happened across them at the library. Had the ref.s on hand. Don't know where you might find them, but you could- interlibrary loan maybe..
.?

Has anyone tried this recipe? Does anyone know`o] a source of malted rye? I checked my local homebrew shop (Steinbart's in Portland, Oregon), they didn't have malted rye but they did have flaked rye.

* Williams has it. 1800-759-6025.

***** Chus *****
/_____ The COYOTE SLK6P@cc.usu.edu _____/

Date: Mon, 8 Nov 93 13:25:51 PST
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Re: Beer Labels

>>>> On 8 Nov 93 15:38:07-0500, uunet!sprint.sprint.com!JOHN.L.HALE
said:

P1-Message-Id: US*TELEMAIL;OGJD-5705-8665/27

John> I saw your post in a Homebrew Digest last week concerning
John> software to make beer labels. I'm also interested in making
John> labels on a PC with a laser printer. If you get some useful
John> replies I'd appreciate it if you could summarize and post to the
John> HBD. I have the feeling that there isn't a lot of good
John> information on this topic.

Basically, everything people Emailed to me has been posted, but since
I get rec.crafts.brewing and a lot of readers of HBD don't, here is
the summary.

My criteria were (in order of importance):

cost (free is preferable)
DOS or MS Windows (X Windows acceptable, but not preferred)
able to fit text into a defined shape (like a banner)

Suggestions have been:

Arts and Letters - will do it all, but list price is \$699
Harvard Graphics - will do most, but list price is \$89
MS Windows Paint Program - free with Windows, but is such
a wimp, I used another option
Corel Draw - will do it all, but list price \$399
xfig - will do all expect text fitting, is free, but will
not run on my PC, thereby requiring I do the
label design at work.

Date: Mon, 08 Nov 93 13:31:03 PST
From: "Beauchamp, Tim" <tbeauch@spco.com>
Subject: Christmas is just two cases away!

As the holiday roar up and the mercury is slowly dropping, I find myself in the mood for a nice christmas ale or wassel. Anyone out there with some good spice ale recipe's that they have had success with? The last one I tried ended up with so much nutmeg and cloves that I felt like I could make a pretty good cider by steeping the bottle caps afterwards.

Virtually (if not logically)

Tim Beauchamp |
tbeauch@netcom.com | Finger for PGP Public Key

Date: Mon, 8 Nov 93 13:37:32 PST
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)
Subject: Re: Beer Labels

Well I found a mistake in what I said.

dion> Suggestions have been:

dion>

dion> Arts and Letters - will do it all, but list price is \$699

dion> Harvard Graphics - will do most, but list price is \$89

I called and found that the price of \$89 on Harvard Graphics is only if you are upgrading. Otherwise, it is \$237.

Date: Mon, 8 Nov 93 15:11:29 PST
From: byars@mdd.comm.mot.com (David A. Byars)
Subject: keg carbonation

>Path: mdisea!not-for-mail
>From: byars@mdd.comm.mot.com (David A. Byars)
>Newsgroups: rec.crafts.brewing
>Subject: keg carbonation
>Date: 8 Nov 1993 09:18:50 -0800
>Organization: Motorola - Wireless Data Group; Seattle, WA
>Lines: 11
>Distribution: na
>Message-ID: <2blvlq\$aqv@bugsbunny.mdd.comm.mot.com>
>NNTP-Posting-Host: bugsbunny.mdd.comm.mot.com

I just received a keggng system for my birthday(Cheers to my wife!) The system is a 7.75 gallon golden gate keg and a 10 lb. co2 bottle. I kegged a 5 gallon batch and am force carbonating it for a party. My question is:

What are the pros and cons of force carbonation vs. priming?
I understand that force carbonation is faster, but has anyone noticed any differences in taste? C'mon keggers, give me the wealth of your experience.

Thanks,
dB

Date: Mon, 08 Nov 1993 15:36:34 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: sm-ALL Grain/ Sake

taylor@e5sf.hweng.syr.ge.com Todd:
wants to make all grain beer with a 3-3.5 boil pot? Don't think so.

> I don't want to spend alot of \$\$ for equipment until I know what I'm doing.

Or should I just make a 3 gallon batch to start with?

* "If you make it, you can brew. "

I think you're dreamin' to try to make a 5 gallon batch with a 3 gallon boil pot. You'd need MORE than the volume to boil: i.e. 6 gallons for a 5 gallon batch. Unless you want thin beer! There are cheap pots out there.

Someone's going to scream at this....but...Get yourself a cheap canning pot for \$5-\$20. Aluminum (cringe...) or ceramic coated steel. Check surplus stores. They are out there. Used resturaunt equipment stores can be good 2.

>How much grain would I use if I can add water to the wort later?

*Can't do that. You want the water to go THRU the grain. i.e. get sugars.

>Would I use enough grain for a 5 gallon batch up-front? Which is ?

What would the brewer community re"command" I do?

*You want on the order of 6-10# base malt (i.e. pale, munich, vienna.. etc)

for 5 gallons. Depending on how stron you want your brew.

Under your circumstances I would suggest a partial mash. Learn the process

on a smaller scale, then find yourself a bigger pot. There are advantages to a full volume boil even for the extract brewer- read "hop extraction"

*An example: Mash 4 # pale malt + adjunct grains (e.g. xtal) and sparge up to your 3 gallons. Add several pounds of dry malt extract, or liquid male (oops...I mean malt) extract. Boil...cool...add to carboy, bring up volume. Oh....hop the hell out of it of course! '^/

> >How much grain should be used per gallon of water?

* See above. Depends on what you want. American light, or Barley Wine.

>What temp is good in the lauter tun and for how long?

I realize this info is available in books but I don't have mine a neighbor borrowed it? I hope I understand the process.....thanks

* Biggest suggestion I can make is...GET YOUR BOOK BACK!!! You'll appreciate having it (if it's any good!). Borrow his boil pot while you're at it :), Maybe a couple homebrews, his wife if she's cute... nyuck.

Basics: Mash in- 50 deg C. 15 min, raise to 60-65 deg C for 1 hour. Mash-out at 70 deg C, sparge. Iodine testing is worthwhile until you have a system down that works for you. What are you sparging with? Mashing in? You want to maintain a constant temperature.

From: Bryan Kornreich <bkornrei@welchlink.welch.jhu.edu>

Subject: sake-brewing

> There is a sake yeast. I believe it's Wyeast, or maybe the other liquid

yeast manufacturer. (name???) I would think its a form of a wine yeast. The thing you need to do is mash the rice. You can't ferment straight rice. There are rice extracts on the market (Williams carries one). You could use some of the snail spit enzyme mix for your mash (commercial amylase). I've never done it. Never even tried sake, just heard "ugh"'s about the taste. But hey- whatever tickles your pickle.

|~|~|~|~|~| John (The Coyote) Wyllie SLK6P@cc.usu.edu |~|~|~|~|~|
/***** As Long as he's got 8 fingers and toes he's ok by me HJS *****/

Date: Mon, 08 Nov 1993 15:40:10 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: HopShake/BrewLit/RyeMalt

tom@kalten.bach1.sai.com asked about making: Hop Plugs

*Question: WHY?

Pack 'em in CO2 purged mason jars, and store in a freezer. Making plugs will damage the cones, and probably knock loose a bunch of lupulin crystals. One of the BIG advantages of homegrown hops is the freshness, and the ability to control exactly what kind of treatment they experience.

Ok: I'll concede. Smaller space, easier measurement. eh.....

Idea for making them (I've done this with other herbs in the past) Get a tube- e.g. pvc pipe, and a plunger which will fit tightly. Maybe a dowel that will fit the ID of the tube. Stuff the length of tube with cones, then mash them down. You could hammer it or make a press using a car jack if you're so inclined. Pull the plug, and store. If you selected a proper length of tubing you could use it as a measure of the cones- i.e. make 1 oz plugs. Cones are not "pre-processed" as are pellets- i.e. not chopped up first. If you have a vacuum bag sealer you could put rows of them in bags, and stash away into months worth for longer term storage. Personally, I'm not going to do it with mine. I have a spare fridge in my basement where my kegs and hops reside. It is a dedicated fridge, and I'm quite content with that. Besides its on the tenants electric bill, so do I worry?

David Atkins <ATKINS@mac.wisc.edu>
Subject: Hop Vines & extract storage

>I believe that the roots store many good plant things--such as chlorophylls, sugars etc--for their winter slumbers.

* Um...er...chlorophyll in roots? Not likely. It's that stuff that makes leaves green. Sucks sunlight and turns it into useful energy- stored in sugars/starches...etc. (also makes leaves yellow/red in fall:) Most plant roots don't see too much sunlight. Try growing a plant in the dark and see what color it is. Not green! Chlorophyll is produced in response to sunlight. BUT roots do store nutrients. Their MAIN ROLE is uptake of nutrients from the soil and WATER. Desiduous plants generally don't photosynthesize in the winter months. They go dormant.

>When leaves and vines wither, these elements flow to the roots and await the spring. If you do any leaf or vine cutting, as for any perennial, wait till they get all brown and dry before removing...or even wait till spring.

* WELL....there is some truth in that...but...

As a plant senesces (dies) a number of phytohormones are produced and transported through the plant. Fruit ripening is a response to these phytohormones (giberillic acid, ethylene for example). But there are some negative shock responses which could occur due to frost damage. may do better to clip the vine at ground level, then add some good fertilizer (a good reason to have a healthy compost of grains!) into the surface soil. DON't overdo it- especially w/ chemical fertilizers. Read the directions! Follow them too! Use this approach rather than wait for

nutrients to flow down into the roots. The vines have already devoted the majority of their goodness in producing those fine fragrant buds we cherish so. By the time the plant is wilting it is time to give up the ghost and separate the vine from the root. The rhizome will continue to take up and store nutrients, so it is important to not treat the plant as being dead after the cones are harvested. Continue watering until the fall wet-up, or the ground goes cold and hard. You don't want the soil soaking when it freezes, but you also don't want the roots to starve and dry up before they go dormant. Feed them, cover with a good layer of mulch (peat moss, bark chips...your choice) and call it a season. I do not think leaving the vine intact through the winter is going to do any good, except the risk of fungal infections, or overwintering of pests in detrital matter. Keep in mind- part of the root's job is to supply water and nutrients to the entirety of the vine. After the vine is finished there has to be an advantage is separation- allowing root nutrients to stay down in the rhizosphere and be stored for the next seasons growth. Come spring, mulch in some more compost and keep covered from spring frosts as the new shoots start up.

NOTE: I have studied plant growth and phytopathology. I am not an expert, nor claim to be. I planted rhizomes this past spring so this is my first winter to deal with (for my hops). I have read Beach's book, and agree with much of what he covers. I have gardened fairly extensively for many years, and like to think my thumbs have a good color tone to them. For a first year's growth I felt I had a pretty decent harvest at least from the cascade. My plants generally treat me quite well, and I like to return the favor. Take my words as you will...just don't ask me anything about distilling. I don't discuss the subject anymore! :(

|~|~|~|~|~|~| John (The Coyote) Wyllie SLK6P@cc.usu.edu |~|~|~|~|~|~|
/***** As Long as he's got 8 fingers and toes he's ok by me HJS *****/

Date: Mon, 8 Nov 93 15:23:56 PST

From: John McCaffrey <johnmc@brooktree.com>

Subject: Counter Pressure Fillers - What am I doing wrong?

I've got the Braukunst Counter-Pressure Bottle Filler which, as far as I can tell, is just like the other CPBF's (Foxx, etc.). I've followed the directions (sanitize bottles, chill bottles, purge, fill, cap) and I still get way too much foam. The best I can do is fill a bottle with about 2-4 inches of headspace (after the foam dies down).

Obviously, I'm doing something wrong...what is it?

John McCaffrey
johnmc@brooktree.com

Date: Mon, 8 Nov 93 18:18:00 -0500
From: john.fix@hardgood.com (John Fix)
Subject: Yeast not starting (sniff)

I'm using Wyeast Munich yeast, and started the packet on Saturday AM. By evening, the packet was fully expanded (it was packed 11/3, so it was VERY fresh). Anyway, I boiled up one pint of water and a cup of DME, and pitched the yeast when the wort had cooled to about 80F... I couldn't find my old guidelines for making a yeast starter solutions, so I winged it.

Now, it's two days later, and the airlock is still quiet... there was some surface activity (i.e. the beginnings of yeast activity) and the airlock looked like it was getting ready to bubble, but basically it has done nothing. In the past, I've had bubbles from the airlock, and lots of foam in the bottle. I checked this am in my older recipes, and it looks like I used 32 oz of water last time.... could that be the problem (i.e. the S.G of the starter is too high for the yeast?).

Thanks!

-- John --

- ----

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Date: Mon, 8 Nov 93 21:43 EST
From: tom@kalten.bach1.sai.com (Tom Kaltenbach)
Subject: Re: Making plugs from homegrown hops

Norm Hardy commented in HBD #1266:

> Tom Kaltenbach says:
> > The recent Hops FAQ has got me wondering again about hop plugs. For
> >those of you who are not familiar with them, they consist of dried
whole
> >hops, compressed into a 1-inch diameter cylinder that's 3 or 4 inches
long.
> >The plugs are segmented so that it is easy to break off smaller
chunks.
>
> This either misleading or Tom has seen some plugs I haven't seen. The
> standard plugs come in 0.5 oz. bungs, approx. 1" in diameter, approx.
0.5"
> long. They are stacked, usually, in two columns of 5 (I think),
packaged
> in foil for a total weight of 5 oz. My point is that you "break" off a
> known quantity of 0.5 oz of hops, not just some unknown "smaller
chunk".

I stand corrected. I used plugs once a few years back, and my memory
could
be a little fuzzy. (It couldn't be the homebrew, could it? 8-) My
impression was that the 0.5 oz plugs were joined together (i.e. segmented
cylinder) but that was probably just the way they were vacuum-packed in
foil as Norm suggests.

However, Norm's observation means the manufacture of hop plugs would be
even
simpler -- has anybody tried it? Or does anybody know how hop plugs are
manufactured commercially?

Tom Kaltenbach
Rochester, New York, USA
tom@kalten.bach1.sai.com

Date: Mon, 8 Nov 93 20:04:28 PST
From: Martin Wilde <Martin_Wilde@ccm.hf.intel.com>
Subject: Re: Hop Back effect

Text item: Text_3

In HBD 1264 Spencer.W.Thomas@med.umich.edu writes:

> This morning, while I was looking for something else, I found a
>relevant comment from Donald O'Connor, who wrote:

>> If you have any doubt about the incredibly vast difference
>> of hop aroma and flavor betwenn using the same type of hop in (I
believe)
>> nearly equal amounts in two different ways, just compare Sierra
Nevada
>> Pale Ale and Anchor Liberty Ale. Both use Cascade finishing hops.
>> One is dry-hopped and the other uses a hop back.

This is incorrect, I just visited Sierra Nevada a month ago. They do
not use a hop back or dry hop the Pale Ale. They just put Cascade hops
in at the end of the boil. They do however dry hop the Bigfoot.

Date: Mon, 08 Nov 93 22:18:34 CST
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>
Subject: Extract Storage

>Moral: Don't leave it 13 years in a bag in a cardboard drum.
>
>Paul Slater
>gbgg5ttg@ibmmail.com

I made a beer last month from a 2 year old bag of William's Australian DME that had solidified into a 5 lb bag of toffee. I brought 5 gals of water to a boil and spent the next hour trying to get that sucker to dissolve. It finally did. Since I was expecting sh*t beer, I didn't write down anything like hop additions, yeast, etc. Well, the beer came out great and I'd like to reproduce it, but, so much for keeping records.

Darren

Date: Mon, 8 Nov 93 8:57:50 MST
From: npyle@n33.stortek.com
Subject: Humour/All-grain questions

I appreciate Jack's chiller comments, even if I don't appreciate his "humor".
I guess your style of fun doesn't come across over the Internet, Jack. I know you won't do this, but you could always use the obligatory smiley-face to indicate you are chain-yanking. They look like this :-). They are many variations...

**

Mark Bunster asks:

> Neophyte's question, if not adequately covered in the FAQ: what is the benefit of mashing, what's > generally involved, and what distinguishes a mash-out from a normal mash?

Mashing gives the brewer control (or not) over the types of fermentables and non-fermentables in the wort. By changing the mash temperature, you can get a more or less fermentable wort. There are different ways to mash which provide different flavor profiles, etc. You can buy lots of different types of malt so your grain bill can have an infinite number of variations. The debate rages whether this is good: Tastes Great! Less Fun! More Control! More Time! More Fun! Less Control! Costs Less! More Equipment! etc.

As far as what's involved, you should get a book like The Complete Handbook of Homebrewing by Miller. Or just read the HBD for the next 6 months. A mash-out is the final step of the mash, where the temperature is raised (a debatable step in this forum). It is just one of several steps for all-grain brewing. Get the book.

**

Steve Tollefsrud writes:

> can add up. How much grain is required to make 5 gallons of all-grain (say OG 1050) and what is the typical cost of the grain (\$ or Brit. lbs)?

I get fairly poor yields with my all-grain beers, compared to other reports, but it is 25 pts/pound/gallon. Use this as your low end, and you come up with 10 pounds of grain needed. I suspect you are shipping about 7 lbs. of extract for the same beer right now.

> to do all-grain brew. With a feisty two year old running around the house, I have even less time than before. Are we talking half a day or a couple of hours?

We're talking about 5 hours for me, but you need not be present to win. At least for the mash, you can go do other things while the enzymes are working their magic. The hardest part for you (and me) is keeping the 2 year old out of it.

> If I were to buy one book that details the equipment and procedures, what is the best one to order? Why? (publisher please)

Buy "The Complete Handbook of Homebrewing" by Miller. I don't have my copy with, perhaps someone else can provide the ISBN, publisher, etc.

Cheers,
Norm

Date: Tue, 9 Nov 93 07:52 CST
From: arf@mcs.com (Jack Schmidling)
Subject: BREWING ORGANS

>From: Mike Peckar 05-Nov-1993 1252 <m_peckar@cscma.ENET.dec.com>
>Subject: SS Keg Conversion, or How I learned to Love All-Grain.

Nice article. With a few minor variations, it is pretty much my kind of brewing. It sounds complicated but the bottom line is one can jump into all grain brewing with a single piece of equipment.

I can't however, resist the urge to beg authors to have the courtesy of serializing long articles instead of hogging half of the Digest. Today makes the need for this even more obvious with two of them hogging almost all of it. I for one enjoy serials. Short articles hold my attention far better than long ones.

> Comments: You can substitute a faucet with the threaded nipple "built in", i.e. the faucet has an outside-threaded extension. The problem with these is that there is no flange for flush mounting against the outside of the keg. Ideal would be a faucet with a flush-mount flange and a built-in nipple extension with outside threads. I didn't bother asking for one at the plumbing supply shop since I had already bought the above parts.

The part you are looking for is called an "air cock". It has a flange to seat against the outside of the kettle and a male thread that passes through it for easy attachment to the female on the inside. They come in brass and range from 1/8" to 1/2" pipe sizes.

>Another important note. At first, I built an easymasher ala Schmidling, though I preferred to call it a "screen penis". I had a couple problems with this. First, sparging rate was poor at lower mash temps (compared to what I got with the copper tubing device); in fact, I had a couple of stuck sparges.

Not sure what you mean by lower temps or why you had this problem but it does not sound exactly like my design or the results experienced or reported.

> Second, the device didn't have the physical strength to stand up to mash-in, i.e., it deformed, and once, broke off while I was stirring in the grains.

Not sure what deformed or broke but again, I suspect it has something to do with the design. Mine is a SS screen rolled into a 3/8" diameter tube and is

as stiff as the 3/8" copper tubing it is clamped to. There is no way it will be deformed by stirring. If you made the assumption that big is better, you may have a problem if it was excessively long. Mine is only 6 inches long and only 4 inches protrude from the end of the copper tubing.

> Its rather difficult to solidly clamp a screen around a pipe, even when the pipe is outside-threaded.

Mine uses a SS hose clamp and that problem has never occurred on mine nor has it been reported with hundreds I have sold. There are, BTW, no threads on the pipe where the screen is clamped to it. Possibly, it is the fact that I use copper tubing and the SS screen digs into it firmly when the clamp is tightened. This might not be the case with steel pipe.

> In Schmidlings's defense, though, the device was very simple to fabricate and yielded satisfactory results when it did work, though I got no higher than 30 pts extraction.

I suspect lots of people would be delighted with yields like that and you are in the range where technique and measurement error cloud the issue.

js

Date: 9 Nov 93 15:04:20 GMT
From: GANDE@slims.attmail.com
Subject: Yeast blends

I've been toying with the idea of blending yeast strains to get 'novel' results. I have a passion for 1056 and pale ales, but would like to introduce another layer of complexity. My plan is to make a starter with both Wyeast 1056 and 1007 (American Ale and German Ale) - then brew the house Pale.

Is there a yeast guru on the net that would care to offer comments on this process? Is there any way to get repeatable results with this technique?

TIA...Glenn

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
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Date: Tue, 9 Nov 1993 15:39:11 +0000 (GMT)
From: D S Draper <D.S.Draper@bristol.ac.uk>
Subject: Re: BATF outlaws steam injection

Paul deArmond's contribution to HBD 1267 of the AP article, FEDS SEIZE HOMEBREW BOMB FACTORY, was most welcome. The article was factual in every detail, with only one exception. Once again, it is a sad case of misquoting by the press. The unfortunate but guilty subject of the raid, Mr. Poopazian, was misquoted when he was screaming and rolling around on the floor. He did NOT say "It's only hops", he said "Relax...don't worry...have a homebrew!"

I trust that when this show of CUPS is aired, this will be made clear.

Cheers, Dave in Bristol (for another 8 weeks or so)

Date: Tue, 9 Nov 93 08:00:23 PST
From: tima@wv.MENTORG.COM (Tim Anderson)
Subject: greenplug

Date: Fri, 5 Nov 93 13:16:06 EST
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>
Subject: Greenplug
Ulick Stafford writes:

>I saw this gadget that may be of interest to homebrewers like me who
have many
>fridges and freezers. This device uses computer circuitry to work out
how
>much electricity is actually needed to keep a motor running (it cuts up
>the sine wave in some way - ask an electrical power engineer). And not
>only does it save around 25-33% of electricity, the motor runs more
smoothly
>as well (admittedly this was the demonstration motor with no load), and
there
>is surge and brown out protection. It was \$31 in Builders' Square. I
saw a
>similar device in a yuppy environmental catalog at home (amazing the
junk mail
>fall out from certain magazine subscriptions!) and the price was around
\$80.

The recent Consumer Reports has a short article on these. The upshot is
that
they help on old, inefficient refrigerators, but much less than claimed.
And
on newer, more efficient models, the savings is squat.

tim

Date: Tue, 09 Nov 93 11:01:11 EST
From: gbgg5tt5@ibmmail.COM
Subject: Brewing books

- ----- Mail item text follows -----

To: I1010141--IBMMAIL Homebrew Digest su

From: Paul Slater
Subject: Brewing books
Steven Tollefsrud asks for details of a good book. I think the following is excellent, presenting information clearly and concisely without too much jargon, but with enough information on home brewing to create excellent beer.

Title: Home Brewing, The CAMRA guide
Author: Graham Wheeler
Publisher: ALMA books, a subsidiary of CAMRA UK (CAMpaign for Real Ale)
ISBN: 1-85249-107-8
Pages: 180
Price: 64.99 (pounds sterling) (1991 price)

The following chapter headings will give some idea of the depth of information contained in this book:

History of traditional and commercial brewing; brewing methods; brewing equipment; malt/malt extract/sugar; hops; yeast; water and water treatment; mashing and sparging; boiling and cooling; fermentation; finishing; cleanliness and sterilisation; recipe formulation; malt extract beers; mashed beers; lager; other brewing techniques; problems; making measurements; glossary; index.

I would heartily recommend it.

Paul Slater
gbgg5tt5@ibmmail.com

Date: Tue, 09 Nov 1993 11:02:12 -0500 (EST)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Hot Break/Hops in CF Chiller

Jack writes regarding use of a CF chiller:

> Now this one troubles me greatly. What happened to the "hot break"? I
> respectfully suggest that it is now what you call cold break. Not
sure just
> what you are doing here or how you are drawing off the hot wort but
> everything that is suspended in the solution that can fit through your
> spigot/siphon/line and chiller, will end up in the fermenter.

I wanted to comment that my boiler has a spigot several inches above the bottom of the kettle. My CF chiller attaches to the spigot via a flare fitting. Twelve to fifteen minutes after the boil is concluded, I begin runoff through the heat exchanger. By this time, hops and hot break

have settled below the level of the spigot and are not drawn into the runoff.

The price paid is the loss of a few quarts bitter wort: this can be reclaimed

and canned for use as starters if one is so inclined.

Rob Reed

Date: Tue, 09 Nov 93 11:46:59 EST
From: gorman@aol.com
Subject: Brewpubs in/near Ithaca, NY

HBD Land,

Any info on brewpubs in or near Ithaca, NY?

Thanks in advance,

Bill Gorman

Date: Tue, 9 Nov 93 9:54:24 MST
From: npyle@n33.stortek.com
Subject: BSness/Low Alpha Hops/Chilling Out/Lawsuit!

It appears that someone has been offended by recent HBD discussions. So lets all stick to business now, and don't offend anyone, and make sure we don't get too crude and vulgar. As far as I can tell, this is the first post by this particular HBD "participant"; which isn't exactly pushing the forum in a positive direction. Now that is vulgar.

**

Alan in Austin asks for clarification:

>In HBD #1264, George Fix discusses the advantages of low alpha hops over high alpha hops, using lots of formulas & stuff I got lost over. But intially he states he feels that low alpha hops impart a cleaner & more mellow taste. So, as a clarification, should larger amounts of low alpha hops be substituted for high alpha hops to impart these same qualities, or would I be defeating the purpose? What about using three times as much 2.5% hops over 7.5% hops to make a Sierra Nevada clone, for example?

I think I can answer this one, and add some personal experience. Yes, you should use more of the lower alpha hops to achieve the same bitterness as less of the high alpha hops. As long as you add the lower alpha hops at the same boil times as you would have added the higher alpha hops, you will in theory, have the same amount of bitterness. It will just be a "cleaner", more pleasant bitterness.

>From personal experience, I brewed a Sierra Nevada Pale Ale clone with low alpha hops. SNPA uses Perle hops for bittering, in the 7 - 9.5% AA range. I used Mt. Hood for bittering, at 3.9% AA. Now I don't know how these two hops do in Dr. Fix's "ratio test" but I can say that my "clone" was a far superior beer to the original. It was very close in all respects, but the hopping I did was quite an improvement. This is the real joy of homebrewing.

**

George Tempel asks:

>Is there another method that _doesn't_ require gallons upon gallons of water running from the tap to cool the wort? I'd rather not keep the local water authorities in business just to have quickly cooled wort.

Lots of people use ice in one way or another, but I suspect that you will spend more \$\$s on electricity (and wear and tear) to run your freezer, than you will

on the water. I try to conserve, but you can't squeeze blood from a turnip (or something like that).

**

BTW, Jack's "easymasher" is described in at least one back issue of Zymurgy. I don't know who "invented" it first, but it sure would be fun to see the look on the judge's face in court. "It's a piece of pipe with window screen stuck on the end?" "Mash? Hot liquor? Loitering? Well, all that's illegal; you should be in criminal court, not civil court!" "You are suing for how much?" "Well, I've seen a lot stranger things come through my courtroom, I guess."

Norm

Date: Tue, 9 Nov 1993 08:59:18 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: Re: Wort Chillers, Redux

Without trying to quote from Jack's posting responding to my posting...

Jack, I know the difference between hot and cold breaks -- they happen under different circumstances. I leave my hot break behind in the kettle because at the end of the boil I create a whirlpool (no problem with HSA, because I don't splash), and then draw the clear (very clear) wort off from *around* the mountain of protein and hop debris on the bottom of the kettle. The cold break is create as the wort passes through the chiller, and is deposited in the fermenter.

'Nuff said. My main point is not that my system is inherently the best - -- on the contrary, my point is that there are a lot of good reasons for using a counterflow chiller and that dogmatism has no place in brewing.

Keep an open mind, folks.

- --Jeff

Date: Tue, 09 Nov 93 11:59:51 EST
From: gbgg5tt5@ibmmail.COM
Subject: Sending beer through the post

- ----- Mail item text follows -----

To: I1010141--IBMMAIL Homebrew Digest su

From: Paul Slater
Subject: Sending beer through the post

I want to send some beer overland (and sea) from UK to France.
Does anyone have any recommendations for doing this, or reasons for
not doing it? I am only going to send a couple of bottles.

Paul Slater
gbgg5tt5@ibmmail.com

Date: 9 Nov 1993 12:27:54 -0500
From: "Stephen Schember" <stephen_schember@terc.edu>
Subject: Siphon Wonder/Trub Effect

Subject:Time: 11:52 AM
OFFICE MEMO Siphon Wonder/Trub Effect Date: 11/9/93
I'm tempted by the recurring add in Zymmurgy to purchase the "Siphon Wonder from Down Under"(bla,bla,bla standard disclaimer). It's a pain in the neck to get a sterile siphon going even with a hose clip. I'd also like to use something like this to recirculate cold water through my immersion chiller instead of wasting tap water. Has any one had any good/bad experiences with this product? Would the flow be strong enough to cool 5.5 gallons of wort with any expedience ? Can I run a recirculating cooling system out of one bucket with ice water in it ? Will Underdog survive ?
-I remember reading somewhere in the NCJHB that trub inhibited ester production and fermentation but because of scale these things had little effect on the homebrewer. Will racking the beer off of irish moss settled trub significantly increase the amount of esters in an ale ? What will increase ester, production beside high gravity, warmer fermentaions, and ester happy yeast? Anything else?
-Oh yeah and best of trip award to Capital City Brewing Co.'s Alt for DC/Baltimore trip. Any really good Alt making tips also appreciated.
-thanks
Steve

End of HOMEBREW Digest #1268, 11/10/93

Date: Tue, 9 Nov 1993 11:08:00 -0500
From: carlo.fusco@canrem.com (Carlo Fusco)
Subject: need help with water chem

Hello Everyone,

After reading someone elses post about water chemistry I decided to look into my own water supply and it generated 2 questions. I am now hoping that net wisdom will shed some light on how to fix my problems.

Water parameters
York Region, Ontario, Canada

hardness 160
pH 8.0
Ca 38 ppm
Cl 4 ppm
Mg 16 ppm
K 1 ppm
SiO2 13 ppm
Na 22 ppm
Fe 1 ppm

They could not provide me with Bi/carbonate levels only hardness measured as calcium carbonate. Everything else is in trace levels.

Question #1

Is 1 ppm Fe to high? Miller states that it gives a metallic flavour, adds haze and hampers yeast activity. I have noticed that since I moved and switched to LabYeast from Wyeast that my fermentations are considerably longer and less vigourous, sometimes 4X longer.
[note: Wyeast is no longer available where I am.]

Miller states that Iron is not wanted in brew water. How do I remove excess Iron?

Question #2

Since they could not provide me with the bi/carbonate concentrations, I would have to figure them out. Using standard analytical methods I can calculate how much hardness is contributed by Ca, Mg, Fe, and Mn [the key contributors of hardnes]. Did I figure this out correctly?

hardness = 38 ppm Ca * 2.497 + 16 ppm Mg * 4.116 + 1 ppm Fe * 1.792
+ 0 ppm Mn * 1.822

Ca contributes 94.89 ppm hardness as Calcium Carbonate
Mg contributes 65.86 ppm hardness as Calcium Carbonate
Fe contributes 1.792 ppm hardness as Calcium Carbonate
Total calculated hardness is 162.5 ppm, which is pretty close to the 160 ppm reported.

Now assuming that all bi/carbonate is only associated with Ca and it is all removed by boiling as outlined in Miller. I should then have 0 ppm Ca left in the water and about 67 ppm bi/carbonate left in the brew water.

Will the addition of Gypsum prior to boiling remove the remaining bi/carbonate and reintroduce Ca to the brew water? How much Gypsum? Will the sulfate and sodium conflict and cause a harshness described by Miller?

Will Mg and Fe react like Ca and precipitate out after boiling? If so, will my Iron/hard water problem be fixed by simply boiling all brew water before using it.

Thanks for your help
Carlo <carlo.fusco@canrem.com>

- - - -

* Freddie 1.2.5 * The first full-featured QWK reader for the Mac.

Date: Tue, 9 Nov 1993 09:46:55 -0800 (PST)
From: "Mark S. Nelson" <mnelson@eis.calstate.edu>
Subject: Beer in Kuwait?

I didn't know they allowed beer in Kuwait, or do they? My suggestion is to go across to Bahrain. The beer prices and selection aren't the greatest, but it's legal.

- -----

I used to be disgusted, now I try to be amused.

Mark S. Nelson nelsonm@axe.humboldt.edu mnelson@eis.calstate.edu

Date: Tue, 09 Nov 1993 14:31:05 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: siphoning hot wort?

siphoning hot wort?
This may be a FAQ, but the title says it all: how does one
siphon hot wort into the primary?

my first brew starts this weekend...

george
908/544-2673

Date: Tue, 9 Nov 93 13:02 CST

From: fjdobner@ihlpa.att.com

Subject: Beer Dandruff

I remember about a half year ago someone posted their experience in using a starter for their yeast and finding rice-like size pieces of something at the bottom of their starter vessle after the fermentation ceased. Can whomever posted that please contact me with their experiences? I have witnessed

the same thing and would like to know what I am up against. I am using the

Yeast Lab Bavarian Lager yeast. The taste of the fermented liquid decanted from

the starter tasted a bit winy. That could be because it is a lager yeast and the temperature for the starter is about 66-68F.

Any answers?

Frank Dobner

Date: Tue, 9 Nov 1993 14:31:20 EST5EDT
From: REGINAH@SOCIOLOGY.Lan.McGill.CA
Subject: Re: Adding spices to beer

Hello out there--

I just brewed a Christmas Porter loosely based on Papazian's Goat Scrotum Ale recipe (if anybody's offended, blame him not me), using cinnamon, nutmeg, cloves, and ginger. In trying to figure out the amounts of each, I reviewed both Papazian's other spiced beer recipes and his section on spices. I found a confusing discrepancy. All the recipes direct the brewer to add the spices at the beginning of the boil, but the spice section says to add them 15 minutes before the end. I added all of mine at the beginning, figuring that for a Christmas beer, the more time the merrier, but am still wondering about this point. Any opinions?

Regina Harrison
MA student
McGill University
Montreal, Quebec

Date: Tue, 9 Nov 93 14:11:34 MST
From: npyle@n33.stortek.com
Subject: Dry Hopping BUs???

I was reading the 1990 Zymurgy Hops and Beer Special Issue today and an issue came up that I haven't seen addressed directly. From the article, "Matching Hops with Beer Styles", Quentin B. Smith mentions "Occasionally I will dry hop using Byron Burch's formula for figuring total bittering units". Earlier in the article he mentions Burch's book "Brewing Quality Beers", which I assume is his source for this formula.

Does anyone have Burch's book? He is certainly an award winning homebrewer but I've never heard any authoritative word on IBUs from dry hopping. We have discussed the perception here in the HBD, but I don't think we have come to any conclusions. What exactly does Byron say about this?

Norm

Date: Tue, 09 Nov 93 16:28:00 EST

From: andrewb6@aol.com

Subject: Propane, natural gas, and toxic fumes. (Andrew Baird)

I recently built a burner for brewing. I built it for (and tested it with) natural gas. I've been reading literature on similar *propane* cookers and they all say for outdoor use only. I assume this is because toxic levels of hazardous combustion products are produced, and I'm guessing that carbon monoxide is the main culprit. My questions are as follows:

1. Is CO the ONLY gas/ byproduct I should be worrying about?
2. Is this a problem with both propane and natural gas?
3. When they say OUTDOORS ONLY, do I take that literally, or does an open garage qualify.

I've yet to use this burner for other than testing purposes, and I've been thinking about buying a CO detector before I brew, but if CO is not the main culprit, I may be wasting my time.

Incidentally, the burner can heat two kettles at once. Each unit produces 70 little blue flames that can be controlled so that the flame height ranges from approx. 1/8" to 1 1/8". I'm not sure how many BTU's it puts out, but I'm considering re-jetting it for propane and measuring output (it's too hard to weigh natural gas).

Any insight to these questions is welcome via HBD or private e-mail.

Date: Tue, 9 Nov 1993 16:31:08 CDT
From: "Dennis Lewis" <DLEWIS%jscdo6@jesnic.jsc.nasa.gov>
Subject: Head Retention problems

Has anyone else experience head retention problems when using malt extract as a primer? The one beer I primed with DME has no head on it at all! And it's a single decoction wheat beer! It should have loads of foam. I keep thinking that something in the extract may have goofed up the foaming. I've noticed some slight, oily-looking stuff on some of the un-hopped boils that I do for unhopped yeast starters. At any rate, I'm going to stick to corn sugar or reserved, sterile wort from the same batch.

Dennis Lewis<dlewis%jscdo6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Tue, 9 Nov 1993 16:39:30 CDT
From: "Dennis Lewis" <DLEWIS%jscdo6@jesnic.jsc.nasa.gov>
Subject: Inadvertent Lambic

I made a batch of aborted vienna lager and the brew turned out to be infected from the new fermenter I was using (used keg). In the process of washing out the goo, some flat, ropy-looking stuff came washing out. It was the color of trub, sort of an off-beige and very stringy. I examined a piece of it and it was quite resilient with a faint acidy smell. Any ideas what that might be? I've heard of a pellicle forming on lambic beers...this stuff looks like it would form a covering on the ferment. By the way, the brew wasn't too bad and was salvaged by mixing with an over-hopped brew and dryhopping to freshen the taste.

Dennis Lewis<dlewis%jscdo6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Tue, 9 Nov 1993 16:44:09 CDT
From: "Dennis Lewis" <DLEWIS%jscdo6@jesnic.jsc.nasa.gov>
Subject: Insulating a keg boiler

Has anyone out there in net-land insulated a 15.5 gal keg boiler? I'm using a propane cooker and it comes to a boil fairly quick, but I'd like to insulate it to improve the efficiency. I've heard of people wrapping the keg in a hot-water-heater insulating jacket (I think from this forum). Are these the way to go? Will they withstand boiling temps? Flame retardent? E-mail is great, if it's not of general HBD interest. Thanks in advance...

Dennis Lewis<dlewis%jscdo6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Tue, 9 Nov 93 13:48:32 PST
From: julie@bruno.Jpl.Nasa.Gov (Julie Kangas)
Subject: Re: Nasty Brews

Rowley@kuhub.cc.ukans.edu asks about nasty brews, including drinks fermented with milk...

I know of two such drinks: kefir from the Caucauses and kumis from Mongolia. Kefir is a fizzy milk drink that contains a yeast and a lactobacilli. It is slightly sour and very refreshing. The yeast/bacteria colony forms a large clump that is simply amazing to behold.

Kumis is fermented mare's milk. I have never tried it. The "standard" method of preparation is to put your mare's milk in a leather bag and hang it outside your yurt. Whenever you or anyone else enters/leaves the yurt, you give the bag a good shaking.

The Romans used to ferment fish (cut up fish and let them rot (er--ferment)). This is the ancestor of Worchester sauce.

Charlie Papazian reprints an old recipe that uses a dead rooster as an important ingredient.

The Aztecs and Mayans drank pulque which is fermented maguay. Don't know about farther north. South America has a tradition of corn beer.

Julie

Date: Tue, 9 Nov 93 15:04:55 PST
From: rush@xanadu.llnl.gov (Alan Edwards)
Subject: Plugging Your Homegrown

Tom Kaltenbach writes (in HBD #1264):

| ... Now for my question: has anybody tried making their own plugs with
| homegrown hops? It seems like you would just need a press of some
sort,
| and a mold to form the hops into a convenient shape (i.e. plugs). Any
| ideas?

The closest I've come is to cram as much as I can into baby food jars.
I can get 1/2 oz crammed into the smallest ones (2oz) and usually put an
even 1 oz into the large 6oz jars. It's convenient to have a pre-
measured
amount on hand.

I start out by measuring an amount of hops and putting them into a large
glass mixing bowl. Then I stick the jar down in the hops and stuff them
in with my hand.

There's not much room for air in there; and the lids are air-tight.
I keep them in the freezer.

-Alan

Date: Tue, 09 Nov 1993 19:25:32 -0400 (EDT)

From: WESTEMEIER@delphi.com

Subject: zymurgy recipe correction

I just received the Special edition of `_zymurgy_` and noticed a serious error in my article. The article (about reviving old British beers) is fine. However, the recipes (on pages 40 and 41) seem to have suffered from the attentions of a gremlin somewhere between the translation to American (from the original English) and the final printing. Terribly sorry it happened, but the editors are aware of it and promise to print a correction in the next issue.

All of the recipes list ingredients for making "six US gallons" which is plainly wrong if you examine the quantities. In fact, the quantities shown are for making `_one_(UK)_gallon_`.

CORRECTION:

To make five US gallons, multiply all quantities by 4.2 (that's close enough). This should be obvious, but you never know....

By the way, thanks again to Geoff Cooper for making the article possible and the opportunity to have the delightful evening I wrote about.

Ed Westemeier
Cincinnati, Ohio
westemeier@delphi.com

Date: Tue, 9 Nov 93 20:01:19 PST
From: grumpy!cr@uunet.UU.NET (C.R. Saikley)
Subject: A Primer on Czech Beers

A Primer on Czech Beers

A fresh Czech Pilsner, like Pilsner Urquell or Budweiser, is a stunning example of the level of refinement achievable in lager beer. Perfectly clean, crisp, and sparkling, these beers provide a venue to show off the two main flavor components of beer - malt and hops - with emphasis definitely on the hops. There are no traces of yeastiness, and fermentation by-products are kept to a minimum. The slow, cool fermentations, and even slower and cooler lagering produces a full flavored smoothness which can not be realized by any other means.

The pale lagers are always brilliantly clear and have a rich golden color. At 4 degrees Lovibond, they are a shade deeper in color than their Western European counterparts. They are typically served in tall, half-liter glasses, crowned with a white frothy head which extends well above the lip of the glass. The aroma, like the flavor, is purely that of malt and hops.

The prized hops of the Zatec region (Saaz in German) of Bohemia are renowned the world over for their noble qualities, and Czech brewers use them liberally. The flavor profile is decidedly toward the hop end of the spectrum. The extremely soft waters of Plzen lend themselves to copious hopping rates, allowing a clean bitterness to come through in the finished product. Hop aroma is achieved exclusively by late kettle additions; dry hopping is not employed.

The full bodied character of these 12 degree Balling beers derives from pale Moravian and Bohemian malts. Some of the malt sugars are caramelized during the triple decoction mash and lengthy boil, which deepens the color slightly and adds depth to the beers' character. The only fermentation by-product present in perceptible amounts is diacetyl. The concentration is low enough that it is not distinguishable as a buttery note, but instead it gives the beer a fuller palate. Even though the malt charge is quite substantial, its role is essentially that of providing a foundation for the expression of hops, the dominant element of Czech beers.

While the beers of the Czech Republic may not be as diverse as those of other brewing nations, the beers that are produced there are classics. They are the most imitated beers in the world, but most imitators pale by comparison. There are no finer Pilsners to be found anywhere.

Date: Tue, 9 Nov 93 20:00:55 PST
From: grumpy!cr@uunet.UU.NET (C.R. Saikley)
Subject: Changes at Pilsner Urquell

Greetings Brewers,

I hesitated before sending this, since it's not strictly about brewing, and since the Digest is so crowded these days. But people have generally responded favorably to my travel stories in the past, so here goes...

Enjoy,
CR

Change is Brewing at Pilsner Urquell

These are tumultuous times in Eastern Europe. Communism is practically dead, the lines on the map have been redrawn, and some nations have plunged into bloody civil war. The former nation of Czechoslovakia is now split into two separate countries : the Czech Republic in the west, and the Slovak Republic in the east. Along with the change in government is an attendant change in philosophy; the people are opening up to the ideas of the west. Capitalism is taking hold, and there is a great deal of investment and rebuilding going on. Even though these are difficult times, a general sense of optimism toward the future prevails.

There are big changes at Pilsner Urquell as well, but that's getting ahead of the story. First, a little history. The story of brewing in Plzen goes back to at least the 13th century, when the burgers of the town were granted brewing rights by King Wenceslas. The breweries were typically large homebreweries, and for several centuries, the beer produced was pretty wretched. During the 19th century great advances in brewing technology took place in Munich, Vienna, and Copenhagen, and the citizens of Plzen set out to imitate the beers of Munich. In 1842, the new brewery was established, and although the beer produced there was not what was expected, it proved to be very popular. By 1870 the beers of Plzen were exported to Vienna, Paris, London and Moscow. The rapid growth continued, and by 1913, the brewery's output exceeded 1 million hectoliters, making it the largest brewery in Europe.

The 20th century has not been so kind to the brewers at Plzen. The first world war brought an end to their rapid growth, and the time between the wars was one of stagnation. The second world war put the Soviets in charge of

Czechoslovakia, and separated Eastern Europe from the west. During most of this century, the brewery's output has remained a constant 1.3 million hectoliters. The export sales of Pilsner Urquell generated a good deal of hard currency, but this was siphoned off by the communists. The brewery was unable to expand or modernize.

The Velvet Revolution of 1989 brought big changes to the nation and to the brewery. As capitalism was introduced, new ways of thinking were required. Suddenly they had to be concerned with capitalist concepts such as profit and efficiency. However, old habits die hard, and some of the old guard were unable to adapt. There was a lingering attitude that it was easier to cover oneself by writing lengthy excuse letters rather than solving a given problem. Unfortunately, the first true taste of capitalism that some employees experienced was being layed off!

A more positive aspect of the transition is that the brewery is now able to modernize and expand production, and they have tremendous plans for very carefully doing so. There is substantial investment in Plzen, most of it coming from bank loans that the brewery has taken on. They have installed 104 new stainless fermenters ranging in size from 800 to 3600 hectoliters, which more than doubles their fermentation capacity. To match this equipment, a new four story complex is under construction which will house modern filtration, kegging, and bottling equipment. This will be followed by a new brewhouse. Production projections call for 1.5 million hectoliters this year, going up to 2 million next year. Interestingly, all of this increase in production is aimed at the Czech market, which comprises the bulk of their sales.

All over the country, the larger breweries are investing and expanding, which of course means that we'll see a shake out of the smaller Czech and Slovak operations. Already, Pilsner Urquell has gobbled up the nearby Gambrinus, Domazlice, Cheb, and Karlovy Vary breweries. Undoubtedly more consolidation will follow.

This may not be as bad as it sounds. Even though it's always a shame to see smaller enterprises consumed by the big guys, at least the large Czech breweries have remained true to their traditions. Consequently, Czech brewing heritage does not have the large discontinuity that we find in America. Indeed, the American drinker would be surprised to learn that for the most part, the largest Czech breweries make the best beer.

Amidst all of this change, the brewers in Plzen are committed to keeping one thing constant, Pilsner Urquell itself. They fully recognize the value of their

150 year old reputation, and would do nothing to compromise it. To this end, extensive experiments have been undertaken to determine exactly which parts of the old process must be retained to preserve the character of their world renown brew. In side by side comparisons, their expert panel of tasters has found that there are no detectable differences between beer lagered in wood versus stainless steel. However, they have found that the primary fermentation must take place in the traditional open wooden barrels, or the character of the beer is changed. Thus the shiny new fermentation facility is reserved for some of their other products, but not for the original. Further investigation led to an interesting experiment with a surprising result.

A standard batch of Pilsner Urquell was brewed and fermented in the normal fashion, while across town at the Gambrinus brewery, a standard batch of the similar Gambrinus was brewed and fermented in its usual fashion. Then both test batches were transferred across town for lagering in stainless at the other brewery. Upon maturation and tasting, the panel was able to detect these beers as different from the normal beers. In effect two new beers were created, somewhere in between the originals. Thus it was concluded that the convenience of being able to lager Pilsner Urquell at either facility must be sacrificed for the sake of the beer's quality.

Every aspect of the modernization effort is being scrutinized very carefully. The brewers rightly feel they are compelled to modernize, but must proceed with utmost caution. They are simultaneously faced with the challenges of an unknown world, and a future that is wide open. Let's hope that the stagnation of the 20th century is over, and that Pilsner Urquell moves into a new era of growth and prosperity.

The author wishes to thank Mr. Jaroslav Rous, Technical Director of Pilsner Urquell, for his warmth and hospitality. His assistance in writing this article has been invaluable.

Date: Wed, 10 Nov 93 09:28:29 EST
From: Mike Peckar 10-Nov-1993 0909 <m_peckar@cscma.enet.dec.com>
Subject: re: BREWING ORGANS

in reference to Jack Schmidlings response to my long post on SS kegs...

1. Air Cock, yes. thanks. I also didn't use the proper plumbing jargon to describe what I referred to in my article as a "stand off". Its called something else, I forget what. Again, its a one foot copper pipe with a molded end which a 1/2" brass compression ring fits over and a one inch flare to 5/8" I.D on the other side. Most hardware stores only carry these in PVC anymore, but better ones will have the copper type.
2. The "lower temps" I had trouble at were under 154 degrees. In later batches, when I would raise the temp at the end of the mash (Mashout) flow would increase significantly with my version of the screen sparger.
Any batches where the mash temps did not exceed this, it'd get stuck.
3. Yes, my design was very different than what you describe. I can see how the easymasher's copper tube provides support for the screen and a better clamping surface. Mine was simpler yet that that, though, being just a wrap or two of screen clamped to a 1/2" nipple. it was 3/4" in diameter and 9 inches long. Too long and too flimsy. It was easy, though.

Date: Wed, 10 Nov 1993 09:32:09 -0500 (EST)
From: bickham@msc.cornell.edu
Subject: Ithaca Brewpubs

Bill Gorman writes:

>Date: Tue, 09 Nov 93 11:46:59 EST
>From: gorman@aol.com
>Subject: Brewpubs in/near Ithaca, NY
>
>Any info on brewpubs in or near Ithaca, NY?

Funny that you ask - I was going to post a notice today about the recent renovations at the Chapter House Brewpub. Well it hasn't really been a brewpub for the past few years. The owners used to brew the beer at the Vernon Valley, NJ location and bring kegs here to sell, but for a number of reasons I won't discuss, they stopped brewing there a few years ago. They did have the equipment to produce smaller volumes at their building here, but had decided to brew all of their beers in New Jersey due to economies of scale. In the meantime, their license to brew here had expired and the renewal was held up in the beauracracy in Albany until recently.

Now for the good news. The Chapter House brewing equipment was refitted to brew lagers, and at the same time, the number of taps was increased to a total of 30. At the moment, there are 14 commercial beers on tap, including Sierra Nevada (Pale Ale, Celebration Ale, Stout), Sam Adams (Lager, Ale, Winter), Fullers ESB, Watney's Cream Stout, and Paulaner Hefeweizen. Woodpecker and Woodchuck cider are also available, as well as several of the Yeungling and Catamount products. The house brews are gradually coming on line. Last night I tasted the porter (which was being carbonated) and thought it was very nice - it was a little hoppy for my taste, but it had some body and maltiness. By the end of the week, there will be a Maerzen (which I tasted while it was conditioning and found to be a little light in color and maltiness) and an Amber. I think the Clements are also planning to brew the Blond Double Bock which was popular when it was brewed in Vernon Valley.

The Chapter House is located on Stewart Avenue (the one paved with bricks), one block North of Buffalo Street (where there is a flashing yellow/red light) . It lies in between Cornell and the downtown area, so it shouldn't be too hard to find. On the other hand, there is street parking only, so you might have to park a few blocks away :-)

Have fun!
Scott

Date: Wed, 10 Nov 93 09:45:29 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Old beer recipes in Zymurgy

I was reading the latest Zymurgy last night, and happened upon the old English beer recipes. (From the Durbin Park club??) Anyway, the quantities in these recipes are surely off (1.060 from <3lbs of grain in 6 gallons???) . If anyone has the correct numbers for these recipes, could you please post them in this forum? Thanks.

Date: Wed, 10 Nov 93 09:52:38 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: sm-ALL Grain/ Sake

You CAN make moderate gravity beers with a small boiler. Sure, it's not recommended, and you leave a lot of sugar behind, but it can be done. Example: mash 10 lbs of grain in about 3.5 gallons of water, drain 2.5 gallons of "first runnings" at about 1.090. Boil down to 2 gallons, then dilute to 5 gallons at 1.045.

Yes, you'll get lousy extraction, yes, you'll get lousy hop utilization (but this is no different from extract brewing), yes you'll get some caramelization of the wort sugars. But it can be done.

Personally, I wouldn't, though.

=S

Date: Wed, 10 Nov 93 09:26:21 CST

From: laewell@iastate.edu

Subject: Grolsch Tops and Ithica

To Whom it May Concern,

Bill Gorman asked about brewepubs in Ithaca. I went to a place I beleive was called the Charter House in Ithaca on the outskirts of the Cornell campus. I had a few glasses of 'Blond Doppel Bock' that was OUTSTANDING!

On a different subject. I was dismayed to find out that the tops of Grolsch have recently been changed from ceramic to plastic. I find the bottles perfect for homebrewing after an appropriate bleach soak. Isn't anything sacred anymore?

Lars Ewell

Date: Wed, 10 Nov 1993 07:20:03 -0800 (PST)
From: Paul deArmond <paulf@henson.cc.wvu.edu>
Subject: More on labels

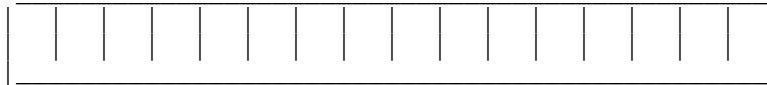
Since I am an enthusiastic label maker AND a big fan of appropriate technology, here are two suggestions for putting curved text on labels:

1) If you have access to a PostScript printer, get the PostScript manuals that are published by Adobe. They are known as the Red, Green & Blue books (clever graphics reference, huh?) The titles are PostScript Language Reference Manual (red), PostScript Language Program Design (green), and PostScript Language Tutorial and Cookbook (blue). I've used straight PS code for doing interesting things that would be impossible through many application programs. Also, you might want to look for CricketDraw, a Mac program. It was one of the earliest PS code generators out there. Used copies (*with* manual) may be cheap or free, since it has been superseded by Freehand, CorelDraw, etc.

- or -

2) Do what graphic artists have been doing for years, snip out your text and make a bunch of cuts most of the way through the strip of paper, so that you can bend it. This works best if you use a waxer, rather than glue, paste or rubber cement.

Impressive ASCII figure:



^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^
snip snip snip snip snip snip snip...

Paul.

ps. The miscreant in "BATF Outlaws Steam Injection" didn't sign the release, so we'll have to watch the COPS show with one of those blurry mosaic fogs over his face...

Date: Wed, 10 Nov 1993 09:56:29 -0600 (CST)
From: tomt@nano.sps.mot.com (Tom Tomazin)
Subject: wasting water

George Tempel asks:

>Is there another method that doesn't require gallons
>upon gallons of water running from the tap to cool
>the wort? I'd rather not keep the local water authorities
>in business just to have quickly cooled wort.

I use an immersion chiller and collect the outflow water into a 6 gallon bucket. When the bucket is full, I dump it into my washing machine and do a load of underwear. No waste! Incidentally, it takes about ~8 gallons of Texas tap water to cool 5 gallons to about 90 degrees. I reaffirm that giving the wort a gentle stir every minute or so greatly improves the efficiency of the chiller.

- - -

~~~~~

Thomas Tomazin Parallel Scalable Processor Design  
MOTOROLA SPS, Inc. (512) 505-8124  
505 Barton Springs Rd. Suite 1055 Austin, Texas 78762

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Date: Wed, 10 Nov 93 08:20:59 PST  
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)  
Subject: Re: Greenplug

>>>> On Fri, 5 Nov 93 13:16:06 EST, Ulick Stafford  
>>>> <ulick@michaelangelo.helios.nd.edu> said:

Ulick> I saw this gadget that may be of interest to homebrewers like  
Ulick> me who have many fridges and freezers. This device uses  
Ulick> computer circuitry to work out how much electricity is actually  
Ulick> needed to keep a motor running (it cuts up the sine wave in  
Ulick> some way - ask an electrical power engineer). And not only  
Ulick> does it save around 25-33% of electricity, the motor runs more  
Ulick> smoothly as well

A discussion went on about these in misc.consumers.house a while back.  
I had bought one and responded that I did not see a drop in my  
electric bill, but my fridge was quieter. The common consensus seemed  
to be that if you have an older fridge (more likely when it is a beer  
fridge, than your primary household fridge) you will benefit more from  
this device. Newer, more efficient compressors in fridges now will  
not benefit so much.

A couple of months ago, I signed up with my utility company for an  
energy monitoring program and last Friday, was loaned a meter. It has  
been hooked up to my fridge for 2 days with the Green Plug and now one  
day without. Definite quantitative results will be forthcoming  
tomorrow when the non-Green Plug test period is completed.

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucsc!megatek!hollen

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Date: 10 Nov 1993 10:50:43 -0500  
From: "Daniel F McConnell" <Daniel\_F\_McConnell@mailgw.surg.med.umich.edu>

**Subject: multi-strain brew**

Subject: multi-strain brew

Glenn GANDE@slims.attmail.com writes:

>I've been toying with the idea of blending yeast strains to get  
>'novel' results. I have a passion for 1056 and pale ales, but would  
>like to introduce another layer of complexity. My plan is to make a  
>starter with both Wyeast 1056 and 1007 (American Ale and German Ale)  
> - then brew the house Pale.

I tried this a few years ago in a misguided (read non-controlled) experiment, back when I was doing more \*open\* fermentations. Misguided for two reasons 1) The ENTIRE batch was fermented with all three strains and 2) I made a pale ale that was WELL hopped. I used Chico, Whitbread and Whiteshield strains simultaneously pitched. The beer was good, but since I did not split the batch and taste each strain individually, obvious differences in taste due to the triple strain were not apparent. In addition, since I hopped to about 40 IBU, most of the flavor came from hops, and the subtle yeast nuances were lost. OK, maybe I wasn't so smart, but you can learn from my errors. BTW I repitched this after top cropping and later went back to single strains.

I would recommend that you use either 1056 OR 1007 and another yeast with MORE character. For instance the combinations 1056/1028, 1007/1028, 1056/1098 or 1007/1098 might be interesting. BUT be sure to due a pure culture ferment for each strain as well so you can do a three point taste comparison. As unpalatable as it might seem, try to keep the hop rate and dark grain contribution to a minimum.

Consistency in brewing has never been one of my strong suits (way too much tinkering going on at my house), but if you "brew the house pale" consistently and reproducibly maybe you can get a handle on the multiple strain effect without control experiments.

Please post re the results.

DanMcC

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Date: Wed, 10 Nov 93 11:50:54 EST  
From: Steve Zabarnick <steve@snake.appl.wpafb.af.mil>  
Subject: Grant's IPA Clone?

I recently tasted a bottle of Grant's IPA and was amazed by its being a dead-ringer for an extract Pale Ale that I brewed this summer (my last extract before moving to all-grain). My recipe was based on an attempt at an Anchor Liberty clone posted by someone to HBD previously. Here is the recipe.

6 lbs. Light M&F DME  
1 lb. Crystal Malt (unknow Lovibond)  
2 oz. Northern Brewer (7.1 AA) for 60 mins.  
1 oz. Cascades (5.7 AA) for 10 mins.  
1 oz. Cascades (dry hopped in secondary for two weeks)  
Wyeast 1056

OG= 1.054  
FG=1.011

I'm curious about which ingredients cause these two brews to taste and look so similar. Does Grant's use Wyeast 1056? Do they use Northern Brewer for bittering? Do they dry hop? The only difference I could detect was a slighty different hop aroma; perhaps they don't dry hop with Cascades. I calculate almost 60 IBU's for my brew (this was a full wort boil); is this similar to Grant's IPA?

Steve Zabarnick

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Date: Wed, 10 Nov 1993 11:59:00 EST  
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill  
Subject: Grant's IPA Clone?  
Subject: RE: Nasty Brews (Part 1)

In HBD #1267, Matt Rowley writes:

>I'm taking a course now on the genetics of human behavior,  
>and we got around to alcoholism last Thursday. It's a four  
>hour seminar, so we sometimes drift around the topic of the  
>week. One of us mentioned the in-escapability of drinking  
>alcohol in the field (anthropologists we are), even when what  
>the locals drink may be foul beyond words.

Ah, now you're speaking my language :-). Actually, not all of those  
beverages are "foul beyond words", although many are unusual by  
western standards.

>I ventured that I'd drink most anything "homebrewed." Tales  
>from the field then included fermented milk and cream from  
>no-longer Soviet Georgia.

Fermented milk is not so unusual. I'm sure you've eaten cheese and  
yogurt, the most common examples (although these are bacterial  
fermentations for the most part and contain little or no alcohol).

The specific beverage you're referring to is "kefir", a fermented  
milk which originated in the Caucasian mountains. Milk from sheep,  
goats, and cows is used in its preparation. Fermentation is  
accomplished by lactic acid bacteria and yeast, and the resulting  
beverage contains about 1% alcohol. A similar drink called  
"koumiss" is brewed from mares' milk by Mongol tribes of the  
Asiatic steppes.

>What about fish? I've heard tell that various Eskimo people  
>bury fish for months, then return to eat it.

I'm not sure about the Eskimos (who, along with the Australian  
aborigines, are thought to be the only known cultures without a  
history of alcoholic beverages), but the people of Southeast Asia  
have been fermenting fish and shrimp for centuries to create salty  
sauces and pastes. The fermentations are bacterial in nature and  
are controlled by the use of large quantities of salt.

>Native Americans are said not have had any alcohol ( I find  
>this hard to believe since natural fermentation is so common:

Fermented beverages were not widely used by native Americans, but  
examples did exist. The Apaches brewed a rather nasty concoction  
called "tiswin" from germinated corn, wheat, and jimson weedd  
(sometimes referred to as "Loco Weed", a poisonous plant of the  
nightshade family). Tiswin's rather potent effects resulted in its  
being outlawed by the federal government in the 1880's.

Native Americans in the southwest also brewed versions of "pulque"  
and "mezcal" from the stems and core (respectively) of the Agave  
or Century Plant, as well as "tesguino" from germinated corn and  
corn stalk juice. [To Be Continued]

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Date: Wed, 10 Nov 93 17:56:45 GMT  
From: "R.A.Lewis" <R.A.Lewis@chemistry.hull.ac.uk>  
Subject: signoff homebrew

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Date: Wed, 10 Nov 93 14:19:46 EST  
From: sdlsb.dnet!73410%sdicc@swlvx2.msdlcc.com (Carl Howes)  
Subject: Priming / concise \$.02

I plan to bottle my first lager over Thanksgiving weekend. Particulars since my post in #1240: Primary at 45F for 3 weeks, secondary at 45F since. Am I likely to need more yeast (after Wyeast #2007) for conditioning and, if yes, what type(s) are least likely to affect the character of the beer?

Also on priming, has anyone else heard of or have more info on the "Crabtree effect" described by Troy Howard in #1264? Sounds like a good reason to abandon use of corn sugar for priming on the face of it.

Private email please, given enough responses I will summarize to save bandwidth.

\$.02 - Humor: laugh or ignore it, "all business" is not a realistic expectation. Offensiveness: eschew self righteousness. js: sarcasm fails in print for those of us (most?) who don't know you offline.

Carl Simple address: 73410@sdicc.msdlcc.com

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Date: Wed, 10 Nov 93 14:47:29 "EST"  
From: Gary S. Kuyat <gsk@sagan.bellcore.com>  
**Subject: Counter Pressure Fillers and Foam**  
Full-Name: Gary S. Kuyat

After drinking litres of flat beer (you didn't expect me to THROW AWAY that foam?!?) and having beer colored walls, I have come to the conclusion that LESS is MORE when it comes to counter pressure bottling. I find that pressurizing over 25 lbs. at 40 degrees is too much carbonation, and too much foam. I had a tough time getting it through my head, that 20 lbs. at 40 is fine. I bottle at 10 lbs. or so after letting the beer "stablize" at 5-6 lbs. for an hour. If you can't tap a pint with a reasonable head, you won't be able to fill bottles without tons 'o foam. If I remember my Braukunst, their catalogue had a nice table refering to pressure, temperature and volume of CO2 dissolved. My tendency was, "The keg is rated to 160! Heh! Heh! Pump up the volumes!" But this is totally wrong. If only I had a counter pressure filling room!

- - -

-Gary Kuyat  
gsk@sagan.bellcore.com  
(908)699-8422

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Date: Wed, 10 Nov 1993 11:23:42 -0500

From: esonnl@cc.swarthmore.edu

Subject: Responses to college brewers

Hello brewers,

I have been inundated with messages in response to my post "College Brewers" (but would welcome more responses). Many have warned about either

drawing attention to the possibility of exposing underage brewers and thus

spoilng it for them. Believe me, I do not plan to write an article about

underage brewers, especially since a majority of the responses I received were from graduate students. I could easily write a story which only included student brewers who are 21+. It seems that the best thing I could

do is write an article and post it to the HBD, thus we can all benefit without causing undue alarm outside of the homebrewing community. I have already received several funny stories about college brewing experiences. If the digest's collective wisdom (!) believes that any article would be harmful to homebrewing's image etc, I may just keep all these stories to myself. Sorry for the bandwidth, but since questions were posted to the digest instead of being mailed to me directly, I thought it was appropriate.

Eugene esonnl@cc.swarthmore.edu

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Date: Wed, 10 Nov 93 15:04:51 EST  
From: Mark Bunster <mbunster@hibbs.vcu.edu>  
Subject: b&t

Two notes on black and tan--

The one that I always see around town is Yeungling Black and Tan. Yeungling is out of Pottsville PA, and claims to be the oldest brewery in America (continually brewing I suppose). Anyway, it's a mix of their porter (not bad but nothing special, although \$3.99 a six for it is reasonable) and their lager (pretty smooth, and again decent for the money). They also make a light (better than Swiller Lite, but what isn't). around here it must be pretty popular, for you can get it on draft in at least 5 places i can think of offhand.

This will likely completely destroy any chances I have of gaining a good rep as a beer drinker, but I've found that a surprisingly drinkable B&T you can make yourself uses Guinness and.....

Pabst Blue Ribbon. Call it a Black and Blue if you like.

No, honestly!

- - -

Mark Bunster |Exchange conversation if you dare--  
Survey Research Lab--VCU|Share an empty thought or a laugh.  
Richmond, VA 23220 |  
mbunster@hibbs.vcu.edu |  
(804) 367-8813/353-1731 | -edFROM

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Date: Wed, 10 Nov 93 12:10:57 EST  
From: snystrom@aol.com  
Subject: Hunter Airstat modifications

A few editions ago, Mark Garetz reported that Hunter will be discontinuing their airstat thermistor/sensor. Like many, I raced out and purchased one. NOW I'm looking for someone who would be kind enough to repost the instructions that will allow xthe Airstate chill below 40 degrees. They appeared in a back issue of the digest. According to Mark, it may have been a 10K ohm resistor in series with the thermistor/sensor, but he didn't save the posting. Any help would be GREATLY appreciated.

Scott Nystrom  
snystrom@aol.com

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End of HOMEBREW Digest #1269, 11/11/93  
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Date: Wed, 10 Nov 1993 14:23:28 -0500 (CDT)

From: Paul Boor <PBOOR@BEACH.UTMB.EDU>

**Subject: artifical bubbles**

In reply to David A. Byars' question about force carbonating, I quote Schultz and Dooley:

Give it malt, give it hops  
It won't matter what you do  
It's not naturally carbonated  
If it's pumped with CO-2  
This is how we always felt, sir  
Those big bubbles are for seltzer  
Give me Utica, Utica Clu..uh...ub.

(those in upstate New York will know)

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Date: Wed, 10 Nov 1993 12:44:29 -0800 (PST)  
From: Chuck Coronella <coronell@cs.unr.edu>  
Subject: AHA email address?

Howdy:

Does anyone have an email address for the American Homebrewers  
Association? I believe that I've seen posts in days (years) past from the AHA...

Thanks

Chuck Coronella  
Assistant Professor of Chemical Engineering  
University of Nevada, Reno  
coronell@cs.unr.edu

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Date: 10 Nov 1993 16:03:32 -0500  
From: "Stephen Schember" <stephen\_schember@terc.edu>  
Subject: Black and Tan

Subject:Time: 3:54 PM  
OFFICE MEMOBlack and Tan Date: 11/10/93  
In regard to recent Black and Tan discussions Yeungling also makes a  
Black and  
Tan frequently served as a "cheapie " draft at bars in the NE, and also  
sold in  
16 Oz cans (?!?). It pretty good stuff on tap, a mix of their own  
Chesterfield  
Ale and Yeungling Porter.

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Date: Wed, 10 Nov 93 15:07 CST  
From: korz@iepubj.att.com  
Subject: SNPA hops/Books/Lawsuit!

Aha!!!!

You all looked at me funny when I posted questioning the hop nose of Sierra Nevada Pale Ale, back in January of 1992. I had said that the SNPA that we got here in the Midwest seemed to have lost it's wonderful Cascade nose. There was no SNPA available in December of 1991, but then the stuff we got in January was nothing like the stuff we got back in November of 1991. Now, Martin writes:

>...I just visited Sierra Nevada a month ago. They do  
>not use a hop back or dry hop the Pale Ale. They just put Cascade hops  
>in at the end of the boil. They do however dry hop the Bigfoot.

I believe that they did used to use a hopback, but had some trouble with it so they went to a finishing hop addition as reported by Martin.

And you all thought I was crazy...

\*\*\*\*\*

Norm writes:

>Buy "The Complete Handbook of Homebrewing" by Miller.

I feel it's a good book, but still has quite a few errors in it. I recently re-read Papazian's "The New Complete Joy of Homebrewing," Miller's "The Complete Handbook of Homebrewing" and Noonan's "Brewing Lager Beer." While reading, I was scribbling my disagreements with the books in the margins and dog-eared the corners of these suspect pages. The book with the least dog-eared pages? Papazian's. Miller's and Noonan's were about tied, but had at least triple the number of suspect pages. I have been meaning to write a series of posts or maybe an article on these three books and my disagreements with them, but heck, I barely have time to brew, so it's on the back burner.

My advice is to buy all three, but read them in the order I listed above. After reading all three and brewing a dozen batches, you will probably scribble the same notes in the margins that I did.

\*\*\*\*\*

Norm writes that he noticed an EasyMasher-like device in the Gadgets and Equipment Special Issue of Zymurgy.

I noticed this too, but it was long after I had heard about Jack's EasyMasher. If this was to go to court (ha!), it would probably end up in Jack's favor. Sorry if I spoiled any Jack-haters' day ;^).

Al.

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Date: Wed, 10 Nov 93 13:53:50 PST  
From: brian@carbon.cor2.epa.gov  
Subject: boiled wort/water ratio

A few nights ago I was brewing up a batch of David Smith's Porter from the Cat's Meow...a recipe I had made once before with fine results.

The recipe for 5 gallons calls for adding grains and extract to 1.5 gallons of water (the amount I used the first time) for the boil; however, this time I chose to use only 1.25 gallons. I did this for a couple reasons. First, I have a relatively small (4 gallon) brewing kettle and thought it would be easier to control potential boilovers with a smaller quantity of wort... which turned out to be true. Second, recent batches of mine have taken several hours to cool (1.5 gallons of hot wort added to 3.5 gallons of cold water) to pitching temperatures, which has made me nervous about possible infection. I thought that adding less hot water to more cold water would help alleviate this delay, which also turned out to be true as the mixture was immediately at pitching temperature.

So here's the question. Are there any disadvantages to reducing the volume of boiled wort? The resulting mixture was noticeably thicker as I poured it through a strainer into the primary, but other than having to rinse the hops in a couple extra times, there were no obvious problems. I did notice, however, that my O.G. was somewhat lower than the first version, suggesting I left some good stuff behind in my spent hops.

Any thoughts?

Brian S.

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Date: Wed, 10 Nov 93 15:10:42 -0700  
From: John Glaser <glaser@analog.ece.arizona.edu>  
Subject: Brewpot questions / I are a college student!

I have been brewing about a year now, and have some questions/ideas about brewpots.

1) I just picked up a enameled steel canning pot (8 gal.), but it has a few chips in it, maybe about 1-2 square inches

worth of exposed metal. Will this be a worse problem than

that created by using 3 gal. boils in my smaller pot. Is

there anything I can do to cover the chips? (for example, using hi-temp enamel like they sell for repairing outdoor BBQ

grills and such).

2) Has anyone ever considered electroplating the inside of a steel or aluminum pot with copper, to allow its use as a boiling pot. Is it too expensive, too difficult, etc., or could it work? What about anodized aluminum? Anyone know

anything about this?

Anyway, just started reading the digest, and enjoy it thoroughly. Also, regarding the earlier post about college students, I am one who brews out of necessity (of course, who doesn't?). Can't afford to buy decent beer :(, so I am forced to make all the beer I drink. Oooh, life is so tough!

John Glaser "glaser@analog.ece.arizona.edu"

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Date: Tue, 9 Nov 1993 12:23:20 -0400 (AST)  
From: robinson@orbit.acrs0.ns.ca (John Robinson)  
Subject: Sake

A short time ago,

>Bryan Kornreich <bkornrei@welchlink.welch.jhu.edu>

Asked about:

>Subject: sake-brewing

>Does anyone know anything about brewing sake? I'd like to try it 'coz I  
>love it and I've got a lot of rice. Any recipies? With its high alcohol  
>content(15-18%) does it require any sort of distillation? Or are there  
>yeast that can pump out that high ethanol content?

Well, if you want to brew sake, my first suggestion would be to buy and read Sake, USA by Fred Eckhart. Without repeating everything he goes into there, I will outline a few of more salient points about sake brewing here:

- 1) You need a large portion of rice infected with a fungal amalyse. This stuff is called Koji, and you can either make it yourself or buy it. I'm using Cold Mountain Koji at the moment, and I got a local shop to special order it for me. It needs to be refrigerated and should be used when fairly fresh.
- 2) You can use a sherry yeast, or some other alcohol tolerant strain, though the proper sake yeast is available from Wyeast (in liquid form) and perhaps from others. If you use the Wyeast, Fred suggests that you NOT pop the nutrient pouch inside. Just clip the package and use as is.
- 3) In order to make the best sake, you should use highly polished japanese short grain rice. Without going into all the whys and wherefores, long grain rice is not as good. Brown rice can be used, but you probably won't recognize the end product as sake. You can usually get this rice at an asian food store. You'll also need to steam the rice, so you should get a rice steamer while you're picking up the rice. For a small batch of sake, about 2 gallons, the last addition of rice is 5 lbs, so you need a reasonably large steamer if you want to do large batches.
- 4) No distillation is required to achieve high concentrations of ethanol. In sake brewing, the koji turns the rice starch to sugar, and then the yeast ferments it on the spot. This is similar to adding a little more sugar to a wine, for example, as the fermentation is proceeding and has the effect of coaxing the yeast into producing more and more alcohol.
- 5) One adds more and more rice to the ferment as time goes on, and Fred suggest that you mix the freshly steamed rice with the sake using your hands. Make sure they're clean, and remember this means you'll have to do the initial fermentation in a plastic bucket.
- 6) You may want to look into using a press near the end to press the lees when you rack to the secondary. Be sure to top up your secondary (1 gallon glass jugs work well for sake secondaries).
- 7) You will need to pasturize the sake. Fred explains how to do this and why it is important.

My first batch is well on the way to being completed. When it is done, maybe I'll post the results.

Hope this helps...

- - -

John Robinson      Internet: robinson@orbit.acrso.ns.ca

Systems Manager

Atlantic Centre for Remote      "Know the enemy and know yourself;

    Sensing of the Oceans in a hundred battles you will never

DOD #0069 be in peril." - Sun Tzu

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Date: Wed, 10 Nov 93 22:25:05 EST  
From: aa680@freenet.carleton.ca (Geoffrey Burd)  
Subject: A new twist in chiller design

This past weekend marked the inauguration of my new immersion wort chiller (after two years of reading the digest and many trips to the archives). It uses a design which I have not seen mentioned here before which proved to be very effective. I used 50' of 1/4" I.D. copper tubing wound in a cloverleaf shape around 3 48 oz. juice cans, like so:

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— / /
  / / /
 / // /
/ // //
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There are about 12 full turns, resulting in a coil height of about 8" and a diameter of about 12" which fits nicely in my pot. Several positive features of this design are: Structural stability due to the overlapping of the coils and the fact the the inlet tube goes down the middle. The overlapping of the tubing spaces the individual coils to permit better circulation and heat distribution. Higher "tubing density" within the wort due to the tighter coiling.

The only disadvantages I can see are: harder to clean and harder (though less necessary) to stir the wort.

When I get a bigger pot, I plan to rebuild it with more tubing--either as a parallel system with 3 interleaved tubes, or as a 6-lobed design (or both), but for my current 20 liter pot this works great (roughly 10 minutes to cool to pitching temperature--if anyone wants more accurate measurements, let me know and I'll be more scientific with my next batch!)

- --  
Geoffrey Burd  
aa680@freenet.carleton.ca

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Date: Wed, 10 Nov 93 23:11 CST  
From: arf@mcs.com (Jack Schmidling)  
Subject: Chillers

>From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>  
>Subject: Hot Break/Hops in CF Chiller

>I wanted to comment that my boiler has a spigot several inches above the bottom of the kettle. My CF chiller attaches to the spigot via a flare fitting. Twelve to fifteen minutes after the boil is concluded, I begin runoff through the heat exchanger. By this time, hops and hot break have settled below the level of the spigot and are not drawn into the runoff. The price paid is the loss of a few quarts bitter wort: this can be reclaimed and canned for use as starters if one is so inclined.

The price paid in this discussion is to give up one of the few "unarguable" advantages to the CF chiller. I conceded that a CF chill is probably faster than an immersion chiller but if you sit around and wait for the hot break to settle, you have lost that advantage. And just for the record, several inches in my 16 gal kettle is several gallons but the easymasher sits on the bottom and less than an inch is left behind.

The fact is that if it is chilled with an immersion chiller, the hot/cold break will settle to below this level and be much more dense than if settled hot. The trub stays put and only that immediately surrounding the screen get drawn out and this can be discarded as it is only the first few ounces.

>From: gummitch@teleport.com (Jeff Frane)  
Subject: Re: Wort Chillers, Redux

>Without trying to quote from Jack's posting responding to my posting..

You really should to get the proper intent sorted out.

>Jack, I know the difference between hot and cold breaks -- they happen under different circumstances.

I never suggested that you don't know the difference, I suggested that from my understanding of what you are doing, the two could become combined in the end product.

> I leave my hot break behind in the kettle because at the end of the boil I create a whirlpool... and then draw the clear (very clear) wort off from

\*around\* the mountain of protein and hop debris on the bottom of the kettle.

Apparently, I did not understand your technique but now my vision of the "mountain or protein" geive me pause. I see you standing there with a sipon tube with a pot scrubber on the end poking around in the kettle to keep it in just the right position, not too close or you suck it up. Then when you are all done, I see this mountain again with a large pool of clear wort around it that you can't quite get at for fear of sucking up the crud. I trust you have all this figured out but never having done it that way, thinking about it gives me a headache.

(no problem with HSA, because I don't splash),

Wishful thinking. The major air/wort interface is the surface. The continually changing surface area provides orders of magnitude more aeration than a little (or even a lot of) splashing. I am not convinced that either will cause any serious harm but don't hide under the splashing blankie.

> dogmatism has no place in brewing.

Unless, of course, it comes from me.. :) That's for Norm.

js

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Date: Thu, 11 Nov 1993 07:20:00 EST  
From: "/R=FDACB/R=A1/U=RIDGELY/O=HFM-400/TN=FTS 402-1521/FFN=Bill  
Ridgely/"@mr.cber.fda.gov  
Subject: RE: Nasty Brews (Part 2)

Continuing the discussion on Matt Rowley's post in HBD #1267:

>What about Australia? anyone know of aboriginal beer drinks  
>there? Hawaii? Didn't Cook make beer of breadfruit on  
>landing, which the Hawaiians thought foul? There was a  
>Polynesian kava drink, but to my knowledge it wasn't  
>intoxicating. Anyone know?

As mentioned in my earlier posting, no known alcoholic beverages were made by Australian aborigines, at least according to the literature I've seen. I'll happily stand corrected if anyone comes up with a reference to the contrary.

I'm unfamiliar with specifics of the Cook story, but there's no reason why breadfruit couldn't be successfully fermented. There's no mention in the literature of modern breadfruit fermentations.

The Polynesians brewed a drink from masticated kava root. Unfortunately, like most indigenous beers in which saliva is used as the starch-converting agent, the beer is not often seen these days. The amylolytic enzymes in saliva are quite efficient, however, so my guess is that kava beer had a fair amount of alcohol.

>We were also comparing rates of alcoholism to length of  
>contact with alcohol.

>I guess I'm not looking just for nasty stuff, but also odd  
>things. Any recipes'd be appreciated, either private e-mail  
>or posting here.

I'll leave you with two references. The best book I've seen on indigenous beers (and other fermented foods) in general is Steinkraus, Keith et al, "Handbook of Indigenous Fermented Foods", NY, Marcel Dekker, 1983 (Thanks, Eric Urquhart!)

The best book on the role of alcohol in primitive societies is Aasved, Mikal, "Alcohol, Drinking, and Intoxication in Preindustrial Society: Theoretical, Nutritional, & Religious Considerations", Santa Barbara, Univ. Calif., 1988 (Thanks, Alan Eames!)

I believe the latter is a doctoral dissertation, but you should be able to get both of these through interlibrary loan at your college.

Hope this information helps you on your way.

Sorry I forgot the .sig in my previous posting.

Bill Ridgely (Brewer, Patriot, Bicyclist)\_\_\_o  
ridgely@a1.cber.fda.gov -/<,  
ridgely@cber.cber.fda.gov ...0/ 0...



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Date: Thu, 11 Nov 93 09:06:08 EST  
From: Bob\_McIlvaine@keyfile.com  
Subject: Burners

I'm interested in finding information on gas burner design.

Can anyone tell me where to find any books or info on things like port sizing, air mixtures, orifice sizes, gas pressures, etc.?

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Date: Thu, 11 Nov 93 09:05:41 EST  
From: dweller@GVSU.EDU (RONALD DWELLE)  
Subject: native beer

RE: Bill Ridgely/"@mr.cber.fda.gov/ RE: Nasty Brews

I had always heard (locally, in Michigan) that the Native American Indians made spruce beer (in a very-weak form).

No?

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Date: Thu, 11 Nov 93 09:17:08 EST  
From: Bob\_McIlvaine@keyfile.com  
Subject: Keg Insulation

Dennis Lewis asked about insulation for  
15 1/2 gal converted kegs.

Since, presumably, this will be sitting on  
a heat source such as 'Cajun Cooker'  
normal water heater blankets probably  
won't take the heat if the flame leaks up  
around the bottom.

There is a type of high temp blanket  
used in the foundry industry for insulating  
foundry furnices. I've use this with very  
good results. Since its rated for use  
between 1400F and 2000F it won't burn.  
Also, since it sort of resembles a 1"  
thick piece of felt its easier to handle and  
cut.

I've used it for brew kegs as well as for  
refractory lining in a small foundry. With  
the foundry you can actually hold the outside  
of the foundry while the inside has been  
heated enough to melt aluminum between  
900F and 1200F.

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Date: Thu, 11 Nov 93 8:29:45 CST  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: lousy hop rates in extract brewing

In response to Spencer Thomas in Thursdays HBD...  
Just a clarifier - The lousy rates you speak of apply to the partial  
boil extract brews. If you do an extract brew and boil all 5 gallons  
(for a 5 gallon batch), your extract rates won't be affected by higher  
wort concentrations...IMHO.

good luck and good brew (whatever way you make it!)

Chris

=====  
|Chris Pencis|chips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
=====

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Date: Thu, 11 Nov 1993 09:07:48 -0600  
From: tconklin@rdth2.rdth.luc.edu  
Subject: Brewpubs in Munich

Heading out to Munich tonight and wondered if anyone had any favorite pubs they could recommend. Never been there before so I am really looking forward to the experience of fresh German brew. Should be a thrill. Any suggestions would be appreciated.  
Thanks

Tom

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Date: Thu, 11 Nov 1993 09:56:12 -0500 (EST)  
From: ki!risque.ki.com!bernardi@uunet.UU.NET (Dave Bernardi)  
Subject: Brew-pub, what's involved...

Hi,

I'm trying to estimate what it would cost to start a Brew-pub in the state of Pennsylvania. I'm new to this mailing list so if this has been discussed in the past, let's kill it here.

I'm also pretty new to homebrewing. I've made several batches (just add water) and a couple that were a combination of extract and grain and they all turned out pretty good.

I know I have a lot to learn but my goal is to operate a Brew-pub. My father-in-law already owns a bar so that part is licked. The Pennsylvania LCB sent me some info a while back and from what I remember the a brew-pub license is \$2,000/year and you are limited to ~500 kegs or something like that.

What I'm interested in is equipment..... I want to brew the beer myself, not hand a recipe to a brewery and call it mine. I have some reference books but I would like to talk to anyone that has real experience in this.

I assume that since good beer has a shelf life and I won't be selling large quantities (since a Brew-pub can only sell on-premises), we would brew small amounts often as opposed to large batches infrequently. Just to pick a number my guess would be (1) keg a week per flavor to start. The bar is in a resort area and I already know the locals won't touch it.

I still have a lot of research to do but if anyone knows where I can find old brewing supplies or have ideas/plans for making my own, I would appreciate the help. If I can get this off the ground, and your ever in Vowinkle, PA. please stop by and see what you've help create.

Thank you.  
Dave Benrardi

- - -  
#####  
# Internet : bernardi@ki.com Dave Bernardi #  
# CompuServe: >INTERNET:uunet.UU.NET!ki!bernardi Ki Research, Inc. #  
# UUCP : ...!uunet!ki!bernardi6760 Alexander Bell #  
# Voice: 410 290 0355 Suite 250 #  
# FAX : 410 290 0397 Columbia, MD 21046 #  
##### New Dimensions In Network Connectivity #####

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Date: Thu, 11 Nov 1993 15:15:18 +0000  
From: G.A.Cooper@gmw.ac.uk (Geoff Cooper)  
Subject: Isinglass, Old British Beers

Al <korz@iepubj.att.com> asks:

>The Isinglass that I've found is pre-mixed and I specifically asked the  
>wholesaler if it needed to be re-fridgerated. He said no. Now, I'm  
>questioning this because of what Norman wrote. Could the pre-mixed  
>isinglass be stabilized somehow or does my distributor need to change  
>their instructions?

I believe the distributor needs to change their advice, but Norman's  
figure  
of 50F is a bit restrictive. I use isinglass quite a lot and the  
manufacturers'  
instructions (here in the UK that is) say that the storage temperature  
must not  
exceed 20C (68F). The pre-mixed isinglass then stays as a gel - if it  
spends  
any time at high temp it breaks down, becomes more liquid and doesn't  
work  
anywhere near as well. I keep mine in the fridge, and I know of one  
homebrew  
shop that doesn't stock it in summer. For me it's no problem storing it  
in  
there amongst the yeast, hops, white wine, lagers ....

- - - - -  
Also we were told:  
Title: Home Brewing, The CAMRA guide  
Author: Graham Wheeler  
Publisher: ALMA books, a subsidiary of CAMRA UK (CAMpaign for Real  
Ale)  
ISBN: 1-85249-107-8  
Pages: 180  
Price: 64.99 (pounds sterling) (1991 price)  
^^^^^

Oh no it's not! I got one and I certainly wouldn't have paid that for it!  
Question: Is it the 4 or the 6 that is the mistype?

- - - - -  
And the other misprint! I haven't got my copy yet but..

From: Spencer.W.Thomas@med.umich.edu:  
>I was reading the latest Zymurgy last night, and happened upon the old  
>English beer recipes. (From the Durbin Park club??)  
^^^^^^^^^^^^^^  
That's Durden Park.

And From Ed <WESTEMEIER@delphi.com>:  
>All of the recipes list ingredients for making "six US gallons" which  
>is plainly wrong if you examine the quantities. In fact, the quantities  
>shown are for making one (UK) gallon.  
>  
>CORRECTION:  
>To make five US gallons, multiply all quantities by 4.2 (that's close  
>enough). This should be obvious, but you never know....



Or: multiply by 5 to get 6 US gallons.  
And, on re-reading my email to Zymurgy, I can only assume that it was my making the above statement to them that has given rise to the error. Even though I clearly said that the ingredients were "per imperial gallon".  
Lesson: don't make helpful statements.

I can also (from personal experience) strongly recommend trying the recipes.

Geoff

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Date: Thu, 11 Nov 93 09:43:29 CST  
From: Dave Justice <DD24005@UAFSYSB.UARK.EDU>  
Subject: Pilsner Urquell

I just finished reading C.R. Saikley's submissions on Czech beers and PU. I found it interesting in that I visited the brewery in August and noticed the changes taking place. At any rate, it was his description of brilliantly clear that struck a chord in me. I've noticed recently the proliferation of beer being sold in 22-24 oz. bottles and cans - at least around here anyway - and PU is no exception. I was examining one such bottle the other day and noticed some sediment on the bottom. I didn't really expect this in a bottle of PU so I had to try it. It turned out being the best example of PU I've ever had here in the states. Usually the stuff you get here is overly bitter IMO and is probably meant to be so for preservation reasons. In this instance the diacetyl was noticeable but a great compliment to the hop character as C.R. described in his post. The sediment disappears with little perturbation and as such the beer is not brilliantly clear. So what is the sediment? Is PU exporting something different now or is this an aberration? BTW the batch number (?) as stamped on the bottle is 11A2 if that means anything.

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Date: Thu, 11 Nov 93 9:56:31 MST  
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>  
Subject: Re: inadvertent lambic, black & tan

> I made a batch of aborted vienna lager and the brew turned out to be  
> infected from the new fermenter I was using (used keg). In the  
> process of washing out the goo, some flat, ropy-looking stuff came  
> washing out. It was the color of trub, sort of an off-beige and very  
> stringy. I examined a piece of it and it was quite resilient with a  
> faint acidic smell. Any ideas what that might be?

Certainly sounds like some sort of lacto- or peddlo- bacterial infection. In fact, it sounds identical to an infection that plagues my brewery from time to time (unfortunately, I don't brew p-lambics :- ( ). I haven't positively identified the bug, but it does form a stringy beige rope on top of the krausen. Fortunately, it doesn't have a huge impact on the beer -- a slight astringency, some sourness, and cloudiness, but not much in the way of off odor. BTW, if someone has ideas on how to combat such a beast, besides the usual "sanitize the heck out of everything", I'd appreciate the info.

> Guinness and..... Pabst Blue Ribbon. Call it a Black and Blue if you like.

When I was in college, we drank "Sheaf & Shafe" -- one-sixth bottle of Sheaf Stout mixed with each can of a six pack of Sheaffer (sp?). Back then, it seemed like a pretty good way to stretch your beer dollar.

- - -  
Jeff "still drinks Schlitz on occasion" Benjamin benji@fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Thu, 11 Nov 93 02:45:00 BST  
From: mike.keller@genie.geis.com  
Subject: Beer labels.

In 1268 Dion writes a summary of s/w for beer labels:

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| My criteria were (in order of importance):||  
|   ||  
| cost (free is preferable)   ||  
| DOS or MS Windows (X Windows acceptable, but not preferred)   ||  
| able to fit text into a defined shape (like a banner)   ||  
|   ||  
| Suggestions have been:||  
| <snip>||  
| Corel Draw - will do it all, but list price $399   ||  
|   ||
```

Since the release of Corel Draw 4, Corel Draw 3 (which is still available) has been priced as low as \$125. I've seen this price both in mail order and in Sam's Club. Comes with lotsa fonts, and lots more fonts and clip art if you have a CD ROM player.

mike keller, beer sysop, GENie

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Date: Thu, 11 Nov 93 09:47:28 -0800  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Adding spices to beer

I have made Christmas Ales about 4 years in a row now, using about the same recipe(based on Papzian's Christmas ale recipe, I forget the name). What I have varied is when during the boil the spices are added. Usually, I try to figure out long it will take to extract the desired essences from the spice, and how easily they will boil off. This time, (for 5 gallons) I added 4 cinnanmon sticks at the beginning of the (60 minute) boil, and added 4oz chopped ginger, and the peel from 4 oranges and 1 lemon 5 minutes from the end of the boil. I assume it will mellow a bit in the bottle, but tasted from the secondary, the cinnamon and ginger come through like gangbusters.

Drew

---

Date: Thu, 11 Nov 93 09:49:20  
From: rodney.shupe@deepcove.com  
Subject: CONVERSION OF MALT M

I'm trying to convert Malt dry measure amounts into amounts of Malt  
Extracts in  
volume measure. ie: X number of grams/pounds -> Y number of liters/  
fluid oz.  
Can anyone help?

Rodney Shupe - rodney.shupe@deepcove.com

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Date: Thu, 11 Nov 93 14:24:25 EST  
From: carlsont@GVSU.EDU (TODD CARLSON)  
Subject: small batch brewing

This fall I started brewing one gallon batches of beer and found it to be very enjoyable. The problems I had with the traditional 5 gallon batches were that I didn't have time to process that much beer. While handling 5 gallons is more efficient (less time/bottle), it does take bigger blocks of time that I don't have. The other problem was that I don't drink enough beer to go through 5 gal. very fast. If I made an average batch of beer I found myself drinking average beer for 6 months. The alternative (dumping \$25 worth of beer down the drain) was equally unapealing. By brewing one gal at a time I am able to experiment more often. My beer is improving 5 times faster since I brew 5 times more often. (and it is still improving - I still consider myself a beginning brewer)

My questions for the more experienced brewers are

- 1) Are there any hints for adapting traditional 5 gal recipies to a 1 gal size (other than dividing amounts by 5)?
- 2) Why is the 5 gal batch so standard? Is there any one else like me who finds advantages in small batch brewing?

Todd Carlson  
carlsont@gvsu.edu

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Date: Thu, 11 Nov 93 13:51 CST

From: korz@iepubj.att.com

Subject: Handling hops/Priming lagers/Crabtree effect/Language in the HBD

Alan writes--

>I start out by measuring an amount of hops and putting them into a large  
>glass mixing bowl. Then I stick the jar down in the hops and stuff them  
>in with my hand.

I've read that the amount of bacteria on your hands can be orders of magnitude more than in your mouth! Thus, I've taken to handling hops with a sanitized surgical glove. I get the hops in quarter bales (whole) or 11lb vacuum-sealed packages and then go directly into new, oxygen-barrier bags (I can only assume they are relatively sanitary), purge with CO2, squish out excess CO2 and then heat seal the bags. When I use the hops, I sanitize the SS weighing dish, usually with boiling water, and then pour the hops back and forth between the dish and the bag till I have the right amount in the dish. Thus, I've never handled the hops with bare hands. Not a problem for boiling or flavoring hops, but it could be a potential problem area for dryhops.

\*\*\*\*\*

Carl writes--

>I plan to bottle my first lager over Thanksgiving weekend. Particulars since  
>my post in #1240: Primary at 45F for 3 weeks, secondary at 45F since. Am I  
>likely to need more yeast (after Wyeast #2007) for conditioning and, if yes,  
>what type(s) are least likely to affect the character of the beer?

I'm primarily an ale brewer, so I don't have much recent lager experience, but the latest Traditional Bock I did was made with Wyeast #2308 (Munich) and spent two weeks in the primary and about 8 weeks in the secondary and did not require any additional yeast at bottling time to produce carbonation. The beer carbonated well, within two weeks and long before it was ready to consume (4 months of lagering at 40F in the bottle was needed to make the perm-solution nose to miraculously disappear!).

The most important point to my response is this:

**DON'T CHANGE YEASTS AT BOTTLING TIME!!!**

Unless you are 100% sure that the yeast you are adding at bottling is LESS ATTENUATIVE than the fermentation strain AND that you have no chance of even trace bacteria in the bottling strain, I recommend relying on the fermentation yeast for conditioning. If you add even a very small amount of bacteria or if you use a more attenuative yeast at bottling, you will make yourself a couple of cases of glass grenades. At best, you'll get gushers. This is especially important for lagers since they will be stored for a while before consumption.

\*\*\*\*\*

Carl also writes:



>Also on priming, has anyone else heard of or have more info on the  
"Crabtree  
>effect" described by Troy Howard in #1264? Sounds like a good reason to  
>abandon use of corn sugar for priming on the face of it.

Look in George Fix's book, Principles of Brewing Science for more on the  
Crabtree effect (although, I believe there's a few missing words in that  
paragraph (George?)). However, I don't agree with Carl that it's a good  
reason to abandon corn sugar. I switched from corn sugar to DME priming  
and then switched back because I found little difference except for what  
I think was protein scum (ring around the collar) in the bottles when I  
used DME for priming (note that I did not force-cool the DME priming  
solution, perhaps that would have helped).

\*\*\*\*\*

My view on the issue of questionable language in the HBD is that I feel  
it  
should be avoided. I'm not offended, rather, I feel that it is rather  
"unprofessional" to have such language intermixed amongst world-class  
brewing knowledge. It sort of cheapens the HBD. The combined knowledge  
of us here on the digest (and that includes even the beginners, who can  
contribute interesting questions and discoveries, as well as the  
seasoned,  
advanced brewers), far surpasses the knowledge in even the most respected  
single book. To me the HBD is like a living book... in print... each  
day.  
How much respect might we have for Malting and Brewing Science if Hough  
et. al. had stuck the occasional four-letter-word? My rule of thumb is,  
"does this sound appropriate for a magazine article or a book?" Let's  
continue to have fun, but let's also not write anything that cheapens the  
HBD... these are not mutually exclusive goals.

Al.

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Date: Thu, 11 Nov 93 15:25:21 EST  
From: dougy@icad.COM ( Doug Lethin)  
Subject: Beer Labels

For beer labels, I also suggest a program called  
KeyDrawPLUS for windows. I paid \$28.00 for it.

It has features for aligning text to curves, creating perspectives,  
extruding text, and other actions that vary text shape. Although it  
does not have a feature to shape text to a inputed shape, if the shape is  
simple, you could warp the text into that shape.

Drawbacks are :

Its not as user friendly as other programs I have seen, and its user  
manual also is not the greatest.

I used it to define a logo for musical group, and the size became so  
large, that at times it would use all of my memory and crash my PC.  
Memory management was not done well with that program.

Other than that, I would still recommend it.

Doug

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Date: Thu, 11 Nov 93 15:45:43 MST  
From: npyle@n33.stortek.com  
Subject: Dry Hop Bitterness from Beta Acids?

Darren Aaberge replied to my Byron Burch/dry hop question via email:  
(Darren, my reply to you bounced!)

DA>Byron Burch says something to the effect of:  
DA>  
DA>To calculate bitterness  
DA>(A) Multiply the number of ounces of hops per 5 gallons by their  
alpha  
DA>acid rating.  
DA>(B) Divide by 7.25  
DA>(C) If the hops are boiled for more than 45 minutes multiply by 28-  
30. If  
DA>they are boiled for 15 to 40 minutes multiply by 8-12. If they are  
boiled  
DA>for less than 15 minutes or are dry hopped multiply by 5.

I ran some quick numbers based on a recent brew. I was surprised to see something this simplistic come fairly close to the IBUs from Rager's formulae.  
"Fairly close" means within 10 - 15% overall. This formula appears to take into account the utilization for different boil times, etc. Interesting. The part about dry hopping, though, deserves further thought and discussion.

DA>He says that these numbers assume a rapid chilling at the end of the boil.  
DA>Also, he defines dry hopping as adding hops (and he implies only pellets can  
DA>be used) to the fermenter prior to fermentation. He goes on to qualify this  
DA>method of calculating bitterness by saying that it is the system of the  
DA>American Society of Brewing Chemists.

I'm going to assume what I've read is true, and that alpha acids (which are neither soluble nor bitter) will not give up any bitterness without being isomerized by boiling. The fact that he adds his dry hops to the fermenter prior to fermentation may be a clue. Beta acids do not need isomerization to become bitter. The oxidation products of beta acids are soluble and bitter, although I don't have a good feel for how much bitterness they contribute. Malting and Brewing Science indicates that they may contribute a considerable amount. The common wisdom says that when hops are exposed to oxygen, the alpha acids oxidize into non-bitter products, and are no longer available to isomerize into bitter iso-alpha acids. MABS indicates that oxidized beta acids in the same hops may counter a considerable amount of the lost alpha acids, and that the formulae for lost bitterness in old hops may not be accurate. I don't

have the book (I need more books!) so I am justing passing on what I've been told on this.

Back to Burch:

At the point where Burch adds his dry hops, there is lots of oxygen in the wort, or there should be for yeast reproduction. This will allow the beta acids to oxidize and become bitter until reproduction uses up all the oxygen and/or fermentation drives it all off. This may be where Burch gets his bitterness from dry hopping, and it may be where others in this forum have seen it as well. Long lag times would contribute to the bitterness.

In recent times, I've restricted my dry hopping to after primary fermentation and have had no bitterness associated with it. This supports my theory, in that there is no oxygen for beta acid oxidation at that point. To those who've reported bitterness from dry-hopping: when do you dry hop? Does your data support my idea?

DA>While all of this is taken from the book "Brewing Quality Beers" by Byron Burch, none of it is direct quotes. If you want more information or direct quotes, let me know. You may, of course, post any or all of this to the DA>HBD if you wish.

Direct quotes would be nice, if you have the time and inclination. Is anyone a ASBC member? Is this their method for estimating IBUs? Enquiring minds want to know...

Hoppy Trails,  
Norm

-----

Date: 11 Nov 93 17:06:23 -0600  
From: mbarre@nomvs.lsumc.edu  
Subject: Hunting (dweebs) over a baited field

J.S.,

Keep on Truckin'

-----

Date: Thu, 11 Nov 93 16:41:04 PST  
From: Jack St Clair <Jack\_St\_Clair@ccm.hf.intel.com>  
Subject: Request

Text item: Text\_1

Please add me to the HBD mailing list

Thanks,  
Jack St.Clair  
Jack\_st\_clair@ccm.hf.intel.com

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Date: Thu, 11 Nov 93 18:55 CDT  
From: David Atkins <ATKINS@macc.wisc.edu>  
Subject: breweriana

Some digests ago, a subscriber wished to identify brewery labels and graphics. Check your local libraries for some of these titles (if your libraries do not have any of these items, see if they can provide the items via interlibrary loan).

Periodicals:

American Breweriana Journal: Official Publication of the American Breweriana Association, Inc. Colorado Springs Colo.

All About Beer. Anaheim, CA. McMullen Pub.

Beer Can Collectors News Report. St. Louis, Mo. Beer Can Collectors of America.

Breweriana Collector. Los Angeles, CA.

Books:

Check under the subjects Beer, Brewing, and Breweries at your local libraries. There is a publication, whose title escapes me, that provides a geographic listing of hundreds of breweries that have winked in and out of existence during the history of the US. If you wish to research a local history and see what breweries have been around, try a local historical society as well. As for the mystery title, I'll try to find it to post at a later date... or if any other subscribers could post more info, that would be just as dandy.

And to the list has a collective...

1) has there ever been compiled a bibliographic FAQ or book & periodical list concerning beer, brewing and breweries?

2) if not 1) would there be any interest in having one compiled?

Please feel free to respond personal email as well as to the digest.

Happy beering,  
David Atkins  
atkins@macc.wisc.edu

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Date: Thu, 11 Nov 1993 20:50:29 -0800 (PST)  
From: PGILLMAN@POMONA.CLAREMONT.EDU  
Subject: Twist off vs opener only

I was wondering if pressure differences and retention are the reason that there is a difference in the taste between commercial beers with twist tops and those with opener only tops. any one have another explanation or support for this one?  
thanks  
phil  
pgillman@pomona.edu

-----  
End of HOMEBREW Digest #1270, 11/12/93  
\*\*\*\*\*  
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Date: Fri, 12 Nov 93 04:45:49 EST  
From: gbgg5tt5@ibmmail.COM  
Subject: Currency symbols

- ----- Mail item text follows -----

To: I1010141--IBMMAIL Homebrew Digest su

From: Paul Slater  
Subject: Currency symbols  
>Title: Home Brewing, The CAMRA guide  
>Author: Graham Wheeler  
>Publisher: ALMA books, a subsidiary of CAMRA UK (CAMpaign for Real Ale)  
>ISBN: 1-85249-107-8  
>Pages: 180  
>Price: 64.99 (pounds sterling) (1991 price)  
> \*\*\*\*\*  
>  
>Oh no it's not| I got one and I certainly wouldn't have paid that for it|  
>Question: Is it the 4 or the 6 that is the mistype?

Should have been 4.99 pounds.  
Sorry for any character confusion, my system is ebcidically disadvantaged.  
Paul Slater  
gbgg5tt5@ibmmail.com

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Date: Fri, 12 Nov 1993 09:34:08 +0000 (U)  
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>  
Subject: hot wort siphoning- thanks

hot wort siphoning: thanks  
Thanks for those who helped out with my siphon and chilling  
questions.

I didn't really mean how to siphon boiling wort (ouch), but just how to  
siphon from the pot into the primary....i ended up just pouring it into  
the  
bucket. I'll rack into a secondary in a little bit.

brew count down begins!

Thanks all!  
george

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Date: Fri, 12 Nov 93 08:55:56 EST  
From: aa680@freenet.carleton.ca (Geoffrey Burd)  
Subject: Re: THE BEER MACHINE

taylor@e5sf.hweng.syr.ge.com (taylor) asks:  
"Has anyone tried or heard off "THE BEER MACHINE"??"

They were sold in many stores around here last Christmas (I don't know how well they sold--the local hardware store still has a couple gathering dust: I'm waiting for them to be sold off half price!). I inspected one and it looked pretty sturdy: it looks like a small barrel on its side made of brown rigid plastic. It consists of a top and bottom half which clamp together, and so would be easy to clean. There is a tap on the front that looks like the tap on a coffee urn, and a lid on top for adding ingredients. During fermentation you attach a pressure regulator which maintains enough pressure to allow natural carbonation. For dispensing you replace it with a CO2 cartridge.

I agree with you that I wouldn't use it as intended since the beer would end up sitting on the trub, but it would make a great little dispensing keg provided that it could retain pressure and not leak.

I did try the malt extract that they sell to use with it: it comes in 3 styles in about a 4 pound can. You're supposed to pour it into the machine, top up to 10 liters (2.5 USG) with water and pitch the yeast. I tried the same procedure in my carboy using the dark ale extract. It was dreadful: the extract was thin and watery and smelled like prune juice. Guess what! The resulting beer was thin and watery and tasted like prune juice. It's the only batch I've made that even I wouldn't drink!

I still, though, would give the keg a try if I could get it at a good price.

- - -  
Geoffrey Burd  
aa680@freenet.carleton.ca

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Date: Fri, 12 Nov 93 08:03 CST  
From: arf@mcs.com (Jack Schmidling)  
Subject: Mash Temp, Batch Size

>From: Mike Peckar 10-Nov-1993 0909 <m\_peckar@cscma.enet.dec.com>

>1. Air Cock, yes. thanks. I also didn't use the proper plumbing jargon to describe what I referred to in my article as a "stand off". Its called something else, I forget what....

Shoulder is the word. On outdoor hose connections, they are round and prevent the spigot from being pushed through the wall from outside. Unfortunately, they only come in sizes too large for homebrew applications. The shoulder on the air cock is hex shaped so a wrench can be applied to tighten it. It presses tightly against the outside of the kettle to provide a leak proof fit.

>2. The "lower temps" I had trouble at were under 154 degrees. In later batches, when I would raise the temp at the end of the mash (Mashout) flow would increase significantly with my version of the screen sparger. Any batches where the mash temps did not exceed this, it'd get stuck.

Good argument for mashout. For those who can not or do not want to mashout, there is another approach to the problem. I typically get thrashed for suggesting the use of boiling water for sparging because the books recommend a temperature of 170F. However, sparging with very hot water on a cool mash will only serve to maintain the mash at a manageable level and at most, raise it a few degrees which will cause no harm at all.

>From: WESTEMEIER@delphi.com  
>Subject: zymurgy recipe correction

>All of the recipes list ingredients for making "six US gallons" which is plainly wrong if you examine the quantities. In fact, the quantities shown are for making one (UK) gallon.

After reading it several times, I was going to write to you and see if you would do a testimonial to the fact that those fantastic extract rates were the result of using a MM. It would have made a great ad.

>From: Spencer.W.Thomas@med.umich.edu

>You CAN make moderate gravity beers with a small boiler. Sure, it's not recommended, and you leave a lot of sugar behind, but it can be done..... lousy hop utilization, lousy extraction.....

Not sure why any of the above need be but what seems to have been left out of

the discussion is the presumption that one is making 5 gallon batches.

As far as extraction is concerned, I get the same yield in one gallon test batches as I do in ten gallon batches. There is no reason why batches smaller than 5 gallons can not be made successfully. You will find a number of them in the "Winners Circle" from the last International.

>From: snystrom@aol.com  
>Subject: Hunter Airstat modifications NOW I'm looking for someone who would be kind enough to repost the instructions that will allow the Airstate chill below 40 degrees. ...it may have been a 10K ohm resistor in series with the thermistor/sensor, but he didn't save the posting.

I saved only the hard copy and I am not about to retype it but he used a 180K in series with the sensor. This got him (Mike Kenny) down to 35F. I used a 130K but I was only trying to get the readout to agree with the actual liquid temp instead of the air temp.

js

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Date: Fri, 12 Nov 93 10:05:36 EST  
From: cjh@diaspar.HQ.ileaf.com (Chip Hitchcock)  
Subject: quality under twist-top

pgillman@pomona.edu asks whether twist tops affect the quality of the commercial beer underneath.

<enter prejudice mode>

The standard rap on this is "twist tops take special cappers"---i.e., homebrewers can't get a tight seal but commercial brewers can. The difference in beer quality is probably a matter not of connection but of parallelism: only swill is drunk in such haste that a twist-off top is a significant selling point.

I have no data, but I suspect that swill actually averages less time between brewing and drinking than good stuff, due to the amount of swill sold (higher turnover). There's also the fact that swill is often brewed closer to the retail seller than good beer is; e.g., if I drank Bud or Michelob it would have been brewed in Nashua (~50 minutes drive ~north of Boston); my mother in DC would get it from near Williamsburg VA; my late grandfather in Jacksonville FL would get it from Tampa FL; in all cases the beer would have left the brewery the same day it hit the stores. If we wanted Anchor or Fuller's it would come from CA (taking a few days, probably in an unrefrigerated truck) or UK (taking several weeks on ship---except that you can now get draft Fuller's in at least one pub in Orlando). Both of these factors would reduce any ill effects from twist-tops---the beer would have less time to oxidize. (It would also have less time exposed to fluorescent lights, which is a problem in many beer stores.)

<exit prejudice mode>

The above assumes that beers are shipped when they're ready to drink and/or that there's no improvement in the bottle (as there often is for homebrew, due to (among other factors) bottling on-the-yeast and when-it-stops-bubbling.

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Date: Fri, 12 Nov 93 08:26:17 -0700  
From: LPD1002@NYSHESCV.bitnet@UACSC2.ALBANY.EDU  
Subject: Kriek/Sour Mash

First, I would like to thank those who responded to my question of whether or not the p-Lambic recipe in TNCJOHB was worth the effort. Unfortunately the responses I got were not first hand. I said they knew someone who brewed it and thought it was great. Another said that they had heard just the opposite. Another response I got included a catalog for Sheaf & Vine which had 3 Belgian yeasts for \$18. This would make this a rather expensive experiment. I think that unless I hear from someone who has tried this first hand or has had a good homemade p-Lambic, I will hold off on this endeavor. Again, if anyone has tried one of these, please let me know.

Steve Septer  
LPD1002@NYSHESCV.BITNET@UACS2.ALBANY.EDU

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Date: Mon, 8 Nov 93 07:29:52 PST  
From: megatek!hollen@uunet.UU.NET (Dion Hollenbeck)  
Subject: Re: Suggestion for Dion's inexpensive label software

Thanks for the follow up on this. So far, I have been using xfig for X Windows and placing every character by hand along a curve. This got me my initial run of labels, but leaves me needing my computer at work and having no capabilities at home. I will look into Harvard Graphics.

dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucsc!megatek!hollen

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Date: Fri, 12 Nov 93 05:31:34 PST  
From: gabrio@tc.fluke.COM (Steve D. Gabrio)  
Subject: Re: Greenplug

>I saw this gadget that may be of interest to homebrewers like me who  
have many  
>fridges and freezers. This device uses computer circuitry to work out  
how  
>much electricity is actually needed to keep a motor running (it cuts up  
>the sine wave in some way - ask an electrical power engineer). And not  
>only does it save around 25-33% of electricity, the motor runs more  
smoothly  
^^^^^^  
(snip!)

>From the November issue of Consumer Reports about the GreenPlug and the  
Energy Buster:

The controllers didn't even come close to a saving of 25 percent a year.  
The Green Plug turned in the greater saving of the two - 8.6 percent on  
the antique, 3.5 percent on one of the middle-aged refrigerators. At the  
national average electricity rate, those savings amount to about \$20 and  
\$4 a year, respectively. Savings with the Energy Buster amounted to 4.7  
percent (about \$11 a year) at best. Both controllers actually increased  
running cost by a few dollars on the brand-new refrigerator and on one  
middle-aged model.

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They who drink beer will think beer.  
Washington Irving (1783-1859)  
American author  
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Date: Fri, 12 Nov 1993 12:05:41 -0600  
From: gmeier@ncsa.uiuc.edu (Gary Meier)  
Subject: brewing small batches

Todd Carlson asked about brewing batches smaller than 5 gallons in order to save time and permit more experimentation. I can't address the first question, since I have only brewed in 5 gallon batches, but I get my fill of experimentation by trying things after the primary fermentation is finished. When I select a recipe I start thinking about modifications that might work well with that style, and I generally divert a gallon or so (after brewing) for the experiment. Must be all that chemistry training during my misspent youth. I've had good luck with bottling part of a batch into bottles each containing a sanitized jalepeno pepper while bottling the rest normally--two styles of beer with virtually no additional work. More typically I'll siphon a gallon or two from the primary into gallon glass jugs while putting the rest into my usual secondary fermenter. Most of the batch finishes normally, while in each of the one gallon secondary fermenters I'll add fruit (made a killer raspberry ale recently), spices (my Christmas Ale is coming along nicely) or experiment with things like dry hopping, all depending on the style of my starting brew. Transfers, bottling, etc are done at the same time for everything, so almost no additional work is required, but I end up with several distinct styles of beer when it is all over. Only investment was a couple of extra airlocks and the time spent drinking the apple juice that came in my gallon jugs.

Gary Meier, Meier's Femtobrewery and Woodshop  
(The Boston (tm) Beer (tm) Co. spills more beer in a day than I make in a year).

Gary Meier  
FMC Corporation, Agricultural Chemical Group  
Box 8  
Princeton, NJ 08543 (609) 951-3448

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Date: Thu, 11 Nov 93 14:25:55 PST  
From: hp-sdd.sdd.hp.com!ucsd!megatek!hollen (Dion Hollenbeck)  
**Subject: Beer Labels**

>>>> On Thu, 11 Nov 93 15:25:21 EST, uunet!icad.COM!dougy ( Doug Lethin)  
said:

Doug> For beer labels, I also suggest a program called  
Doug> KeyDrawPLUS for windows. I paid \$28.00 for it.

I have tried software sellers without luck. Would you be able to  
supply a source for this program, or any more information like author,  
so that I can find it?

thanks,  
dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucsc!megatek!hollen

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Date: Fri, 12 Nov 93 12:36:58 EST  
From: Ulick Stafford <ulick@stravinsky.helios.nd.edu>  
Subject: flame

Sorry that the content of this is pure flame, and takes up valuable bandwidth, but that is partly the reason I am posting it. I started to notice last week when hbd was backed up that some people are seriously addicted to posting, and while much of the information posted is useful some is not. One poster in particular who I have decided to question is Al Korzanos (sorry if this is wrong, but it would be nice and professional if posters identified themselves properly). Anyway, some of the information this expert posted in 1270 really got my goat. He stated that there were fewer errors (well actually, his disagreements) in Papazian's book. While this may be true, I don't know that Miller has disseminated the massive clangers Papazian has. I don't know how often the meaning of kraeusening has to be corrected - and gypsum in every water supply, and the now famous pouring of hot wort into cold water in a carboy. Papazian's book is a good starter for the nervous, but for anyone who has brewed before and wants to get a good handle on water treatment and all-grain, Miller is a better choice. Noonan is not for beginners, and while riddled with errors, the people to whom it's aimed can usually work it out.

In his second posting, Mr. Korzanos, advocated the handling of hops with sanitized surgical gloves, based on the notion that there are more bacteria on hands than in the mouth - hardly a scientific determination, and considering the antibacterial properties of hops, I doubt if many bacteria would survive - and what would they eat? I imagine stored hops are too acid for bacteria. I wonder why someone like me who dry hops by stuffing hops with by bare hands through carboy openings has never had an infected batch attributable to dry-hopping?

He then admits he is primarily an ale brewer and does not have much recent lager experience, but nevertheless responds to someone enquiring about pitching fresh yeast when bottling a lager (a correct procedure), DON'T CHANGE YEASTS AT BOTTLING TIME!!! because his home perm solution carbonated OK. I can say categorically that I have made several strong beers, (Ales, actually) that have not carbonated satisfactorily because I failed to add fresh yeast. The reason Mr Korzanos gives is 'glass grenades', especially for lagers - those beers with which he is so intimately familiar, without any examples at all - just his vague suspicion.

Also, I considered the crabtree effect a good reason to abandon corn sugar, but of course there are other good reasons to stick with it. One must balance everything. Some people are quite happy carbonating with sterile wort or kraeusening, and for lager there is no topping the latter method (IMHO). Even Anheuser-Busch do it!!

Of then he really gets on his hobby horse - "unprofessional language" in HBD. This self-proclaimed expert and HBD police man was the single complainant that led me to bleepify my sig. Somehow it is unprofessional to use a little colourful language, but giving bad information as a self-proclaimed expert is not? Yes, it is terrible that the "world class brewing knowledge" is mixed up with some colour. Mr. Korzanos, hbd is not a professionally written magazine. If it were most of your postings wouldn't get past a junior editor. It is a computer bulletin board, that occasionally has great info, mixed up with anecdotal advice such as yours and other subjects not directly homebrew related, and is meant to be more current, and lively. I wish you lived by your rule of thumb  
'My rule of thumb is,  
"does this sound appropriate for a magazine article or a book?"'  
and didn't make postings with statements like your  
DON'T CHANGE YEASTS AT BOTTLING TIME!!! in bold caps, before you  
criticise  
the unprofesssional postings of others.

---

'Heineken!?! ... F#\$\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@darwin.cc.nd.edu

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Date: Fri, 12 Nov 1993 10:50:10 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: New Pub Info/Censor this baby!

Dave Benrardi  
wants to start a Brewpub in Pennsilvaniae  
.... in Vowinkle, PA.  
^^^^^^^^^^

You sure this is a place and not a cartoon character?

But really. Contact the AHA 303-447-0816 in Boulder CO. They have some info you can buy\$ regarding the "how to's" of starting a brewery. I haven't seen any of 'em me-self.

Look for magazines for the Brewery Industry,

e.g. American Brewer, the business of beer. (510) 538-9500 mornings.  
\$5 for a sample issue, \$18/yr (in '92). (no connections and all that crap)

They have lost of ads on equipment and supplies for breweries. A bit out of scale for the average homebrewer. But I seem to be quoting my one issue of it a hell of a lot. ;-&Zymurgy (AHA) commonly has ads for larger scale brewing gadgets. Also articles on why you should or shouldn't start a brewery. It's quite an ordeal from what I understand. I'd love to start a real one here in Loga UT, but I'd hate to be stuck making 3.2 beer :(

So... you looking for brewpartners?? :)'  
I originated in Penn State aloooooong time ago.

\*\*\*\*\*

Al Korz... sez:  
> How much respect might we have for Malting and Brewing Science if Hough et. al. had stuck the occasional four-letter-word? My rule of thumb is, "does this sound appropriate for a magazine article or a book?"

Or a radio station? A local country station just canned a dj for saying the big three letter word.....yes that's right...while doing a live on site broadcast from a local fast food restaraunt Lewis Collins exclaimed,

"God, even I could afford that!"

Can you tell which three letter word the "good" employers objected to? Yes that's right. The owner of the station couldn't even tell the reporter exactly WHAT word the dj had said.

That's the kind of thing local customs and restrictions can put on actions and language! The poor dj was new here, from CA, and didn't know that use of THAT word was offensive to some. It's not like they gave him a list of words that were ok, and which weren't. Amazing the think the name of the Lord has become a swear word in this state. HMMMMMM.....

I wouldn't want that to happen on the holy ground of the HBD. I do agree some personal censorship is valid. We should curb "ourselves", but is the



hbd to set out a mandade of what is suitable/not? Make a new faq. 8-`  
How about we say- anything that would be acceptable on daytime tv...  
nighttime...? .....cable....? Different people will be offended by dif.  
words/phrases/inuendoes (sp?). How far into our cheeks can we stick our  
tongues! (oops - that sounds nasty...) I mean we are a bunch of beer  
swilling, pretzel snarfing, quaffing bagaboos. I'm sure more than one of  
you has posted to the hbd after tying on a bit of a buzz...hic\*...  
and well...I've generally noticed people to be sillier when they type  
than they might be inclined to be when talking.

So....what's the point of all this blabber...as always...  
Lets save bw to a reasonable respect for brew talk, and lets keep it fun.  
..  
but reasonable. Each to their own definition/ w/in general agreement.  
So now that I've wasted all this bw blabbering about bw....BREW ON!

\*\*\*\*\*

Hey- anyone have an address/phone for a supplier carrying the new  
Wyeasts. The Tube yeasts- no nutrient, just cells. Require starters.

I haven't seen a post on them here yet, but they were listed on the bf.  
I'd be intersted in trying that Scottish Ale yeast.

\*\*\*\*\*

NEW QUOTE:

"You've fallen through the cracks of our quick fix,  
one hour photo, instant oatmeal society. Lisa S.

\*\*\* Uuuurp. Coffee Burp. Excuse me. \*\*\* J (Coyote) W SLK6P@cc.usu.edu \*  
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Date: Fri, 12 Nov 93 14:16:48 EST  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Beer labels (and soon other stuff) in the "Web"

If you've got Internet access, and are running on a Mac, PC, or Unix box, you should check out Mosaic, from NCSA. It gives access to on-line information via the "World Wide Web", which subsumes gopher, anonymous FTP, and lots of other stuff. I am putting together a beer-oriented Web site, and have started with a nice point-and-click interface to the beer label & coaster images at Sierra. Open URL <http://guraldi.itn.med.umich.edu/Beer>.

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Date: Fri, 12 Nov 93 14:22:59 EST  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Geary's Hampshire Special Ale

Has anyone figured this one out? Clearly very malty, high OG and FG (from dark crystal?), LOTS of bittering and finishing hops, doesn't smell dry-hopped. I don't recognize the aroma hop (but then, I'm still working on my hop recognition). Fantastic stuff, IMHO.

=S

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Date: Fri, 12 Nov 1993 12:09:41 -0800 (PST)

From: gummitch@teleport.com (Jeff Frane)

**Subject: No Pot Scrubber**

I have to post this to relieve Jack's mind. I know he worries about me, standing around my kettle with a copper pot scrubber on my siphon hose. No, no, no, Jack! I've told you before: I have an uptake copper tubing that run entirely around the inner perimeter of the kettle, and sits right on the bottom. Lots of teeny-tiny holes are drilled in the underside of this coil. The mountain of matter is \*inside\* the coil. The siphon draws up every last drip of wort (another reason I prefer pelletized hops, as this process is much easier than with loose hops).

It works very well. So don't worry, Jack! I'm fine. Really.

- --Jeff

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Date: Fri, 12 Nov 93 9:13:01 CST  
From: "Andrew D. Kailhofer" <a907932@nast0.bdy.wi.ameritech.com>  
Subject: Wort aeration, again...

I'm going to start by appologizing to the r.c.b'ers who've seen this already, but I didn't get much of a bite with this when I posted it over there (though thanks to the three of you who did respond). Anyway...

Based on some allegedly good advice, I got an aerator (Whisper 200 air pump into an good air filter into the wort via an SS tube into a plastic boilable fish-tank air stone). I started a brown ale (extract + Belgian B, OG ~= 1.048) by pumping about 8 minutes of air through it in my bucket (Mr. Carboy is busy with cider---wow! great!) and pitching with 1 pkg fresh Edme dry yeast rehydrated as usual.

In about 2.5 hours I could detect fermentation (although not very strong). That's a little quick, but not too weird. However, in less than 12 hours I awakened to find foam oozing from the airlock that I've been using on my bucket (hey, with 1.7 gal headspace, I figured I was going to be ok---it's worked for all of the other batches starting in the bucket). I rigged up a blow-off tube, and proceeded to observe the most abbrupt, violent fermentation I've ever seen. 30 hours after pitching it's pretty much stopped fermenting and ready to rack.

This leads me to believe that aeration is extremely good for the yeast, but is it good for the beer? From reading the "Beer & Yeast" zymurgy (Just got it. Read the article to the dulcet sounds of my gurgling blow-off jar.), especially the Guinard, Miranda, and Lewis article, I see that fermentation in the presense of good O2 concentration may lead to incresed biomass and decreased flavor/alcohol production. Does this mean that I just shot myself in the bucket? Could someone with a little more experience shed a little light on this?

< And then a few days later >

Well, after 48 hours my 1.048 OG beer is at 1.012, and I've racked it off to glass. It's pretty tasty, too. If I had to define the taste (mentally subtracting the yeasty flavors of unclarified beer in the primary), I would say that it was very straighforward and beery, with no traces of fuesils---an all-around good flavor. It's still flat and yeasty, but it seems quite good. We'll let it sit for a week in the secondary and bottle. So, in about two weeks I'll be able to report (at least preliminarily) on this power-aeration thing.

I'm going to go back to my original worry, though. My SG is now such that it seems "done" according to (my) conventional wisdom. When one uses a hydrometer to measure alcohol levels, one is actually measuring the SG and subtracting potential alcohol levels, right? To get the right measurement, aren't we assuming that the yeast does the standard 90%/10% alcohol production/reproductive respiration levels? Does this hold true for highly oxygenated wort? How far to the right does it shift? Does it matter (am I misunderstanding some of the literature?)? Since it seems to work, I'm more curious than worried, but... I really enjoy a little worry---It's part of Science!

< and finally >

It's now Thursday night, and the S.G. is still 1.012, and the yeast has settled out very nicely. While it seems a little soon, I expect

to bottle tonight (Friday) so that the beer will be ready during Wisconsin's gun deer season (my Bambi Blaster Brown :-). I'm pretty flabbergasted at how fast it went, and it tastes good, too.

So, other than asking me to be a little less long winded, and to refrain from making any comments that might offend anybody who was just too uptight for words, does anyone have any advice?

Andy

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Andy Kailhofer Ameritech Services, Inc. 414/678-7793  
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740 N Broadway, Room 430, Milwaukee, WI 53202 Member: League for  
uwm.edu!gus!a907932 p\*stmaster@ameritech.com Programming Freedom

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Date: Fri, 12 Nov 93 13:26:48 EST  
From: sdlsb.dnet!73410%sdlcc@swlvx2.msdlcc.com (Carl Howes)  
Subject: books

Al writes:

> I recently re-read Papazian's "The New Complete Joy of Homebrewing," Miller's "The Complete Handbook of Homebrewing" and Noonan's "Brewing Lager Beer." While reading, I was scribbling my disagreements with the books in the margins and dog-eared the corners of these suspect pages.

...and later...

>My advice is to buy all three, but read them in the order I listed above. After reading all three and brewing a dozen batches, you will probably scribble the same notes in the margins that I did.

My caveat is that trying to critique Miller is not going to be possible unless a substantial number of those batches are all-grain. Working from memory, where Papazian and Miller overlap they tend to contradict each other.

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Brian writes:

>Second, recent batches of mine have taken several hours to cool (1.5 gallons of hot wort added to 3.5 gallons of cold water) to pitching temperatures, which has made me nervous about possible infection.

I had the same problem when I used that process. Since learning about Hot Side Aeration (HSA), I now cool the concentrated wort to pitching temp before mixing. Takes 35-45 min by immersing the kettle in cold (45F) tap water in my kitchen sink with two water changes. The hot/cold mixing is a piece of bad advice in Papazian's book which I'm sure Al has marked...

> Are there any disadvantages to reducing the volume of boiled wort?

Decreased hop utilization, increased caramelization. The first can be compensated for with more hops, the second is inevitable until you can switch to a full volume boil. As I recall, Miller's book has a table for computing the effect of increased S.G. on utilization.

Carl

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Date: Sat, 13 Nov 1993 09:48:31 GMT+1100  
From: Davin Slade <10692851@eng2.eng.monash.edu.au>  
Subject: Making Mead

Can anyone tell me what a good extract to use for making mead. Is it better with a heavier or lighter beer.

Also how much honey should i use for 25 litres of mead.

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Davin Slade, 4th Year Civil Engineering, Monash Uni, Oz  
10692851@eng2.eng.monash.edu.au or  
baldrick@yoyo.cc.monash.edu.au  
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"It was georgiousness and georgosity in the flesh"  
Alexander de Large, A Clockwork Orange  
Anthony Burgess, 1966, Stanley Kubrik, 1971  
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Date: Fri, 12 Nov 1993 22:02:43 -0700 (MST)  
From: J. Michael Diehl <mdiehl@triton.unm.edu>  
Subject: Albuquerque.

About 2 weeks ago, I posted an article here asking how to make a Black and Tan. I got lots of good responses. But I got one in particular, from a guy who used to live here in Albuquerque. If you are that person, I have lost your address, would you please get in touch with me. Thanx in advance.

J. Michael Diehl ;^)		*The 2nd Amendment is there in case the
mdiehl@triton.unm.edu		Government forgets about the 1st! <RL>
Mike.Diehl@f29.n301.z1		*God is a good Physicist, and an even
.fidonet.org		better Mathematician. <Me>
al945@cwns9.ins.cwru.edu		*I'm just looking for the opportunity to
(505) 299-2282 (voice)		be Politicly Incorrect! <Me>
Can we impeach him yet?		*Protected by 18 USC 2511 and 18 USC 2703.
PGP Key = 7C06F1 = A6 27 E1 1D 5F B2 F2 F1 12 E7 53 2D 85 A2 10 5D		

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End of HOMEBREW Digest #1271, 11/13/93  
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Date: Fri, 12 Nov 93 08:50:28 EST  
From: Hal Laurent <laurent@tamrc.ENABLE.com>  
Subject: Unprofessional language

In HBD 1270 Al (korz@iepubj.att.com) writes:

> ...  
> My view on the issue of questionable language in the HBD is that I feel  
it  
> should be avoided. I'm not offended, rather, I feel that it is rather  
> "unprofessional" to have such language intermixed amongst world-class  
> brewing knowledge. It sort of cheapens the HBD. The combined knowledge  
> of us here on the digest (and that includes even the beginners, who can  
> contribute interesting questions and discoveries, as well as the  
seasoned,  
> advanced brewers), far surpasses the knowledge in even the most  
respected  
> single book. To me the HBD is like a living book... in print... each  
day.  
> How much respect might we have for Malting and Brewing Science if Hough  
> et. al. had stuck the occasional four-letter-word? My rule of thumb is,  
> "does this sound appropriate for a magazine article or a book?" Let's  
> continue to have fun, but let's also not write anything that cheapens  
the  
> HBD... these are not mutually exclusive goals.

A very interesting comment. While I've kind of been taking the side of  
the "chill out" camp in this debate, your post reminds me of one of  
the things I found annoying about Papazian's TNCJOHB: the junior high  
school level humor, especially in the recipe names. I'm not a prude  
nor am I easily offended...I just thought it was stupid, and detracted  
from the quality of the book.

Hal Laurent  
Baltimore Maryland USA

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Date: Sat, 13 Nov 1993 00:46:52 -0800  
From: mfetzer@UCSD.EDU (The Rider) (Michael Fetzner)  
Subject: keg pressure questions

Dear diary... it's been a long time since I've written. Eh... I mean, digest, of course.

Hi folks...

in the last couple of weeks/months, I've aquired a complete kegging system.  
I'm using 5 gal soda kegs of the ball lock persuasion...

One of the kegs I got wasn't quite empty, has some 7up in it. So I thought I'd try my hand at pressurizing/dispensing that before I actually tried beer.

Well, it's not working... I pressurized the keg at 30psi for 3 or 4 days in a 50 degree garage... then dropped down to a dispensing pressure of 12-14psi. When I hit the tap, I get 7up gushing from it. Foams like crazy, but the finished product in the glass is pretty much flat. I.e., all the CO2 comes out at dispensing time.

What's wrong?

Could it be my dispensing line is too short? I've heard I need a foot for every 3 lbs of pressure in the keg, and I do have about 4 feet. Does the length really make that much difference?

Mike

- - -  
Michael Fetznerpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

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Date: Sat, 13 Nov 1993 13:14:57 -0500 (EST)  
From: "Christopher J. Lacenere" <cl38+@andrew.cmu.edu>  
Subject: HARD CIDER?

Does any one out there know anything about making hard cider?

I tried just adding some wine yeast to the cider and letting it ferment for about a week but all I got was some spoiled apple cider. Pretty bad stuff.

Do you boil the cider as you do beer wort to eliminate any bacteria?  
What did I do wrong?

Any help on this matter would be greatly appreciated.

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Date: Sat, 13 Nov 93 08:56:00 -0600  
From: phil.brushaber@lunatic.com (Phil Brushaber)  
Subject: Decoction Question

I asked this question on other forums but got no response. I KNOW there is someone out there in HBD land who can help.

I want to do a decoction mash. I now accept that a controlled temp kettle mash will not substitute for staged boils.

The instructions I received would suggest that you take a portion of the mash (grains and all) move it to a separate kettle and boil it for the specified length of time and return it to the main mash. I was pleased to hear this as when mashing with a kettle which has no bottom spigot it is extremely difficult to press off enough liquid wort from the top to boil liquid only. If this is right... (is it?) then I have another question.

Wouldn't boiling with the grains cause a problem with increased astringency and the leaching of excess tannins into the beer?

Thanks in advance!

... .. If they put malt in beer and malt in milk. Why not beer in milk?  
\_\_\_ Blue Wave/QWK v2.11

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Date: Sat, 13 Nov 1993 13:23:28 -0500 (EST)

From: smag@echonyc.com (Stefan Smagula)

Subject: How can I test for fusel alcohols?

I brewed a couple of batches this summer during August when it was about 88 degrees F (avg) inside my apartment in Brooklyn. I know that high temperature fermentations can lead to fusel alcohols being produced, but what other factors are there? And how dangerous are these fusel alcohols?

One of the brews I made had an OG of about 1.080 and fermented very quickly and was highly attenuated. It is alcoholically strong. I drank some

of it and I didn't go blind or anything, but is it safe for me to give it away to relatives for Christmas? Is there a taste test or other test I could perform to check for fusel alcohols? Thanks a lot.

Smagsmag@echonyc.com

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Date: Sat, 13 Nov 93 13:10 CST  
From: arf@mcs.com (Jack Schmidling)  
Subject: MASHERS and RUST

>From: korz@iepubj.att.com

>Norm writes that he noticed an EasyMasher-like device in the Gadgets  
and  
Equipment Special Issue of Zymurgy.

I dug up that issue to see what you guys were talking about and it is a  
"Slotted T" device, very similar in concept to the easymasher. It is  
interesting to note though, that the author's main interest in it is to  
filter out hops in the boiler. When used as a mash tun, he still uses a  
false bottom over it. I wonder if he ever tried it without the false  
bottom.

It takes a bit of reckless spirit but that is how I found out that it  
was  
totally unnecessary with the easymasher.

Just for the record, Zymurgy had an EASYMASHER (tm) for review long  
before  
even that issue (Fall 92) went to press. I have been assured that it is  
coming soon.

>From: John Glaser <glaser@analog.ece.arizona.edu>  
> I just picked up a enameled steel canning pot (8 gal.), but  
it has a few chips in it, maybe about 1-2 square inches  
worth of exposed metal. Will this be a worse problem than  
that created by using 3 gal. boils in my smaller pot.

You will get a lot of opinions on the evils of exposed iron but I think  
most  
will agree that it is less of a problem than 3 gal boils.

> Is there anything I can do to cover the chips? (for example,  
using hi-temp enamel like they sell for repairing outdoor BBQ  
grills and such).

This is a problem I encounter on a regular basis as I buy them from the  
manufacturer and install EASYMASHERS in them for resale. Every shipment  
includes several damaged kettles which I clean up as well as possible  
and  
give them away for the price of the EM alone. I also used one for years  
with, not only exposed metal but rust, prior to splurging for stainless.

I do several things to these kettles before giving them away. I lightly  
sand  
the damaged area to remove any loose ceramic and then lightly coat the  
inside  
with Vaseline to prevent rust. This is wiped off before use and if the  
kettle is kept clean and dry between use, it will remain rust free. The  
Vaseline or any food grade oil can be reapplied between use if brewing  
is  
sporadic or the kettle is stored in a damp area.

The outside damaged areas, after sanding, are sprayed with "STEEL IT"  
and  
cured. This is "High temperature 1200F, anti-rust, stainless steel in  
a

can". I contains "100% stainless steel pigment" and lots of other stuff.

After drying to the touch, it needs to be cured at 400F for 15 minutes. You

can play a torch on the side opposite the paint or it seems, that simply using it provides all the cure it needs.

Although it is listed in the McMaster Carr catalog as FDA approved, it doesn't say for what nor does it say anything about this on the can. As I do

not wish to lose my happy home over something I give away, I only use it on

the outside but it may well be safe on the inside when properly cured and seasoned.

js

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Date: Sat, 13 Nov 93 18:10:35 -0400  
From: "Phillip R. Seitz" <p00644@psilink.com>  
Subject: Air Stat problems

I have a Hunter Air Stat and a small refrigerator. As far as I can tell both are in good working order. The problem is that when the temperature reaches the appropriate point the fridge will frequently make several abortive attempts to go on, or will run for a perhaps 10 seconds before cycling off. After 3 or 4 attempts the fridge comes on and stays on.

I can't tell whether this is related to the fridge or the air stat, but I've wondered if the air stat is cutting the current to the fridge due to small variations in temperature at the sensor. I moved the sensor and got a partial improvement (I think) but the problem persists.

Any recommendations?

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Date: Sat, 13 Nov 1993 18:51:09 -0600 (CST)  
From: "Andy Schultz @1490" <ASCHULTZ@MADMAX.MPR.ORG>  
Subject: making mead

>>David Slade asked about using extracts for mead, and how much honey to use.

I've got a couple of batches under my belt, and they've all turned out great.  
(If you've just been brewing beer, you're missing out - although I'm just an extract + grain weenie..:) ).

>From the way your post was worded, I assumed that you were talking about using malt extract vs. fruit, spruce, etc. extracts. I've never used any malt extracts for mead, nor have I ever seen any recipes for mead with malts - sounds interesting though. Anybody wanna start a thread on this?

I've used blackberry and raspberry extracts added at bottling time a couple of times. The results are ok, but I think I prefer honey-only mead. I've used Red Star champagne yeast for all of my batches, and I've been quite pleased with the results. It ferments out rather dry though, so if you're looking for a very sweet mead, you may want to try a different yeast, or use lots of honey. I've mostly used the recipes from TNCJOHB, with some minor variations, although I just picked up a booklet called 'Making Mead' by Bryan Acton/Peter Duncan, which has lots of good looking recipes, but I haven't tried any of them yet.

I generally use about 14 lbs of honey (the lightest you can find- I get mine at farmers markets or the local beekeeping supply store) for a 5 gallon US batch. Honey weighs about 12 lbs/gallon. I ferment about 3 weeks or so before racking into secondary - I haven't had any need for blowoff tube with the red star yeast - it just fires right up and ferments very steadily w/o any krausen - no big peak, just a long, solid plateau (sp?) of activity. Be sure to use yeast nutrient, or the yeast may poop out on you - I had to feed my first batch in mid-fermentation. Also throw in some acid blend to counteract the hotness of the alcohol - they get up to 15 percent or so.

Ready to bottle in six weeks or so - waiting to drink rounds out the flavor (how we suffer for our art:) ) Good luck - you'll get hooked on mead, I'm sure!

Oops, just remembered your post wanted metric quantities - sorry about the slip up.....

PS - Actually, not all my batches turned out great. I got silly once, and made a test batch using buckwheat honey, just for the (insert least offensive but still appropriate phrase ) of it.

I wouldn't if I were you :)

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|   |
|   | Andy SchultzInternet: ASCHULTZ@MPR.ORG   |
|   | Minnesota Public Radio   Phone: 612-290-1490   |
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|   | 'You can play sharp or flat in tune' : Ornette Coleman |
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Date: Sun, 14 Nov 1993 00:25:05 -0500 (EST)  
From: George Romanski <Romanski@world.std.com>  
Subject: Suggested Brewpubs in Munich

>Subject: Brewpubs in Munich  
>HBD #1270  
>Heading out to Munich tonight ..

I hope you will be logging in from Munich.

> and wondered if anyone had any favorite pubs they could  
>recommend.  
> ...Any suggestions would be appreciated.

Unfortunately you have just missed the Oktoberfest. Better timing next year.

Most tourists visit the Hoffbrauhouse. It is very close to the City square at Frauenkirchen.

The place I would recommend is Kloster Andechs. It is south of the city and you will need to drive. Ask at any tourist office for directions. This is a monastery and the monks still brew their own special beer which they drink themselves and sell to the public. It will be cold for the beer garden this time of year but there is plenty of room inside and I would recommend a visit to their very old highly decorated church at the top of the hill.

The story told by the monks is that back in the 17th century, the monks were brewing beer, and the abbot forbade them to drink during lent. The beer has a very rich flavour a cross between a stout and a Guinness. The monks decided to send a barrel to Rome to request special permission from the Pope. The journey took 3 months by horse and cart and needless to say the beer spoiled. The Pope tasted some of this beer and said "If you want to drink 'that' during lent then the church has no objection."  
The last time I visited the place was 1982. At that time the head brewer was 92 and still drank four litres of their beer each day including lent.

George

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Date: Sun, 14 Nov 93 02:46:00 BST  
From: r.mcglew3@genie.geis.com  
Subject: **Glatt Malt Mill**

Anyone have the phone # for Mr. Glatt??

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Date: 14 Nov 1993 08:27:58 -0700 (MST)  
From: "Steven W. Smith" <SMITH\_S@gc.maricopa.edu>  
Subject: Best extract for mead

Davin Slade <10692851@eng2.eng.monash.edu.au> asks:  
>Can anyone tell me what a good extract to use for making mead. Is it  
>better with a heavier or lighter beer.

IMHO, the best extract for making mead is... honey! Saves one endless  
hours  
going from flower to flower with a capillary tube, not to mention the  
aging  
required ;-). Lest I be branded unduly snide, I'm including a recipe  
that's  
been acclaimed by my friends who've tried it. It's not really "mead"  
since it  
includes fruit (melomel? I dunno) - tasty, sweet high alcohol content  
beverage  
anyway- 5 U.S. gallons:

15 pounds honey (5 3-pound bottles light amber)  
1 pound fresh-frozen unsweetened strawberries  
1 pound fresh-frozen unsweetened blackberries  
good sized chunk of ginger root, sliced (a few ounces)  
1 oz. Fuggles hops.  
1 package Montrouchet wine yeast.  
1 package Polish Mead yeast  
1 tsp yeast nutrient.  
water to make 5 gallons.

I boiled the honey and ginger root for about 45 minutes in 3 gallons  
water,  
skimming off the white foam, added hops and boiled 15 minutes more.  
Smashed  
the berries in the packages and poured in when heat was turned off -  
bring  
volume up to 5 gallons. Started the yeasts in some of the liquid (not  
wort,  
I forgot the word) and pitched when the bulk reached about 75 degrees.  
Sorry about the vagueness of the recipe and procedure, consistant results  
weren't the goal, just an alternative to what my girlfriend calls my  
"beer  
syrup" - damned sparse appreciation for doppelbock in Coors country...

>Also how much honey should i use for 25 litres of mead.  
A matter of taste, I guess. I've found that when using 12 pounds or  
less  
honey, the yeast will metabolize all of the sugars and make a dry  
beverage.  
BTW, it's a nightmare to rack into the secondary with all the fruit and  
hops  
floating around... Hope someone gives it a try though.

\_,\_/\_|  
/o.O; Steven W. Smith, Programmer/Analyst  
=(\_\_\_)= Glendale Community College, Glendale Az. USA  
USMITH\_S@GC.BITNET  
smith\_s@gc.maricopa.edu  
"Hark! 'tis the pathetic mewling of users."

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Date: Sun, 14 Nov 93 10:30:15 PST  
From: Mark Garetz <mgaretz@hopstech.com>  
Subject: Dry Hopping Risks/Alphas/Latin

Al Korzonas mentioned that bacterial contamination might be an issue for dry hopping. A rather extensive study was run by Jean-Xavier Guinard, Michael Lewis and host of grad students at Davis on this issue. It was reported in the Master Brewers Association of America Technical Quarterly Vol. 27 No. 3 in an article entitled "The Microbiology of Dry Hopping". I also referenced this study in my article on the topic in Zymurgy. I'll summarize a bit of it:

They took cultures from the hops and found they contained wild yeasts of three kinds and many different kinds of bacteria - some gram positive and negative, mostly "Enterobacteriaceae" whatever that means. They then dry hopped some beer and cultured the beer daily to see if any of the organisms survived. None did. The longest was still detectable after three days and then died. It did not grow during this period, just took three days to die.

I'll now quote from the article's conclusion: "These results suggest that the practice of dry-hopping is microbiologically safe, especially after three days of fermentation."

What we learn from this is that you should dry hop only after you have a vigorous fermentation going and the beer has a reasonable alcohol content and low pH. Adding raw hops to the primary at pitching time (as recommended by Byron Burch in his book, for example) is definitely risky!

\*\*\*\*\*

Norm Pyle stated that "alpha acids aren't bitter." Just a nit here, but alphas are indeed bitter. They just don't dissolve in beer very well (max 5 mg/ltr or ~5 IBUs).

He also asked "Is this the ASBC's standard method for estimating IBUs?" I'm not sure what Norm wanted here, but the ASBC methods don't "estimate" IBUs, they measure them (at least they *claim* to).

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Lastly, a question of my own: Can someone let me know what the Latin and/or Greek words and/or prefixes would be for "taste"?

Mark

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Date: Sun, 14 Nov 93 13:54:59 EST  
From: snystrom@aol.com  
Subject: Airstat modification instructions

Thanks to all the great brews who took the time to search their files for the modification instruction for the Hunter Airstat. As a new digest member, I was amazed at the number of replies to my request. I also xxreceived a large number of requests for the modification instructions, so here they are: (Thanks a million, guys!)

>From Mike Kenney in HBD#1157

I originally posted this last November and have been using it with the mod very happily ever since. I use the airstat to control a 13cf chest freezer. I put the airstat in a manual "HOLD" mode and simply set the temperature up or down as desired. The airstat is designed to control a compressor driven refrigeration device (a room air conditioner) so it is right at home with a refrigerator or freezer. It turns the attached unit on when it senses a temperature 2 degrees above the setting and off 1 degree below the setting. It has a built-in timer with a 4 minute delay to keep the attached unit from cycling too rapidly. At 45F my freezer runs less than 2 hours total in a 24 hour period and about 3 hours at 35F.

You cannot change the Air Stat range but you can offset the sensor calibration. In other words, performing the following modification will allow you to set the Airstat at 40F yet the fridge/freezer temp will be maintained at 35F.

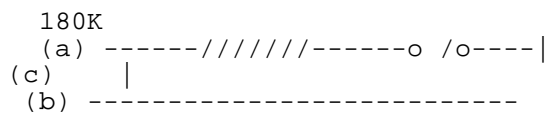
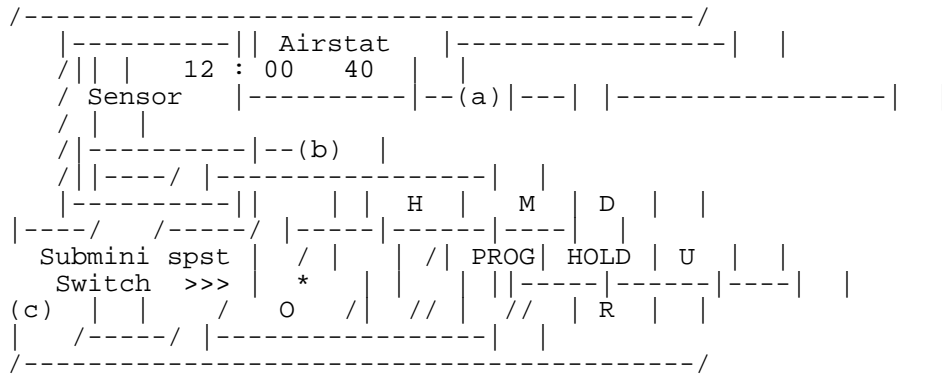
The sensor is a thermister that provides 10K ohms of resistance at 25 degrees C. According to the thermister data sheet, at 32 degrees F the resistance is 27.28K and 22.05K at 41 degrees F. The resistance decreases as the temperature rises so if you make the air stat think the sensor is 22k when its really 25k the air stat will say 41 but the sensor temp will be around 35 degrees F. This is done by simply putting more resistance in parallel with the sensor. Using ohms law,

$R_t = 22K$ ,  $R_{th} = 25K$  (Thermister), and  $R_p$  (parallel resistor) =

$$\frac{R_{th} (25K) * R_t (22K)}{R_{th} (25K) - R_t (22K)} = 183K \text{ Ohms}$$

With this resistor in place the the range of the air stat is effectively shifted about 5 degrees lower. Just keep in mind that the temperature reading on the air stat will not match the fridge temp.

The thermistors change in resistance is not linear. It will change about 20k ohms going from -13F to -4F and only 2k ohms going from 68F to 77F. Therefore the desired range of use should be considered before determining the magnitude of offset. Although, in the 12 degree swing between 33F and 45F this should not pose a problem.



I installed a 180K ohm resistor in series with a sub-mini spst toggle switch mounted on the front panel just left of the AC outlet and below the pocket that holds the sensor. It is fairly easy to do since the sensor leads are readily accessible. This switch lets me use the airstat normally above 40 degrees when off and down to 34-35 when on. The airstat seems to sample the sensor about every 5-10 seconds and will indicate the change in this timeframe.

\*\*\*\*\*  
>From Jack Schmidling in HBD#1215

I dug up the article by Mike Kenny on modifying the Hunter for lower temps and decided to give it a try. Upon opening the unit, I "discovered" a temp cal pot but found this had only about a two degree range and it was already in the middle of that.

Mike explains how to calculate (Ohms Law) the exact resistance for any temp, along with adding a switch to disable the mod. I took the Schmidling way and simply soldered a 150K resistor across the sensor lead terminals and got

lucky. When programmed for 40F, the temp in the pint of water is exactly 40F now. The air temp is about 35F but I just ignore that and the beer temp is just the way I like it.

It is a very simple mod and requires nothing more than removing two screws and soldering the resistor to very accessible terminals. Getting it back together takes a little "feel" because the battery terminals have to be fitted back into their connector but anyone with a little more finesse than a gorilla should be able to do it.

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Date: Sun, 14 Nov 1993 20:57:35 -0600 (UTC -06:00)  
From: ROWLEY@kuhub.cc.ukans.edu  
Subject: Louis Pasteur

Hola, all.

I just got a catalog from an antiquarian bookstore in Kansas City called Glenn Books. No I don't work for them: I work at one of the Borders bookshops, and stand to gain nothing for passing on this info. Anyway, item 238 in their latest catalog is listed as "Pastuer, Louis. Studies on Fermentation, the Diseases of Beer, Their Causes and Means of Preventing Them. (title). Macmillan, London, 1879. First English edition. 8vo. Original cloth, front flyleaf lacking, else a very good copy. Contemporary woodcut portrait of Pastuer added as frontispiece with catalog clipping & notes on re cto. \$300"

I was drooling until I hit the three bills part. That's a month's rent for me, a poor grad student. Their address is 323 East 55th Street, KC, MO (816)444-4447. I have founf that their are a bit overpriced (!), but not unreasonable about negotiating. Sorry for the typos: I'm recovering from a weekend of mead, oatmeal stout, Duvel, Traquair House, MacAndrew's, SA "Lambic" and a neb. of Corsendonk. Me fingers aren't yet working right.

It just occured to me that I might have been able to afford the book had I not blown my cash on the beerpool fund. Oh, well. Hope someone can use this.

Matthew Rowley  
Dept of Anthropology  
University of Kansas  
rowley@kuhub.cc.ukans.edu

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Date: Sun, 14 Nov 1993 20:50:29 -0800 (PST)  
From: Jeremy Ballard Bergsman <jeremybb@leland.Stanford.EDU>  
Subject: Re: ASBC and IBU's

Norm wrote that Byron Burch's methods were based on ASBC methods (according to Burch) and asked what those were. I don't have my copy of Malting and Brewing Science with me, but no homebrewer's method has anything to do with the ASBC method. The ASBC method is a MEASUREMENT of the amount of the amount of bittering compounds in beer. Methods like Burch's are ways of trying to produce beers with a certain amount of bitterness. The units used by Burch and Rager are the expected IBU of the beer, if such a measurement were made.

My recollection of the the ASBC method is some kind of organic extraction of degassed beer (with isooctane?) and single wavelength spectrophotometry of the resulting organic phase. Note that even this measure is only a surrogate for bitterness, as the ratio of bitteresses of the various bittering compounds is not the same as their ratios of absorbances.

What this means to me is that we, as homebrewers, needn't care how many IBU's we really would have if we measured our beers. All we need is a system that produces a number that is approximately linearly related to perceived bitterness and is reproducible from batch to batch. With such a system one can make beers to a desired PERCEIVED bitterness, which is all we really care about.

I guess we care about one more thing, namely being able to communicate with other homebrewers. In this case IBU's are nice since (I think) most people can at least convert to these "units". Personally I find the discontinuity of the Burch method distasteful; it seems very unrealistic. The Rager as modified by Garetz utilization curve seems the most intuitive to me.

Jeremy Bergsman

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Date: Sun, 14 Nov 93 19:53:38 PST  
From: Ken Miller <KCMILLER%SJSUVM1.BITNET@cmsa.Berkeley.EDU>  
Subject: Re: Propane, natural gas, and toxic fumes

In HBD #1269, Andrew Baird writes:

>I recently built a burner for brewing. I built it for (and tested it  
with)  
>natural gas. I've been reading literature on similar \*propane\* cookers  
and  
>they all say for outdoor use only. I assume this is because toxic  
levels of  
>hazardous combustion products are produced, and I'm guessing that carbon  
>monoxide is the main culprit. My questions are as follows:  
>  
>1. Is CO the ONLY gas/ byproduct I should be worrying about?  
>  
>2. Is this a problem with both propane and natural gas?  
>  
>3. When they say OUTDOORS ONLY, do I take that literally, or does an  
open  
>garage qualify.

I ran this one by my local homebrew supply retailer. Propane  
cookers of the "Cajun Cooker" type are prodigious consumers  
of oxygen. No problem outdoors, but a big problem inside  
a room without adequate ventilation. Quote: "In a sealed  
room, the lack of oxygen would kill you before the carbon  
monoxide did."

Note that the above applies specifically to propane  
burners of the >150,000 BTU variety. I assume that the  
number of BTUs, rather than fuel type, is the major  
factor in oxygen consumption.

Of course, you probably wouldn't be running this in a sealed  
room. I seem to recall, quite recently, a posting from  
someone who brews in his basement (presumably with the  
doors wide open). And one brewer I know permanently installed  
a natural gas burner in his garage. But I would respectfully  
suggest, and prudence would dictate, that you not try  
operating any reasonably powerful burner inside an enclosed  
room without first ensuring beyond any doubt both an adequate  
oxygen supply (for both you and the burner) and adequate  
ventilation for the exhaust gases. (Remember, CO2 isn't harmful  
in and of itself...unless it's all you have to breathe.)

Ken Miller  
kcmiller@sjsuvm1.sjsu.edu

DISCLAIMER: All opinions expressed above are mine alone. No one  
at SJSU even listens to my opinions, much less endorses them.

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Date: Sun, 14 Nov 1993 21:22:18 -0800 (PST)  
From: Jeremy Ballard Bergsman <jeremybb@leland.Stanford.EDU>  
Subject: Re: good for yeast/good for beer

Andy Kailhofer wrote asking about his experience with aerating beer. Here in the Bay Area we have three brewpubs called Gordon Biersch (sp?). (Those in Pasadena, keep your eyes open.) They make very good (IMHO), traditional German Lagers. I know they use regular Briess and GW malts and I always wonder how they get their wonderful maltiness. (It's not decoction mashing because only some of their beers are decoction mashed and the others are at least as malty.) Unrelated to this question I was talking to the brewmaster of the San Francisco outlet about pitching rates. He told me that he likes to underpitch and aerate very well!

Then I had a flash of insight: what if you can get the yeast to undergo a bit of extra growth? You can use more malt for the same amount of alcohol. This might give you a bit more maltiness. I asked him if this was the reason, and he almost looked as if I had caught him in bed with my wife or something. Then he answered that this was just the way he liked to do it; the rhythm of the brewery or something. In retrospect it doesn't seem like this would make much of a difference. What does the digest think? What about an experiment?

Jeremy Bergsman

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End of HOMEBREW Digest #1272, 11/15/93  
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Date: Mon, 15 Nov 93 08:13:37 EST  
From: cecil@udc.com (Cecil Clontz)  
Subject: Volcano Beer

Hello Fellow Homebrewers,

I need some help diagnosing a batch that went from bad to worse.  
I made a Czech Pilsner using a can of BREWMART Czech Pilsner extract.  
I also used 3 lbs extra light DME. The can came with a dried yeast and  
a pilsner enzyme. At 68 degrees I pitched both the yeast and the enzyme.  
It took the normal 1-2 days to start foaming but stayed extremely active  
for 2 weeks. A local brew shop said bottle it anyway and that it would be  
considered a dry beer. I drank 2 sips and decided to dispose of the  
entire  
batch. I could pop the cap and sit the bottle upright in the sink and  
watch  
it empty its self from the bottom up. Help !! What did I do wrong ?

Thanks in advance !  
Cecil Clontz

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Date: Mon, 15 Nov 93 09:35:39 -0600  
From: Brian R Seay </G=Brian/I=R/S=Seay/O=MAC/PRMD=ALCATEL/ADMD=TELEMAIL/C=US/@alcatel.aud.alcatel.com>  
Subject: barleywine

barleywine

I am interested in brewing a barley wine from an O.G. of 1.100 or higher, but don't want F.G. above 1.030. Does anyone out there in HBD-land have personal experience using champagne yeasts for barleywine? If so, do you use only champagne, or use ale yeast and pitch the champagne when the ale yeast poops out? Do you wait until the ale yeast completely poops out? Do you rack the wort before pitching the second yeast? Do you need a starter for dry champagne yeast that is to be put in a wort that is already 8 percent alcohol or higher? Does using champagne yeast by itself produce a barleywine with less "beer" flavor? Considering the cost of a batch of barleywine, I don't want to experience too much "trial and error".

Thanks in advance to those who reply,

Brian Seay  
Plano, TX

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Date: Mon, 15 Nov 93 09:19 CDT  
From: Eric Saidel <SAIDEL@macc.wisc.edu>  
Subject: hard cider/mead

Here's the recipe I use for hard cider -

put your cider in your fermenter, add sugar (normal granulated sugar is fine) up to about 11-12% potential alcohol. Add yeast and yeast nutrients commensurate with how much cider you've got. Seal and wait. I've got about 30 gallons going right now - needed about 40 pounds of sugar, and it'll ferment for about 3 months before bottling. I bottle with more sugar so it gets a nice sparkle.

I also do about a case a year in which I bottle with honey - about a third of a cup for a champagne bottle. That gives it a nice apple mead flavor. The best honey, I find, is wildflower honey.

- eric

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Date: Mon, 15 Nov 93 9:56:03 EST  
From: William Swetnam <wswetnam@capcon.net>  
Subject: Wort chiller construction help

Having read in for the last few weeks I have seen numerous messages about wort chillers and their construction. I think I have a good idea as to the design of my coil, but I still have a few questions about materials and other things. I am going to make an immersion chiller and am planning to set it up as follows: Hose from kitchen sink to copper coil in either a bucket of ice water or a cooler with ice water, hose from that to my immersion unit, then hose back to sink for drainage. My questions are as follows:

1. What are the recommendations on size of the copper tubing, 1/4 3/8 or 1/2 inch. A quick stop by my local hardware store raised the question of fittings, I'm wondering more about what may be the most efficient for heat transfer.
2. Some commercial wort chillers that I have seen do not put the water through an ice bath first. Is there a problem in chilling the wort too fast?
3. I'm planning on using 25' of tubing in my immersion section, is this too much, too little?

Private E-Mail would be appreciated unless you think it would be good for the masses. I feel I've taken up enough space on a simple query....

Thanks in advance....

Will

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Date: Mon, 15 Nov 93 10:07:51 EST  
From: Lee=A.=Menegoni@necotech.com  
Subject: Hunter airstat modification

Here is the uncensored text from HBD on the Hunter Airstat modification.  
Some may find the following words offensive:  
Chest, down, desire, unit, mount, do.  
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Date: 4 Jun 93 19:25:58 GMT  
From: mkenny@bcmlg01.attmail.com  
Subject: RE: Hunter Airstat Modification

In HBD1156 Bruce Ray asks how to modify a Hunter Airstat to maintain temperatures below 40F.

I originally posted this last November and have been using it with the mod very happily ever since. I use the airstat to control a 13cf chest freezer. I put the airstat in a manual "HOLD" mode and simply set the temperature up or down as desired. The airstat is designed to control a compressor driven refrigeration device (a room air conditioner) so it is right at home with a refrigerator or freezer. It turns the attached unit on when it senses a temperature 2 degrees above the setting and off 1 degree below the setting. It has a built-in timer with a 4 minute delay to keep the attached unit from cycling too rapidly. At 45F my freezer runs less than 2 hours total in a 24 hour period and about 3 hours at 35F.

You cannot change the Air Stat range but you can offset the sensor calibration. In other words, performing the following modification will allow you to set the Airstat at 40F yet the fridge/freezer temp will be maintained at 35F.

The sensor is a thermister that provides 10K ohms of resistance at 25 degrees C. According to the thermister data sheet, at 32 degrees F the resistance is 27.28K and 22.05K at 41 degrees F. The resistance decreases as the temperature rises so if you make the air stat think the sensor is 22k when its really 25k the air stat will say 41 but the sensor temp will be around 35 degrees F. This is done by simply putting more resistance in parallel with the sensor. Using ohms law,

$$R_t = 22K, R_{th} = 25K \text{ (Thermister)}, \text{ and } R_p \text{ (parallel resistor)} =$$
$$\frac{R_{th} (25K) * R_t (22K)}{R_{th} (25K) - R_t (22K)} = 183K \text{ Ohms}$$

With this resistor in place the the range of the air stat is effectively shifted about 5 degrees lower. Just keep in mind that the temperature reading on the air stat will not match the fridge temp.

The thermisters change in resistance is not linear. It will change about 20k ohms going from -13F to -4F and only 2k ohms going from 68F to 77F. Therefore the desired range of use should be considered before determining the magnitude of offset. Although, in the 12 degree swing between 33F and 45F this should not pose a problem.

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-----/
|-----|| Airstat |-----| |
/|| | 12 : 00 40 | |
/ Sensor |-----|---(a)|---| |
/ | |
/|-----|---(b) |
/|-----/ |-----| |
|-----|| | | H | M | D | |
|-----/ /-----/ |-----|-----|-----|
Submini spst | / | | /| PROG| HOLD | U | |
Switch >>> | * | | | |-----|-----|-----|
```



(c) | | / 0 /| // | // | R | |  
| /-----/ |-----| | |  
/-----/

180K  
(a) -----////////-----o /o----|  
(c) |  
(b) -----

I installed a 180K ohm resistor in series with a sub-mini spst toggle switch mounted on the front panel just left of the AC outlet and below the pocket that holds the sensor. It is fairly easy to do since the sensor leads are readily accessible. This switch lets me use the airstat normally above 40 degrees when off and down to 34-35 when on. The airstat seems to sample the sensor about every 5-10 seconds and will indicate the change in this timeframe.

Cheers,  
Mike Kenny

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Date: Mon, 15 Nov 1993 08:13:49 -0800 (PST)  
From: J Paschel <bigstar@augustus.csscr.washington.edu>  
Subject: Question re: raspberry wheat beer...

Last week I started an extract batch based on the following recipe:

6 lb can Ireks wheat  
1.5 lbs light malt extract  
1 lb honey  
1 oz Tett (boil)  
1/2 oz Cascade (boil)

same as above (finish)

I then cooled the wort, dumped it onto roughly three pounds of frozen raspberries, and pitched with wyeast weizen (liquid).

Vigorous fermentation started in 18 hours and subsided in three days.

Now my questions:

1) Upon racking to the secondary, I found a noticeable sourness and a slight tinge of sulfur odor. Now I realize that Weizens are supposed to be a bit sour, so I'm not all that worried. Question is, how does one distinguish the difference between sourness due to style and sourness due to infection? Also, will sourness mellow in the bottle??

2) Papazian says a sulfur odor is "normal" depending on yeast types and conditions and claims it can be rectified by changing temperatures. The primary was at ~ 65 F and when I racked to 2nd, I put it in a room at about ~ 60. Will this help?? Any suggestions??

3) Lastly, the raspberries haven't (yet) imparted as much fruity sweetness as I have experienced in some other raspberry Weizens... Is it possible to use something akin to a raspberry syrup instead?

---=[[ bigstar@u.washington.edu ]]=---

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Date: Mon, 15 Nov 1993 11:51:26 EST  
From: Bob Ambrose <ambroser@APOLLO.DML.GEORGETOWN.EDU>  
Subject: The beer machine

In re: Geoffrey Burd and "The beer machine"

> I tried the same procedure in my carboy using the dark ale extract.  
> It was dreadful: the extract was thin and watery and smelled like prune  
juice.

> Guess what! The resulting beer was thin and watery and tasted like  
prune  
> juice. It's the only batch I've made that even I wouldn't drink!

> I still, though, would give the keg a try if I could get it at a good  
price.

What? And make more "prune beer"? Why would you want to do that if you  
won't  
even attempt to drink it? :) What difference would the keg make as  
compared  
to your carboy? :)

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Date: Mon, 15 Nov 93 11:15:34 EST  
From: beb@pt.com (Bruce Buck)  
Subject: Bishop's Tipple by Dave Line

In "Brewing Beers Like Those You Buy", Dave Line gives a recipe for "Bishop's Tipple", a real ale. The recipe asks for "1 lb Golden Syrup". Is Golden Syrup one of those things like Treacle which is unknown in the USA?

Or is it what Americans call Corn Syrup?

Line also advocates sacchrine tablets to give residual sweetness. I understand

Lactose is a "better" way to provide residual sweetness. Is there a rule of

thumb for the amount of lactose to add? I see amounts like 10-12 oz given in

Cat's Meow. Is it added to the boil? Is there something like "One sacchrine

tablet = x oz lactose"?

Thanks,  
Bruce

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Date: Mon, 15 Nov 1993 09:21:15 -0800 (PST)  
From: gummitch@teleport.com (Jeff Frane)  
Subject: Long Ago Lager

I don't usually post recipes, but I thought this particular beer was interesting enough, and good enough to pass along. I became intrigued with using flaked maize after Phil Seitz reported the Rochefort monks using it in their strong ale, several months back. I've been using it as they do, and getting remarkable results. While researching its use, I found George Fix's excellent article in the 1985 All-Grain Special Issue of Zymurgy (an article in high contrast to the articles on adjunct use in the most recent Special Issue, btw). In there, George outlined a pre-Prohibition lager, with a fairly high O.G., and a decidedly high hopping rate to counteract the slight residual sweetness imparted by the maize. I thought I'd take my own shot at this style of beer, and am extremely pleased with the result.

Because of the use of maize, and the lack of any specialty malts, the beer is remarkable pale. It's also quite bright, and refreshing. Although the OG puts it in the bock range, the high hopping rate and the lower malt profile creates something altogether different. I also made some changes from George's recipe and took some liberties with history, but in essence, it should be close to what grandpa (or maybe Greatgrandpa) could have sipped on his way home from work.

To be completely authentic, I should have used Clusters in the boil, but couldn't bring myself to do it. And I should have used 6-row American malt -- but I haven't any use for 6-row, and Belgian 2-row is what I had in the basement, so... The next time, I will use Great Western's 2-row, if only for a slightly closer touch of authenticity. The finishing hops are a believable mix of imported hops (as called for in old recipes for the better lagers), in this case using Mt Hood as a reasonable substitute for Hallertau.

I followed George's prescription for using the maize, and added it after the protein rest. The yeast was Wyeast's #2007, a thoroughly American lager yeast. Thoroughly American, too, was the lagering period, a mere 2 weeks--mostly because of impatience. I think another week or so would have helped, but the difference may be insignificant.

For five gallons:

Belgian pilsner malt 8#  
Flaked maize 2#

Water (very soft) 3.5 gallons/ treated with 4gms gypsum

Mash in 115F, raise to 127-130. Hold for 30 min.  
Add flaked maize, raise to 154F for approx. 60 min. Test with iodine.

Boil 90 min.

Hop additions:

Northern Brewer 2 oz. @ 15 min  
Mt Hood .5 oz @ 75 min  
Saaz .5 oz @ 75 min

Irish Moss (1/2 Tb. - rehydrated) at 60 min

OG - 1.072

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Date: Mon, 15 Nov 93 11:51:13 EST  
From: Dave Lame <dlame99@prog.c4.gmeds.com>  
Subject: Malt Extract for Mead

When grain is used with honey to produce a non-sparkling drink, the resulting beverage is known as braggot. There are references to it in northern Europe as old as the first century A.D., and there is a reference to it in Chaucer's "The Miller's Tale." I've made four batches of the stuff, with some considerable success. While not everyone really likes it, some people who drink it have said it is the best stuff I make.

My basic recipe calls for one pound of honey and one pound of malt extract per gallon of braggot, but I have seen variations on the theme with more and with less of either ingredient. So, for twenty five liters, I would say about 6 1/2 pounds of each ingredient.

If you have a recipe for barley wine available, you could just substitute honey for sugar, and that would almost certainly work perfectly well.

I prefer amber ale extract, unhopped, for use in braggot, but that is personal preference. I'm experimenting with different styles. I've seen historical references to both hopped and unhopped beverages, and varying quantities of fermentables.

The one complaint about braggot that I hear frequently, and with which I concur, is that it tastes "thin". It doesn't have the character of a good beer or ale, but it doesn't have the clean taste of a pure mead. In an attempt to correct this, on the advice of an acquaintance who also makes braggot, I used buckwheat honey instead of clover honey once. The resulting product was certainly not "thin". In fact, the first person who tasted it suggested it would taste good on pancakes.

Returning to my friend who had recommended buckwheat honey, he explained that you weren't supposed to use all buckwheat honey. In a five gallon batch, he recommended five pounds malt extract, four pounds of clover honey, and one pound of buckwheat honey. For my next batch, I'll try that.

Does anyone else have any recommendations?

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Date: Mon, 15 Nov 93 12:42:37 EST  
From: jimg@dcz.gso.uri.edu (James Gallagher)  
Subject: Mini kegs as a replacement for bottles

I have seen a few comments about mini kegs (e.g., Brew Ha Ha (?)) and from the comments made so far they seem to be workable. I was wondering, however, if they will work well when used to store beer for several months. Has anyone had any experience with this?

James Gallagher  
jimg@dcz.gso.uri.edu

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Date: Mon, 15 Nov 93 12:26:28 -0600  
From: gjfix@utamat.uta.edu (George J Fix)  
**Subject: Noche Bueno**

Good news! Joe Barfield of Southwest Brewing News has just informed me that Noche Bueno is back. It is being brewed in Monterrey by the Cuauhtemoc group, and will be distributed in selected test markets by Guinness Imports. Laurie is currently forming a flavor panel, and we will write an article for SWBN summarizing the results along with related information. I will also post it on HBD.

George Fix

P.S. The many people on this network who live in the Chicago area will be happy to know that your fine city is one of the test markets.

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Date: Mon, 15 Nov 1993 18:22:51 +0000 (GMT)  
From: D S Draper <D.S.Draper@bristol.ac.uk>  
Subject: Yeast culturing--an update

Hiya friends,

A while back, I posted an anguished thread on my troubles culturing yeast from bottle-conditioned beers for use in my homebrews. This is a summary of the experiments I tried in an effort to improve the situation. I gratefully acknowledge the very helpful input of the following respondents (alphabetically listed <g>: Conn Copas, David Gallardo, Brendan Halpin, Drew Lynch, David Maxwell, Jack Schmidling, and Rob Thomas. Thanks a million, guys!!!

Brief recap of the earlier problems: pitched three batches of beer with cultures from bottles beers; the first was not properly sanitized, so got an infection. The second was properly sanitized, but resulted in a wild yeast infection that can only have come from the yeast that was inside the bottle. The third batch had a sour taste that was a mild wild-yeast infection. In each case, less than a pint of starter was pitched, just at high krauesen (I don't know how it's supposed to be spelled <grin>). The bottom line here is that 1) one cannot be sure what one is getting in any bottle-conditioned beer yeast, and 2) less than a pint starter volume of such yeast is woefully insufficient.

In my experiments, I pitched 1 gallon splits with these <1-pint starters, and in two cases got great results: in a bitter and in a raspberry pale ale. A third 1-gal split had an infection: again it must have been in the bottle because I was dead careful about everything. Finally, I pitched a full batch with a yeast that I'd stepped up from a <1-pint starter to a half-gallon. This was a keg bitter that was really good, much better than any I'd made with Edme dried yeast (the only thing readily available to me here in the UK). The yeasts that I got good results from were Eldridge Pope's Thomas Hardy Country Bitter, and King & Barnes's Festive Ale. Bad results came from Hanseatic IPA and Worthington White Label, and an earlier use of K&B. However, I do not think that these beers will give consistently good or bad results; I think it is mostly hit and miss.

My final experiment used a pure culture from Brewlab at the University of Sunderland, and I have just transferred it to the secondary. Tasting it as I did so, I can state with total assurance that is by far the best beer I've ever made (about 60 batches to date), with a "real beer" flavor that I've never achieved before, except my two successful experiments above. UK brewers: try this stuff. Usual disclaimers, void where prohibited, no parking, the white zone is for passenger loading and unloading only.

An additional note: The wild yeast taste I got in my first two batches, which I described as sort of medicine, is EXACTLY the main flavor I have gotten from several very reputable beers: Chimay blue, Leffe Blond (both Belgium), Pschorr-Brau Weisse, and Maisel's Hefe-Weizen (in Bayreuth, Franconia). This taste was identified as definitely being wild by my homebrew suppliers (who run a brewpub, so they know what they're talking about I reckon), and it is a dead ringer for that in these beers. Go figure...

Conclusions: If using bottle-conditioned yeast, step the starter up to

about a half gallon, and TASTE IT before committing it to your brew--  
keep  
a dried packet or whatever on hand in case of failure. In future, I will  
take the plunge into yeast culturing, isolating good colonies from these  
bottled beers, and growing them into starter colonies that I then make  
actual starter solutions from. Getting viable yeast from  
bottle-conditioned beers can be done, but one must be careful.

Cheers, Dave in Bristol (until the New Year)

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Date: Mon, 15 Nov 93 13:03:46 EST  
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 15-Nov-1993 1248  
<macneal@pate.enet.dec.com>  
**Subject: Answers to brewpot questions**

>Date: Wed, 10 Nov 93 15:10:42 -0700  
>From: John Glaser <glaser@analog.ece.arizona.edu>  
>Subject: Brewpot questions / I are a college student!

>1) I just picked up a enameled steel canning pot (8 gal.), but  
> it has a few chips in it, maybe about 1-2 square inches  
> worth of exposed metal. Will this be a worse problem than  
> that created by using 3 gal. boils in my smaller pot. Is  
> there anything I can do to cover the chips? (for example,  
> using hi-temp enamel like they sell for repairing outdoor BBQ  
> grills and such).

The biggest argument against using the enamel on steel pots for brewing  
in is  
that they chip and the chipped areas will leach iron into the brew. I  
don't  
think there is anything you can do to cover the chips. The hi-temp  
enamel for  
BBQ grills will not work. All it is is a high temperature paint and I  
don't  
think anyone would recommend painting the inside of a cooking vessel.

;2) Has anyone ever considered electroplating the inside of a  
; steel or aluminum pot with copper, to allow its use as a  
; boiling pot. Is it too expensive, too difficult, etc., or  
; could it work? What about anodized aluminum? Anyone know  
; anything about this?

If the pot is stainless steel, there would be no need to copper plate it.  
As  
for is it too expensive, too difficult, etc. the answer is all of the  
above.  
Anodized aluminum is stable over a pH range of 4.0 to 9.0. Heat and  
agitation  
may have an adverse effect.

Bottom line is to either invest in a stainless steel pot, or get another  
enamel on steel pot and take care not to chip it. This is a perfect  
excuse to  
upgrade the size of your brewpot to take advantage of doing full boils.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Mon, 15 Nov 93 13:52:07 EST  
From: theriaul@sde.mdso.vf.ge.com (Theriault Kenneth M.)  
Subject: HSA / Airstat

Carl Writes:

>I had the same problem when I used that process. Since learning about  
>Hot Side Aeration (HSA), I now cool the concentrated wort to pitching  
temp  
>before mixing. Takes 35-45 min by immersing the kettle in cold (45F)  
tap  
>water in my kitchen sink with two water changes. The hot/cold mixing is  
>a piece of bad advice in Papazian's book which I'm sure Al has marked..  
.

I have not heard about the "problems" with HSA and have been using the  
advice from Papazian's book. Could someone explain why I should use  
the "Papazian" method or direct me to a source for the information.

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After all of this interest in the Hunter Airstat, I am kind of interested  
in taking a look at one. Could someone tell me where I can find one?

Thanks in Advance

Ken

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\*\*\*\*\*  
Kenneth M. Theriault  
theriaul@sde.mdso.vf.ge.com  
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Date: Mon, 15 Nov 93 11:32:28 EST  
From: cecil@udc.com (Cecil Clontz)  
Subject: Hops in Ice Tea

Greetings ,

Most of the beers I brew are Pilsners and I use a lot of Saaz hops.  
I love the smell of saaz and enjoy the flavor it gives my beer.  
So it was only natural that I wonder how good iced tea would be if  
brewed with a small amount of saaz hops. I tried it this past weekend  
and was quite pleased with the results. Has anyone else tried this ?

Cecil Clontz  
Atlanta Georgia  
cecil@udc.com

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Date: Mon, 15 Nov 93 13:34:03 EST  
From: Aaron Morris <SYSAM@ALBANY.ALBANY.EDU>  
Subject: Making Mead

It was mead making that got me into homebrewing in the first place. Being a beekeeper, I had a surplus supply of honey. The article I started with came from Zymurgy and was given to me by my bee landlord (the man who owns the land on which my hives are located) in hopes that I would brew it and give him a few bottles as rent. The article was written by Brother

Adam (the guru of mead making) and was informative but limited in scope. To augment the article, I picked up a book called 'Making Mead' by Roger Morse (from Cornell). I highly recommend this book as a reference.

Concerning suggestions as to what extracts to use, mead contains no malts of any kind. Mead is simply a wine that uses honey instead of fruit. I have been quite successful brewing straight mead (honey and water with a champaign yeast), spiced mead (called methylgen sp(?)), and I've brewed raspberry meads (using fresh raspberries - no extracts please) that have been superb! This summer I brewed a carboy of peach mead, although I have yet to rack it for a second time and don't expect to taste it until next spring. Brewing mead is a much slower process than beer. Brother Adam suggests aging for five years, although my oldest bottle is three years, and there are only five left out of 24.

There are a number of beer recipes that use honey in the wort. Two of note from 'The Complete Joy of Homebrewing' are Rocky Raccoon's Crystal Honey Lager and Holiday Cheer. Both are excellent! I entered the former in a local competition and took third in show. The latter is a holiday brew, includes a lot of spices (cinamon, ginger, cloves(?)), orange peels and honey. The recipe sounded strange, but the results were well worth the gamble. If it sounds good, brew it now and it will be ready for the holidays. Rumors have it that Holiday Cheer is Santa's favorite (next to mead, of course)!

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Date: Mon, 15 Nov 93 11:05:35 PST  
From: pickerel@micom.com (Don Pickerel @ Micom.com)  
Subject: mail order

I know this is an faq, but I can't find a good answer  
in the FAQ.

I need a couple of sources for mail-order supplies. The  
faq says try cats\_meow ed1 ( which isn't on the stanford site)  
or send for help from the wang server ( which doesn't respond  
to my e-mail ).

Can a couple of kind individuals send me some recommendations  
via e-mail? Our news reader is running about 4 days late.

I also thought I'd once read something about an online company.  
Thanks for any help. My car is dead and I'm getting very dry.

pickerel@micom.com

- - -  
-Don-

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Date: Mon, 15 Nov 1993 13:33:44 -0600  
From: ccamley@mmm.com (Chris Amley - 3M Telecommunications)  
Subject: Taste by any other name

In HBD 1271 Mark Garetz asks:

> Can someone let me know what the Latin and/or Greek words and/or  
prefixes  
> would be for "taste"?

I think you are looking for the Latin root "gustus," which enables the mellifluous phrase:

De gustibus non est disputandum.

Which is roughly "there is no arguing (or accounting) for taste." Very useful as a way of expressing mild disdain. Sadly, when applied to beer, "gustus" reminds me of one of the megabrewers' (Schlitz?) old ad campaigns.

Chris

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Date: Mon, 15 Nov 93 13:57:57 CST  
From: richard\_h@SMTPGATE.BCSEW.EDU  
Subject: Yeast starters and aeration

Greetings,

When I brew I usually make up a yeast starter (about a liter), and wait until the starter is foaming away before making up the wort and then pitching. This has generally worked quite well and I have had no reason to complain - noticeable fermentation has always started within 24 hours of pitching the starter.

The other day, as I was brewing up a batch of beer, the following observations did a mental pile up in my neural net:

- Yeast reproduction begins as an aerobic process ("Gimme O2!"), for about the first 12 hours. This is why we are told to aerate the wort before pitching - the yeast will have a nice oxygen rich environment to begin reproduction in.
- The yeast starter has probably finished the aerobic cycle and is now in an anaerobic state ("We don't need no stinkin' O2!") at the time it is pitched into the wort.

So, why doesn't the yeast in the starter (anaerobic phase) object to finding its environment changed by being dumped into the oxygen rich wort?

Inquiring minds ...

Richard Hargan  
richard\_h@smtpgate.bcsew.edu

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Date: Mon, 15 Nov 1993 14:42:04 -0500 (EST)  
From: gt6179d@prism.gatech.edu  
Subject: trub separation

i recently got miller's book and was wondering if anyone out there has firsthand knowledge of how separating the trub from the wort before fermentation improves the beer. how dramatic is the effect? does anyone pitch the yeast BEFORE this step or is it a good idea to wait until the trub is separated before pitching? if you pitch the yeast first and wait long enough for the trub to settle (1 hour..?) before separating from the beer, is aeration of the beer at this point still okay, since the yeast is in the respiration stage? as i recall miller's book (ch.3), he pitched the yeast before separating the trub. is this unusual or am i confused as to the order of these steps?

also, i've noticed strange behavior sometimes when racking beer regarding my airlock. just after i fill the carboy with beer and put the airlock on, the water starts to get sucked into the fermenter, slowly. i only have one theory on this, to wit:

i generally rinse the carboy out with hot water from the bathtub just before filling it with beer. i'm sure the air in the carboy is fairly warm compared to ambient conditions outside. as the beer fills the carboy, is it unreasonable to assume that the final airspace above the beer is still warmer than outside and when it cools the pressure drop is what causes the water in the airlock to get sucked in? does this ever happen to anyone else? can this same thing happen if the room temperature changes? i'm an apartment brewer and i sometimes have temperature fluctuations beyond my control. i'm also not home during the day so i worry about putting bleach in my airlock for this reason. i sanitize it but i just put distilled water in for fear of the dreaded fermenter suck. any advice concerning these matters would be appreciated.

just curious

mark bayer  
gt6179d@prism.gatech.edu

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Date: Mon, 15 Nov 1993 14:58:20 -0500 (EST)  
From: Kieran O'Connor <koconnor@mailbox.syr.edu>  
Subject: Fridges

The problem with using a fridge and an external thermostat is that you have two thermostats going at the same time--the fridge's and the Hunter (or whatever). The fridge thermostat usually will only allow the fridge to cool to 38 or 40 or so (F), and the Hunter device will try to continue to cool, but can't. To solve this--remove the internal thermostat--wire the two wires together and let the Hunter do the job. Just don't try to run the fridge with out the Hunter--you'll ruin the compressor

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu  
Syracuse, N.Y. USA

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Date: Mon, 15 Nov 93 14:20 CST  
From: arf@mcs.com (Jack Schmidling)  
Subject: Pot shots, er..scrubbers

>From: gummitch@teleport.com (Jeff Frane)

> I've told you before:...

I have a short attention span and at my age, if you didn't say it in the last five minutes, you didn't say it.

> I have an uptake copper tubing that run entirely around the inner perimeter of the kettle, and sits right on the bottom. Lots of teeny-tiny holes are drilled in the underside of this coil. The mountain of matter is \*inside\* the coil.

Sounds pretty slick. However, I got flamed because I based my opinion of immersion chillers on one mounted in the lid. Seems it was too sophisticated and I was taking advantage of people who were too lazy or hadn't thought of doing it that way. Seems you are guilty of the same sin on the other side of the argument.

>It works very well. So don't worry, Jack! I'm fine. Really.

That's a relief. What's your name again?

>From: phil.brushaber@lunatic.com (Phil Brushaber)  
>Subject: Decoction Question

>Wouldn't boiling with the grains cause a problem with increased astringency and the leaching of excess tannins into the beer?

Perhaps it's time to look into another momily. I get trashed every time I suggest using boiling water for sparging even though I always use decoction for my Pilsners. Astringency is a knee-jerk response that needs an objective look-see.

>From: "Phillip R. Seitz" <p00644@psilink.com>  
>Subject: Air Stat problems

>I have a Hunter Air Stat and a small refrigerator. As far as I can tell both are in good working order. The problem is that when the temperature reaches the appropriate point the fridge will frequently make several abortive attempts to go on, or will run for a perhaps 10 seconds before cycling off. After 3 or 4 attempts the fridge comes on and stays on.

If it is random and runs normally most of the time it is probably the overload control on the fridge. If the compressor is VERY hot when it

happens, you have some other problem but if it is only warm, give the little black box a rapping with a small hammer.

Mine does this and I had a digital thermometer on the compressor for weeks and there never was a real problem. I keep a piece of wood handy and whack it when it gets flakey. You can buy replacement controllers for about \$30 at appliance parts houses.

>From: Mark Garetz <mgaretz@hoptech.com>  
>Subject: Dry Hopping Risks/Alphas/Latin

>I'll now quote from the article's conclusion: "These results suggest that the practice of dry-hopping is microbiologically safe, especially after three days of fermentation."

>What we learn from this is that you should dry hop only after you have a vigorous fermentation going and the beer has a reasonable alcohol content and low pH.

I think what I learned is that the anti-bacterial characteristics of hops are either a myth or greatly exaggerated in the brewing folklore. Clearly, if yeasts and bacteria live on the hops and can inoculate a culture dish, it is not very bacteriocidal.

It would have been interesting if there was a control using a handful of grass clippings or leaves to find out if it was the nature of the fermented beer or the hops that prevented contamination.

js

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Date: Mon, 15 Nov 1993 13:21:44 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Bambi Gas/ 7 up Gas/ Decoction

Paul Slater is confused 'cause his system is "ebcidically" disadvantaged.

\* Is that a real word? How is it pronounced, what does it mean!  
\*\*\*\*\*

Geoffrey Burd  
Talks about the BrewMachine. And sez their dark extract tastes like  
prune juice.

Sounds like a good base for Klingon Ale. Add lots of honey! ?

\*\*\*\*Ok./ On to REAL BREW TALK!

Andy was straining about his Bambi Booster Bomb quick brew he made. :)  
(I didn't say "stressing"....but the main theme...is....r e l a x )

> Aeration of wort. Using a gas-bubbler. ...

My question is how long did it sit with the bubbler bubbling?  
(Glad I didn't have to pronounce that. It might'a come out wierd!)

I would think that you really just want to get the solution full of air  
to the max which will dissolve at the beginning of the ferment, then  
shut it off, say after a couple hours. Longer than that shouldn't be  
necessary, unless you have a very high starting gravity. I know of  
several wines/meads of mine which needed to have a big blast of air  
before they would take off.

BTW: This IS something I've tried, so I'm not speaking thru my shoe!

My inclination is to add air until the ferment becomes active, then shut  
it off and let the yeast do their thing. If it ferments strongly you  
might drop all your s.g. in a couple days. I generally like to complete  
the ferment with a secondary for an additional week. Overall most are  
2 to 3 weeks duration. If it's fermented, and has dropped out the yeast,  
"heck" go for it! Bottle away. You can always let it age longer in the  
bottle. But generally things age/balance better in larger volumes.

Bottom Line: If it tastes good. Drink it! and then have another...

\*\*\*\*\*

Mike sez of a keg of 7-up:

>Well, it's not working... I pressurized the keg at 30psi for 3 or 4 days  
in  
a 50 degree garage... then dropped down to a dispensing pressure of  
12-14psi. When I hit the tap, I get 7up gushing from it. Foams like  
crazy,  
but the finished product in the glass is pretty much flat. I.e., all the  
CO2 comes out at dispensing time. What's wrong?

\* Drop 'em baby! I mean...uh...er...drop the PRESSURE. Yes that's it.  
Beer is commonly dispensed at 2-5 psi once carbonated. If it foams, turn  
it down. HINT: Drop pressure on keg FIRST, then drop pressure in  
regulator. A very full keg can back beer up the gas line. Not good. :(

Oh- and I don't care HOW long your dispensing line is! It's not my









Date: Mon, 15 Nov 1993 13:45:15 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Cider, Mead / Strength and Yeast #'s

\*\*\*\*\*

From: "Christopher J. Lacenere" <cl38+@andrew.cmu.edu>  
Subject: HARD CIDER? How to's

\* Don't boil cider. You'll get jello haze! You can pasteurize, but easier is to treat cider with campden tables (Na -bisulfate...). Crush, dissolve, add. Don't breath the gas! Sulfur hurts! Give it 24 hrs, then pitch a good yeast starter. Champagne is a good one.

Other good things to add: Grape tannin, yeast nutrient, pectic enzyme..  
.

HONEY! I've found my ciders to have a fuller, more balanced flavor when I add honey to the ferment.

Typical Recipe: 4 gallons cider. Treat w/campden.  
Heat 5 # honey in water- to 1 gallon. Add other goodies.  
Add honey mix to cider, and pitch yeast.

I usually ferment for a month, and rack several times. Bottle straight-apple wine/ Cyser, or sparkle it by priming.

\*\*\*\*\*

Mead Extract? There actually is a kit sold by Williams (no connectn.. blah)  
for making mead. (800-759-6025) \$6.90, everything but the honey.

I've made meads for about 4 years now. I've never made a Mead w/malt, but I have made beers with honey. :) On the order of 2-5 pounds into a brew. I like it. Brown sugar is another favorite.

Suggestion for both Mead and Cider: Treat it like a wine. Get a wine book and learn about acid-testing, stabilization, adjusting sweetness...  
"The art of making wine" Anderson & Hill is a good one.

You'll be able to get much better balanced products that way. Just count on time. The best advice: Be Patient. Leave it alone!  
Rack several times, to get it cleared properly.

Personally I don't like adding hops to mead anymore. I've tried it, and found the bitterness out of place in an often sweet beverage. In dry meads there is nothing to balance the bitter, and it bites thru 2 much. Considering the potential strength of most wines/meads the added bacterial inhibition from hops should not be needed.

FYI: There is a Mead Lovers Digest, and a Cider digest. They (at least the MLD) are/is archived at sierra.stanford. pub/mead or are distributed by e-mail. The NEWS group red.crafts.wine commonly discussed mead/cider from a wine perspective.

\*\*\*\*\*

From: Jeremy Ballard Bergsman <in%"jeremybb@leland.Stanford.EDU">  
Subject: Re: good for yeast/good for beer

>...in the Bay Area we have three brewpubs called Gordon Biersch (sp?).  
(Those

in Pasadena, keep your eyes open.)

\* Drool pant sputter....Really? I'm headed that way over X-mas. Am I too early for their arrival? I've been to the Crown Brewery, and the John Bull Pub has some NICE imports on tap.

Do you know what the name of the brewpub will be down there? Location?

I'd love to know! :)

>Then I had a flash of insight: what if you can get the yeast to undergo a bit of extra growth? You can use more malt for the same amount of alcohol. This might give you a bit more maltiness. I asked him if this was the reason,

\* I don't think it really works that way. Product production (e.g. etoh and co2) are related to the substrate concentration. The rate will be affected by the amount of enzyme/~= cell numbers. BUT the amount of product will depend on the amount of substrate...i.e.fermentable malt sugars.

\* So I don't think that the brewmeister there really has to worry about you sleeping with his wife! Besides, you shouldn't do that on the hbd!

/ "I don't just talk beer, I AM beer! I think beer, therefore I am-beer" /

~~~~~ John (Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~  
~~~~~

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Date: Mon, 15 Nov 93 14:25 CST  
From: korz@iepubj.att.com  
Subject: Not a flame/Enterobacteriaceae

Ulick writes:

>a carboy. Papazian's book is a good starter for the nervous, but for anyone  
>who has brewed before and wants to get a good handle on water treatment and  
>all-grain, Miller is a better choice. Noonan is not for beginners, and while  
>riddled with errors, the people to whom it's aimed can usually work it out.

Then we are in agreement.

>In his second posting, Mr. Korzanos, advocated the handling of hops with  
>sanitized surgical gloves, based on the notion that there are more  
>bacteria on hands than in the mouth - hardly a scientific determination,  
>and considering the antibacterial properties of hops, I doubt if many  
bacteria  
>would survive - and what would they eat? I imagine stored hops are too  
acid  
>for bacteria. I wonder why someone like me who dry hops by stuffing  
hops  
>with by bare hands through carboy openings has never had an infected  
batch  
>attributable to dry-hopping?

Luck may have a lot to do with it, but indeed, the chances of an infected batch from dryhopping are quite low provided that the dryhops are added once the beer has mostly fermented out. See my Technical Communication in the first issue of Brewing Techniques for my reasoning. I posted what I do and why I do it. I \*sell\* hops -- I feel a responsibility to my customers to give them the best product I can and that includes reducing any risk of contamination. If my methods are overkill, then too bad for me, but I don't see why you need to get upset about what I do.

In a related topic, Mark writes:

>They took cultures from the hops and found they contained  
>wild yeasts of three kinds and many different kinds of  
>bacteria - some gram positive and negative, mostly  
>"Enterobacteriaceae" whatever that means.

It refers to enteric bacteria, which means "bacteria that reside in the intestines."

Back to Ulick:

>He then admits he is primarily an ale brewer and does not have much recent  
>lager experience, but nevertheless responds to someone enquiring about  
>pitching fresh yeast when bottling a lager (a correct procedure),  
>DON'T CHANGE YEASTS AT BOTTLING TIME!!!  
>because his home perm solution carbonated OK. I can say categorically that  
>I have made several strong beers, (Ales, actually) that have not  
>carbonated satisfactorily because I failed to add fresh yeast.  
>The reason Mr Korzanos gives is 'glass grenades', especially for lagers  
-

>those beers with which he is so intimately familiar, without any  
examples  
>at all - just his vague suspicion.

Read my post again, you obviously missed my point. Perhaps I was  
unclear.  
With any beer, ale or lager, it is risky to pitch a \*different strain\* of  
yeast at bottling time, because if you pitch a more attenuative yeast  
strain,  
you will have gushers (at best -- depending on the yeasts, you could  
create  
exploding bottles). My contention was that fresh yeast at bottling time  
was  
not an \*absolute\* requirement for lagers in general (as you contend) and  
was  
based upon personal experience, the experiences of others in the HBD, and  
the experiences of members of local homebrew clubs.

>Also, I considered the crabtree effect a good reason to abandon corn  
>sugar, but of course there are other good reasons to stick with it.  
>One must balance everything. Some people are quite happy carbonating  
with  
>sterile wort or kraeusen, and for lager there is no topping the latter  
>method (IMHO). Even Anheuser-Busch do it!!

Did I slam Carl for abandoning corn sugar? No, I just posted what I did  
and some of my reasoning. Frankly, IMHO, your opinions don't sound so  
humble.

I stand behind everything I wrote in those posts. If you disagree, then  
please post civilized rebuttals.

For the record, it's Korzonas, but you can call me...

Al.  
(last name omitted for brevity, anonymity and unprofessionalism ;^)

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Date: Mon, 15 Nov 1993 17:38:18 -0800  
From: rknight@qualcomm.com (Bob Knight)  
Subject: Flying homebrew

Over the last few weeks I've seen a couple of articles from HBD'ers who tried taking homebrew on airplanes in their carry-on luggage; one got stopped by airport security who for some reason objected to his carrying unlabeled bottles of dangerously murky brown fluid onto an airliner, and one was simply warned that he should not drink it in flight.

Has anyone else had any good or bad experiences carrying homebrew onto a plane? Or, for that matter, checking homebrew in their luggage?

Thanksgiving is rapidly approaching, and I suspect that Enquiring Minds Want To Know.

Bob  
(Desperately searching old Eddie Murphy albums for an obnoxious .sig)

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Date: Mon, 15 Nov 1993 21:25:39 -0500 (EST)  
From: Scott Benton <sbenton@telerama.pgh.pa.us>  
Subject: New book for the Chemist in you

The American Chemical Society (ACS) announces the release of

"Beer and Wine Production: Analysis, Characterization and Technological Advances"

ACS Symposium Series No. 536.  
280 pages  
ISBN 0-8412-2714-4 (clothbound) \$59.95

ISBN 0-8412-2724-1 (Paperbound) \$24.95 (Available Jan 1994)

"Describes how modern technology is used to produce and maintain the flavor quality of beer and enhance the quality of wine. Discusses the current understanding of the sensory aspects of natural phenolic and turpenoid compounds in grapes and the sensory effects of certain competitive spoilage organisms present in fermenting grape juice. Presents insights into how current analytical, filtration, and enzymes technologies are used to analyze and process beers and wines. Also includes chapters on home brewing and winemaking."

Call Toll free 1-800-227-5558  
in Wash, DC 202-872-4363  
or FAX 202-872-6067

The poster has not evaluated this book. Nor is he affiliated with the American Chemical Society other than as a member. Nor does he stand to derive any benefit, monetary or otherwise, from this posting. Nor does he believe that it should be necessary to post such a ridiculous disclaimer.

Scott D. Benton sbenton@telerama.pgh.pa.us

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Date: Tue, 16 Nov 1993 07:50:34 -0400 (EDT)

From: ELTEE@delphi.com

**Subject: Sanitation FAQ**

Does anyone know if there's a sanitation FAQ out there? It seems like every time I get one problem cleared up I get another one (like the 50 bottles of butterscotch I now have in the basement). I'm pretty sure it's not the yeast, it tasted great when it went into the bottle.

Ken Bair

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Date: Tue, 16 Nov 93 08:31:51 est  
From: thutt@mail.casi.sti.nasa.gov  
Subject: Treacle & Other Brit Sugars

I'm getting tired of seeing the Great Treacle Question posed and pondered time and time again. In HBD 1273, Bruce Beck wondered what Golden Syrup is (I dunno) and once again mentioned the mysterious Treacle.

No, you cannot buy treacle in the U.S., but that is not the full answer. To get the full answer, we must first find out exactly what Treacle is.

Once and for all, Treacle is simply blackstrap molasses. You can get this in many places in the U.S.

Demararra, which I also have sitting in my house, is simply a light brown sugar with molasses added. It looks similar to the US brown sugar, but is not as moist (I've not opened the package yet, so I cannot give taste results).

The U.K. also has a light brown granular sugar that I have never encountered before I went to London in June. I've not tried it either, but I am hoping to use them all in some sweet brown ales this season.

Someone was making a 'Sugars FAQ'. They may want to update this information....

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Date: Tue, 16 Nov 1993 09:03:46 -0500  
From: Paul Hethmon <hethmon@cs.utk.edu>  
Subject: What is "black treacle"

So, I went to my local homebrew shop to pick up the ingredients for "Old Snead's Stout" (Dave, I'll let you know how it turns out) and had a bit of a problem. They didn't know what black treacle was, and neither do I.

So can someone tell me what it is?

	Paul Hethmon		Anonymous ftp for
	hethmon@cs.utk.edu		Woodworking: cs.rochester.edu
	University of Tennessee		HomeBrew: sierra.stanford.edu
	Knoxville, Tennessee		OS/2 Info: ftp-os2.cdrom.com

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Date: Tue, 16 Nov 1993 10:12:47 -0500 (EST)  
From: gelinas@ekman.unh.edu (Russell Gelinas)  
Subject: fast ferment/chiller/etc.

Wyeast 1098 (Whitbread ale), dated 11/3/93, fully puffed up 24 hours after breaking inner seal. A couple of starters later, it fermented out 5 gallons of 1.050 wort in 36 hours at 68F, including a 12-24 hr lag time. That's healthy yeast.

Tell me if this makes sense. Since most homebrewers underpitch, we don't want to pitch fermenting yeast (ie. high krausen), we want to pitch reproducing yeast (ie. pre-krausen). That way when they hit the fresh (well oxygenated!) wort, they continue to reproduce, ensuring a large colony and a healthy ferment when it's time. The way to ensure this would be to pitch a starter shortly after it has been inoculated, before the krausen begins.

In the 1098 case above, the fully-puffed packet was pitched into a starter that was allowed to ferment out. 1/2 of that starter was pitched into a new starter. Before this had a chance to show any signs of ferment (3-4 hours later), it was pitched into the full 5 gallon batch. The relatively long lag time seen may be an indication of the yeasts initial tendency for reproduction in this scheme. The very large amount of yeast that flocculated out after the ferment would also support this theory.

Btw, none of this was planned; it was purely chance. Next time it will be planned.

- - - - -

Thanks to the person who recommended hanging an immersion chiller over the sides of the brewpot, to allow it to sit in the top of the hot wort (the hottest part). Not only did the wort cool faster, but the cover sat tighter, and it did not need to be stirred at all. Thanks again.

- - - - -

Russell Gelinas  
opal/ssc (EOS)  
Univ. of New Hampshire  
gelinas@ekman.unh.edu

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Date: Tue, 16 Nov 93 08:33:08 -0700  
From: John Adams <j\_adams@hpfcjca.sde.hp.com>  
Subject: Noche Bueno

> Good news! Joe Barfield of Southwest Brewing News has just informed me  
> that Noche Bueno is back. It is being brewed in Monterrey by the  
> Cuauhtemoc group, and will be distributed in selected test markets by  
> Guinness Imports. Laurie is currently forming a flavor panel, and we  
> will write an article for SWBN summarizing the results along with  
> related information. I will also post it on HBD.

George I am curious, this has been one of my favorite beers and in the  
past  
4 (5??) years I have been unable to find any nor was I able to find out  
why  
it wasn't being distributed/produced.

While I am very happy to know it will be made again (although it sounds  
as like it will be in limited distribution) what was the reason it wasn't  
being produced in the past few years?

John Adams

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Date: Tue, 16 Nov 93 09:56 CDT  
From: Eric Saidel <SAIDEL@macc.wisc.edu>  
Subject: mead recipe - oops

I just reread the recipe for apple mead I sent yesterday - it should say a third of a cup of honey for every \*gallon\* of mead (not every bottle). Of course doing it by the bottle might make for some very interesting results :()

- eric

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Date: Tue, 16 Nov 1993 11:45:56 -0400 (AST)

From: EKELLY@admin.stmarys.ca

Subject: sanitizing bottle washers

[ This message contains the file 'TEMP.WP5', which has been uuencoded. If you are using Pegasus Mail, then you can use the browser's eXtract function to lift the original contents out to a file. If you are not using Pegasus Mail, you will have to extract the message and uudecode it manually.]

begin 660 TEMP.WP5

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end

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Date: Tue, 16 Nov 1993 11:34:54 -0500 (EST)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Filtering update

Last Feb, I posted about my experience using a 5 micron cartridge filter to remove excess yeast in an Altbier I made. Since then, I have recently filtered 6 cornelious kegs, 3 pale ales, and 3 "Dunkles Wicked Ale" (my lab is named Dunkles). I was really happy with the results. My current brewing practice is to use a SS open fermenter, skimming the American yeast off the top as the ferment ends, and skimming the initial junk off the early fermentation. Since I keg directly from my primary, I have been carrying over a significant amount of suspended yeast. I was getting a bit tired of the yeasty beer, so I pulled out my 5 micron filter

bought from the Filter Store, and went at it. Some of the kegs were carbonated, and while they filtered fine, the flow rate seemed quite slow.

The two flat kegs filtered much quicker. The resulting beers are a nice "polished" look, similar to many breweries that filter, but dont overdo it.

One of my main objections to filtering is the need to clean and sanitize more equipment, drag. To simplify things, I cleaned and sanitized 3 kegs, and as I emptied a yeasty keg, I just rinsed the yeast out with real hot water, and cooled it. This keg then became one of the receiving tanks for the next filtered beer.

Since I was filtering two quite different beers, I back flushed the filter between beer types, and tons of yeast came out. I still think that a 5 micron filter is perfectly adequate for removing excess yeast.

The best thing is the true beer flavors, malt and hops, come through much better in the filtered version than in the unfiltered. I think this is one the suprising things about filtering.

BTW, I used a "quat" based sanitizer, VigilQuat, and stored the filter in a solution of this sanitizer.

Good brewing,  
Jim Busch

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Date: Tue, 16 Nov 1993 11:03:50 -0500 (EST)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Various

> From: D S Draper <D.S.Draper@bristol.ac.uk>  
> Subject: Yeast culturing--an update  
>  
> Brief recap of the earlier problems: pitched three batches of beer with  
> cultures from bottles beers; the first was not properly sanitized, so  
got  
> an infection. The second was properly sanitized, but resulted in a  
wild  
> yeast infection that can only have come from the yeast that was inside  
the  
> bottle. The third batch had a sour taste that was a mild wild-yeast  
> infection. In each case, less than a pint of starter was pitched, just  
at

If you dont streak the "yeasts" into single colonies , you were not  
"culturing" , just growing whatever is in the bottle.

>  
> An additional note: The wild yeast taste I got in my first two batches,  
> which I described as sort of mediciny, is EXACTLY the main flavor I  
have  
> gotten from several very reputable beers: Chimay blue, Leffe Blond  
(both  
> Belgium), Pschorr-Brau Weisse, and Maisel's Hefe-Weizen (in Bayreuth,  
> Franconia). This taste was identified as definetly being wild by my  
> homebrew suppliers (who run a brewpub, so they know what they're  
talking  
> about I reckon), and it is a dead ringer for that in these beers. Go  
> figure...

Phenols are produced by wild yeasts in large quantities. Phenolic notes  
are often evident in Belgium Ales, and German Weizens. The more brewpubs  
I  
visit, the less I feel "who run a brewpub, so they know what they're  
talking  
about". The quality in Micros is far greater than in many Brewpubs,  
sadly.

>  
> Conclusions: If using bottle-conditioned yeast, step the starter up to  
> about a half gallon, and TASTE IT before committing it to your brew--  
keep  
> a dried packet or whatever on hand in case of failure. In future, I  
will  
> take the plunge into yeast culturing, isolating good colonies from  
these  
> bottled beers, and growing them into starter colonies that I then make  
> actual starter solutions from. Getting viable yeast from  
> bottle-conditioned beers can be done, but one must be careful.

Pouring the dregs of a bottle into the pint starter and then into fresh  
wort is certainly risky, as your experience attests. In the US, people  
do this with SNPA, but this is a filtered beer that is force carbonated  
prior to the addition of fresh bottling yeast, the ferment yeast is not  
left in the bottle. It is also most likely a cleaner brewery than many  
in the UK.

> From: richard\_h@SMTPGATE.BCSEW.EDU  
> Subject: Yeast starters and aeration

>  
> - Yeast reproduction begins as an aerobic process ("Gimme O2!"), for  
> about the first 12 hours. This is why we are told to aerate the  
> wort before pitching - the yeast will have a nice oxygen rich  
> environment to begin reproduction in.  
>  
> - The yeast starter has probably finished the aerobic cycle and is now  
> in an anaerobic state ("We don't need no stinkin' O2!") at the time  
> it is pitched into the wort.  
>  
> So, why doesn't the yeast in the starter (anaerobic phase) object to  
> finding its environment changed by being dumped into the oxygen rich  
> wort?

Actually, it does. If O2 is present, the cells will revert to the  
respiration  
phase, until the O2 is gone, then the anerobic phase returns. If the  
starter is allowed to ferment, the yeast is ready to respire again. This  
is  
why some brewers prefer to let the starter ferment past high krausen, and  
decant the still beer off the starter, pitching the slurry.

from JS:

<I think what I learned is that the anti-bacterial characteristics of  
hops are  
<either a myth or greatly exagerated in the brewing folklore. Clearly,  
if  
<yeasts and bacteria live on the hops and can inoculate a culture dish,  
it is  
<not very bacteriocidal.

I was under the impression that the alpha acids from boiling the hops are  
what produce the slight bactericidal agents, not the raw hops themselves.

> From: COYOTE <SLK6P@cc.usu.edu>  
> Subject: Bambi Gas/ 7 up Gas/ Decoction  
>  
> Mike sez of a keg of 7-up:  
>  
> >Well, it's not working... I pressurized the keg at 30psi for 3 or 4  
days in  
> a 50 degree garage... then dropped down to a dispensing pressure of  
> 12-14psi. When I hit the tap, I get 7up gushing from it. Foams like  
crazy,  
> but the finished product in the glass is pretty much flat. I.e., all  
the  
> CO2 comes out at dispensing time. What's wrong?  
>  
> \* Drop 'em baby! I mean...uh...er...drop the PRESSURE. Yes that's  
it.  
> Beer is commonly dispensed at 2-5 psi once carbonated. If it foams,  
turn  
> it down. HINT: Drop pressure on keg FIRST, then drop pressure in  
> regulator. A very full keg can back beer up the gas line. Not good. :  
(

Actually, No. If one increases the delivery pressure then you are  
"pushing"  
the beer out, as opposed to letting the beer "push itself" out. By  
letting  
the beer "push itself" out, you are decarbonating the beer. You need to  
reach equilibrium of , usually, around 2.5 volumes of CO2 in solution,  
and

maintain 12 psi on the tank. IF the beer is gushing out at 12 psi, it is most likely overcarbonated, and indeed the answer is to bleed off excess pressure, then return to 12 psi.

>  
> \* Part of the decoction mash (as I understand it, as if anyone TRULY does!)  
> Involves starting the mash at cool temps, allowing the ACID REST which  
> should adjust the pH addequately to the acid side that tannins are not  
> extracted during the boil. It was NOT recommended to add gypsum.

First part true, second part false, no problem adding gypsum. It all depends on your intial water chemistry, amount of dark malts to be used and lager versus ale yeasts.

>  
Good brewing,  
Jim Busch

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Date: Tue, 16 Nov 93 11:59:22 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: chillers, bottle yeast, Miller's method, Papazian picture

In hbd1273 William Swetnam asks about chiller construction. I would recommend 1/4" copper tubing - it is cheaper to get more surface area by buying more length of 1/4" than bigger tubing and it is easier to shape.

The reason one should use tubing of a larger diameter for counterflow chillers (high pressure drop) does not apply to immersion chillers, and the greater pressure drop across the narrower tubing may help conserve water where that is an issue. For clamps I just used a scrap of hose clamped outside with a regular hose clamp, although I am sure compression fittings are available.

I have never seen a two stage chiller like you suggest - first through an ice bath prior to circulating through wort, although I have thought about it. For ales in the winter it is unnecessary, but for lagers and summer brewing a better cold break would be nice. If using such a setup, to conserve ice, I would recommend not adding ice till the wort is chilled close to tap water temperature, and then add the ice. What I sometime do, is disconnect my water once tap temperatures are approached and connect a pump recirculating ice water. RE length 25" is fine for the wort chiller, although considering the length of copper tubing in the average box, you may use a longer length.

Dave Draper relates his experience with culturing from bottle conditioned beers. I recently retired an ale yeast cultured from a bottle of Guinness (purchased in Ireland) because of suspected wild yeast contamination - gushing. However, I had used the yeast for many batches top cropping or bottom cropping along the way. Contamination with bacteria was an early problem, again probably because the brewery practice was not perfectly sterile. What I did after the first batch and then every second batch or so was acid wash with ammonium peroxydisulfate solution (a procedure outlined in 'Brewing Lager Beer' by Gregory Noonan). I made many excellent batches (and some less than stellar ones) with this yeast and these procedures.

Keith McNeil worries about chipped enamelled canning pots. My well used pot has suffered the odd chip but it doesn't seem to be a problem. The chipped areas are well blackened with a thick carbon coat from many burnt decoctions - much as cast iron cookware is. So long as one doesn't clean the pot too well, it is my experience that chips are not a big problem.

I was in one of those religious Miller vs. Papazian discussions at a homebrew tasting this weekend and the procedure mentioned by Mark Bayer - of Miller recommending pitching yeast on trub and then racking prior to Krausen is lovely on paper, and if one's yeast tends to be consistent good advice, but I remember one batch, an underpitched lager, for which I did this - racked after 6 hours or so, and had a 5 day wait till krausen (good job I don't worry too much!). I prefer not to rack

till after krausen because of risks of infection and yeast loss.

In my last posting in 1271 I mentioned the recommendation in Papazian to pour the hot wort in cold water in a carboy as being bad advice and received a number of worried responses, to some of whom email responses bounced. I'll quote Charlie himself, RDWHAHB. While this procedure is not correct - chilling in a bathtub or with a wort chiller prior to pouring is recommended, the amount of damage that could be expected due to hot side aeration is so slight that it is unlikely to be noticeable.

---

'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.

    Pabst Blue Ribbon!' | Notre Dame IN 46556  
    |     ulick@darwin.cc.nd.edu

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Date: Tue, 16 Nov 93 10:34:48 MST  
From: psm@sst10a.lanl.gov (Peter McLachlan)  
Subject: Re: barleywine

>I am interested in brewing a barley wine from  
>an O.G. of 1.100 or higher, but don't want  
>F.G. above 1.030.

If you want to lighten the body of your beer without bad side effects  
I  
recommend adding 15% of your grain and extract weight in honey. This  
should  
help drive the fermentation to completion. I get light clover honey in  
a local store for a buck a pound.

Cheers,

Peter

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Date: Tue, 16 Nov 1993 12:44:51 -0500

From: esonnl@cc.swarthmore.edu

Subject: A real lager and "kegs"

Hello,

I plan to brew my first real lager in the coming months and am now considering what new equipment I may need to acquire to do this. My big question, is do you need a fridge to brew a real lager? I thought it would be ok if I put the carboy in the basement, sitting in a pan of water, with a big t shirt over it so the t shirt dangled into the pan of water. My idea is that shirt would act as a wick and draw the water up over the carboy and evaporation would keep the carboy cool. I realize I would not have any real control over the temperature of the carboy, but it seems it would work. Anyone tried this? Am I kidding myself?

Second question. I have seen some plastic "kegs" in local home-brew shop which come from Europe. Supposedly, they can be used to carbonate in and draft beer from. Has anyone tried these? They seem like only a glorified beer ball.

Thanks in advance,  
Eugene esonnl@cc.swarthmore.edu

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Date: Tue, 16 Nov 1993 11:55:31 -0600  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Dispensing from Kegs (was keg pressure questions)

John Wyllie COYOTE gives some advice on using kegging equipment in response to Mike Fetzer's question in HBD #1272:

> Beer is commonly dispensed at 2-5 psi once carbonated.

Some veddy British ales served with VERY low carbonation at 50F may be stored under as little as 2 PSIG, but these will generally be dispensed with a beer engine (essentially a hand-pump) and not with CO2 pressure. So storage pressure in this case has absolutely nothing to do with dispensing. Some pubs will dispense this type of ale with a CO2/N2 mixture, but this is a whole `nother topic. Most beers have considerably more carbonation than these ales though. Note that even at 32F, 8 PSIG is required to maintain 2.5 volumes dissolved CO2. At a more-typical 45F, this jumps to 15 PSIG. The 2-1/2 volume carbonation level is typical of beer-in-general, and although some might complain that its too fizzy, it seems that most people like it just fine, no matter where they live. The COYOTE continues...

> If it [the beer -trl] foams, turn it [the pressure -trl] down. Oh- and I  
> don't care HOW long your dispensing line is! It's not my business :)!

I guess the COYOTE means that MIKE'S difficulty is not the COYOTE's problem. If your beer foams, there is only one thing wrong -- you are releasing the CO2 from solution too fast. This is caused mostly by agitation. Agitation can be caused by restrictions in the serving line, and by the beer hitting the bottom of your glass too fast. Now for a bit of physics. Since this is a recurring topic, I'll post a more complete set of data that I have by the end of the week. But for starters, this'll get us in the ballpark.

When storing beer, you want to keep enough pressure on it to maintain the desired carbonation level. For most British styles, we're looking for 1-1/2 volumes of dissolved CO2 (or so) and for most lager style beers, were looking for 2-1/2 volumes (or so). This can vary according to your taste. There are various pressure vs. temperature charts\* floating around, but as an example, my Pilsner was stored and served at 40F, and 2.5 volumes of CO2. This means I need to store the beer under 14.0 PSIG to maintain carbonation.

Now, since I want to serve directly from my storage vessel (the keg), I somehow need to "drop" or dissipate the 9 PSI in the dispensing system. My



beer faucet is about 18" above the center of the keg. A vertical lift drops about 1 PSI per 12", so this automatically gets rid of 1-1/2 PSI, leaving me with 12-1/2. 3/16" ID beer line drops 2.1 PSI per foot of length due to fluid friction. So, I need

12-1/2 PSI  
----- = 6 feet of 3/16 ID beer line  
2-1/10 PSI/Foot

So, I cut a piece of line 5-1/2 feet long to account for drops at various fittings in the system, and hooked it all up. Proper flow rate for beer dispensing is about 2 ounces/second. And indeed, it takes about 10 seconds to fill my 22 ounce mug with about 16 ounces of beer, and a nice head. The carbonation remains in the beer because the pressure at the faucet is nearly zero PSIG, and the beer is not violently expelled against the bottom of my glass.

> I don't think it'll cause any problems you can't compensate for with > adjustments to pressure.

Kludgy half-way "solutions" are always possible. Physics, I think, is preferable. The only way to use a dispensing system that cannot provide sufficient resistance is to:

- 1) Store under correct pressure
- 2) Release all the excess pressure
- 3) Dispense n servings
- 4) Re pressurize for storage (Go To 1)

If this is what you want to do, it will "work". But it sure is a hassle, don't you agree?

Part of Mike's original question:

> I pressurized the keg at 30psi for 3 or 4 days in a 50 degree garage..  
> then dropped down to a dispensing pressure of 12-14psi. When I hit the > tap, I get 7up gushing from it. Foams like crazy, but the finished > product in the glass is pretty much flat. I.e., all the CO2 comes out at > dispensing time.

Three or four days isn't enough time for CO2 to dissolve into the 7UP, even at 30 PSI, so it really wasn't very carbonated to start with. To carbonate, you need to agitate. I do this by rocking my keg back and forth over a softball bat until I can't hear the CO2 flowing in anymore. Thus usually takes 15 minutes or so of constant agitation.

so agitation under pressure ==> carbonation  
agitation without pressure ==> de-carbonation

And you really need your pressure/temperature/dissolved CO2 chart to get it right. Anyhow, what carbonation that \*was\* in the 7UP came out all at once

when the stuff hit the bottom of your glass at 90 miles an hour, leaving you with pretty flat 7UP. There have been many articles posted on the topic of carbonation.

Look for more data from me in a few days. I'll expand a bit on the topic. Maybe it'll turn into a keg-dispensing FAQ or something.

t

\*a nice chart can be ftp-ed from sierra@stanford.edu in  
pub/homebrew/docs/co2.txt

=====

=====

Tom Leith InterNet: trl@wuerl.WUstl.EDU  
4434 Dewey Ave. CompuServe: 70441,3536  
St. Louis, Missouri 63116

"Tho' I could not caution all  
314/362-6965 - Office I still might warn a few:  
314/362-6971 - Office Fax Don't lend your hand  
314/481-2512 - Home + Infernal Machine to raise no flag  
atop no Ship of Fools"

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Date: 16 Nov 93 18:02:26 GMT  
From: GANDE@slims.attmail.com  
Subject: Decoction & Astringency

>From: phil.brushaber@lunatic.com (Phil Brushaber)  
>Subject: Decoction Question

>Wouldn't boiling with the grains cause a problem with increased astringency and the leaching of excess tannins into the beer?

JS>>Perhaps it's time to look into another momily. I get trashed every time I suggest using boiling water for sparging even though I always use decoction for my Pilsners. Astringency is a knee-jerk response that needs an objective look-see.

JS and Phil discuss extracted tannis, astringency and 'momilies'. Later the Coyote man says nope, it's the ACID REST, and I'd go along with that.

Decoction mashes are done with pre-sparge mash constituents, usually at a pH 5.3. From my understanding this level of acidity 'discourages' the extraction of tannins, making boiling a portion of the mash possible, without puckering results.

Further to this one could assume that it would be OK to sparge with boiling water, which is accurate as long as your grain bed pH doesn't raise above 5.3, ideally. In the real world, sparging raises mash pH towards the end of the run and continuing to rinse with boiling water would leach out tannins.

I made a mini-grain-tea-bag, boiled it for 10 minutes in tap water (pH 7.0) and it was what I would call astringent. That's enough proof for me. ;)

....Glenn Anderson

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Date: Tue, 16 Nov 93 10:09:55 -0800  
From: rossix!davidmo@openlink.openlink.com (David Moore)  
Subject: FAQ

Does a FAQ exist for the homebrew mailing list??

If so, could someone kindly email me a copy??

Thanks,

Dave

=====  
David A. Moore | Phone: (415) 593-2500  
Ross Systems Inc. | E-mail: davidmo@rossinc.com

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Date: Tue, 16 Nov 93 13:50:28 EST  
From: jimg@dcz.gso.uri.edu (James Gallagher)  
Subject: mash in temps

I have noticed that many recipes here and elsewhere describe a procedure where grain is added to water at one temp and then the mash is raised to another temp. However, there are also recipes where grain is added to water at a temperature such that the mash does not need a boost to the proper temperature. Is there any reason not to always use water at a temp such that the mash will be at conversion temp. or protein rest temp. without adjustment?

James Gallagher  
jimg@dcz.gso.uri.edu

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End of HOMEBREW Digest #1274, 11/17/93  
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Date: Tue, 16 Nov 93 13:58 CST

From: korz@iepubj.att.com

Subject: Dry Czech Pilsner?/Raspberry sweetness/Golden Syrup+saccharin

Cecil writes:

>I made a Czech Pilsner using a can of BREWMART Czech Pilsner extract.  
>I also used 3 lbs extra light DME. The can came with a dried yeast and  
>a pilsner enzyme. At 68 degrees I pitched both the yeast and the enzyme.  
>It took the normal 1-2 days to start foaming but stayed extremely active  
>for 2 weeks. A local brew shop said bottle it anyway and that it would  
be  
>considered a dry beer. I drank 2 sips and decided to dispose of the  
entire  
>batch. I could pop the cap and sit the bottle upright in the sink and  
watch  
>it empty its self from the bottom up. Help !! What did I do wrong ?

Bottled too early, probably, but there are other points in your post that  
I would like to address. 1. Pilsners are lagers and I've read that there  
currently is no true lager yeast available in dry form (lager yeasts just  
don't like to be de-hydrated, I guess). 2. What a two-week ferment has  
to do with it being a "dry beer" I don't know. 3. "Pilsner enzyme"  
certainly has nothing to do with a real Pilsner -- I believe that dry  
beers  
are indeed brewed with some kind of enzyme that breaks the complex sugars  
down to virtually all glucose, so maybe that's what they meant.

There is a chance that you introduced some bacteria with the dried yeast  
(some have very high bacterial counts) or the enzyme. This would explain  
why it tasted bad and why fermentation took so long. I advise to forget  
the enzyme next time, wait till fermentation is virtually over (I wait  
till  
there are 2 minutes between glugs) before you bottle and see if the beer  
turns out better.

\*\*\*\*\*

J writes:

>Last week I started an extract batch based on the following recipe:

>  
>6 lb can Ireks wheat  
>1.5 lbs light malt extract  
>1 lb honey  
>1 oz Tett (boil)  
>1/2 oz Cascade (boil)

>  
>same as above (finish)

>  
>I then cooled the wort, dumped it onto roughly three pounds of frozen  
>raspberries, and pitched with wyeast weizen (liquid).

>  
>Vigorous fermentation started in 18 hours and subsided in three days.

>  
>Now my questions:

>1) Upon racking to the secondary, I found a noticeable sourness and a  
>slight tinge of sulfur oder. Now I realize that Weizens are supposed to  
>be a bit sour, so I'm not all that worried. Question is, how does one  
>distinguish the difference between sourness due to style and sourness  
due  
>to infection ? Also, will sourness mellow in the bottle ??

Actually, only Berliner Weiss are sour according to style (and that's due



to an intentional Lactobacillus infection). The raspberries added some sourness, I'll bet, but it could also be an infection. If the beer ferments out to be super-dry, it is probably a bacterial infection. There is a bacteria called Malo-Lactic Bacteria (Wyeast has it) which "converts harsher malic acid to milder lactic acid" but if the sourness is from a lactic infection, nothing like this will help reduce the sourness.

>2) Papazian says a sulfur odor is "normal" depending on yeast types and >conditions and claims it can be rectified by changing temperatures. The >primary was at ~ 65 F and when I racked to 2nd, I put it in a room at >about ~ 60. Will this help ?? Any suggestions ??

The sulfur odor will eventually go away if it is from the yeast, but I'm not sure if you need to keep it in the fermenter or if you can bottle it and wait for the smell to go away.

>3) Lastly, the raspberries haven't (yet) imparted as much fruity sweetness >as I have experienced in some other raspberry Weizens... Is it possible >to use something akin to a raspberry syrup instead ?

Raspberries will not impart much sweetness. The sugar in them will ferment away leaving mostly raspberry aroma. Some of this aroma will get scrubbed

-out by evolving CO2 if you add the fruit at pitching time. I recommend putting the fruit in after primary fermentation is over. This will also reduce the chances of infection. A raspberry syrup will probably be mostly

corn syrup, which will ferment away also. What you need to do is to add some unfermentable sugar to leave some sweetness. I added 8 ounces of lactose to a recent 15 gallon batch of raspberry/cherry ale. It did sweeten

it a little bit, but not much. I think adding 8 ounces to 5 gallons is more

reasonable for adding some residual sweetness. BTW, I'm not a biologist, but I'll bet that Lactose is fermentable by Lactobacillus, so be extra careful with sanitation!

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Bruce writes:

>In "Brewing Beers Like Those You Buy", Dave Line gives a recipe for >"Bishop's Tipple", a real ale. The recipe asks for "1 lb Golden Syrup". >Is Golden Syrup one of those things like Treacle which is unknown in the USA?

>Or is it what Americans call Corn Syrup?

It's a UK thing, as is Treacle. You can get it (along with Treacle) from some specialty food stores if you can't get it from your HB supplier. As for Tate & Lyle's Golden Syrup.

>Line also advocates sacchrine tablets to give residual sweetness. I understand

>Lactose is a "better" way to provide residual sweetness. Is there a rule of

>thumb for the amount of lactose to add? I see amounts like 10-12 oz given in

>Cat's Meow. Is it added to the boil? Is there something like "One sacchrine

>tablet = x oz lactose"?

Line's book was written at a time when there were much fewer choices for yeast and all the yeasts that he had to choose from were quite attenuative.

A less-attenuative yeast could be all you need. If you add lactose, you can

add it in the boil, or boil some up and add it at bottling time -- it's unfermentable, so it doesn't matter as long as you sanitize it. Adding at

bottling time also allows you to add it to taste, but be aware that the beer will become a bit more acidic when it carbonates, so you may want to make it a touch sweeter than you want the final product to be. See my note

above on Lactose and be aware that Lactose is not very sweet -- much less sweet than sucrose, fructose or glucose.

Al.

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Date: Tue, 16 Nov 93 14:48:35 PST  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hops and Bacteria

Jack Schmidling writes (in response to my post):

>I think what I learned is that the anti-bacterial characteristics of hops are either a myth or greatly exaggerated in the brewing folklore. Clearly, if yeasts and bacteria live on the hops and can inoculate a culture dish, it is not very bacteriocidal.

The bacteriocidal constituents of the hops is in the lupulin glands. Lots of beasties can live on the petals outside the lupulin glands. These were whole hops in the study, so it's not surprising that cultures taken from the hops would grow stuff since the lupulin glands would, in large part, be intact.

>It would have been interesting if there was a control using a handful of grass clippings or leaves to find out if it was the nature of the fermented beer or the hops that prevented contamination.

Since at dry-hopping temps it takes quite a few days (more than three) for stuff to migrate out of the lupulin glands, I would say it points pretty conclusively to the fact that the beer itself is what did the trick, but it may have been helped along by the hop constituents already in the beer from the boil.

I'd have to double check my references, but I think the anti-bacterial action of the hops is largely bacteriostatic (meaning it prevents further growth) as opposed to bacteriocidal (meaning it kill the suckers outright). Again, I could be mistaken on this. My references are 40 miles away.

Mark

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Date: Tue, 16 Nov 93 14:08 CST

From: korz@iepubj.att.com

Subject: HSA+Papazian Method/Hunter Airstat/trub separation/dueling  
thermostats

Ken writes:

>I have not heard about the "problems" with HSA and have been using the  
>advice from Papazian's book. Could someone explain why I should use  
>the "Papazian" method or direct me to a source for the information.

Don't you mean "shouln't use the 'Papazian' method?" Well, the best  
source for Hot-Side Aeration (HSA) info, would certainly be George Fix's  
article in a recent Zymurgy (three or four issues ago). If you are using  
a carboy and pouring hot wort through a funnel into the cold water below  
and if the wort is really splashing around as it goes into the carboy,  
then

you probably are getting some HSA. I used to do something like this and  
the result was a sort of sherry-like, wet-cardboard aroma/flavor. If you  
use a plastic bucket as your primary and pour the wort in gently, the  
effects will be barely noticable. I can attest to this because I  
recently

made a few test batches of some "pre-measured kits" I designed for  
beginners  
and gentle pouring into cool water produced virtually none of these off-  
flavors

(I followed the beginner instructions just like I wrote them, just to be  
sure).

I noticed that when I switched from the "hot wort through funnel into  
carboy"

method to "adding 2 gallons of near freezing, sanitized water into  
kettle"

method, there was a big difference. Building an immersion chiller  
improved

my beer even further with respect to eliminating these off-flavor.

Build or borrow an immersion chiller and see if you can taste the  
difference.

I think you will notice a big difference.

\*\*\*\*\*

Also Ken writes:

>After all of this interest in the Hunter Airstat, I am kind of  
interested

>in taking a look at one. Could someone tell me where I can find one?

Too bad all this interest in the Airstat didn't come sooner... it has  
been

discontinued by Hunter due to poor sales. You may still be able to find  
a few at your local hardware store or Builder's Square/Home Base/Handy  
Andy.

Ask for a "window airconditioner thermostat by Hunter Fan Company." Many  
salespeople don't have a clue if you ask for an AirStat.

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Mark writes:

>i recently got miller's book and was wondering if anyone out there has

>firsthand knowledge of how separating the trub from the wort before

>fermentation improves the beer. how dramatic is the effect? does

anyone

There has been a lot of debate on this issue. Some say that if you use the blowoff method, you don't need to separate the wort from the trub. One reason for pitching before separation from the trub is that the yeast can use some stuff in the trub for nutrition. If you aerate well, the yeast can synthesize the materials they need and thus they don't \*require\* the trub for nutrition (sterols, I believe). You can aerate up till the fermentation begins, but aerating early is best -- why delay?

>also, i've noticed strange behavior sometimes when racking beer regarding my airlock. just after i fill the carboy with beer and put the airlock on, the water starts to get sucked into the fermenter, slowly. i only have one theory on this, to wit:

<snip>

Your theory is correct. The cooling/contraction of the airspace in the fermenter is what sucks in the airlock water. I suggest putting in just enough water in the airlock so it will work both ways (forward and backward). Once fermentation begins you can add a little more so it does not run dry due to evaporation.

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Kieran writes:

>The problem with using a fridge and an external thermostat is that you >have two thermostats going at the same time--the fridge's and the Hunter >(or whatever). The fridge thermostat usually will only allow the fridge >to cool to 38 or 40 or so (F), and the Hunter device will try to continue >to cool, but can't. To solve this--remove the internal thermostat--wire >the two wires together and let the Hunter do the job. Just dont try to >run the fridge with out the Hunter--you'll ruin the compressor

I don't think you have to rewire the original thermostat. Recall that both thermostats will say "go, compressor, go" when they think it's too warm. If you set the original to 40F and the Hunter (or whatever) to 50F, the Hunter will tell the compressor to "stop" at 50F and to "go on" at 52F or so. Meanwhile the original thermostat is still saying "it's too warm in here" and will be permanently on. The Hunter only goes down to 40F without modifications. As long as you keep the original thermostat set cooler than the Hunter, you'll be okay.

Al.

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Date: 16 Nov 93 17:04:52 -0600

From: mbarre@nomvs.lsumc.edu

Subject: trub,censor,...

1 - In New Orleans, I have only seen the Miller Reserve Lager and Light, but have heard you all mention ale. Whine.

2 - Mark Bayer is worrying about fermenting his beer on top of the trub. I brew with extracts and cool the wort in the pot in the sink full of ice water (takes about 30 minutes), then pull the cool wort off the settled hop pellet, cold/hot break debris. Even so, I get over 1/4" of trub in the carboy after the initial settling. I fermented my second batch on the trub for over a week, racked to a secondary for another week or so, and it came out great.

I pulled the third batch into a bottling bucket and let it settle for 45 minutes before siphoning into the carboy. I got less trub, but the beer was not as good. I haven't settled first again.

I use (chlorinated) tap water in the air lock, and it has never been sucked in and I haven't had infections.

3 - Lee M.: what about 'manual "HOLD"'?

4 - Bob A.: He said he would try the keg, not the extract.

Michael "Dry Yeast Sucks" Barre

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Date: Tue, 16 Nov 93 17:14:48 CST  
From: Sean C. Lamb 335-6669 Loral <slamb@milp.jsc.nasa.gov>  
**Subject: 1993 Dixie Cup Results Available**

I've finally gotten it together enough to be able to provide the results of the 1993 Dixie Cup to anyone who is interested.

We had 673 entries this year. Fred Gibson of the Foam Rangers won best of Show with his Traditional Porter. Jeff Humphreys of the Foam Rangers and DeFlaco's Home Wine and Beer Supply won the high point award, and to the chagrin of all Foamies, the North Texas Home Brewers Assoc. won the Dixie Cup.

A good time was had by all.

Sean Lamb

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Date: Tue, 16 Nov 93 17:47:43 CST  
From: Mike Westra <root@hpuspma.stpaul.msr.hp.com>  
Subject: Small Kegs + Homebrew in Porto Rico

Greeting from St.Paul...

Quick one... Does anyone out there know if there are any keggings systems smaller than 8 Gallons readily available? Are they appropriate for homebrewing? This is for a friend in Puerto Rico - does anyone know of any homebrew and/or brewing supply stores in San Juan?

Please reply to michael\_westra@hpatc2.desk.hp.com.

Thanks and Cheers,  
Mike Westra  
michael\_westra@hpatc2.desk.hp.com

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Date: Tue, 16 Nov 1993 13:11:00 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Cider and Mead- Styles / Hops in the hand

- eric makes cider and...

>I also do about a case a year in which I bottle with  
honey - about a third of a cup for a champagne bottle.  
That gives it a nice apple "mead" flavor.

\* I wouldn't exactly call that a mead. A mead implies FERMENTED honey  
with possibly...other stuff. There is a "product" which tm's the name  
MEADE (tm!) that's actually wine, with honey added at bottling.

\*\*\*

Someone else said:

> Mead is simply a wine that uses honey instead of "fruit". I have been  
quite successful brewing straight mead (honey and water with a champaign  
yeast), spiced mead (called methygen sp(?)),

\* There are a number of types/styles of mead. The common component  
is HONEY.

Traditional Mead: Honey/water= ~2.5 # /gal  
Sack Mead: 20-25 % more honey than traditnl.  
Metheglin: Spiced with Gruit. (herbs, and or hops mixed)  
Sack Metheglin: Combine above 2  
Pyment-Claree: Grapes added.  
Hippocras: Pyment with spices.  
Cyser: Apples/cider added.  
Muslum, or Melomel: Fruit added. Numerous variations  
(other than grape and apple)  
Morat: Honey water and mulberries. (This ones a winner with me!)  
Mead Brandy: Oh...but that's distilling. \*\*

/--/

Braggot: Honey and malt. 1:1

There are other honey/beer/+ drinks listed in Acton's book.

A couple good-ish books:

Making Mead: Acton and Duncan  
Brewing Mead: Charlie Pap. (would be better titles- "History of Mead  
Brewing with just a little bit about actually brewing it")  
AHA Winners Circle has a chapter or recipes on mead.

\*\*\*\*\*

Lee posted some Hunter info:

>Some may find the following words offensive:  
Chest, down, desire, unit, mount, do.

\* I'll have you note please, there are NO three letter words in that  
list!

\*\*\*\*\*

js sez:

>I think what I learned is that the anti-bacterial characteristics of  
hops are  
either a myth or greatly exagerated in the brewing folklore. Clearly,  
if  
yeasts and bacteria live on the hops and can inoculate a culture dish,  
it is

not very bacteriocidal.

\* There's a difference between the leaf/flower surface of a plant and a solution made from extracting the inhibitory components of the lupulin glands. If you tested just the surface of the lupulin gland it might have no microbes, while the leaves had many.

Also: The distinction between "existing" and "replicating". Many bacteria and fungi can "sit" in a dormant state, then proliferate when conditions become more favorable.

I remember this thread starting with whether hands would transfer contaminants TO hops, and hence, into beer.

Again- the difference between existence, and replication. There are resident (generally unharmed) and transient (potentially harmful) microorganisms on hands and skin. But if your hands are clean the chance of transferring danger to brew is low (IMHO). Resident microbes generally do not let go very easily. If you wash well, you should remove most transient bacteria, and unless you have chicken fat under your nails you aren't likely to add much to your brew.

I would wager that commercial hops have been handled fairly frequently before they are broken down to homebrewer size packets. The hope of not adding more microbes at dry hopping time seems irrelevant. The hope of having created an inhospitable environment for other bugs is more realistic.

\*\*\*\*\*John (The Coyote) Wyllie SLK6P@CC.USU.EDU\*\*\*\*\*

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Date: Tue, 16 Nov 93 23:40:59 -0600  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: Golden Syrup

Bruce Buck asks:

>Is golden syrup one of those things like Treacle which is unknown in the USA?

>Or is it what Americans call corn syrup?

Lyle & Tate are English sugar confectioners, and make both black Treacle and golden syrup. We can get Lyle's golden syrup here in Dallas. It is a cane sugar product, not corn sugar. as a substitute, I would recommend turbinado style (raw) sugar, which is not refined as much as white sugar, and does not have molasses added back like American brown sugar does. I used to get 2 lbs of turbinado sugar at the snuck's grocery store in Champaign, IL. A 12 oz bottle of golden Syrup is \$5 here in Dallas. They add about the same taste. Guess which one I (would) prefer...

bb

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Date: 17 Nov 93 08:11:00 EST  
From: "PAUL EDWARDS" <8260PE@indy.navy.mil>  
Subject: treacle/hsa/plain text posting/keg dispense

"thutt@mail.casi.sti.nasa.gov" writes:

>I'm getting tired of seeing the Great Treacle Question posed and  
>pondered time and time again. In HBD 1273, Bruce Beck wondered  
>what Golden Syrup is (I dunno) and once again mentioned the  
>mysterious Treacle.

>No, you cannot buy treacle in the U.S., but that is not the full  
>answer. To get the full answer, we must first find out exactly  
>what Treacle is.

>Once and for all, Treacle is simply blackstrap molasses. You can  
>get this in many places in the U.S.

Golden Syrup is a light golden sugar syrup, made by Tate & Lyle. Has a  
very  
smooth taste. You could probably make your own by \*slightly\* by  
dissolving cane  
sugar in a little water to make a syrup, and then carmelizing ever so  
slightly  
to get some color. My wife uses T&L Golden Syrup in her peanut brittle  
recipe  
instead of corn syrup.

Yes, you can find Treacle (also made by Tate & Lyle) in the US, but it  
may be  
scarce. I asked a grocery store to get some for me and they did, no  
problem.  
They still have a few cans. It also available in better HB shops, along  
with  
Golden Syrup. GW Kent used to supply it, but no more I've been told.  
And, no,  
I won't buy it and ship to anyone, I'm buying it for myself.

Treacle is most definitely \*not\* "simply blackstrap molasses". Anyone  
who  
has tasted Treacle and BS molasses side by side can easily tell the  
difference.  
Treacle is very smooth and not at all harsh tasting like any of the BS  
Molasses I've tried.

And, for Paul Hethmon, if a HB shop employee didn't even know what  
Treacle was,  
I'd find a different shop.

"EKELLY@admin.stmarys.ca" writes:

>[ This message contains the file 'TEMP.WP5', which has been  
>uuencoded. If you are using Pegasus Mail, then you can use  
>the browser's eXtract function to lift the original contents  
>out to a file. If you are not using Pegasus Mail, you will  
>have to extract the message and uudecode it manually.]

-garbage deleted-

Excuse me, but I don't have Pegasus Mail, or the facility for "uudecode",  
so

next time please speak in plain text. You may have had something important to say, but I'll but there's a bunch of others like me who have no way of finding out.

Ulick Stafford writes:

>In my last posting in 1271 I mentioned the recommendation in Papazian to >pour the hot wort in cold water in a carboy as being bad advice and >received a number of worried responses, to some of whom email responses >bounced. I'll quote Charlie himself, RDWHAHB. While this procedure >is not correct - chilling in a bathtub or with a wort chiller prior to >pouring is recommended, the amount of damage that could be expected due >to hot side aeration is so slight that it is unlikely to be noticeable.

I gotta disagree with your last statement. I hadn't done a brew without benefit of a chiller in a zillion years, but customers bring bottles of their beer to the local HB shop where I help out. I've tasted plenty of HB from beginning brewers who do the CP "partial boil and dump into cold water" immediately method, and the oxidation is definitely noticeable. So, some time ago, I tried it both ways - chilling pot in sink of ice water vs immediately pouring hot wort into cold water - in a split batch experiment (same yeast, same fermentation conditions, etc). The "hot pour" half had a \*noticeable\* oxidized flavor not present in the chilled-then-poured half. I teach beginning HB classes for the local parks dept, and for the above-mentioned shop, so I emphasize at least chilling wort in a sink of ice water, if they don't want to buy or make a chiller of some sort. Yeah, the "hot pour" batch was drinkable, but the other was much better, and chilling in a sink of ice water is so easy, and doesn't take all that long.

CP's book is great, esp for new brewers, but I'm disappointed he didn't update things more in the NCJOHB, considering all that's been learned since the first edition was published.

And lastly, all you keggers who can't seem to get your beer to dispense correctly, may I suggest that you get a copy of the transcript from the 1992 AHA convention in Milwaukee. Dave Miller gave a bang-up presentation on dispensing of kegged beer. As Tom Leith' post in #1274 pointed out, one must balance the keg pressure and the resistance in the tap line to get a proper pour. Line diameter, material, and length all come into play, along with the height the beer is lifted from the keg to the faucet.

-- PSE

Any chiller is better than no chiller!

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Date: Wed, 17 Nov 1993 09:25:31 -0400 (AST)

From: EKELLY@admin.stmarys.ca

**Subject: sanitizing bottle washers**

Sorry for the encoded version on November 17. Here is the english version.

Does anyone know how to sanitize/sterilize a bottle washer. I am referring to the brass device that attaches to a faucet and releases a high pressure jet of water into a bottle (or carboy). This device has a small ball inside the end piece which acts as a valve to shut off the jet of water when the bottle is removed. It appears this ball prevents the residual water from draining from the device after its use. This water seems to be the source of contamination in a couple of my batches. I am not sure if merely running water through will flush the contamination. I have tried injecting bleach into the device followed by an overnight soak which resulted in the device turning a shade of green.

Any advice or assistance will be appreciated.

Ed Kelly  
Saint Mary's University  
Halifax, Nova Scotia, Canada

ekelly@admin.stmarys.ca

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Date: 17 Nov 93 09:00:00 EST  
From: "TIMOTHY LABERGE" <LABERGET@gar.union.edu>  
Subject: hard water treatment

Hi All,

I've just received an analysis of my tap water.

Here are the important numbers:

Chloride 25ppm

Sulfate 38ppm

Calcium 54.5ppm

CaCO<sub>3</sub> 140ppm

Ph 7.7

The CaCO<sub>3</sub> seems high, particularly with the amount of calcium that is present. What is my best course of action, other than brewing only dark beers? E-mail replies are fine.

Tim LaBerge

No fancy sig, just good beer.

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Date: Wed, 17 Nov 93 15:15:32 CET  
From: Alan B. Carlson <alanc@adb.gu.se>  
Subject: Xmas ales (tasting results)

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Date: Wed, 17 Nov 1993 09:36:45 -0500 (EST)  
From: Jim Busch <busch@daacdev1.stx.com>  
Subject: Re: Dough in temps

> From: jimg@dcz.gso.uri.edu (James Gallagher)  
> Subject: mash in temps  
>  
> I have noticed that many recipes here and elsewhere describe a  
procedure  
> where grain is added to water at one temp and then the mash is raised  
to  
> another temp. However, there are also recipes where grain is added to  
water  
> at a temperature such that the mash does not need a boost to the proper  
> temperature. Is there any reason not to always use water at a temp such  
that  
> the mash will be at conversion temp. or protein rest temp. without  
> adjustment?  
>

Good question. It all depends on your brewing style, equipment, style of  
beer to produce, and malt choice (simple, eh...?). Many lager brewers  
insist  
on a protein rest, certainly weizens need a protein rest. Many ale  
brewers  
do a single or two step mash, myself included. With Pale Ale malt, there  
is not much need for a step mash, and I use the \*shudder\* Briess 2 row  
malt,  
one of the \*low\* quality malts (as do Sam Adams, Dominion Brewery, and  
countless other "quality brewers"). I used to go for the upward step  
mash,  
but after noting that Dominion Ale is made from a single infusion, and  
some  
California micro mashes all of 5 minutes at 155 prior to lautering.....I  
changed my basic ale mash. One of the problems of using Briess is it  
will  
convert real fast, sometimes leaving the beer too thin, too low FG. To  
combat this, I have been using more Munich malt (deWulf) to boost the  
body  
and flavor. I also have tried mashing at 158F , and this has worked  
well,  
esp when I am making high gravity brews, and diluting them in the kettle  
and/or fermenter. One of the major benefits of doughing in at a lower  
temp  
is the acidulation of the mash can occur, prior to saccharification. I  
just use some Gypsum, and mash at 15X F for 60 min, then raise to 170.  
Works  
for me.

Good brewing,  
Jim Busch

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Date: Wed, 17 Nov 93 07:17:00 -0600  
From: phil.brushaber@lunatic.com (Phil Brushaber)  
Subject: Filtering

I agree with Jim Busch that filtering can really help your brew. I would make a couple of observations: 1) Make sure your beer is about as mature as you want it before filtering. IMHO the beer does not age much after it has had the yeast removed. 2) Filtering DOES seem to remove some of the "body" of the beer. As a result, while I tend to filter my light colored brews, I do not filter the dark ones.

As part of the message Jim suggests:

>Since I was filtering two quite different beers, I back flushed the filter  
>between beer types, and tons of yeast came out. I still think that a  
>5 micron filter is perfectly adequate for removing excess yeast.

Jim... How do you back flush the filter? Normally, between batches I first run some water through it, then some Idophor, then water again, and the start filtering again.

... Homeless... will work for beer!  
\_\_\_ Blue Wave/QWK v2.11

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| The Lunatic Fringe BBS \* 214-235-5288 \* 3 nodes \* Richardson, TX \* 24  
hrs |  
| UseNet, ILink, RIME, FIDO, Annex, Intelec, LuciferNet, PlanoNet, and  
more!

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Date: Wed, 17 Nov 1993 09:29:40 -0500 (EST)  
From: gelinas@ekman.unh.edu (Russell Gelinas)  
Subject: batch sparge, astringency

It is known that high temperature is a good way to extract tannins from grain. It is also known that low pH inhibits that extraction. The latter is the reason decoction mashing does not cause excess tannin extraction.

Some (myself included) advocate using boiling water for sparging. This works well, but as the pH of the mash increases as the wort is run off (water has a higher pH than the mash), the amount of tannins extracted will also increase. One solution would be to use boiling water for the beginning of the sparge, and "cooler" (whatever that may be) water as the sparge progresses. Another solution would be to batch sparge, adding the boiling water all at once. As has been noted, sugar extract efficiency will suffer slightly with a batch sparge, but tannin extraction would likewise be minimized.

Russell Gelinas  
opal/ssc (EOS)  
unh

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Date: Wed, 17 Nov 1993 08:52:29 EST  
From: "Mark T. Berard, Dow Plastics, LAD, TYRIN\* CPE R&D"  
Subject: Aluminum Brewpot

With all this talk about chips in enamel pots I have a question. I have been brewing about a year, maybe 6 batches, all extract, some with specialty grains, etc. All batches have been pretty good, but nothing stellar (YET!). Lower cost and ease of use are important factors for me.

Anyway, I have been using a 22 qt Aluminum brewpot (Al. is much cheaper, especially for pots this size.) Is this really a major problem for the quality of my beer? Or is a stainless steel pot more like the "charismatic wooden spoon" thing? If Aluminum IS a real problem, why? Please remember that I am still a beginner, and subtle advantages to my beer will be lost among all the other mistakes I've been making! Any help of this would be greatly appreciated! Thanks.

Mark

Dr. Mark T. Berard | Internet: mtberard@dow.com  
Snailmail: | Voice:504-353-8418  
Dow Chemical, La. R&D, Bldg. 2506 | FAX: 504-353-6608  
PO Box 400, Plaquemine LA 70765 | SCIENCE!

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Date: Wed, 17 Nov 93 09:53:32 EST  
From: oswald@columbia.sparta.com (Don Oswald)  
Subject: No-Hop Beer/Primus-Secundus-Tercius

For the person who was looking into brewing in a part  
of the world where hopps are not avialable (in hbd 9 nov):

Before the hop became a popular addition to beer, (12th  
century in England?-- I don't hve my books here) there  
were several other things which were added to beer to  
improve its storage life. The only one I have tried is  
spruce - about 8 oz of new growth for 60 minutes of boil  
- leaves the malt sweetest and adds almost a "cola" like  
flavor. Some early American Beers also used spruce.

Primus-Secundus-Tercius: An early brewing technique had  
several batches of beer made off of the same set of grains.  
The descriptions I have found make it sound like a simple  
infusion mash with no sparging, repeated to make several  
batches of decreasing strength. The recipes I have found  
make one 80 gallon batch of each of the "three threads"  
and use bushels of grain. Has anyone tried these methods  
at a scale closer to reasonable?

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Date: Wed, 17 Nov 1993 09:59:19 EST  
From: Matthew Evans <matt@cadif.cornell.edu>  
Subject: Microbreweries and Fruit Beer

I understand that some microbreweries that are brewing fruit beers. I am particularly interested in cherry beers, but does anyone have any info (address and phone numbers) of these breweries? Have you tried their beers?

How about brewing your own cherry beer? I know people have tried it but how are the results? Did you use real cherries, or the Belgian extract?

I am particularly fond of the Belgian Kriek Lambics from Lindemann's and Liefman's, but I've heard (rumor) that they aren't lambics but actually brown ales. Has anyone else heard that?

Thanks for your help. Please send me a copy of the postings to the above address. Thanks!

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Date: Wed, 17 Nov 93 9:34:48 CST  
From: chips@coleslaw.me.utexas.edu (Chris Pencis)  
Subject: flying homebrew

I flew Southwest Airlines round-trip Austin to Santa Fe and returned with a case of various beers (some labeled) from the Santa Fe brewery (actually in Galisteo). This was in a brown fold top case box. The person at the security gate wanted to look at the bottles and make sure none had been opened. I put them in the overhead bin - no problems there. Overall - I was not hassled by anyone, of course this could just be the airline and the specific personell (as I feel will probably be the case for most people).

Chris

=====  
|Chris Pencischips@coleslaw.me.utexas.edu |  
|University of Texas at Austin Robotics Research Group |  
=====

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Date: Wed, 17 Nov 93 06:50:42 PST  
From: kdamrow@Thomas.COM (Kip Damrow)  
Subject: "Beer, the magazine"

Hey there,  
I haven't seen any mention of this, so I'll ask...  
Has anyone checked out the first edition of "Beer, the magazine" ?  
I was very impressed. Any thoughts?

Kip

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Date: Wed, 17 Nov 93 11:00:38 EST  
From: Brett Baumberger <bsb@hpuerca.atl.hp.com>  
Subject: Re: Flying Homebrew

Hello Fellow Brewers,

I have been successful taking homebrew on airplanes by simply checking the box as baggage. I used boxes acquired via a beer-of-the month club. There wasn't any breakage, but I did wrap the inner contents of the box in a couple of trash bags in case the worst happened. I did not mark the box fragile or put any other writing on the box that would cause undue attention. No questions were asked of me about the contents of the box. The friends I visited had never tasted homebrew before, and they were quite impressed.

Brett Baumberger

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Date: Wed, 17 Nov 93 10:15:36 -0600  
From: bliss@pixel.convex.com (Brian Bliss)  
Subject: flying homebrew

I never fly without a bottle, homebrew or otherwise.

They've let me on the plane with homebrew, though usually I just take a couple of bottle of imports. The only time security has ever even looked closer was when I had a flask full of potent Gin and tonic. The guard just took a whiff to make sure it wasn't gasoline or something. Hell, it could have been everclear! Once a flight attendant said I wasn't supposed to drink on the plane, so just keep it low. Security guards who do not know what is in the bottle do have a point, though, so be prepared to check it, chuck it, or chug it.  
(the 3 - C's)

The only thing that I have been stopped for, beleive it or not, was for a set of darts (steel tipped). It was in Phoenix, I had already carried them on a flight, and they wouldn't let me go to a different terminal where I was supposed to meet someone, and all the lockers were in the security areas.

"Hello captain. I'm sorry, this flight IS going to Cuba. if you don't fly there voulutarily, I'll have to  
a) throw this dart at you.  
b) make you drink homebrew until you pass out."

bb

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Date: Wed, 17 Nov 93 08:32:45 PST  
From: bloom@inference.com (Ben C. Bloom)  
Subject: cranberry beer recipes wanted

I had a remarkable beer discovery experience last night:  
Sam Adams Cranberry Lambic  
It was crisp, smooth, and had sensational flavor.

I'd like to give it a try to make a cranberry beer. Any favorite  
recipes out there?

Thanks,  
Ben Bloom

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Date: Wed, 17 Nov 93 08:31:00 -0600  
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)  
Subject: Golden Syrup

In HBD beb@pt.com (Bruce Buck) asked:

BB> In "Brewing Beers Like Those You Buy", Dave Line gives a recipe  
> for "Bishop's Tipple", a real ale. The recipe asks for "1 lb  
> Golden Syrup". Is Golden Syrup one of those things like Treacle  
> which is unknown in the USA? Or is it what Americans call Corn  
> Syrup?

I *\*believe\** that Golden Syrup is nothing more than invert sugar. I came to this conclusion after looking, tasting, and reading the ingredients. It looked and tasted just like the invert sugar that I *\*used\** to used as an alcohol booster in my younger make-it-as-strong-as-you-can college-brewing days.

Invert sugar can be made by adding four pounds of cane/beet (white) sugar to two pints of water and 2 teaspoons of citric acid. Heat until it comes to a boil. Watch it, the boilover of this stuff makes a wort boilover look like nothing. Continue with a low boil for one hour. Allow to cool, dilute to one gallon.

Chuck  
\* RM 1.2 00946 \*

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Date: Wed, 17 Nov 93 10:59:09 MST

From: npyle@n33.stortek.com

Subject: Hops FAQ/Barley Wine/Immersion Chiller/HSA/Anti-Bacterial?

Patrick Weix of Yeast FAQ fame has done me (and all of us) a big favor and archived away the Hops FAQ to the stanford archive site. It is a new revision from the one seen here on HBD; there is a little bit of new information, and some minor corrections. Try the r.c.b FAQ for instructions on accessing it.

Thanks, Patrick!

\*\*

Brian Seay asks about barley wine fermentation. I have one in the secondary that is progressing (slowly) and I've learned a bit from it that I can pass on:  
PITCH LARGE NUMBERS OF YEASTIES!!! AERATE!!! This is especially important for high gravity beers. I think if you do this, you can use a good attenuative ale yeast and it will work fine. DON'T USE WYEAST LONDON ALE YEAST (1028)!!!  
I'd recommend the Wyeast American Ale yeast (1056) and a large pitching volume (maybe 1/2 gallon) of active starter. If this doesn't get to the FG you want, you can always repitch a wine or champagne yeast later (I did). My Old Lucifer is down to 1.029 after pitching a wine yeast a couple of weeks ago (it has been fermenting since Sep. 18) and is (finally!) starting to get kinda nice..

.

\*\*

William Swetnam asks some questions about building an immersion chiller:  
>1. What are the recommendations on size of the copper tubing, 1/4 3/8 or 1/2 inch. A quick stop by my local hardware store raised the question of fittings, I'm wondering more about what may be the most efficient for heat transfer.

I recommend 1/4" or 3/8" tubing. Whatever fittings work are the ones you need.

>2. Some commercial wort chillers that I have seen do not put the water through an ice bath first. Is there a problem in chilling the wort too fast?

No problem chilling too fast. My water is sooo cold that an ice bath is definitely overkill. Its just a question of whether you want to use more water or electricity for your cooling. I haven't compared the \$\$ costs.

>3. I'm planning on using 25' of tubing in my immersion section, is this too much, too little?

Just right (of course, you'll get a hundred opinions on this; you could do a bunch of physics and math to come up with some perfect answer...).

\*\*

Ken Theriault writes:

>I have not heard about the "problems" with HSA and have been using the advice from Papazian's book. Could someone explain why I should use the "Papazian" method or direct me to a source for the information.

Check out George Fix's article in the Zymurgy Winter 1992 issue...

Jack writes:

> I think what I learned is that the anti-bacterial characteristics of hops are either a myth or greatly exaggerated in the brewing folklore. Clearly, if yeasts and bacteria live on the hops and can inoculate a culture dish, it is not very bacteriocidal.

It may be iso-alpha acids (from the boil) which are anti-bacterial, or alcohol (we know this), or by-products of the (unknown, at least to me) dry-hops/wort reactions.

> It would have been interesting if there was a control using a handful of grass clippings or leaves to find out if it was the nature of the fermented beer or the hops that prevented contamination.

I agree.

\*\*

Me: What ever happened to the Kegging FAQ?

Norm

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Date: Wed, 17 Nov 93 09:45:07 -0800  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Treacle & Other Brit Sugars

>>>> On Tue, 16 Nov 93 08:31:51 est, thutt@mail.casi.sti.nasa.gov said:

thutt> No, you cannot buy treacle in the U.S., but that  
thutt> is not the full answer. To get the full answer, we

Up until recently, (two or three weeks ago) I was able to buy small cans of treacle and golden syrup from my local brewshop. When I last tried to purchase it, I was told that there was some sort of embargo on.

thutt> must first find out exactly what Treacle is. Once and  
thutt> for all, Treacle is simply blackstrap molasses. You  
thutt> can get this in many places in the U.S.

I have been unable to find any other commercial product which approaches the rich flavor of the treacle I was purchasing. It may simply be a quality issue, but that's enough difference for me. A more accurate statement would be "If unable to find treacle, commercially available molasses is an acceptable substitute"

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312x18  
drew@chronologic.com

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Date: Wed, 17 Nov 1993 11:00:24 -0800  
From: "Paul Jasper" <paul@rational.com>  
Subject: Re: Treacle & Other Brit Sugars

On 16 Nov, 8:31, thutt@mail.casi.sti.nasa.gov wrote:

> Subject: Treacle & Other Brit Sugars  
>  
> I'm getting tired of seeing the Great Treacle Question posed and  
> pondered time and time again. In HBD 1273, Bruce Beck wondered  
> what Golden Syrup is (I dunno) and once again mentioned the  
> mysterious Treacle. [...]  
>  
>-- End of excerpt from thutt@mail.casi.sti.nasa.gov

I just received a copy of "Brew Your Own Real Ale At Home" by Graham Wheeler and Roger Protz (published by CAMRA books in England, it is basically a set of recipes for duplicating various British real ales). It says that Golden Syrup is liquid invert sugar (sucrose from cane sugar broken down into fructose and glucose for easier fermentation).

- --  
- -- Paul Jasper  
- -- RATIONAL  
- -- Object-Oriented Products  
- --

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End of HOMEBREW Digest #1275, 11/18/93  
\*\*\*\*\*  
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Date: Wed, 17 Nov 93 14:10:10 EST  
From: Mark Bunster <mbunster@hibbs.vcu.edu>  
Subject: cold chillin'

More tidbits--so much info to um, digest...

\* >Also, I considered the crabtree effect a good reason to abandon corn  
\* >sugar, but of course there are other good reasons to stick with it.  
\* >One must balance everything. Some people are quite happy carbonating  
with  
\* >sterile wort or kraeusen, and for lager there is no topping the latter  
\* >method (IMHO). Even Anheuser-Busch do it!!  
\*  
\* Did I slam Carl for abandoning corn sugar? No, I just posted what I  
did  
\* and some of my reasoning. Frankly, IMHO, your opinions don't sound so  
\* humble.  
\*

Now, play nicely, first of all.

Second of all, Papazian seems to poo poo the use of corn sugar, and I've  
certainly tasted the results of using too much (assuming that's what made  
it

so cidery), but he (Pap) does allow for reasonable use below 30% of all  
fermentable sugars. --Sidequestion-- in priming our bottle of IPA last  
night,

we used a mix of corn sugar (1/4 cup), LME (3/4#) and honey (2 tbsp) for  
a

five gallon. When trying to figure out total fermentable sugars, how on  
EARTH

does one reconcile the different units of measure, or at least compute  
the

total amount of ferm. sugars??

It (sugar) certainly does the job of giving one good carb and boosting  
pot.

alcohol, and it's cheaper than dumping additional extract for priming,  
but

you can overdo it. I suspect it's just another one of those things up for  
reasonable debate, EXCEPT: you are not making a Rheinheitsgebot beer when  
you

use corn sugar, for what that's worth to you.

\* Has anyone else had any good or bad experiences carrying homebrew onto  
a  
\* plane? Or, for that matter, checking homebrew in their luggage?  
\*

Some kind gent in the aviation industry has noted that pressurization  
extends

to the cargo bays for structural reasons, so you should be safe either  
way

you want to pack it.

\* In my last posting in 1271 I mentioned the recommendation in Papazian  
to

\* pour the hot wort in cold water in a carboy as being bad advice and  
\* received a number of worried responses, to some of whom email responses  
\* bounced. I'll quote Charlie himself, RDWHAHB. While this procedure  
\* is not correct - chilling in a bathtub or with a wort chiller prior to  
\* pouring is recommended, the amount of damage that could be expected due  
\* to hot side aeration is so slight that it is unlikely to be noticeable.

\*

---

While bottling that IPA I spoke of earlier, we began our first lagering attempt, having gotten a fridge to run at temps below 60. Anyway, we did what the fella above recommended--bringing the boilpot directly from stove to tub full of water and blue ice (this will save some money on ice for sure). After about 15 minutes it went to fermenter with 3 gal cold water (I know, I know, soon we'll go buy a pot that will allow for full volume boils) and was immediately pitching-ready. I would say for maximum compromise between full volume boil and the advantage of having the cold water help cool the wort, maybe a 4 gal - 1 gal makes good sense. It's primitive, but for us nontinkerers who are too poor to buy and too stupid to build a cf or immersion chiller, it works quite well and goes faster than we imagined.

And finally, my perception of the heinousness of Papazian's wort-into-water error was not that you risk HSA but having your carboy crack and break from the temperature change.

Peace all, from the city where Clear Beer was testmarketed and unfortunately received rave reviews.

\* Second question. I have seen some plastic "kegs" in local home-brew shop which come from Europe. Supposedly, they can be used to carbonate in and draft beer from. Has anyone tried these? They seem like only a glorified beer ball.  
\*

Oh yeah, this makes me think of the Beer Machine question. I think the guy who recommended buying one was thinking of its utility as a dispenser only. If anyone tries it let us know how it works for you. Yeah, I couldn't imagine drinking a Ronco-beer and having it taste good.

- - -  
Mark Bunster |Exchange conversation if you dare--  
Survey Research Lab--VCU|Share an empty thought or a laugh.  
Richmond, VA 23220 |  
mbunster@hibbs.vcu.edu |  
(804) 367-8813/353-1731 | -edFROM

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Date: Wed, 17 Nov 93 15:23 EST  
From: gcw@lydian.att.com  
Subject: Old Bay Holiday Homebrew Contest

The Old Bay in New Brunswick, NJ is having their annual "Holiday Homebrew Contest" on Dec. 11th. The categories are Ale, Lager, Speciality and Holiday - \$5 and 2 bottles per entry - all entry fees go to the local food banks. The celebrity judging panel to include:

Carol Stoudt  
Sal Pennacchio  
Jay Mission  
Jim Lutz  
Fran Mead

Deliver your enties to the Old Bay, 61 Church Street, New Brunswick, NJ 908-246-3111. The Old Bay has 10-12 micros on tap, great cajun/creole food and live blues music at night. Say hello to Chris the bar manager when you get there!.

Geoff Woods

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Date: Wed, 17 Nov 93 14:54 CST  
From: arf@mcs.com (Jack Schmidling)  
Subject: Astringency

>From: GANDE@slims.attmail.com

>Further to this one could assume that it would be OK to sparge with boiling water, which is accurate as long as your grain bed pH doesn't raise above 5.3, ideally. In the real world, sparging raises mash pH towards the end of the run and continuing to rinse with boiling water would leach out tannins.

That's a nice number but like so many things, it is only a bench mark.  
What

if the pH rose to 5.4 or 5.7... would it make a detectable difference? I doubt it.

>I made a mini-grain-tea-bag, boiled it for 10 minutes in tap water (pH 7.0) and it was what I would call astringent. That's enough proof for me. ;)

All that says is that boiling tap water with a pH of 7.0 will make astringent tea. As you did not convert the starch into sugar, the astringency could just be the way malt tea tastes without the sweetening effect of conversion.

In the real world, sparge water is run through the mash which has a powerful buffering effect on the water. I run 10 or more gallons of pH 7 sparge water through my mash and it doesn't raise the pH more than a tenth point or so. Furthermore, sparge water temp is not the same as mash temp nor does it bear any relationship to making tea with boiling water.

Finally, it does not address the fact that boiling grain in decoction mashing does not seem to produce astringent beer.

js

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Date: Wed, 17 Nov 1993 12:51:34 -0800  
From: robl <ROBL@outside.com>  
Subject: beer label software

>Dion asked about inexpensive software for designing beer labels

I have used Microsoft "Publisher" with satisfaction. It allows you to curve text instantly and import various bit-mapped images. Its price is around the \$100 range or lower, so it should meet the criteria of "inexpensive". I never got a chance to use it in great length but I was able to make a "Master" label, I would then go in and change the name of the particular brew, I would then have the original artwork copied at the printer and I changed ink colors with the various brews. Thus keeping things simple, yet each brew had its own look.

I am no longer working where they had the software on the network--so I'm forced to learn Coral Draw and triple my learning curve, but my labels will improve proportionally with their custom "look." Hope this helps, rob

=====  
Robert Linder  
Crystal Point Inc  
phone 206-487-3656 fax 206-487-3773

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Date: Wed, 17 Nov 93 14:24:36 EST  
From: sdlsb.dnet!73410%sdicc@swlvx2.msd.ray.com (Carl Howes)  
Subject: hands across the border

The following appeared in #1274 as a uuencoded WordPerfect 5.1 document.  
Clear text follows.

Carl

\*\*\*\*\*

Does anyone know how to sanitize/sterilize a bottle washer. I am referring to the brass device that attaches to a faucet and releases a high pressure jet of water into a bottle (or carboy). This device has a small ball inside the end piece which acts as a valve to shut off the jet of water when the bottle is removed. It appears this ball prevents the residual water from draining from the device after its use. This water seems to be the source of contamination in a couple of my batches. I am not sure if merely running water through will flush the contamination. I have tried injecting bleach into the device followed by an overnight soak which resulted in the device turning a shade of green.

Any advice or assistance will be appreciated.

Ed Kelly  
Saint Mary's University  
Halifax, Nova Scotia, Canada

ekelly@admin.stmarys.ca

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Date: Wed, 17 Nov 93 14:20:11 EST  
From: sdlsb.dnet!73410%sdllcc@swlvx2.msdl.ray.com (Carl Howes)  
Subject: HSA

Brian (brian@carbon.cor2.epa.gov) wrote:

> ...recent batches of mine have taken several hours to cool (1.5 gallons  
> of  
> hot wort added to 3.5 gallons of cold water) to pitching temperatures,  
> which has made me nervous about possible infection.

I answered:

> I had the same problem when I used that process. Since learning about  
> Hot Side Aeration (HSA), I now cool the concentrated wort to pitching  
> temp  
> before mixing. Takes 35-45 min by immersing the kettle in cold (45F)  
> tap  
> water in my kitchen sink with two water changes. The hot/cold mixing  
> is  
> a piece of bad advice in Papazian's book which I'm sure Al has marked.  
> ..

Ken (theriaul@sde.mdso.vf.ge.com) responded:

> I have not heard about the "problems" with HSA and have been using the  
> advice from Papazian's book. Could someone explain why I should use  
> the "Papazian" method or direct me to a source for the information.

I answered this privately, but read on.

Ulick (ulick@darwin.cc.nd.edu) wrote:

> While this procedure is not correct - chilling in a bathtub or with a  
> wort  
> chiller prior to pouring is recommended, the amount of damage that  
> could be  
> expected due to hot side aeration is so slight that it is unlikely to  
> be  
> noticeable.

I have seen a huge improvement in flavor stability and beer quality since  
I  
started chilling the concentrated wort. Have you tried it both ways,  
Ulick?

For the record, I first heard about HSA in this digest with no  
explanation.  
I stumbled across the source of the information when a friend who  
(regrettably) had to give up brewing gave me some back issues of Zymurgy.  
There is an article by George Fix on the topic in the Winter 1992 issue.

An earlier rendition of this post seems to have vanished in transit. If  
it  
resurfaces, apologies for the redundancy.

Carl

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Date: Wed, 17 Nov 1993 16:20:26 -0500 (EST)  
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>  
Subject: Golden Syrup/Black Treacle

thutt@mail.casi.sti.nasa.gov writes:

> Subject: Treacle & Other Brit Sugars  
>  
>  
> I'm getting tired of seeing the Great Treacle Question posed and  
> pondered time and time again. In HBD 1273, Bruce Beck wondered  
> what Golden Syrup is (I dunno) and once again mentioned the  
> mysterious Treacle.  
  
> No, you cannot buy treacle in the U.S., but that is not the full  
> answer. To get the full answer, we must first find out exactly  
> what Treacle is.

I have used Lyle's Golden Syrup and it has a pleasant mild caramel-like quality. Actually I thought its flavor was similar to rock candy.

You *\*can\** get Lyle's Black Treacle and Golden Syrup in a well stocked homebrew shop. My homebrew shop in Indy carries these as well as the imported Demararra sugar.

Rob Reed

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Date: Wed, 17 Nov 93 16:27:17 EST  
From: Lee=A.=Menegoni@nectech.com  
Subject: Making Hard Cider

Many members of our club make "New England Barrel Cider"

To do we get fresh cider from a local orchard.  
Some add sugar , brown or white, to enhance the cidery flavor.  
We then pour it in a carboy and let the natural yeast ferment it.  
After vigorous fermentation has subsided it is racked in to a  
second carboy to settle. Raisins or other dried but unpreserved fruit  
may be added at this time as well as spices.  
Let it settle until spring, then bottle.

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Date: Wed, 17 Nov 1993 13:44:15 -0800 (PST)

From: gummitch@teleport.com (Jeff Frane)

**Subject: Sour Noonan**

Interesting to note Greg Noonan's article in the special issue of Zymurgy. Noonan is now touting sour mashes as the secret ingredient in Bavarian weizens and Bohemian pilsners -- in spite of a complete lack of evidence that they are used at all in those areas. (The acid rest he mentions is a matter of a few hours or less, not days.)

Funny. In his book on lager beers, Noonan insisted that one couldn't have a real European lager taste without a decoction mash (in spite of the fact that a good many German breweries were doing infusions). Now it's sour mashes. Wonder what's the next big "secret".

- --Jeff

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Date: Wed, 17 Nov 93 14:34  
From: TODDJ.SRVRHOST@test.readmore.com (Todd Jennings)  
Subject: Twist Off Tops

-

In HBD #1270, Phil Gillman writes:

> I was wondering if pressure differences and retention are the reason  
> that there is a difference in the taste between commercial beers with

> twist tops and those with opener only tops. any one have another  
> explanantion or support for this one?

Well Phil, I can't say that \*I\* have noticed a difference in the taste of

beers based solely on how they are capped. Maybe my discerning palate has not yet developed that far(I'm still a rookie homebrewer). But your question \*does\* raise another one in my mind, something I've noticed recently among the craft-brew community.

Lately, many brewers have seemingly abandoned the "opener only" capping

method in deference to the "twist off" configuration. Most recent additions to the list of Twist Offers include Pete's Wicked, Sierra Nevada & Geary's.

My question is...WHY? Are these guys worried that we'll get out to the picnic ground before we realize we've forgotten our bottle opener?? Or are they worried we homebrewers will hoard their bottles for our own selfish purposes? Or is it possibly cheaper?

Maybe it's just me, but I'm perceiving a trend toward the commercialism once pioneered by Augie Busch, Adolph Coors, and all the other nationals who were trying to get a leg up on their competition. With the recent advertising brew-ha-ha at BBC, and now this, I'm worried that we may be coming to the beginning of the end. What will be next, rice in place of malt??

All shared thoughts on this subject, either direct or posted here, will be appreciated.

Todd "Just call me paranoid" Jennings  
toddj@readmore.com

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Date: Wed, 17 Nov 93 16:03:56 CST  
From: wood@ranger.rtsg.mot.com (Dan Wood)  
Subject: Dry Hopping and Infections

I'm confused. Nothing new, but maybe you can help. I realize that I could have sent this directly to the "Lighthouse of Wisdom and Truth", but figured someone else might have an opinion.

Anyway, it's pretty clear that the greatest risk of infection is before fermentation. No confusion there. Presumably the bacteria produce bad flavors, then are overwhelmed by the yeast, PH, and/or alcohol. Right?

However, the recent dry hop & bacteria thread has made me wonder about post-ferment. Some HBD articles have indicated that once fermentation is complete, the beer is hostile to bacteria, so no worries.

On the other hand, I've read several times that "gushers" are caused by infections. The idea there is that the bacteria eat stuff that the yeast don't, resulting in over carbonation during long term storage.

So, which way is it?

The dry hopping thread sparked my interest, because the only time I've had a problem with gushers was when I dry hopped. Two different batches, plus one of a friends all shared this problem. We both abandoned the process after these disasters, but I'll try again if someone can shed some light here. Thanks alot.

PS: Jack, when you going to run some experiments with fermenting on the hot and cold break material? The momily-busters fan club is getting impatient.

Regards, Dan Wood wood@rtsg.mot.com

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Date: Wed, 17 Nov 93 15:06:23 PST  
From: troy@scubed.scubed.com (Troy Howard)  
Subject: American Brown Ale

Hi all,

I was browsing through Papazian's book last night and noticed he makes mention of a style called American Brown ale. Does anyone know any commercial examples of this style? I would be interested in trying a sample.

Thanks loads,

Troy

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Date: Wed, 17 Nov 1993 18:50:50 -0500 (EST)  
From: Kieran O'Connor <koconnor@mailbox.syr.edu>  
Subject: Beer Analysis

In the latest issue of Breweing Techniques I saw something interesting: a firm which will do beer analysis. I called and here's the poop:

This place will do an analysis of your beer (or any beer for that matter) for \$24. here's what they do: IBU's, Color (SRM), PH, Titratable Acidity, Alcohol, Apparent Extract, Apparent degree of fermentation and original extract. Apparently it costs the same to do one as it does the others so it \$24 for the whole deal

They will ask you how many IBU's you intended in your brew--and you will be able to calculate your hop utilization--something which seems to me to be worthwhile.

The price is a bit steep--but a club could do this for education--or even for contest winning beers.

They promise one week turnaround:

Homebrewers Lab Services  
PO Box 269  
Whitmore, CA 96096  
(916) 472-1240.

Anyone had any expericence--yet?

Kieran O'Connor

E-Mail Address: koconnor@mailbox.syr.edu  
Syracuse, N.Y. USA

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Date: Tue, 16 Nov 93 12:42:52 EST  
From: sdlsb.dnet!73410%sdlcc@swlvx2.msdl.ray.com (Carl Howes)  
Subject: HSA

Ken (theriaul@sde.mdso.vf.ge.com) writes:

>I have not heard about the "problems" with HSA and have been using the advice from Papazian's book. Could someone explain why I should use the "Papazian" method or direct me to a source for the information.

After responding to this privately I realized that the only reason that I knew the original source of information on HSA is that I found it by accident in a friend's back issue of Zymurgy. So, for the curious, get a copy of the Winter 1992 edition and read George Fix's article. Then read the following article, which is related (sorry, forget the authors names and the magazine is 25 miles away).

Carl

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Date: Wed, 17 Nov 93 18:38 PST  
From: lfk@veritas.com (Lynn Kerby)  
Subject: Re: Treacle & Other Brit Sugars

In HBD1274 thutt writes:

> I'm getting tired of seeing the Great Treacle Question posed and  
> pondered time and time again. In HBD 1273, Bruce Beck wondered  
> what Golden Syrup is (I dunno) and once again mentioned the  
> mysterious Treacle.  
>  
> No, you cannot buy treacle in the U.S., but that is not the full  
> answer. To get the full answer, we must first find out exactly  
> what Treacle is.

Wrong. It is possible to buy treacle in the U.S. as it is a stocked item at my local homebrew store. I don't know when/where the proprietor aquired the stuff, but he does have both the treacle and the mysterious Golden Syrup called for in the recipes (from Dave Line's book?). I don't know if he could replace it if someone bought it, but it is currently available for sale in at least one location in the U.S.

Obviously it is not commonly available in the U.S. but that isn't what you said.

Lynn Kerby  
lfk@veritas.com

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Date: Wed, 17 Nov 93 17:23 CST  
From: korz@iepubj.att.com  
Subject: Pitch timing

Russell writes:

> Tell me if this makes sense. Since most homebrewers underpitch,  
>we don't want to pitch fermenting yeast (ie. high krausen), we want  
>to pitch reproducing yeast (ie. pre-krausen). That way when they hit  
>the fresh (well oxygenated!) wort, they continue to reproduce, ensuring  
>a large colony and a healthy ferment when it's time. The way to ensure  
>this would be to pitch a starter shortly after it has been inoculated,  
>before the krausen begins.

It makes sense, but it's not the way that yeast actually works. Just  
"before  
the krausen begins" the yeast have their glycogen level depleted.  
According  
to experiments done by Pickerell, Hwang & Axcell (and reported in their  
paper: Impact of Yeast-Handling Procedures on Beer Flavor Development  
During  
Fermentation, 1991 American Society of Brewing Chemists, ASBC Journal,  
volume 49, no.2.) you want to wait till the high krausen has just ended  
to pitch your starter. I have more info on this for anyone who is  
interested.

Al.

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Date: Wed, 17 Nov 1993 09:12:31 -0500  
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)  
Subject: The Crabtree Effect

Miller's book and previous discussions in the HBD on the Crabtree effect imply that the effect occurs when ONLY dextrose is available for fermentation. But, my recent perusing of Malting and Brewing Science (by Hought et al.) leads me to believe that the effect occurs when dextrose is in a high concentration, and is not related to dextrose being the exclusive fermentable available for the yeast. Thus, priming with 3/4 cup of corn sugar, which adds a relatively low concentration of dextrose to a five gallon batch, may not induce the Crabtree effect. I'm not sure of the percent dextrose in the average beer wort, but it is probably near 10%; if this is correct, then the average beer wort has a higher concentration of dextrose than does a fermented out beer that is primed with dextrose. If this reasoning is correct then the Crabtree effect is more likely to occur in the average wort than in dextrose primed beer.

Any comments? Perhaps we really don't need to be concerned with the Crabtree effect when priming with corn sugar. This would be supported by the common knowledge that dextrose primed beers do not appear to exhibit more oxidation characteristics than beers that are krausened or primed with fresh wort.

Steve Zabarnick

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Date: Wed, 17 Nov 93 10:26:35 EST  
From: nathan@monolith.bellcore.com (Nathan Justus)  
Subject: Golden Syrup

In response to HBD #1273 - what is Golden Syrup? Well, true Golden Syrup is cane sugar syrup. I would imagine that corn syrup could substitute, however you might look for GS...my local A&P stocks it occasionally, and stores like William Sonoma (if you don't have them in your area, they're kind of yuppie cooking stores).

GS, since all that I've ever seen is imported from the UK, is quite expensive - expect about US\$3.00 for a 1 pound jar/can (I've seen it in a tin or in a jar).

Nathan Justus  
nathan@monolith.bellcore.com

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Date: Wed, 17 Nov 93 21:49 PST  
From: polstra!larryba@uunet.UU.NET (Larry Barello)  
Subject: Re: barleywine

In HBD #1274 Peter writes:

> If you want to lighten the body of your beer without bad side effects  
I  
>recommend adding 15% of your grain and extract weight in honey. This  
should  
>help drive the fermentation to completion. I get light clover honey in  
>a local store for a buck a pound.

Has anyone used rice, rice syrup or other cereal grains to lighten the  
body of their barley wine?

- --

Larry Barello uunet!polstra!larryba

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Date: Tue, 16 Nov 93 15:16:05 EST  
From: dougy@icad.COM ( Doug Lethin)  
Subject: Beer Labels

Date: Thu, 11 Nov 93 14:25:55 PST  
From: hp-sdd.sdd.hp.com!ucsd!megatek!hollen (Dion Hollenbeck)

I have tried software sellers without luck. Would you be able to supply a source for this program, or any more information like author, so that I can find it?

Dion:

Here is the info you requested.  
The name of the company that makes KeydrawPLUS for Windows is Softkey.  
Their number is 407-367-0005  
If that is not correct, call information in the 617 area code,  
and ask for softkey in Cambridge. They just moved here.

Try Electronics Boutiqe. There mail order number is 1-800-800-5166

Good luck, and again, let me know if you have any problems

Doug

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Date: Thu, 18 Nov 1993 00:05:58 CST  
From: d\_simon@fallout.lonestar.org  
Subject: dry hopping/hops as preservatives

In HBD # 1273, Jack Schmidling writes:

>I think what I learned is that the anti-bacterial characteristics of  
hops are  
>either a myth or greatly exaggerated in the brewing folklore. Clearly,  
if  
>yeasts and bacteria live on the hops and can inoculate a culture dish,  
it is  
>not very bacteriocidal.

>It would have been interesting if there was a control using a handful of  
>grass clippings or leaves to find out if it was the nature of the  
fermented  
>beer or the hops that prevented contamination.

It is possible that the hop flowers alone are not acidic enough to  
inhibit  
the bacteria. I would speculate that the preservative effect of hops  
comes from the alpha acids extracted during the boil, and the increase in  
acidity. You don't hear of the preservative qualities of hop aroma  
although you do hear of the preservative qualities of hop bitterness.

Darrell Simon  
North Texas Home Brewer Association  
d\_simon@fallout.lonestar.org

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Date: Thu, 18 Nov 1993 00:14:49 CST  
From: d\_simon@fallout.lonestar.org  
Subject: 1994 Bluebonnet Brew-off

The 1994 Bluebonnet Committee presents the 8th Annual

BLUEBONNET BREW-OFF

Yes, YOU and your BEER are welcome in Dallas/Ft. Worth next Spring.

The Bluebonnet Committee prides itself in offering the BEST PRIZES in the Country! We'd love you to win one or more of our cherished Steins!

\* The competition dates will be Friday, March 11 and Saturday, March 12, 1994

\* We will offer all 28 of the 1993 AHA Categories.

\* You have four months to go, so join us and GET BREWING!!

Please feel free to pass this on to a friend, club member, or fellow homebrewer. As well, please post this at your club meetings and/or your local HOMEBREW supply shop.

You Can Contact us as follows:

Bluebonnet Brew-Off  
PO Box 211721  
Bedford, TX 76095

or  
d\_simon@fallout.lonestar.org

We will follow-up and provide further details as entry times near.

"Just Dave" Girard  
Secretary, 1994 Bluebonnet Committee

Note: The 1994 Bluebonnet Committee is a volunteer organization composed of members from all sponsoring Dallas/Ft. Worth area Homebrew clubs. The Bluebonnet Competition is not used as a fundraiser for the DFW area clubs.

All funds are intended for use on the 1994 Bluebonnet Brew-off or future Bluebonnet Brew-offs.

Darrell Simon  
North Texas Home Brewer Association  
1994 Bluebonnet Committee  
d\_simon@fallout.lonestar.org

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Date: Thu, 18 Nov 93 09:47:47 CET  
From: Alan B. Carlson <alanc@adb.gu.se>  
Subject: Xmas beer tasting (part 2)

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PLACE SCORE BEER PRICE REVIEWERS' COMMENTS

1. 3.5 Guinness Draught 14.20 Soft, dry, easy to drink, wonderful bitterness lovely taste
2. 3.0 Banco Julioel10.60 Sweet and sour like, tar-like aftertaste, easy to drink, unbalanced
3. 3.0 Aabro Julioel10.60 Heavy sweetness, well-balanced bitterness, "homelike beer"
4. 3.0 Spendrups Julioel 10.60 Dry, good balance, great for washing down herring
5. 3.0 Carnegie Pale Ale 9.70 Easy to drink, refreshing bitterness
6. 3.0 Lapinkulta 120 11.70 Easy to drink, well-balanced bitterness, sweet, tame
7. 2.5 Falcon Julioel 10.60 Heavy sweetness, full-bodied, tastes like Xmas beer, should be accompanied by a shot of vodka
8. 2.5 Young's Winter Ale 14.30 Sweet, dry licorice aftertaste, nice when flat
9. 2.5 Tuborg Julebryg 12.50 Amber-colored, stale nose, thin, bitter aftertaste
10. 2.0 Koenig Ludwig Dunkel 12.50 Perfume-musk nose, thin, bitter aftertaste
11. 2.0 Pripps Julioel 15.60 Roasted aroma, balanced, a hint of iodine
12. 2.0 Maclays's Scotch Ale 10.00 Smooth, smells like a wet dog, sweet, cheap eau de toilette
13. 1.5 Three Hearts Julioel 10.60 Heavy artificial sweetness, sweet water, candy
14. 1.5 John Bull Bitter 13.70 Perfume nose, one swallow is enough
15. 1.5 Carnegie Porter 1993 12.10 Sweet, burnt taste, bitter
16. 1.0 Anchor Christmas Ale 19.10 Too much of everything, a cup of coffee left too long on the burner, most expensive

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/Alan

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Date: Thu, 18 Nov 93 09:53:12 CET  
From: Alan B. Carlson <alanc@adb.gu.se>  
Subject: Xmas beer tasting (part 1)

I tried sending this yesterday, but I guess it was too long... so,  
I'll try again splitting it into two parts.

I just read a Swedish review of the christmas and winter ales that will be available here in Sweden this winter. Most of them are from Scandinavian breweries (and probably unavailable internationally) and some of them are not what one would commonly find in this class, but this might be interesting to people anyway. The test was staged by the Swedish daily called "Svenska Dagbladet" and appeared Wednesday, November 17th 1993. The panel, which was composed of "both experts and amateurs on the subject of beer" was led by someone by the name of Eric Kaellgren. No other indication was given as to their beer-tasting credentials. They blindtasted 16 different beers and rated them on a scale of 1 to 5 where 1 implied "poor" and 5 implied "excellent". All beers were bottled beers with the exception of Guinness Draught (can) and all were 33 centiliters in volume with the exception of Pripps Julioel which was 50 centiliters.

I did the best I could with the translations of the comments. Prices are in Swedish crowns (a crown is presently worth about 12.2 US cents). Most of these beers will not be available to the general public for another week or so, so I haven't tasted the majority of them myself. I hope the panel is wrong about Anchor's Xmas ale (according to the article it was the only beer which got a score of 1 from everyone on the panel), since I really enjoyed last year's version.

Alan

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Holtermansgatan 1  
S-412 96 Gothenburg  
SWEDEN  
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Date: Thu, 18 Nov 93 10:37:43 EST  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: Zymurgy proof reading

The latest Zymurgy special issue has a German wheat beer recipe that has at least 2 typos. It calls for 2 2/5 pounds of pale malt twice and lists a hop rate of 3/4 grams (note: 28 grams to the ounce).

Spelling checkers are great but does anybody actually read this stuff before it goes out the door?

Re: recent notes on chilling times.

My home made immersion chiller consists of 50 ft of 3/8 copper tubing. With constant stirring, I cooled 5 gallons of boiling wort to 70F in 4 minutes last monday. My tap water (25 miles north of Boston) is pretty cool this time of year - your milage may vary.

- --Tony Verhulst

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Date: Thu, 18 Nov 93 10:55:58 EST  
From: Greg D Blankenship <gdblank@magnum.acs.ohio-state.edu>  
Subject: help needed carbonating lagers

My first lager (Vienna) is about ready to be bottled and I am wondering if I am going to have any problems carbonating it because of the temperatures that I fermented at. The primary fermentation was done at 46 degrees F for 10 days, then I racked into the secondary and dropped the temperature to 33 degrees F. It will have been in the secondary 21 days next wednesday. Since I do not have a keggling system (yet) that I could force carbonate with I am going to have to bottle it. Now my questions

- 1) Will using the standard 3/4 cup of corn sugar be enough to carbonate it?
- 2) Will there be enough yeast left in the beer after the cold lagering period?
- 3) If not is it possible to add more yeast before bottling without creating problems?
- 4) Should I continue cold aging the beer after I bottle it or will this inhibit carbonation?

BTW I have a Penn thermostat from Willam's Brewing that works great. It has a temp control range of 20 F. to 80 F. and is very simple to use.

Thanks,

greg

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Date: Thu, 18 Nov 93 10:44:26 CST  
From: Fritz Keinert <keinert@iastate.edu>  
Subject: Re: Volcano Beer

Cecil writes:

>I made a Czech Pilsner using a can of BREWMART Czech Pilsner extract.  
>I also used 3 lbs extra light DME. The can came with a dried yeast and  
>a pilsner enzyme. At 68 degrees I pitched both the yeast and the enzyme.  
>It took the normal 1-2 days to start foaming but stayed extremely active  
>for 2 weeks. A local brew shop said bottle it anyway and that it would  
be  
>considered a dry beer. I drank 2 sips and decided to dispose of the  
entire  
>batch. I could pop the cap and sit the bottle upright in the sink and  
watch  
>it empty its self from the bottom up. Help !! What did I do wrong ?

Probably nothing.

I had exactly the same experience with Glenbrew Czech Pilsner. In retrospect, the fact that the beer was slightly carbonated at bottling should have tipped me off. The taste was good, though. Very good, in fact. It certainly did not taste infected.

I cooled the entire batch to just above freezing and opened it carefully. That reduced the gushing to more of an oozing. I let it stand for about 20 minutes, filled up the space in each bottle, and re-capped them.

This worked great. Unfortunately, a few weeks after that, the few remaining bottles were back to gushing again.

My guess is that the enzyme is responsible. I don't know what is in it, but I conjecture that it keeps breaking up the higher sugars very slowly, over a period of weeks and months, so that the yeast keeps finding new food.

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Fritz Keinert phone: (515) 294-5223  
Department of Mathematics fax: (515) 294-5454  
Iowa State University e-mail: keinert@iastate.edu  
Ames, IA 50011

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Date: Thu, 18 Nov 93 11:55:39 EST  
From: dweller@GVSU.EDU (RONALD DWELLE)  
Subject: hops address

Somewhere on HBD, I got "May Nursery, Box 1312, Yakima, WA" as a source for hop plants. However, I just got my letter to them returned by the USPO as undeliverable.

Does anyone have an accurate address for May Nursery? or another source for hop plants (note that I'm wanting "plants" rather than seeds).

Thanks,  
Ron Dwelle (dweller@gvsu.edu at Internet)  
"I've met many a beer that I didn't like, but I've never met a beer I wouldn't drink."

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Date: Thu, 18 Nov 93 09:58:51 -0800  
From: Drew Lynch <drew@chronologic.com>  
Subject: Invert Sugar

In yesterday's (I hope) HBD, Chuck Wettergreen posted a method for making invert sugar. Has anyone used this stuff as a priming agent? I was curious if the breaking down of the sugars would inhibit the oxygen generating crabtree effect. I don't like using most of the malt based priming agents, as the percentage of fermentables is unreliable, and produces inconsistant carbonation, however, I hesitate to revert to corn sugar due the the potential for oxidization of the bottled product.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312x18  
drew@chronologic.com

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Date: Thu, 18 Nov 93 11:38:48 MST  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Re: Fruit Beer

You'll find there are almost as many ways to make fruit beers as there are brewers who have made them, but here are some guidelines that have worked very successfully for me.

- \* Use a light beer for a base. I often use a wheat beer base (50/50 barley/wheat), since I think the slight fruitiness of the wheat complements the fruit well. This is not a must -- I made a very tasty blueberry brown ale once; the recipe is in the Cat's Meow II -- but the lighter beer helps to really show off the fruit.
- \* If you use fresh fruit, use LOTS, typically around 1 lb/gallon or even more. My last batch of cherry ale was 9 lbs cherries for 6 gallons of beer. I can't say much about using juice or extracts.
- \* Add fruit to the secondary, after a week or so of primary fermentation, to avoid losing precious aromatics due to CO2 scrubbing.
- \* My general technique is as follows:
  1. Brew your base beer as usual, let primary ferment complete (a week or so).
  2. Remove any visibly damaged fruit (moldy, broken skin, etc) and puree. Add fruit to your secondary vessel, then rack the beer on top of it. The only sanitizing I do of the fruit is a quick sulfite rinse before pureeing.
  3. Allow to ferment again to completion. If the fruit contains a lot of sugar, this can result in some of the most spectacular fermentation you've ever seen!
  4. Rack off of fruit again, using a copper scrubber and/or hop bag over the end of your racking tube to keep things from clogging. It will probably clog anyway. It's a pain. Anyone have a better method? Anyway, the second racking is to a) Allow any remaining fruit bits to settle out, and b) to ensure any residual fruit sugar is completely fermented.
  5. After 2-3 days in the tertiary, bottle as usual.

Regarding Lindemanns and Liefmans, the Liefmans Kriek is based on their brown ale, so it's not a true lambic. Lindemanns is a true lambic, but IMHO it's very much on the sweet side. For a taste of what lambics are really like, try to find a Cantillon or a Frank Boon. Or better yet, visit Brussels!

- - -

Jeff Benjamin benji@hpfclub.fc.hp.com  
Hewlett Packard Co. Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Thu, 18 Nov 93 12:59 CST  
From: korz@iepubj.att.com  
Subject: Avoiding tannin extraction/Lambics

Russell writes:

> Some (myself included) advocate using boiling water for sparging. This  
>works well, but as the pH of the mash increases as the wort is run off  
>(water has a higher pH than the mash), the amount of tannins extracted  
>will also increase. One solution would be to use boiling water for the  
>beginning of the sparge, and "cooler" (whatever that may be) water as  
the  
>sparge progresses. Another solution would be to batch sparge, adding  
the  
>boiling water all at once. As has been noted, sugar extract efficiency  
>will suffer slightly with a batch sparge, but tannin extraction would  
>likewise be minimized.

A third solution would be to acidify your sparge water. This can be done  
using Gypsum (which may not be a good idea if your water already has a  
lot of sulfates or if you are brewing something that requires soft water  
like a Czech Pilsner) or organic acids such as Lactic. My personal  
choice  
is the organic acid method AND using 170F sparge water (I've tasted some  
NON-astringent beers brewed by JS and I know he uses the boiling sparge  
water technique, but I personally feel more relaxed with 170F).

\*\*\*\*\*

Matthew writes:

>I am particularly fond of the Belgian Kriek Lambics from  
>Lindemann's and Liefman's, but I've heard (rumor) that they  
>aren't lambics but actually brown ales. Has anyone else heard  
>that?

Lindeman's is a Lambic, but Liefmans Kriek is a Sour Brown w/Cherries  
or Belgian Brown Ale w/Cherries. You'll need a lot of cherries to  
give you flavors like these beers -- something on the order of 12-15  
pounds for a 5 gallon batch.

\*\*\*\*\*

Ben writes:

> Sam Adams Cranberry Lambic  
>It was crisp, smooth, and had sensational flavor.

I would encourage all homebrewers to discourage anyone from referring to  
this beer as "Lambic." It is by no stretch of the imagination a Lambic.  
Lambics are spontaneously fermented by local yeasts and bacteria in the  
Zenne Valley in Belgium. The Sam (tm) Adams (tm) product is nothing more  
than a Cranberry Ale and reference to the esteemed appellation "Lambic"  
is another unscrupulous marketing ploy by the Boston (tm) Beer (tm)  
Company (tm).

I continue my boycott of Samuel Adams products!  
Al.

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Date: Thu, 18 Nov 1993 14:19:19 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Updated Yeast.FAQ in the Archives!

Hi,

I have just finished updating the yeast.faq, and I put it to the pub/incoming dir today. It is much improved by the addition of a list of contents. There are also some refinements of yeast strain info, and Thomas Manteufel sent me a list of past HBDs with valuable yeast info--should anyone want a second opinion.:-) I also took a step into turbulent waters and added a small section on the importance of aeration in the rapid initial growth of yeast.

I also feel the need to comment on an aertation commment made in Thursday's digest, i.e. that it is possible to aerate any time up until fermentation begins, because I feel that it is slightly to the side of the point. To wit: Fermentation is what occurs during the \*anaerobic\* growth of yeast, so if one aerated, fermentation would just stop. They would go on living and turning sugars into CO2, but they would not make any \*ethanol\*. (They of course being the yeast!) My point being: aerate early, then leave it alone.

Reading you later,

Patrick Weix  
weix@swmed.edu

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Date: Thu, 18 Nov 1993 13:01:19 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: beginner

I have just become interested in homebrewing and joined this list to find helpful info for my first batch which I plan to start in December. So far the only knowledge I have of the subject comes from The New Complete Joy of Homebrewing. However, just from reading the first few articles in this list I have found that even the most basic steps to brewing are a matter of opinion (i.e. plastic fermenter vs. glass carboy). Does anyone have any suggestions to give to a confused prospective homebrewer?

Thanks

- --James

(ez014141@ucdavis.edu)

p.s. If it is inappropriate to ask for information from other members of the list by posting an article, or if there is another address for this purpose please tell me. I'm new to the internet, so I'm not quite knowledgeable of list-serve protocol.

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End of HOMEBREW Digest #1276, 11/19/93  
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Date: Thu, 18 Nov 1993 13:25:39 +0800  
From: bjones@novax.llnl.gov (Bob Jones)  
Subject:

I would like to see some reviews of some of the software packages out there for brewing related usage. These reviews would be from people who have used these programs and can list the programs strong and weak points. I think we all could benefit from these reviews.  
Bob Jones  
bjones@novax.llnl.gov

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Date: Thu, 18 Nov 1993 15:15:40 -0700  
From: Vincent Heuring <heuring@riker.cs.colorado.edu>  
Subject: Calling Columbus OH Homebrewers

I want to give "The Gift of Homebrewing" to a relative that lives in Columbus OH, for Christmas. My plan is to buy the extract, yeast, and small supplies here in Boulder and send them to him, and to make arrangements with some homebrew supply store in Columbus to prepay them for a carboy and boil pot.

Would some kind Columbus homebrewer please mail me the phone numbers and addresses of a couple of the better supply stores in Columbus?

- - - -

Vincent Heuring Dep't of Electrical & Computer Engineering  
University of Colorado at Boulder Boulder CO 80309-0425  
heuring@cs.Colorado.EDU o) 303-492-8751 h) 303-449-8868

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Date: Thu, 18 Nov 93 16:59:49 EST  
From: Lee=A.=Menegoni@nectech.com  
Subject: Mo' Betta Decoction

A recent post describes the process they use for decoction in which they use a strainer to leave liquid behind and add water to the kettle mash. This may be a problem for 2 reasons.

- 1) The ph of this kettle mash may be high and tannin extraction may occur
- 2) The amount of enzymes in the kettle mash may be low and the conversion slow or incomplete

Using the strainer may be a good way of getting the "thickest 1/n" but I would add enough of the liquid from the main brew pot to keep the kettle mash from scorching or sticking. This assumes that the main mash's

PH has been tested and is in range. When its time to boil the addition of a little more liquid may be needed. Acidified sparge water is OK as is liquid from the main mash, which is at protein rest temp.

Most brewers I know don't use an acid rest, except after 6 Dead shows, they do a single decoction using about 40-50% of the grain. It is important to do a sufficiently long kettle mash since you are deactivating 40-50% of the enzymes. They mash out by adding boiling acidified sparge water to the cooler mash/lauter tun or heat the metal brew put on a stove .

Lee Menegoni

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Date: Thu, 18 Nov 93 14:37 CST  
From: korz@iepubj.att.com  
Subject: Wyeast London Barleywine/Antibacterial Hops

Norm writes:  
Brian Seay asks about barley wine fermentation. <snip>  
...DON'T USE WYEAST LONDON ALE YEAST (1028)!!!

To which I reply:  
BRIAN AND LINDA NORTH BREWED BEST-OF-SHOW BARLEYWINE USING WYEAST LONDON  
ALE!!!

No, seriously, perhaps Wyeast #1028 is a less alcohol tolerant strain  
than  
some of the others, but it can be used for Barleywines. I did see Brian  
and  
Linda at the CBS competition, but forgot to ask them the particulars as I  
had promised. Perhaps I should call.

\*\*\*\*\*  
Several posters have suggested that it's the alpha acids in the hops that  
are antibacterial. I'm confident that the antibacterial qualities of the  
hops are in the lupulin, but would hazard a guess that they are not in  
the alpha acids. Recall that Lambiek brewers use aged hops so that they  
don't impart bitterness, but (according to J.X.Guinard) their  
antibacterial  
qualities are still available. It's the oxidation of the alpha acids  
that  
kills the alpha acid's bittering potential (beta acids are a different  
story, but better left to another post) and I would imagine that if,  
indeed,  
the alpha acids were responsible for the antibacterial qualities, then  
the  
oxidation would have ruined them as well.

Al.

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Date: 18 Nov 1993 16:54:07 -0500 (CDT)

From: EDM9743@UTARLG.UTA.EDU

**Subject: Bottle washing**

Hullo. My name is Erich and my father and I would like any suggestions/  
info.

on bottle washing machines. He modified an old dishwasher but I think  
that

he would like to improve it or replace it with a more suitable machine.

Oh yes, and does anyone have any info. on recipe software for the IBM  
(Windows would be perfect but far from required)?

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Date: Thu, 18 Nov 1993 11:16:56 PST  
From: Mark\_Davis.osbu\_south@xerox.com  
Subject: Re: Treacle & Other Brit Sugars

>No, you cannot buy treacle in the U.S.,

Hmmm,

I just purchased Lyle's Treacle from a homebrew store here in California. If anyone wants the stuff(I would agree that it tastes like a strong Blackstrap molasses) then they can contact:

The Home Wine and Brewing shop  
22836 Ventura Blvd.  
Woodland Hills, Ca.  
(818)884-8586  
Store Hours: Fri-Mon 10:30-5:30

Lyle's Golden syrup is a pure, refined cane syrup(it has a wonderful, rich caramel flavor). I have been using this in place of Candi sugar(per a recommendation for a member of the Lambic digest) for Belgian abby ales. Works wonders for this as I do not have to boil all night to get that caramel flavor.

Cheers,  
Mark

- --disclaimer-- I have no ties, either personal or financial, to the Home Wine and Brewing shop. Just a happy customer :->

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Date: Thu, 18 Nov 93 16:51:00 +0800  
From: rob.skinner@kandy.com (Rob Skinner)  
Subject: Hard Water

Tim writes:

>Here are the important numbers:

>Chloride 25ppm

>Sulfate38ppm

>Calcium 54.5ppm

>CaCO3140ppm

>Ph 7.7

>The CaCo3 seems high, particularly with the amount of calcium that  
>is present. What is my best course of action,

Tim, I would certainly try to reduce the CO3 concentration.  
The other numbers look ok. By adding 1/8 tsp. CaCl2 / gallon  
of water and boiling it for 20 minutes, you will reduce your  
carbonate to about 35ppm and your calcium to about 52ppm.  
Your chloride level will increase to about 78 ppm.

I prefer to use calcium chloride rather than calcium sulfate  
because excessively high levels of sulfate can have an adverse  
effect on hop bitterness. Also, my preference is to use this  
method on the mash water only, and treat my sparge water with  
lactic acid. I add acid until the pH reaches about 5.3.

All the chemistry info I use to adjust my water is contained in  
Dave Miller's Compete Handbook Of Homebrewing.

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Date: Fri, 19 Nov 1993 09:36:37 -0400  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: pH and leaching tannins

Jack writes:

> That's a nice number but like so many things, it is only a bench mark.  
What  
> if the pH rose to 5.4 or 5.7... would it make a detectable difference?  
I  
> doubt it.  
>.....  
> In the real world, sparge water is run through the mash which has a  
powerful  
> buffering effect on the water. I run 10 or more gallons of pH 7  
sparge  
> water through my mash and it doesn't raise the pH more than a tenth  
point or  
> so. Furthermore, sparge water temp is not the same as mash temp nor  
does it  
> bear any relationship to making tea with boiling water.  
>  
> Finally, it does not address the fact that boiling grain in decoction  
mashing  
> does not seem to produce astringent beer.

I know he's only baiting us, but I feel like a sucker this morning.  
The mash has a buffering effect, yes. As the goodies are drawn off,  
however, the pH does rise. This is quite variable, and depends on the  
mineral content and buffering ability of your water supply, the types of  
grain used, the mashing technique, where the grain was grown and so on.  
So  
jack has a nice acidic mash, and sparge water with low alkalinity. Great.  
If he tried his technique in, say, southwestern Ontario where the tap  
water  
is very full of carbonates, he would undoubtedly have very different  
results. So as one sparges, the pH rises as the sugars and acidic  
compounds are drawn off, and replaced by neutral water. The 5.3 figure  
is  
a guideline, and indeed a 5.4 pH might produce little or no more  
astringency. It does indicate, however, that your pH is rising, and soon  
will reach a level that will extract noticeable quantities of tannins  
from  
the husks. In the decoction mash, you have a thick mash which has not had  
the sugars and acids removed, so the pH stays low. Where's the problem?

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Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |  
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |  
Dalhousie University, Halifax | \_\_\_\_\_ |

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Date: Fri, 19 Nov 1993 10:15:00 -0500 (EST)

From: Jill Martz <SAL\_MARTZ@sals.edu>

**Subject: The Beer Machine**

Just a reply to the person interested if anyone has experience with using the Beer Machine, my dad recently purchased one along with some kits put together by the manufacturer. He brewed two of them. The "beer" was a disaster

After forcing us to taste it and asking several people independently what it

smelled like he was told "green olives". He went to the homebrew store and of

course the owner tried to talk him out of using it, but sold him some malt

extracts etc. to make a batch. He attempted this the other day and could not

get it to seal properly. So it appears this "system" has several problems.

If anyone has had success I would appreciate hearing about it so I could pass

it on to my Dad. Thanks.

REply to : SMTP%"SAL\_MARTZ@SALS.EDU"

...Jill

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Date: Fri, 19 Nov 1993 10:14:32 -0500 (EST)  
From: gelinas@ekman.unh.edu (Russell Gelinas)  
Subject: yeast & glycogen

>It makes sense, but it's not the way that yeast actually works. Just  
>"before  
>the kraeusen begins" the yeast have their glycogen level depleted.  
According  
>to experiments done by Pickerell, Hwang & Axcell (and reported in their  
>paper: Impact of Yeast-Handling Procedures on Beer Flavor Development  
During  
>Fermentation, 1991 American Society of Brewing Chemists, ASBC Journal,  
>volume 49, no.2.) you want to wait till the high kraeusen has just ended  
>to pitch your starter. I have more info on this for anyone who is  
interested.

A few quick questions. When is glycogen depleted? During respiration?  
During fermentation also? When is glycogen assimilated? During  
fermentation?  
Immediately following fermentation?

RussG.

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Date: Fri, 19 Nov 93 08:18:00 -0600  
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)  
Subject: beer labels

Robert linder wrote in HBD 1276:

Rl> I have used Microsoft "Publisher" with satisfaction. It allows  
> you to curve text instantly and import various bit-mapped  
> images. Its price

I also have used MS Publisher, but found that Instant Artist is  
easier to use, cheaper (\$49), and has many many more fonts and  
(especially) text and graphic modification features. For example, MSP  
has 2 preset text curves; in IA, you draw the curve and IA fits the  
text to it.

Chuck

\* RM 1.2 00946 \*

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Date: Fri, 19 Nov 93 08:53:20 PST  
From: hollen@megatek.megatek.com (Dion Hollenbeck)  
Subject: Re: Kegging FAQ

>>>> "Norm" == npyle <npyle@n33.stortek.com> writes:

Norm> What ever happened to the Kegging FAQ?

Oops!! I posted to rec.crafts.brewing yesterday, but neglected to post to HBD. Here is what I said.

My employer (to whom I owe my Internet Connection) has had me working harder than usual and the Kegging FAQ has been put on a back burner temporarily. Just about as this happened, I had decided on a different direction for it. I had been going through every back issue of HBD in the issues looking for questions and answers and had only gotten through half of what is archived. I finally decided that I would edit the contributions which have been made (which are substantial) and get that portion out, and then in a future release, add what has been gleaned from the archives. This is now my current strategy and I hope to have something by the end of this month. However, the bottom line is that I must keep my employer happy to keep my Internet connection, or I can't post anything at all.

Sorry for the delay,

dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com  
Senior Software Engineer megatek!hollen@uunet.uu.net  
Megatek Corporation, San Diego, California ucsc!megatek!hollen

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Date: Fri, 19 Nov 93 11:02 CDT  
From: David Atkins <ATKINS@macc.wisc.edu>  
Subject: church keys and bad address in ca

1) Twist away with Sierra Nevada. If they can make a better profit off of a twist off bottle without making a worse beer, I will gladly use my church key less. Even Busch Lite comes in reusable bottles. Don't judge a beer by it's cap :-). Of course, upon saying this, some rocket scientists will split my atom with a scientific study, proving me wrong. :-)

2) James of UC Davis asked for new brewer info. Well James, your address doesn't work for me and my internet. Rather beefy post that many hbd's would just skim over. I could save bandwidth with another address so I could post it personal. Please send email to my address [atkins@macc.wisc.edu](mailto:atkins@macc.wisc.edu) if you still in the market for some info.

Happy brewing,  
David Atkins  
UW-Madison

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Date: Fri, 19 Nov 93 09:24:13 PST  
From: msharp@Synopsys.COM  
Subject: HSA - another view

Hi folks,

Since HSA still seems to be a topic of discussion here:

Last night I was at the A-B plant in Fairfield, CA for the quarterly MBAA meeting. While there I was able to crawl through the bowels of the brewery on a VIP tour lead by one of the plant managers who has been in this business for ~21 years and worked his way up from the ranks.

So what does this have to do with HSA?

Well apparently there are two camps of thought. The one which George represented and the one which doesn't believe its anywhere near that much of a problem. Upon what do I base this? During part of the tour I was directly below the kettles looking at a large tank (~2 industrial stories high, 10'+ round) and I was told that this was used for hot wort aeration. This caught my off a bit so I asked for a clarification. I was told that immediately after boiling and prior to cooling the wort is slowly dripped down through this tank against an upward flow of 120F air. This is done to simulate the aeration effect of the old technology coolers which were just a few stories of tubing. Later in the evening I had a long talk about this with the same man over dinner where we got into why A-B does it this way, etc.

--Mike

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Date: Fri, 19 Nov 93 12:43:58 EST  
From: Ulick Stafford <ulick@michaelangelo.helios.nd.edu>  
Subject: Sour brown crabtree HSA scaremongery

In hbd 1276 Jeff Frane poo-poo's Gregory Noonan's excellent sour mash article in the Special Zymurgy (probably the article that makes the publication worth while, IMNSHO), but seem to be mixing up acid rests and sour mashes.

A sour mash, the procedure for which is well decribed by Noonan, is of part of the mash and takes place over days at 120F+. An acid rest is of the whole mash at around 100F, and uses enzyme reactions to reduce pH. This technique may take 20 hours and is only useful for soft water mashes. The technique described by Noonan is Reinheitgebot and works for harder water.

Try Howard asks about American Brown Ale. The excellent Pete's Wicked Ale won the GABF in 1992, so I assume it is a good example of the style. May the pedantics correct me if this is wrong :-).

Steve Zabarnick speculates that the Crabtree effect may not occur in dextrose primed bottles because it is only a small proportion of the sugar. However, since all other fermentable sugars are now gone, isn't it the only fermentable sugar??

Carl Howes was one of many to correct me when I posted  
> While this procedure is not correct - chilling in a bathtub or with a wort chiller prior to pouring is recommended, the amount of damage that could be expected due to hot side aeration is so slight that it is unlikely to be noticeable.

I have seen a huge improvement in flavor stability and beer quality since I started chilling the concentrated wort. Have you tried it both ways, Ulick?

I apologize for understating a risk. I should have said that the beer was likely to be drinkable, rather than saying that the effect is unlikely to be noticeable. This was toned thus because I had received email from first time brewers saying that they had just brewed like this wondering whether they pitch and batch now? I am sorry for erring on the side of RDWHAHB rather than erring on the scaremonger side that is the HBD norm.

Talking about scaremongery Al K responded to my critique of his postings with a repeat of his 'DON'T CHANGE YEAST AT BOTTLING /em[or your bottles will explode] ' earlier in the week. Considering that most yeast are similarly attenuative this is an exaggerated

risk, and I am sure most homebrewers who change yeasts are aware of the danger.  
Or are most of the Belgian brewers and Weizen brewers in the world wrong? (he also spoke of what was appropriate for hbd again, my posting not being, of course, which shows that he isn't totally cured of his superiority complex. Al K should consider that email response to me was running 80:20 in support of my posting, which may indicate that I wasn't the only one who found his style irksome, just as he finds mine. Which of us is right, or is neither of us???)

---

'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@darwin.cc.nd.edu

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Date: Fri, 19 Nov 93 9:40:58 MST  
From: npyle@n33.stortek.com  
Subject: Miscellany/Crabtree

Mark Bunster writes:

>reasonable debate, EXCEPT: you are not making a Rheinheitsgebot beer  
when you  
use corn sugar, for what that's worth to you.

IMNSHO, Rheinheitsgebot was written to circumvent a free market economy  
(price  
controls) and as a protectionist measure against foreign imports. Oh,  
and it  
also helped keep some bad beer off the streets. It was later used as  
marketing  
tool and was made to sound like a very good thing. That's what its worth  
to  
me.

>maybe a 4 gal - 1 gal makes good sense. It's primitive, but for us  
nontinkerers who are too poor to buy and too stupid to build a cf or  
immersion chiller, it works quite well and goes faster than we imagined.

Too poor maybe, but nobody is too stupid to put together an immersion  
chiller  
(hey, even I did it!).

\*\*

Anyone tried this year's Coors Winterfest? It is (this is no lie!)  
robust,  
dark brown/red, balanced (surprise), and quite tasty. There are even  
some  
fruity components that make me wonder if it an ale. From Coors? No way!  
It  
certainly is an order of magnitude better than last year's boring amber  
lager.  
Oh, it is still marketed as a stout, HA! It is no stout but it is good  
beer.

\*\*

Troy Howard, American brown ale IS Pete's Wicked Ale IMHO.

\*\*

James Clark writes:

>I have just become interested in homebrewing and joined this list to  
find  
helpful info for my first batch which I plan to start in December. So  
far  
the only knowledge I have of the subject comes from The New Complete Joy  
of Homebrewing. However, just from reading the first few articles in  
this  
list I have found that even the most basic steps to brewing are a matter  
of  
opinion (i.e. plastic fermenter vs. glass carboy)  
Does anyone have any suggestions to give to a confused prospective  
homebrewer?

I suggest you follow the book you are reading. Homebrewing is an evolutionary process and if you are like me, you will continually change your processes and equipment, ad infinitum. Don't let endless debate keep you from brewing and enjoying your beer.

\*\*

Pardon my ignorance, but what is the Crabtree Effect supposed to do to my beer, and why would one avoid it? It seems it has to do with oxygen production, and of course I know why I don't want oxygen in my beer at bottling, but could someone explain the effect in greater detail?

Norm

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Date: Fri, 19 Nov 93 13:16:58 EST  
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)  
Subject: Sanitation and Priming

Somebody (did not save the post) was interested in how to sanitize the brass "jet washer" he was using to clean his bottles. Evidently, he thought that this might be the source of some recent infections. I'd like to comment in a tangential way.

My bottle cleaning procedure is this: after I decant a beer, I immediately rinse the bottle and store it upside down in a spare beer case I keep in the kitchen. When ready to bottle, I use the jet washer gizmo with hot faucet water to rinse the bottle out, then let the bottle drain in the dish strainer briefly. I then place the bottles in the oven and bake them to kill off any nasties.

Generally, I start at the lowest setting, and raise the oven temp to about 300F or so in 50F increments every 15 minutes or so. I then let the oven cool several hours, or I crack the oven to speed the process.

End result, sanitized, and possibly sterile bottles. The only downside that I can see is that this temperature cycling might eventually stress the glass, but so far, I have bottled 19 batches in this manner, using about 12x24 bottles, so obviously, many of these have been through the procedure several times.

To give credit where due, this procedure did not originate with me, I got it off of the digest probably 18 months or so ago.

\*\*\*\*\*

Now a question. I'm in the mood to fool around with bottle priming. How much should I use to prime 5 gallons with molassass or honey? Does it make a difference if dark or light molassass is used? What about various honeys? Raw vs "processed" for example. Will the priming material effect the finished beer's taste (assuming a pale ale)?

Thanks!

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Date: Fri, 19 Nov 93 13:21:54 EST  
From: lyons%adcl@swlvx2.msd.ray.com  
Subject: Sam Adams Cranberry "Ale"

>Ben writes:

>> Sam Adams Cranberry Lambic  
>>It was crisp, smooth, and had sensational flavor.

Al writes:

>I would encourage all homebrewers to discourage anyone from refering to  
>this beer as "Lambic." It is by no stretch of the imagination a Lambic.  
>Lambics are spontaneously fermented by local yeasts and bacteria in the  
>Zenne Valley in Belgium. The Sam (tm) Adams (tm) product is nothing  
>more  
>than a Cranberry Ale and reference to the esteemed appellation "Lambic"  
>is another unscrupulous marketing ploy by the Boston (tm) Beer (tm)  
>Company (tm).

I have to agree with Ben's comments. Maybe the "Sam Adams  
Cranberry Lambic" is not a true lambic, but it IMHO, it is a very  
tasty brew.

>I continue my boycott of Samuel Adams products!  
Your loss. Although Koch may be a slime bag, he makes a decent  
product.

Chris

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Date: Fri, 19 Nov 93 10:51:57 PST  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Hop Oils as a Preservative

Date: Thu, 18 Nov 1993 00:05:58 CST

Darrell Simon writes:

**Subject: Hop Oils as a Preservative**

>It is possible that the hop flowers alone are not acidic enough to  
inhibit  
>the bacteria. I would speculate that the preservative effect of hops  
comes from the alpha acids extracted during the boil, and the increase in  
>acidity.

Yes from the alpha acids, but the acids themselves are quite weak and  
won't  
affect the acidity of the beer noticeably (otherwise we could use a pH  
meter to measure alpha acids).

>You don't hear of the preservative qualities of hop aroma  
>although you do hear of the preservative qualities of hop bitterness.

Actually there are studies that show that hop oils (responsible for the  
aroma) do have a preservative effect and do inhibit the growth of  
bacteria. And for an informal opinion, Fritz Maytag strongly believes  
that dry-hopped beers last much longer (like 10-20 years) than beers that  
are not dry hopped. He bases this on tasting his Christmas Ales from  
many years ago (that he has in his own collection and that people send  
to him). He claims that a 17 year old Christmas Ale he tasted was still  
quite good, but he admits it is not exactly the same as when it was  
brewed,  
but certainly not spoiled. Also historical data shows that IPAs (the  
real ones destined for India by boat) were called for (by contract) to  
have  
a high dry hopping level ("2 lbs of Kent hops per hogshead" which  
translates  
to 2.47 ozs per five gallons).

Mark

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Date: Fri, 19 Nov 93 10:25:32 -0800  
From: Drew Lynch <drew@chronologic.com>  
Subject: Re: Dry Hopping and Infections

I have recently gotten past a really bad bacterial contamination problems that left me with many gallons of beer for use in the meat smoker. All of these problems were evidenced by very low finishing gravities, as well as cloudiness, bottle bombs, bad taste, gushers, etc. I believe that the problems were due to sloppy brewing style, and not enough attention to sanitation. (I brewed sloppily for 10 years before I had any problems)

Two weeks ago, I brewed a ten gallon batch of brown ale. I got much better than normal extraction rate, and ended up with 12 gallons of wort split between two 7 gallon glass carboys, with a starting gravity of 1.080. I split a 1 litre starter of fresh Wyeast american ale between the two. After one week of fermentation, at 1.030, I racked to two 5 gallon secondaries. At this point, the two sub batches were identical in taste and gravity. I decided to dry hop one of the two secondaries. I sanitized some marbles in a mesh bag, and then filled the bag with fresh Cascades. I had a lot of trouble getting the bag through the neck of the carboy, but eventually it went in.

This morning, I took gravity readings and tasted both sub-batches. The non-dryhopped bottle was at 1.024, crystal clear, and tasted great. The dry hopped batch was at 1.014, cloudy, and astringent, and I can only assume, infected. There are three possibilities that I see:

- 1) unclean equipment used in the dry hopped sub batch - Very Unlikely
- 2) bacteria carried on hops into the beer - ???
- 3) Excessive handling with bare hands introduced bacteria into dry hopped batch - very likely

Since I use a CF chiller, I will be building a hop-back for this weekend's batch. I may attempt dry hopping again, but will use rubber gloves, and no bag or marbles.

Anyway, I feel that the idea that "bad stuff won't grow in fermented wort" is incorrect, and care in sanitation need be taken at all steps prior to drinking the beer.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312x18  
drew@chronologic.com

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Date: Fri, 19 Nov 1993 12:18:40 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Lactose-Acid brew/ Ciders / REAL Bathtub Brew /BeerMachine

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Al. sez:

>BTW, I'm not a biologist,  
but I'll bet that Lactose is fermentable by Lactobacillus, so be extra  
careful with sanitation! ...snip... If you add lactose, you can  
add it in the boil, or boil some up and add it at bottling time -- it's  
\*unfermentable\*, so it doesn't matter as long as you sanitize it. Adding  
at  
bottling time also allows you to add it to taste, but be aware that the  
beer will become a bit more acidic when it carbonates, so you may want to

\* I am a biologist FWIW. And yes- lactobacillus will ferment lactose.  
If you added some yogurt to a lactose brew, you would most likely get  
a rather acidic product. So: Lactose IS fermentable, but NOT by  
Saccharomyces (beer yeast), so it can sweeten a beer.

Best idea is to minimize the time the lactose is available to wild  
bacteria. Add it at bottling (to taste) with good aseptic technique.  
If you add it to the wort you risk more by having it present longer,  
where  
an infectious bacterium could ferment it and produce acid. BUT  
if these fermenters are not present you should not see any additional  
acid as a result of the lactose. Bottle with usual priming sugar and  
lactose and you will NOT see additional acidity upon carbonation  
UNLESS there are contaminating organisms present!

Also- allows you to taste test the fermented beer and see how much  
sweetening it may require. You could end up with lots of unfermented  
sugars  
from the ferment, and not need as much, or it could have attenuated  
enough  
that lots of sugar could help. Depends on your preference.

\*\*\*\*

Just got another 5 gallons of fresh squeezed cider. Yummy.  
They made me a deal on pressing day- that if I brought a container  
for them to fill it would be cheaper. The guy wondered where I got  
the nice glass carboy. :) I don't know if they know what we plan  
to do with the liquid! I doubt good mormons would appreciate such  
a use. Although it IS a method of storing the cider for longer periods!

Maybe I should call it Armageddon Cider!

Another Note: I pitched a gallon of cider (unsterilized) with  
champagne yeast, and it's going like a bat out of "heck" .  
I also had another gallon sitting untouched. It started building  
pressure and making bubbles too.

The first smells appley, tastes sweet and yummy (2 weeks)  
while the second smells sour, rotten, but tastes ok.  
I think I can force the first to go quick, while the second will  
have to age for a long time. (based on past experiments).

A Question: Anyone have any tips of fast fermenting.  
It's been 2 weeks and I hope to race the first cider for thanx.



I was thinking of chilling it down, and clarifying (bentonite?) then bottling and hoping for a quick carbonation (since it's still active) and a quick drinking. I may be begging the issue to hope to have it so quick, but it tastes good now. Any ideas/experience?

\*\*\*\*

On a humorous horror story note, re: potential names and lost wort:

A brewing colleague called me yesterday in a panic. He had just conducted a terrilbe faux pah (SP! I ain't frech!:) ie screwed up!

Using the age old method of submerging hot wort/boiling pot in a bathtub of cold water he gave new meaning to the concept of "immersion chilling". He deep sixed the pot. Yes...that's right kids,

Boil pot was floating. Boil pot was submerged.  
Wort rushed out, bathtub water rushed in. Oooooooooooooops.

Went from a high gravity stout ... to....?

He was calling partially to ask whether he should re-boil. He sterilizes the whole tub with bleach water when soaking bottles. BUT He has two kids who bathe in there too! BOIL IT! He did.

He also wanted to know if he should add more fermentables upon re-boiling.  
He went for brown sugar. I also suggested honey, dme. He mashes.

I also suggested a few names for the brew: Deep Six Stout. BathtubBrew. Submarine Psuedo Stout...among others. Any more ideas?

I think he's embarassed and wants to forget the incident. :)  
At least he didn't lose the WHOLE batch. Could have taken it skiing (toot!).

John (The Coyote) Wyllie SLK6P@cc.usu.edu|^//|  
- ----- no cute quote today. Just not in the mood.... -----  
ALSO: Saw the BeerMachine in the Sharper Image catalog. \$99.95 (\$8 S&H)  
Again quoting the 25 gal/year Federal law. Ooops. But Jeepers. A hunderd bucks for lame yuppy brew. Maybe I can find a used machine at the salvation army, but otherwise I ain't gonna touch it! To think of all the gadgets, toys, and brewsupplies available for \$100!

Guess we have really "fallen through the cracks of our quick fix, 1 hour photo, instant oatmeal society" !! Guess I did have a quote afterall.

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Date: Fri, 19 Nov 1993 16:22:23  
From: prf@cherry-semi.com (Paul Ferrara)  
Subject: Stepping up to a 5 gallon boil

I began reading the HBD only two weeks ago and have already learned a great deal about the finer points of brewing.

I've decided that if my brew is going to improve any, I need to make the leap to boiling 5 full gal. and appropriately chilling. It's time to demote my 12qt aluminum pot to lobster boiling, and move on to something bigger. I've been considering purchasing a "Bru-Heat" thermostatically controlled boiler as a replacement brew pot ... my theory being that for approx the price of a quality 24-30 qt stainless steel pot, I can get a unit that will boil my wort now, AND, be used for my next leap: to all grain brewing.

Would this be a wise investment? Can the Bru-Heat bring a 5 gal batch to a reasonably quick boil? Is it the right way to go for mashing? Or should I really spend many \$\$ and buy a stainless steel pot, propane cooker, picnic cooler mash tun, sparging manifold, etc, etc, etc ....

If this has been discussed at length before, feel free to respond by private E-mail, or direct me to the proper archive.

Thanks.....Paul

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Date: Fri, 19 Nov 93 17:13:29 EST  
From: tchm@gtx.ummed.edu (Chris Mix)  
Subject: for publication

I am new to brewing and my first batch is about 1 week old and sitting in a glass carbuoy as a single stage fermentation. As suggested by Papazian, I reconstituted my yeast by boiling approx. 1-2 cup water, letting it cool to 100-105 farenheit then adding the yeast and letting them sit for 30 min prior to pitching them. Within the first 12-18 hrs close to a quart of my beer-to-be came over into a bucked through a water-locked tube. I am concerned because the foam had fallen back into the carbuoy at 24 hrs and the smaller water lock now atop the carbuoy has passed a bubble only once every 1-5 min. I was under the impression most activity was to occur over 1-2or3 days. I am aiming for an ale with a Munson malt extract, 8 oz. crystal malt, 2 oz Kent Gouldings and some Cascade (hops, not detergent) thrown in 5 min prior to adding the wort to the carbuoy. The yeast are starting to settle now and otherwise things seem to look OK. Could there be a problem here?

-Chris Mix

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Date: Fri, 19 Nov 93 16:20 CDT  
From: G.Leake@utxvm.cc.utexas.edu  
Subject: british ale liquid yeast

Does anyone know whether British Ale Yeast is the most appropriate liquid yeast for brewing Northern style Brown Ales?  
thanks  
George Leake

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Date: Fri, 19 Nov 1993 15:04:22 -0800 (PST)  
From: gummitch@teleport.com (Jeff Frane)  
Subject: Panic Over Sugar

You ever notice how easy it is to push the panic button here on the Digest? It looks as though it's happened again, this time with people starting to dither over the correct bottling sugar.

The Crabtree Effect is about as relevant as the Crab Nebula here. We are talking, after all, of truly tiny amounts of sugar compared with the total volume -- even leaving aside the fact that \*lots\* of beers have been made with 20-30% of \*cane\* sugar added, without any problems.

The British and the Belgians regularly prime with sugar, with sucrose, dextrose, invert sugar and combinations of the above, sometimes with a bit of caramel thrown in for variety. I have yet to see any evidence that this causes a problem. Sierra Nevada has been using dextrose to bottle for years, and I can't see that it's cut into their sales much.

Really, folks, relax. Worrying is one thing, but panic...

=====

And on subject of sugars, and British sugars in particular: I have to disagree with the poster who said that demerara sugar was less sticky than American brown sugar. At least, I disagree with it as a blanket statement. Eric Urquart (no, I know that's not spelled right) was good enough to send me .5 kilo from British Columbia, and this stuff is much, much stickier than brown sugar. It also has an unmistakeable molasses aroma that could be smelled through the plastic packaging five feet away. And yes, I fully intend to use it in brewing.

=====

Larry Barelo inquired about using adjuncts to lighten up a barleywine. I'm not entirely sure that it would still be a barleywine if it was lightened up, but I have been using sugar and flaked maize for the same purpose in my faux-abbeybiers and it really does the job. It is, I think, one of the prime differences between barleywines and the Belgian beers: the former have a very full body, rich and sweet, while the Belgian beers are deliberately made to have a high alcohol but to be less satiating. Really hard to do that with an all-malt recipe.

=====

Todd Jennings laments the increasing appearance of twist-offs in microbrewed beers. Although the criticism is well-placed, he mentions Sierra Nevada as a new offender -- SN has never had anything \*but\* twist-off caps on their bottles since they began in, what, 1984? 1983?

Here in the Great NW, the micros are split somewhat. Red Hook beers have twist-offs, Full Sail's and BridgePort's are true crown caps, um, so are Rogue's, Pyramids are twisted, etc. Then again, I've never had a bad bottle that I could attribute to twist-offs, so I'm not sure how valid the conventional wisdom is.

- --Jeff

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Date: Fri, 19 Nov 93 15:05 CST  
From: korz@iepubj.att.com  
Subject: Acid rest

Jeff writes:

>Interesting to note Greg Noonan's article in the special issue of  
>Zymurgy. Noonan is now touting sour mashes as the secret ingredient in  
>Bavarian weizens and Bohemian pilsners -- in spite of a complete lack of  
>evidence that they are used at all in those areas. (The acid rest he  
>mentions is a matter of a few hours or less, not days.)

I have read the article and recall scribbling red ink all over it. For those who have not read it, Noonan talks about souring the beer with naturally occurring bacteria on the husks of malt. Indeed, this is sour mashing. I'd like to point out that it's NOT the "acid rest" that is used by some brewers. The "acid rest" is enzymatic (phytase, I believe) rather than bacterial -- I know Jeff didn't mean this, but it could have been confusing to some.

Al.

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Date: Fri, 19 Nov 93 16:22 CST

From: korz@iepubj.att.com

Subject: Dry Hopping Infections/Tate & Lyle Golden Syrup and Treacle

Dan writes:

>Anyway, it's pretty clear that the greatest risk of infection is before  
>fermentation. No confusion there. Presumably the bacteria produce bad  
>flavors, then are overwhelmed by the yeast, PH, and/or alcohol. Right?

Not quite. The greatest risk is, indeed, before fermentation and from two  
sources: 1) infected starter/yeast and 2) airbourne or fermenter-surface  
bacteria (in scratches, for example) getting a foothold in your beer  
during long lag times. Unless you \*sterilize\* everything, and work in a  
clean room, you will always have some bacteria and wild yeast in your  
beer.

The question is, if there will be enough of them to make a difference in  
the flavor and if they will survive long enough to make a difference. If  
you pitch a clean, healthy, viable, populous starter into a reasonably  
clean wort of a similar temperature, under good conditions (e.g. no grain  
dust in the air), your yeast will eat most of the nutrients, consume most  
of the oxygen and soon create a blanket of CO2 which will keep away new  
airbourne nasties. The wild yeast and bacteria are there and are  
creating

off flavors and aromas, but in such small amounts that it does not reach  
our perception threshold. When fermentation is complete, whatever  
bacteria  
have not been killed by the pH and alcohol, are (if everything went well)  
again in such small numbers that their products are below the perception  
threshold.

>However, the recent dry hop & bacteria thread has made me wonder about  
>post-ferment. Some HBD articles have indicated that once fermentation  
>is complete, the beer is hostile to bacteria, so no worries.

Don't worry, but don't be foolish -- maintain good, sanitary technique.  
Would you eat a sandwich you dropped on the garage floor?

>On the other hand, I've read several times that "gushers" are caused by  
>infections. The idea there is that the bacteria eat stuff that the  
>yeast don't, resulting in over carbonation during long term storage.

Back when I was a beginner, using dry yeasts that have since been found  
to have had big problems with bacterial counts (see the Yeast Special  
Issue of Zymurgy), I would (with certain yeasts) get gushers after a  
few months. In looking through that early logbook, I can't find a  
single batch that ended up a gusher that could not be attributed to  
infected dry yeast except for one. That one batch's problems are quite  
involved (clogged blowoff tube, whole cherries added, 8 hours of an  
open fermenter, etc. etc.) so data from it is difficult to extract.

In summary, if you pitch good, clean yeast and not shock them, and  
maintain good sanitation techniques, you can expect to not have  
bacterial problems. If you choose to add dryhops, do your best to  
keep them sanitary (within reason) and don't add them until fermentation  
is virtually over.

\*\*\*\*\*

Someone (sorry) mentioned something about an embargo regarding the  
Tate & Lyle's Syrups. My understanding is that several months ago,  
the US withheld the import of Tate & Lyle's products from the UK

because they would not (or could not) provide proof that they were not made with Cuban sugar. The embargo mentioned is obviously our restrictions on trade with Cuba. I don't know if the sightings of the T&L products are just existing stock or if the import restriction has been lifted.

\*\*\*\*\*

Drew writes:

> In yesterday's (I hope) HBD, Chuck Wettergreen posted a method for  
>making invert sugar. Has anyone used this stuff as a priming agent?  
>I was curious if the breaking down of the sugars would inhibit the  
>oxygen generating crabtree effect.

I think we need to first talk about the Crabtree effect. It does not produce oxygen, rather it is the effect by which yeast abandon respiration and perform anaerobic fermentation despite available O2 if the concentration of monosaccharides like glucose (dextrose) and fructose are sufficiently high. The issue, as it applies to us, is whether priming with malt extract will cause the yeast to respire the O2 introduced during bottling or whether priming with corn sugar (glucose) is equivalent in this respect. My experience has shown that, given my procedures, there were no problems with oxidation in my beers, regardless of whether I primed with malt extract or corn sugar. I therefore changed back to corn sugar. With all due respect to Reinheitsgebot, I prefer Belgian and English beers... beers that would have Delbruck and Sedlmeyer spinning in their graves.

Al.

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End of HOMEBREW Digest #1277, 11/20/93

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Date: Fri, 19 Nov 93 23:06:41 EST  
From: snystrom@aol.com  
Subject: Sam Bashing

Al writes:

>The Sam (tm) Adams (tm) product is nothing more  
>than a Cranberry Ale and reference to the esteemed >appellation "Lambic"  
is  
another unscrupulous marketing ploy >by the Boston (tm) Beer (tm) Company  
(tm).

>I continue my boycott of Samuel Adams products!

Al,

I'm glad your boycott has been so successful. I managed to score my first  
bottles of "Cranberry Ale" today down here in Florida -- even though the  
officials at B (tm) B (tm) C(tm) said there wouldn't be enough for  
distribution in our state. <G>

Sure, the lambic is not a lambic and the Octoberfest is not a true  
Octoberfest. And Samual Adams isn't the best beer brewed in America four  
years running. But I can remember not too many years ago when I refused  
to  
drink ANY American Beer because they all s \_ \_ \_ \_ \_! (censored for  
political correctness).

Sam bashing seems to be in vogue these days, but I think I can say most  
all  
of us at one point in our lives enjoyed the beer. And although I, too,  
have  
lost respect for the company due to marketing claims, I find it hard to  
name  
a company whose marketing practices are up to my standards. Budweiser is  
not  
the KING of beers, Hamms "land of sky-blue waters" commercials were  
filmed in  
Northern Califorina and Miller's "Lowenbrau" has little in common with  
the  
product from Europe.

You may not believe anything you read on a bottle from James Koch, and  
that's  
the way it should be. Taste is what counts. Anyone who believes anything  
they  
read without question deserves what they get. And I believe I'll go get  
another bottle of Sam's from my fridge. . .

Scott

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Date: Fri, 19 Nov 93 19:48:00 -0600  
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)  
Subject: Invert sugar

All,

I've received some questions about my invert syrup recipe and after checking it I realized that what I posted was wrong (gasp!). The recipe is:

8 pounds of white cane/beet sugar

2 pints (US) of water

1 tablespoon (=3 tsp) citric acid

mix, heat to boiling (will FOAM! then turn beautiful clear golden color)

cool, then dilute to 1 (US) gallon.

one (US) pint equals 1 (US) pound of sugar

Add too much of this and you'll STILL get that "cidery" taste!

Chuck

\* RM 1.2 00946 \* Sleep is an inadequate substitute for coffee.

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Date: Sat, 20 Nov 1993 10:13:38 -0500 (EST)  
From: tcm6503@cs.rit.edu (Thomas C Maszerowski)  
Subject: RE: Stepping up to a 5 gallon boil

prf@cherry-semi.com (Paul Ferrara) writes:

>to demote my 12qt aluminum pot to lobster boiling, and move on to  
>something bigger. I've been considering purchasing a "Bru-Heat"  
>thermostatically controlled boiler as a replacement brew pot ... my  
>theory being that for approx the price of a quality 24-30 qt stainless  
>steel pot, I can get a unit that will boil my wort now, AND, be used  
>for my next leap: to all grain brewing.  
>  
>Would this be a wise investment? Can the Bru-Heat bring a 5 gal batch  
>to a reasonably quick boil? Is it the right way to go for mashing?

I've been using a Bruheat to boil the full 5 gallons for years. It does work, but it can be slowwwwwwww. I recently insulated mine with that blue foam sheet insulation you can get at home stores. I cut thin bat and set them up vertically along the outside with cutouts for the thermostat and spigot. I also cut a piece for the bottom. It cut boiling time down to the point I was able to go from cold water to final cleanup in 2 hours. This is approximately half the time it took before. I can't help with mashing as I'm an extract brewer.

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Date: Sat, 20 Nov 93 11:05:27 EST  
From: U-E68316-Scott Wisler <wisler\_scott@ae.ge.com>  
Subject: Post boil evaporation of DMS/initiators

In jack's (flick you in the forehead and see if you jump) post on chillers, he advocates sealing the boiler while chilling. While it pains me to admit the idea intriguing, I also immediatly wondered two things. I waited to ask partly because I realized we were being baited, and because I hoped to have time to study up on the topics involved. That not being the case (yet), and since the topic has not been addressed, here goes:

Are you sealing in DMS and/or its precursors during the time the wort is still hot?

I understand that the long boil has many purposes, among them evaporating unwanted volatiles like DMS and/or its precursors. Within my (admittedly spotty) understanding of the process, if the wort remains above a certain temperature, the reaction which produces DMS will continue until all the formation material is depleted. One's goal therefore is to boil off all the DMS possible, and then chill the wort quickly to prevent DMS from being further produced. Note that I did not say as quickly as possible, but merely quickly :)

What I do not yet understand are the details of the reaction, the precursor issues, the critical temperatures involved, how much DMS precursor material is left after an hour boil, and the implications of sealing you pot and thus preventing evaporation of this compound.

Further enlightenment would be much appreciated.

Second, how do you ge the lid off when its chilled. I know that when I leave a pot of hot peas with lid on the stove overnight (I hate it when I do that), its near impossible to get that lid off. Does the top of your lid bow in?

scott

swisler@c0431.ae.ge.com  
(In your best TV announcer voice)  
Stay tuned for the next episode of:  
'Bullwinkle at the Bottom' ...OR... 'Mashed Moose'

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Date: Sat, 20 Nov 93 9:36:36 MST  
From: npyle@n33.stortek.com  
Subject: Stuff and Nonsense

Dion, I understand completely about the Kegging FAQ delays. The boss always seems to want more work out of you just when you volunteer to do something outside of work.

\*\*

Mike Sharp: Are you just going to leave us hanging like that????...

\*\*

J. Fingerle writes:

>My bottle cleaning procedure is this: after I decant a beer, I

I don't mean to be abrasive but I don't "decant" beer, I pour it. Decanting is for that grape stuff.

\*\*

Chris writes:

Chris>I have to agree with Ben's comments. Maybe the "Sam Adams  
Chris>Cranberry Lambic" is not a true lambic, but it IMHO, it is a very  
Chris>tasty brew.

You are correct, it is not a true lambic, nor is it a pseudo-lambic, ersatz-lambic, imitation-lambic, anything-like-a-lambic. It should not be called a lambic, no matter how good it tastes.

Al>>I continue my boycott of Samuel Adams products!  
Chris>Your loss. Although Koch may be a slime bag, he makes a decent  
Chris>product.

Yes, he makes decent beer. But so do literally hundreds of good, decent people who avoid using the strong-arm tactics of the neighborhood bully to sell their product. Of the hundreds of brewers attending this year's GABF, the BBC tmtmtm was the only one in violation of GABF marketing rules. They were only allowed to attend because the GABF feared the threat of a lawsuit, which it certainly does not need. So, why would you want to buy beer from these people? You can buy good beer, better than Koch's, from good people. I'm with Al on this one:

BOYCOTT SAM ADAMS PRODUCTS!!!

\*\*

Coyote, how about Rub-a-dub-Dubble for that bathtub brew?

\*\*

Al writes:

>Would you eat a sandwich you dropped on the garage floor?

I'm not sure my personal habits are any business of yours, or that they have a

place in the digest, but here's my answer:

Yes, but I wouldn't eat it after dropping it on the garage floor and then putting it in a carboy for two weeks 8^0 ;-)

Norm

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Date: Sat, 20 Nov 1993 13:12:30 -0600 (MDT)  
From: Mark Taratoot <SLNDW@cc.usu.edu>  
Subject: cider questions and screw caps

Greetings.

Coyote mentions a gallon of cider that has started to spontaneously ferment and smells bad. My advice: LET IT GO WILD!! Last year I tossed one of my gallons of cider into a jug and put an airlock on, just to see what would happen. It smelled terrible for a month or two or three. I let it sit in the cold closet, not wanting to throw it out and eventually after about 6 months it had cleared quite a bit. I was about ready to throw it away, but I racked off the lees just to finish the experiment. I tasted a bit... MMMMMMMMMM!!!

After about another month or so in the second (third?) jug, I bottled it with just a tiny amount of priming sugar. Now this cider is very nice. One of the best yet! I may do five gallons this way with some extra fermentables this year, but I don't want to start a long project like that since I will likely be moving in the next 6 months.

Regarding the cider that needs to be served soon: Kill it with vodka, heat, or cold, then either force carbonate and use a counter pressure filler or serve still. I don't like the sound of this method. Other method: Bottle it a day or three before you serve it and keep it cool!!!  
\*\*\*\*\*

Regarding twist off caps:

When I first started brewing I used some twist off caps since my bottle collection was not complete. I was using an old-fashioned bench capper at the time. I never had any trouble using twist offs. When my friend left Utah to move to Washington state, he took his capper :( . I then started using a wing-style el-cheapo Italian capper. I found that this capper did not seal the few screw top bottles I still used occasionally as well as the "real" bottles. (The main problem with the wing capper is that bottles must have a large collar for the capper to grab, so many of my bottles were difficult to cap).

Now I have an old-fashioned bench capper of my own that was found BRAND NEW at a second-hand store (Thanks John). I have not used screw tops since I have had this capper, but I think it would cap them fine. The difference: Wing cappers grab the bottle and squeeze the crown onto the bottle while bench cappers just push the crown down onto the bottle. Perhaps the cappers that commercial breweries like SN use cap the bottles like the bench capper and so screw tops are not a problem.

I think a bigger problem is cheap, thin-glass bottles. BTW... does anyone have any idea of the life expectancy of a bottle for beer. As we re-use bottles, they get pressurized (slowly) and de-pressurized (quickly). How much of this stress can an ordinary bottle take?

-toot

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Date: Sat, 20 Nov 1993 14:27:50 -0800 (PST)  
From: Domenick Venezia <venezia@ZGI.COM>  
Subject: Wanted: Sam Smith Oatmeal Stout clone

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\*\*\* WARNING - WARNING - WARNING - This post may contain flame-bait.

\*\*\*

\*\*\* WARNING - WARNING - WARNING - This post may contain the word orgasm.

\*\*\* If you find such words offensive, you have my sympathy.

\*\*\*

But seriously folks, I'm looking for an all grain Samual Smith's Oatmeal Stout recipe.

I just went through the Cats Meow 2 and every HBD from 881031 to 1277 looking for postings containing the words "oats" or "oatmeal. Although there are many requests and lots of extract recipes there is not a single all grain recipe reputed to be a Sam Smith clone! I don't need to tell you, I was suprised!

So let's see 'em. (Do it now) Directly to me or post them to the HBD. (Don't wait, do it now) Damn the bandwidth! (Mail recipe now) There have been too few recipes posted recently. This is what it's all about. Getting information into the hands of the People! Freeing the People from the shackles of AB tyranny! Power to The People!

Whoa..., flashback.

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Sat, 20 Nov 93 16:28:00 +0800  
From: rob.skinner@kandy.com (Rob Skinner)  
Subject: Bruheat vs. picnic cooler

Paul writes:

>Would this be a wise investment? Can the Bru-Heat bring a 5 gal batch  
>to a reasonably quick boil? Is it the right way to go for mashing?  
>Or should I really spend many \$\$ and buy a stainles steel pot, propane  
>cooker, picnic cooler mash tun, sparging manifold, etc, etc, etc ....

When I was ready to take the plunge to all-grain,  
several friends talked me into going with the picnic  
cooler setup. I'm glad they did; it's the closest you can  
get to unattended brewing. There is no worry about scorched  
grain, stirring, etc.

If your worried about the cost, you might be able to get off  
cheaper with the cooler setup. If you can dig up an old  
cooler, are willing to settle for an enamel pot, and have an  
understanding spouse who will let you use the kitchen stove,  
you can get started for under fifty bucks.

Word of caution though: some inexpensive coolers are made of  
plastic that cannot withstand the temperature of boiling  
water. I use a Coleman with the metal exterior, and it's  
still like new.

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Date: Sun, 21 Nov 93 08:01:03 PST  
From: hollen@megatek.megatek.com (Dion Hollenbeck)  
Subject: Boiler siphoning

I am leaving too much wort behind in my boiler after siphoning to primary fermenter. I leave about .75 gal as a combination of what is held in the hops and what is left because the hop bed causes my siphon to "break". I use a Sankey keg as a boiler. It has a 1/2" pipe nipple coming in from the side and an elbow and nipple going down into the botto. Over the nipple is a screen (1/8" grid) to keep out the whole hops. When I let liquid out and there is no hops, then all but about 1/2 cup of liquid is removed.

- 1) How much liquid do you leave in your boiler including in the hop bed.
- 2) Any suggestions, or do I just figure in the excess wort needed to be left behind?

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Date: Sun, 21 Nov 93 10:43:37 MST  
From: "Mark B. Alston" <c-amb@math.utah.edu>  
Subject: first all grain! (questions)

Well, I just brewed my first all grain yesterday. It was a blast! I have never done an partial-mash before this all-grain but it went fairly smoothly anyhow. However, after having actually done a mash new questions come up which I didn't even think of before.

I'll post a summary of my procedures and equipment later. I think that it might be useful to those thinking about going all grain. With the right equipment I think that it can be quite easy. As I just found out.

- 1) I brewed a porter because my water is high in bicarbs and I didn't want to worry about messing around with my water too much. Since Noonan and Miller and just about everyone else says that a dark mash has a higher p.h. I assume that they mean that I should add the dark grains to the mash at mash in. Otherwise, I will have a mash which is the same as a pale ale mash and will have p.h. problems. Is this not correct? This is where I ran into my problem. Having such a dark mash it was impossible to tell what my p.h. papers were telling me. The wort (or is it not called wort till after the mash?) simply stained them a dark color. Everything went fine anyhow. I achived conversion regardless of the p.h. but it was still confusing. How do you all check the p.h. of your dark mashes?
- 2) This dark color brought out another problem. There would be no way to tell if iodine went black or not. The mash was black on it's own. Thus, I could not test for conversion. I simply let the mash sit at conversion temp for almost 2 hours. The liquid tasted sweet at this point so I went on. I achived an O.G. of 1.061 so I must have gotten conversion. So, how do you check for conversion of a dark mash?
- 3) For checking my extraction efficiency do I use the total grain weight (pale, chocolate, patent, crystal) or what? It seems that by including all the grains dark mashes will always seem less efficient than pale mashes even though I might have extracted the same amount from the pale malt. Moreover, I boiled off more liquid than I had intended and was left with only 4.25 gal or so in my carboy. So according to miller it seems that I should do the following:

$$\text{Degrees} = (1.061 * 4.25)/10 = .45$$

since my total grain bill came to 10 lbs (8 lbs pale malt) and I was only left with 4.25 gal.

What does this mean. Is this good or bad or what. Miller gives me no idea as to how what numbers I should get.

Thanks for any and all info.  
Mark (c-amb@math.utah.edu)

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Date: Sun, 21 Nov 1993 13:25:25 -0500 (EST)  
From: "David H. Thomas" <dhthomas@lis.pitt.edu>  
Subject: Liquid yeast storage

I am relatively new to brewing (ca. 10 brews) and am using liquid yeast for the first time.

I'm looking for info concerning the storage of liquid yeast cultures from one brew to the next. The folks who sold me the package of liquid yeast (Wyeast London) told me I could reuse the yeast by storing it. Papazhian says not a whole lot about this. What precisely do I save? How much do I save? What do I save it in? Where do I save it?

I seem to recall reading somewhere a bit about this--was it Dave Miller's book? (The title of which I can't seem to recall).

Any help on this would be useful.

Cheers,  
David Thomas  
dhthomas@icarus.lis.pitt.edu  
"What is this quotation stuff about, anyhow?"

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Date: Sun, 21 Nov 1993 14:37:30 -0500  
From: tmgierma@acpub.duke.edu (Todd Gierman)  
Subject: crabtree effect

In digest #1277, the question was asked:

>Pardon my ignorance, but what is the Crabtree Effect supposed to do to my  
beer,  
>and why would one avoid it? It seems it has to do with oxygen  
production, and  
>of course I know why I don't want oxygen in my beer at bottling, but  
could  
>someone explain the effect in greater detail?

Quite simply the "Crabtree Effect" is really an observation that goes  
like this:

In the presence of high glucose concentrations (>0.5%), yeast will  
continue  
to utilize fermentation even when oxygen is introduced into their  
environment. This phenomenon is sometimes called "aerobic fermentation."  
"

I don't know whether this explains the phenomenon of carbonating through  
the addition of dextrose. It may actually be that the addition of  
dextrose  
provides a carbon source at concentrations below 0.5% and now the yeast  
respire giving off CO<sub>2</sub> and no alcohol (the addition of priming sugar does  
not increase alcohol content, right?)

You see, basically, yeast ferment whenever they can and respire only when  
they have to (that is, when fermentables are low). In a glucose based  
nutrient system, anyway, yeast grow primarily by fermentation - glucose  
itself represses the expression of the enzymes required for respiration.  
Once the glucose is depleted to very low levels the yeast then kick into  
respiration mode, which requires oxygen and which can result in the  
catabolism of alcohol and acetaldehyde in addition to glucose.

Well, you say, "my wort is mainly maltose, so I know they are respiring  
until the oxygen is depleted." There is actually glucose present in your  
wort prior to pitching the yeast, as well as other sugars (maltose,  
dextrins, etc). Glucose and fructose enter the yeast cell via passive  
diffusion. Maltose, on the other hand, is actively transported and can  
be  
consumed at a rate that exceeds glucose, in spite of the fact that it  
must  
be broken down enzymatically into two molecules of glucose.

So, do the yeast respire early after pitching? I seriously doubt it.  
Like  
I said, in a glucose-based environment they ferment their little hearts  
out  
(figuratively). Maltose is actually two glucose molecules coupled and  
once  
broken is actually catabolized as ordinary glucose. So the real question  
here is: does maltose affect yeast metabolism in a manner identical to  
glucose (does it also repress respiration)? I suspect that it does, but  
do  
not know for certain.

Why do we aerate then? Well, I understand that it is important for the

synthesis of sterols, which, I assume, act, in part, as regulators of growth.

This is an issue that should be cleared up (fermentation vs. respiration) as it gets thrown around these threads on a regular basis. Perhaps, someone with access to the real brewing literature could better address this question, i.e. the effect of abundant fermentables on respiration in yeast.

Todd Gierman  
Dept. of Microbiology  
Duke University Medical Center

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Date: 21 Nov 93 15:02:38 EST  
From: "Kevin M. Watts" <75250.2033@CompuServe.COM>  
Subject: A Defense of Sam Adams

Chris (responding to Al) writes:

>> I continue my boycott of Samuel Adams products!

>Your loss. Although Koch may be a slime bag, he makes a decent product.

A slimebag? Really? Sometimes this guy comes off sounding like Hitler in the HBD.

You may question his marketing techniques regarding the GABF and his trademarking of the word "Boston".

Regarding the first...it seems to me that GABF got a heck of a lot of free advertising since 1986/7 when SA began running those radio spots that mention "winner three/four years running of the GABF." True, he may not have explained the ins and outs of the awards process. He should be chastised for it. But if I remember correctly, GABF didn't complain until much later. Meanwhile, their attendance has doubled and tripled. The first time I ever heard about GABF was via those radio commercials, and I've attended two of them now.

Regarding the second...as a marketing slimebag myself, I understand the need to maintain product identification. A guy walks into the store and sees "Boston Lager" and "Boston Stock Ale", both SA products, then sees "Boston Bock" or some other product by another manufacturer, and it stinks. Potential for problems for SA? You bet. Trademarking is as old as the hills.

The love of Sam Adams inspired my search for good beer. You may disagree with his techniques, but remember, this is a business. How many brewers go bust every year? How many make a real profit? And, more to the point, how many micros can claim the widespread distribution of SA? I walked into a small town bar outside of Decatur, Alabama last year and they had SA on tap! It certainly did beat a Bud.

This "slimebag" is the same guy who closed down his plant and took this entire staff to DisneyWorld to celebrate their anniversary. I don't know the man personally, but that sounds like a good boss to me.

I suppose I'm about to get flamed by all the pure-of-heart beer geeks out there,

and I'm ready. If you know something I don't about James Koch, something truly evil, then please let me know. I just think that calling for the boycott of a very good product and calling people really rude names in a public forum is silly.

Just a thought. Now lets get back to the real beer stuff.

-Kevin/Chicago

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Date: Sun, 21 Nov 93 16:29:48 EST  
From: ulick@michaelangelo.helios.nd.edu (Ulick Stafford)  
Subject: bottle bomb weizen

I had my first ever bottle bomb. It was a weizen and the cause was quite obvious. I deliberately followed every step in Warner's book, even when I questioned it. One such point was to do with carbonation and for 5 gallons he recommends priming with either 1.6 qt of Speise or 1.8 quarts of wort. Obviously there is more sugar in the former (21B first runnings from Laeuter tun) than in the latter, ~13B, but I used the former anyway. I couldn't bring myself to bottle after 2 days - the ferment had been low ~60F, but I bottled after 4 without bothering to change yeast. Anyway, after a week I had a perfect, if overcarbonated Weizen. A German friend of mine and another Irishman who lived for a while in Germany thought it was spot on.

Anyway, while milling grain for a new batch down in my basement (now a 5-10 minute job with the MM instead of the previous 20+ with the Corona), a bottle blew - a longneck returnable, although probably flawed. I immediately made space in my 40F lager for the rest to stop yeast activity and dissolve more CO2. Later that evening my German friend called and asked me to bring over some weizen as his party guests wanted to try it. I told him of the mishap and he responded that usually one case in three of commercial weizen in Germany would have a bottle bomb - so it must be good! Anyway I brought it over and it was a hit with 'genau richtig' being a typical comment. This would seem to prove what a good book Eric Warner has written. He won the best weizen in 1992 at the AHA national, I think, and a brewer following his procedure won this year, although all the judges said his beer was a gusher. My next batch - 2 days old now so about ready to bottle will be primed with just one quart of Speise.

In 1277. Lee Menegoni comments that saccharification rests for decoction mashes should be longer because enzymes have been denatured. I'm not sure if this is the case. A decoction procedure should involve a rest at 150-160 for 15 minutes, which should be long enough with modern malts to convert all starches in the decoction that are available, and the actual boil will make the other starches much more accessible. I have found that 20 minutes after combining the mashes is plenty to complete conversion with modern malts. If malt quality is poor, a double or triple decoction should be employed.

Norm Pyle asks about the Crabtree effect, but Al K gave a good explanation to which I will only add that when disaccharides such as maltose are present in high concentration the yeast cells enter their respiration phase consuming oxygen, so that they can release extracellular enzymes that then split the disaccharides into monosaccharides, that can then be absorbed through the cell walls. When monosaccharides (well glucose anyway) predominate the yeast cells do not need to respire as they can absorb the monosaccharides through their cell walls without the need to excrete enzymes.

I have one question. As mentioned that the Crabtree effect will occur if monosaccharides predominate. Is this true for fructose, and if so what happens when sucrose is present? Would the sucrose become invert (fructose and glucose) if added to the slightly acid beer as a bottling sugar, or would the respiration phase be initiated as in the case of maltose or maltotriose?

---

'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem.  
Eng.  
Pabst Blue Ribbon!' | Notre Dame IN 46556  
| ulick@darwin.cc.nd.edu

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Date: Sun, 21 Nov 93 15:29:00 -0400  
From: barry.miller@som.linet.org (Barry Miller)  
Subject: Lyles Golden Syrup

For those who are interested, Lyles Golden Syrup can be purchased from G. B. Ratto & Company, International Grocers Inc. 821 Oakland St. Oakland, CA 94607-4029. 1-800-325-3483. The syrup is listed in my catalog as item #2770, 16 oz. tin at \$5.95.

Even if you are not interested in the syrup, get a copy of Ratto's catalog. They have a superb selection of specialty and imported food items, spices etc. at reasonable prices. (I have no relationship with Ratto's other than as a very satisfied customer)

Barry Miller  
barry.miller@som.linet.com

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| SOM Premium Info Network 516-536-8723 Hayes v.32bis USR DS/Hayes 28.  
8k |  
| Oceanside, New York -- Home of the Smartnet International Email  
Network |  
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Date: 21 Nov 1993 20:45:21 -0800 (PST)  
From: p41539@tcville.hac.com (Vernon Hutchens)  
Subject: sanitation mehtods

I have been homebrewing for a year now, and I have been sanitizing everything with a mild bleach solution. No problems.

A good friend of mine works in the food processing industry, and he says that I should use hydrogen peroxide to sanitize, like the food pros do. Is this a good idea? I am not motivated to change, but he won't leave me alone without a rebuttal.

Fisher Hutchens hutchens@igatel.hac.com

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End of HOMEBREW Digest #1278, 11/22/93  
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Date: Mon, 22 Nov 93 09:06:07 -0600  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: HSA

Mike Sharp in HBD#1277 correctly points out that there are two schools of thought about HSA. In its defense is the well established point that HSA definitely increases the colloidal stability of beer. This has been demonstrated in the excellent article by Morton in MBAA Tech. Qr., Vol. 23, 1985, to cite but one reference. Since materials oxidized by HSA are derived from malt (melanoidins, phenols, et al), HSA does find selected application for light beers having a low malt fraction.

I, on the other hand, remain very negative about HSA. Removing HSA from my system has lead to a discernible increase in overall beer quality. This is not only a subjective evaluation, but indeed the performance of beers I have brewed in sanctioned competitions has dramatically improved since the change was made. While yeast quality and proper sanitation are by far the two most important issues, in my system avoidance of HSA comes in third ahead of many other issues.

George Fix

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Date: Mon, 22 Nov 1993 10:03:03 EST  
From: Iron City Beer has Iron in it <ambroser@APOLLO.DML.GEORGETOWN.EDU>  
Subject: Sam Adams bashing, etc

>I continue my boycott of Samuel Adams products!

>>Your loss. Although Koch may be a slime bag, he makes a decent  
>>product.

>Yes, he makes decent beer. But so do literally hundreds of good, decent  
people  
>who avoid using the strong-arm tactics of the neighborhood bully to sell  
their  
>product.

>So, why would you want to buy beer from these people? You can buy good  
beer,  
>better than Koch's, from good people.

I just had to add my \$.02.

In the past year or two, I have not considered S.A. (forget the TM junk)  
a real  
microbrew. To be technical, I'd say it is rather a MINIBrew. I make this  
comparison like comparing computers. A Mainframe is Bud, Miller, etc. A  
Micro  
is Mendocino, Celis, and the like. S.A. is more like a Mini, it is bigger  
than  
a Micro but smaller than a Mainframe. Lets face it, once you begin to  
sell  
your brew "all over the country" and have (can afford) radio commercials  
"all  
over the country", you're not a "little guy" any more. S.A. is good, "but  
[there  
are] literally hundreds of good, decent people" out there that make a  
beer as  
good or better than S.A. (IMHO). As far as "Boston" being a trademark, I  
don't  
think that single word is anybody's trademark. "Boston Beer Company" is  
Jim's  
trademark, but I feel you could call your beer Boston Lager, Boston Ale,  
etc  
and would not be violating any trademarks. Lastly, saying you are going  
to  
boycott S.A. is fine. It is your choice. But asking other people to  
boycott it  
is ridiculous. It would be like saying "Boycott Budweiser because they  
aren't  
really the King of Beers", or on another subject "The Washington  
Redskins,  
Cleveland Indians, and Atlanta Braves have to change their names because  
they  
are demeaning" is just as ridiculous. IMHO, I don't drink S.A. because  
I'd  
rather pick up some other obscure name that I haven't tried before, like  
Fat Tire Ale, or another well known but true micro brew like Black Hawk  
Stout  
or S.N. Porter. Lets quit all of this Jim Koch and S.A. bashing.  
The only thing he can not say any more is "four years running". He can  
still

say "four years in a row" though. Lets get more politically correct.  
Jim Koch may use "slime bag" advertising tactics, but I don't think he IS  
a  
"slime bag".

Time to go to the fridge for some Chimay.....

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Date: 22 Nov 93 15:04:14 GMT  
From: GANDE@slims.attmail.com  
Subject: Astringency...

>From: arf@mcs.com (Jack Schmidling)  
>Subject: Astringency

>>From: GANDE@slims.attmail.com

>>Further to this one could assume that it would be OK to sparge with  
>> boiling water, which is accurate as long as your grain bed pH  
>> doesn't raise above 5.3, ideally. <SNIP)

>That's a nice number but like so many things, it is only a bench  
>mark. What if the pH rose to 5.4 or 5.7... would it make a  
>detectable difference? I doubt it.

I'd have to agree with you regarding a slight raise in pH such as  
that. But, the pH 7.0, boiling water is in fact in contact with the  
top 1/2 inch of the grain bed. I agree that at the bottom of the  
mash it's likely to be in the mid 5's due to the grain buffering  
action, yet this is not a true statement about the top portion,  
especially at the interface between the 200+F water and the grain  
bed, namely the top half inch or so.

>>...boiled for 10 minutes in tap water  
>> (pH 7.0) and it was what I would call astringent. That's enough  
>> proof for me. ;)

> All that says is that boiling tap water with a pH of 7.0 will make  
> astringent tea. As you did not convert the starch into sugar, the  
> astringency could just be the way malt tea tastes without the  
> sweetening effect of conversion.

Not sure what you mean, but a major component of judging beer is  
being able to separate flavors. If astringency is present it makes no  
difference how sweet (or sour, salty, bitter, etc..) the remainder of  
the liquid is.

> In the real world, sparge water is run through the mash which has a  
> powerful buffering effect on the water. I run 10 or more gallons  
> of pH 7 sparge water through my mash and it doesn't raise the pH  
> more than a tenth point or so. Furthermore, sparge water temp is  
> not the same as mash temp nor does it bear any relationship to  
> making tea with boiling water.

As long as pH is measured at the bottom of the grain. Try this. After  
about 45 minutes of sparging (in whatever fashion you prefer).

- a. add some boiling water to the top of the grain bed.
- b. remove about half of a cup of grain/water mixture (from the top)
- c. check the pH

I'd bet the temperature is up around 200F and the pH is not much  
under 7.0. One can assume that tannins are being extracted and  
astringency created. This may seem trivial to a 20 LB mash, but those  
that do partial mashes (say a couple of pounds of grain and extract)  
may notice the astringency.

> Finally, it does not address the fact that boiling grain in  
> decoction mashing does not seem to produce astringent beer.

Yes it does. My statement is that pH in the mid 5's (optimum 5.3) will prevent/reduce tannin extraction. Boiling a pH 5.3 mash portion is different than adding boiling, pH 7 water to grain. Not sure what you mean here.

I am not trying to convince anyone that this is fact. It is my understanding of how astringency is created and why astringency is NOT created in decoction mashing.

...GA

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
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Date: Mon, 22 Nov 93 09:36:37 -0600  
From: graham%spock.dnet@SEDSsystems.ca  
Subject: Burners ?

I have been brewing all grain for several years now, the last few using a 38 qt. stainless pot. I am using a large electric stove element mounted on a piece of .25" aluminium connected to a 240 volt 40 amp source as my burner. This has proven to be barely adequate to boil 6-7 us gallons of wort. Getting the already warm wort up to a boil can take an hour (45 min if I cover the pot with an old sleeping bag). My question is what are the alternatives for burners? Would 2 (or for that matter 3) small stove elements provide more heat than the single large one?

I suspect that a gas burner would provide more heat and have been considering stealing the side burner off of the propane BBQ. (After a massive boil over on the kitchen stove I now brew in the garage, so ventilation is not a concern). Any suggestions would be appreciated!

Thanks in advance.

Reid Graham "graham@sedsystems.ca"  
SED Systems Inc  
Saskatoon SK

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Date: Mon, 22 Nov 93 8:36:43 MST  
From: npyle@n33.stortek.com  
Subject: Re: First All-Grain

Mark Alston writes:

(Mark, I can't help with your questions on checking pH and starch conversion on dark mashes, I only do pale mashes, but...)

>3) For checking my extraction efficiency do I use the total grain  
> weight (pale, chocolate, patent, crystal) or what? It seems that by  
> including all the grains dark mashes will always seem less efficient  
> than pale mashes even though I might have extracted the same amount  
> from the pale malt. Moreover, I boiled off more liquid than I had  
> intended and was left with only 4.25 gal or so in my carboy. So  
> according to miller it seems that I should do the following:  
>  
> Degrees = (1.061 \* 4.25)/10 = .45  
>  
> since my total grain bill came to 10 lbs (8 lbs pale malt) and I  
> was only left with 4.25 gal.  
>  
> What does this mean. Is this good or bad or what. Miller gives me  
> no idea as to how what numbers I should get.

I include all of the grain bill in my calculations, which I suspect, is one of the reasons I get lower extract rates than claims here in HBD land (procedural/equipment differences accounting for the rest). Anyway, I would like to see this answered by those claiming 30+, 32+, etc. points/pound/gallon. The dark malts, in my understanding, do not add sugars to the liquor, and really probably shouldn't be added to the grain bill when measuring efficiency. I add them in anyway, but I suspect others do not. I guess one question would be: if you don't include all grains in the calculation, which ones do you exclude? You did the calculation wrong, BTW. For future reference/comparison:

```
Extract = (61 pts * 4.25 gal)/(10 lb)
= 26 pts...
```

I get around 25 points using the entire grain bill (of course, higher for pale beers, lower for dark beers), so you are in the ballpark. You can probably do better with a "normal" sparge (I do a batch sparge), but it is a good starting point. Also, you apparently measured the final volume in the carboy, which takes into account losses after the mash/sparge (i.e. volume left in the kettle, soaked up in the hops, etc.). For a more accurate measure of your mash/sparge you should take this reading from the kettle. At this point, you more concerned with your mash efficiency, not the efficiency of the entire

brewery. I think it makes for a better comparison with other brewers,  
too, to  
take the gravity readings from the kettle liquor.

Norm

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Date: Mon, 22 Nov 93 10:36:13 EST  
From: "Glen A. Wagnecz, X6616" <wagnecz@PICA.ARMY.MIL>  
Subject: Re: Hop Oils as a Preservative

Mark Garetz <mgaretz@hoptech.com> writes:  
>Subject: Hop Oils as a Preservative

>Actually there are studies that show that hop oils (responsible for the  
>aroma) do have a preservative effect and do inhibit the growth of  
>bacteria. And for an informal opinion, Fritz Maytag strongly believes  
>that dry-hopped beers last much longer (like 10-20 years) than beers  
that  
>are not dry hopped. He bases this on tasting his Christmas Ales from

Mark-

Have these beers that last this long been carbonated via  
priming or forced carbonated? I was under the impression that beers  
that are carb'd via priming last only about 2-3 months, due to the  
presence of the spent yeast sediment in the bottle. Please "clarify"  
whether these long lasting beers were primed or forced and other  
necessary specifics.

Thanks In Advance-

Glen

P.S. Thanks for the catalog, are the '93 whole hops in yet?

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Date: Mon, 22 Nov 93 10:38:08 EST  
From: 22-Nov-1993 1037 -0500 <ferguson@zendia.enet.dec.com>  
Subject: Just made a wort chiller - any break-in required?

I just made myself a wort chiller. I bought 50' of 3/8" ID copper tubing (\$29), a plastic hose, some clamps, etc; total cost about \$37.00 or so.

Now, if there any sort of break-in procedure I need to use to avoid having any sort of reaction between the fresh copper and my wort?

Thanks,  
JC Ferguson

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Date: 22 Nov 93 11:07:00 EST  
From: "TIMOTHY LABERGE" <LABERGET@gar.union.edu>  
Subject: calcium Chloride

Thanks to everyone who responded to my request for ways to treat my hard water. The gist of most of the replies was "Boil it!". That said, a few suggested adding calcium chloride and then boiling. Does anyone have a source for this? What about for lactic acid?

Thanks again,  
Tim LaBerge  
Union College

No fancy sig--just good beer.

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Date: Mon, 22 Nov 1993 09:05:01 +0800  
From: bjones@novax.llnl.gov (Bob Jones)  
Subject: Bay Area Brewoff Competition Announcement

\*\*\*\*\* Competition Announcement \*\*\*\*\*  
\*\*\*\*\*

Well it's that time of year again for the Bay Area Brewoff. The  
catagories  
this year will be :

India Pale Ale  
Pale Ale  
Bock (Traditional, Helles & Dopplebock)  
Porter  
Dry Stout  
Barleywine/Wheatwine  
Holiday beer (specify spices/herbs and special ingredients)  
Mead (melomel, cyser, metheglin - sparkling or still)

Competition date : Jan. 22, 1994  
Entry fee : \$5 per entry.  
Entry - Two 12oz. bottle per entry. Label with name, address, phone  
number &  
club affiliation, catagory and sub-catagory if any.  
Place : Lyon's Brewery Depot, 7294 San Ramon Rd., Dublin, Ca. 94568  
Entries accepted : Jan. 1-8, 1994 (ship to arrive this week)

This is a good competition with good judges, and always a lot of fun.  
Judges  
comments will be sent to all entrants. Prizes and ribbons are awarded.

I'll make this announcement one more time in December. Thanks for  
listening.

Bob Jones  
bjones@novax.llnl.gov

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Date: Mon, 22 Nov 93 12:26:12 EST  
From: Lee=A.=Menegoni@nectech.com  
Subject: Decoction: Conversion times

RE: My suggestion that one should kettle mash longer than 15 minutes.

I should have prefaced my comment on kettle mash times with the fact that I use under modified German Pilsner, Vienna and Munich malts for brews with a decoction mash. I have found these take longer than highly modified US or Belgian malts to convert. My primary motivation in using these malts is from George Fixes analysis of the Belgian malts in Brewing Techniques in which he notes that they are lower in the precursor that produces the malty flavor and aroma compared to good German malts. Since I am doing a decoction to develop these components I use the malt with the greatest potential.

RE single decoction step with 50% of the grain.  
If the intent is to produce a rich malty aroma and flavor then why don't you do 2 decoctions of 1/3 each like Noonan?

It takes too long. With the under modified German malts each decoction adds 45 to 60 minutes to the brewing process.

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Date: Mon, 22 Nov 93 11:08:15 MST  
From: Rick Myers <rcm@col.hp.com>  
Subject: Coors Winterfest

Norm writes:

> Anyone tried this year's Coors Winterfest? It is (this is no lie!)  
robust,  
> dark brown/red, balanced (surprise), and quite tasty. There are even  
some  
> fruity components that make me wonder if it an ale. From Coors? No  
way! It  
> certainly is an order of magnitude better than last year's boring amber  
lager.  
> Oh, it is still marketed as a stout, HA! It is no stout but it is good  
beer.

Yes, I've tried it and like it! However, I feel the balance leaves a  
little to be desired - too bitter and too little malt. I like my  
brews bitter, but there's not quite enough malt there to offset the  
bitterness. It is quite a bit darker this year, but, the most  
impressive thing is: THE LABEL! Check it out! It's laser-etched  
or something like that. Also new for this year, is a larger bottle  
size. You can get it in the usual 12oz. bottles, or the larger  
micro-brewery style bottle of about 26 ounces - I don't remember  
the actual size.

Rick

- - -

Rick Myers (rcm@col.hp.com)  
Information Technology Specialist  
Hewlett-Packard Test & Measurement Organization Information Technology  
Colorado Springs, CO

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Date: Mon, 22 Nov 93 12:57:54 EST  
From: dweller@GVSU.EDU (RONALD DWELLE)  
Subject: Deadbrew

Started a 5-gallon batch 7 days ago, all seeming normal. Waited, waited, nothing happened. Waited waited patiently. Nothing still happened. My guess is that I pitched the yeast and it dropped dead (for godknows why).

Question: to re-do, I'm guessing that I can just heat to near boil, to kill the critters that might have grown, chill, and re-pitch?

Or should I do something more?

Toss the wort?

I'm leaving it sit til I hear from someone (nothing's happening anyway).

Ron Dwelle (dweller@gvsu.edu at Internet)  
"Four Score And Seven Beers Ago  
It was Friday."

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Date: Mon, 22 Nov 93 13:12:10 EST  
From: carlsont@GVSU.EDU (TODD CARLSON)  
Subject: Re:Crabtree effect

Several recent messages have questioned the type of metabolism taking place in bottles primed with dextrose (glucose). The question:

Is the concentration of glucose in primed beer high enough to inhibit respiration (the Crabtree effect)?

or as stated yesterday:

>It may actually be that the addition of dextrose provides  
>a carbon source at concentrations below 0.5% and now the  
>yeast respire giving off CO<sub>2</sub> and no alcohol (the addition  
>of priming sugar does not increase alcohol content, right?)

Not an insignificant question since the CO<sub>2</sub> yield from respiration is 3 times higher than the CO<sub>2</sub> yield from fermentation (see equations 1 and 2 below)

eq 1: fermentation of glucose

$C_6H_{12}O_6 \rightarrow 2 C_2H_5OH + 2 CO_2$   
(ethanol)

eq 2: respiration of glucose

$C_6H_{12}O_6 + 6 O_2 \rightarrow 6 CO_2 + 6 H_2O$

(pardon the lack of subscripts in all chemical formulas)

Perhaps this analysis will help. You must also remember to include the other character in the respiration reaction - oxygen. Three quarters cup of glucose is about 145 grams which (at 180 g/mol) converts to 0.805 moles of glucose. Respiration of that much glucose would require 6 times as many moles of O<sub>2</sub> (4.83 moles of O<sub>2</sub>). Assuming ideal gas behavior (using PV=nRT, P=1 atm, R=0.0821 L-atm/mol-K, and T=298K or 25C) that converts to 118 L of oxygen gas! But 5 gal (18.9 L) of beer saturated with O<sub>2</sub> at a concentration of 3.16 mL O<sub>2</sub>/100 mL of water (as per the CRC Handbook of Chemistry and Physics) would contain only 0.597 L of dissolved O<sub>2</sub>. In other words, aerobic respiration of glucose in a closed bottle of O<sub>2</sub> saturated beer could only account for the consumption of 0.5% of the added glucose. It seems to me that primed beer must be carbonated with anaerobic fermentation (eq 1).

If so, then the complete fermentation of the 0.805 moles of glucose would produce 1.61 moles each of ethanol and CO<sub>2</sub>. At 46 grams/mol, this increases the ethanol concentration by 74.1 g or 0.4% (based on 18,900 g for 5 gal of water). I would guess the actual increase would be less at aerobic respiration is negligible (see above) and glucose metabolism is probably incomplete. As for the CO<sub>2</sub>, the 1.61 moles produced would increase the pressure to about 2 atmospheres or 30 psi (again using PV=nRT) assuming the beer is already saturated with CO<sub>2</sub>. As for the ethanol, this would be a



maximum estimate. What is the desired CO2 pressure of finished beer? Does this sound about right?

Todd Carlson  
carlsont@gvsu.edu

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Date: 22 Nov 1993 13:03:11 -0500  
From: "Daniel F McConnell" <Daniel\_F\_McConnell@mailgw.surg.med.umich.edu>  
Subject: boiler waste/respiration

Subject: boiler waste/respiration

From: hollen@megatek.megatek.com (Dion Hollenbeck)

>I am leaving too much wort behind in my boiler after siphoning to  
>primary fermenter. I leave about .75 gal as a combination of what is  
>held in the hops and what is left because the hop bed causes my siphon  
>to "break". I use a Sankey keg as a boiler.

>2) Any suggestions, or do I just figure in the excess wort  
needed to be left behind?

I had the same problem and recently solved it to my complete satisfaction. I was leaving up to a gallon in the boiler especially when large amounts of hops were used. It really bothered me so I installed a copper false bottom in my boiler that has thousands of 1 mm dia holes and is supported by a ss grid. It was purchased from Pico Brewing Systems. My drain has a Cu dip tube that goes to the very bottom of the boiler and will siphon out all but a few ozs of wort. If you use whole hops, then most of the trub sticks to the leaves and acts as a filter. Pellets can be used in small amounts (I've used up to 2 oz), but they will plug the false bottom (I'm told) unless some whole hops are used. I have had no problems with carmelization of high gravity initial run off, although if you use extracts, I would be very careful to dilute the extract well before adding to the boiler.

\*\*\*\*\*  
>From Patrick Weix weix@swmed.edu

>Fermentation is what occurs during the  
>\*anaerobic\* growth of yeast, so if one aerated, fermentation would  
>just stop. They would go on living and turning sugars into CO2, but they  
>would not make any \*ethanol\*. (They of course being the yeast!)

Not exactly. High concentrations of sugars REPRESS the ability of the yeast cell to undergo aerobic respiration even at high oxygen levels. This is catabolite repression. In aerobic conditions the yeast DOES produce ethanol, but it is oxidized to CO2 and water when the sugar is gone. In ANaerobic conditions the yeast can not oxidize the ethanol produced and it remains in solution.

>My point being: aerate early, then leave it alone.

Still an excellent point.

DanMcC

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Date: Mon, 22 Nov 93 13:09:16 EST  
From: John DeCarlo<jdecarlo@homebrew.mitre.org>  
Subject: Re: Defense of Jim Koch

Well, Hitler may have loved his pets and family--we just judge by his actions  
<grin>. Trademarking may be as old as the hills, but "Boston" is a silly thing to try and trademark (read, you can't) and besides, \*no one\* knows that the word Boston is part of any Sam Adams products. I did a survey of 35 people drinking the stuff and none of them had any idea. Every single one thought it was brewed by the Sam Adams brewery.

So, Jim may be a good marketer, but he is not an honest one. That's basically what we are judging him on. Dishonest and disreputable marketing tactics, whether law suits intended to damage competitors, mislabeled beer styles, attempts to subvert competitions, or lies in radio ads, can have only a damaging effect on a company or executives reputation.

The sad part, as so many defenders point out, is that he makes a half-decent beer. There are lots of restaurants/bars in the U.S. that carry SA and nothing else even close in quality (usually megabrews). If Koch simply refrained from the underhanded activities he could have a slightly bigger market and some respect.

Right now, Sam Adams \*worst\* customers are educated consumers. They know there is lots of stuff out there head and shoulders above his and that his tactics are dishonorable. It may be a tiny percentage now, but I think lots of microbreweries out there are learning the lesson from this and emphasizing good consumer relations through truthful advertising and proper labeling.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own  
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org  
If I were you, who would be reading this sentence?

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Date: Mon, 22 Nov 93 10:23:33 -0800  
From: Drew Lynch <drew@chronologic.com>  
Subject: Spice usage information

Now that you've all already started your Christmas ales, I thought I'd toss out a little info based on my latest Christmas brew. I altered my spice boil schedule based on my guesstimate of how volatile the desirable compound in the spices were. Also note that I use a CF chiller, and take 10 minutes to chill the 5 gallon batch. You may want to add that time to the times listed below. The base beer was a lightly hopped (Cascade/Willamette) high gravity brown ale (1.080 SG - 1.020 FG), using Wyeast American Ale Yeast

Spice: 4 cinnamon sticks at the beginning of the boil

Result: Warm underlying cinnamon flavor as desired

Spice: 4 ounces coarsely chopped ginger, added 5 minutes prior to end of boil.

Result: Walloping fresh ginger taste - too much. I think this is the correct boil time for ginger, but I would reduce the amount to 1-2 oz.

Spice: Peel from 4 juice oranges and one lemon Added 5 minutes prior to end of boil

Result: No discernable orange/lemon flavor. I will add these at the very end of boil, or possibly via a hop back.

Drew Lynch  
Chronologic Simulation, Los Altos, Ca.  
(415)965-3312x18  
drew@chronologic.com

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Date: Mon, 22 Nov 93 10:34:51 PST  
From: Mitch Hendrickson <mitchh@hops.gvg.tek.com>  
Subject: A handy tip for making an immersion chiller

As I was making a second immersion chiller this weekend (a gift for a friend), I found that a 5 gal keg makes an ideal form around which to wind the copper tubing. I found that I was able to get away without even using the tubing bender (spring thing). And it's a lot more regular than my hand-bent version :-).

FWIW,

-Mitch

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Date: Mon, 22 Nov 93 12:48:45 EST  
From: lyons%adcl@swlvx2.msdl.ray.com  
Subject: RE: A Defense of Sam Adams

Al writes:

>>> I continue my boycott of Samuel Adams products!

Chris writes:

>>Your loss. Although Koch may be a slime bag, he makes a decent  
>>product.

Kevin writes (In Defense of Sam Adams):

>A slimebag? Really? Sometimes this guy comes off sounding like Hitler in  
the  
>HBD.

... summarizing additional comments (I'm going on a limb here, but the  
following is my interpretation of Kevin's comments):

James Koch is not a slimebag, but a successful business man doing what  
is necessary to promote a successful product.

... (I hope I got that right)

I'm not sure I disagree. Please note in my initial comment I used the  
phrase "MAY BE a slime bag" and not "IS a slime bag". The general tread  
on  
these forums is that he "is" a slimebag. I can't say from personal  
experience that this is true ... I don't know. I do know that Koch  
distributes a first rate product and I continue to purchase it as one of  
the many quality brews I purchase. In short, if a manufacturer makes a  
quality product at a reasonable cost, I'll support it. It may take  
unpopular practices to advertise a product to the mass-public, but a  
product's cost+quality performance will determine its ultimate fate once  
it  
is sufficiently advertised. I for one am glad to see that the mass-  
public  
can recognize a quality brew after the many years of drinking the typical  
american guzzle beer.

Chris

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Date: Mon, 22 Nov 1993 14:05:28 -0500 (EST)

From: SFFG\_WWIBLE@VAX1.ACS.JMU.EDU

**Subject: Siphoning Problems**

I've got a glass racking crane, which I stick a flexible plastic hose onto, the other end into the secondary/bottle filler.

I used to have problems every now and then with gas building up in the siphon and eventually stopping the flow. Then, I figured out that the junction of the hose with the crane wasn't always completely airtight. Even a slightly imperfect fit will result in allowing some air in. Take a look. If the gas is building up at the top of the crane, and you have a similar setup, this might be the problem. I have always been able to fix it by twisting the hose just a little bit, and get a perfect seal.

Will

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Date: Mon, 22 Nov 93 13:19:09 EST  
From: sdlsb.dnet!73410%sdicc@swlvx2.msdl.ray.com (Carl Howes)  
Subject: crabtree redux

It looks like an experiment is in order here. The question still is whether or not the Crabtree effect is relevant to priming homebrew. The evidence so far is that priming with maltose (from DME, krausen, gyle) will cause some (all?) of the headspace oxygen to be consumed and priming with corn sugar will not. General opinion (from those who expressed one) runs to "it makes no real difference". Has anyone tried such an experiment? If not, stay tuned and I'll report back in six months or so. BTW, what good is a PureSeal (tm) cap considering that it has been shipped/stored in a 20 percent oxygen atmosphere for some indeterminate period before use?

Carl  
"Worry now and you will have a \*good\* homebrew to relax with later" - me

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Date: Mon, 22 Nov 1993 13:52:32 EST  
From: "Mark T. Berard, Dow Plastics, LAD, TYRIN\* CPE R&D"  
Subject: PET soda bottles/Aluminum brewpot

Hello all,

HBD seems mighty unfriendly these days, especially considering that the holiday season is upon us, but I'll chance another beginners question.

Do people out there use PET Coke(tm) bottles to bottle beer in? They seem ideal. They are obviously gas impermeable. They come in a variety of sizes, my favorite being 2 and 3 liter (cuts down on bottling time alot)

The caps seem to hold pressure, and you don't have to worry about breaking them (should be ideal for travel or mailing them). Plus, if you over-carbonate, it shouldn't be that hard to release CO2 without having a gusher. I've only used them a couple of times (I normally use champagne bottles with PE corks). So, other than the complete lack of charisma, is there something wrong with them that I'm missing?

On another note, thanks to all who responded to my aluminum pot question. The consensus is that the acid wort can extract the aluminum, resulting in a "metallic" taste in the beer (which I don't seem to have.) Also, several people noted that the Aluminum/Alzheimer's connection was shown to be false, something about the staining procedures for the brain cells was introducing the Aluminum. i.e. Aluminum doesn't give you Alzheimer's (I never could spell).

Special thanks to Drew Lynch for his post in 1277 on dry hopping. A actual experiment! No snide comments! A sure sign that HBD is "not dead yet!" ;-)

Thanks and Happy Holidays

Dr. Mark T. Berard | Internet: mtberard@dow.com  
Snailmail: | Voice: 504-353-8418  
Dow Chemical, La. R&D, Bldg. 2506 | FAX: 504-353-6608  
PO Box 400, Plaquemine LA 70765 | SCIENCE!

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Date: Mon, 22 Nov 1993 14:29:13 -0600 (CST)

From: Allen Ford <allen@darwin.sfbr.org>

**Subject: Lovibond color scale**

Am hoping for some answers (or at least appropriate references in order to answer) the following questions regarding degrees Lovibond.

Is the scale completely linear? That is, does 1 lb. of 50L grain result in twice as much color in a beer as does 1 lb. of 25L grain used in an identical manner. Does 1 lb. of 500L grain give 50 times as much color as 1 lb. of 10L grain?

Does dilution of a beer with equal parts water result in a halving of the color rating?

Do formulas exist that will allow one to accurately predict the final color of a beer based on the Lovibond rating of the grains going in?

Answers to unasked questions may also be appreciated.

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Date: Mon, 22 Nov 1993 14:12:00 -0500  
From: mike.sadul@canrem.com (Mike Sadul)  
Subject: Hunter Airstat / flying brew

> After all of this interest in the Hunter Airstat, I am kind of  
> interested in taking a look at one. Could someone tell me where  
> I can find one?

In Canada, the Hunter Airstat is imported by Melnor Manufacturing Ltd. and it is sold under a different name. It is model number C42215 and is called the Hunter Energy Monitor AC. I found only one store which carries it, Canadian Tire. It's a bit pricey at \$80, but if you want it bad enough ...

> Has anyone else had any good or bad experiences carrying homebrew  
> onto a plane? Or, for that matter, checking homebrew in their  
> luggage?

Not homebrew, but that other stuff known as store bought brew. This happened a few years ago, flying out of Halifax, N.S. I loaded up my carry on with an assortment of different brands of six packs (cans). Nothing out of the ordinary, just different from what is available here. That was one HEAVY bag. As my bag went into the X-ray machine, I glanced over at the video screen. The cans showed up as a LARGE black blob. The security person rolled her eyes into her head and looked up at the ceiling. After about half a minute, I assumed she just wanted me to leave, so I picked up my bag and walked away. No questions asked.

Mike  
mike.sadul@canrem.com Number of pieces of brewing  
equipment purchased for this posting: 1

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Date: Mon, 22 Nov 93 15:44:44 EST  
From: "Anton Verhulst" <verhulst@zk3.dec.com>  
Subject: clarifying Wyeast 1028

I've never had problems clearing beer until I started using Wyeast #1028 (London Ale). Is there a fining agent other than Isinglass that will get this yeast to drop to the bottom?

- --Tony Verhulst

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Date: Mon, 22 Nov 93 16:32:32 CST  
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>  
Subject: screw caps

>From: Mark Taratoot <SLNDW@cc.usu.edu>

>

> Now I have an old-fashioned bench capper of my own  
>that was found BRAND NEW at a second-hand store (Thanks John). I have  
>not used screw tops since I have had this capper, but I think it would  
>cap them fine. The difference: Wing cappers grab the bottle and  
>squeeze the crown onto the bottle while bench cappers just push  
>the crown down onto the bottle. Perhaps the cappers that commercial  
>breweries like SN use cap the bottles like the bench capper and so  
>screw tops are not a problem.

Mark,

I used to think this too...til I tried to cap a screw cap with my  
bench capper. It leaked. YMMV. Try your bench capper and let  
us know how it worked.

Darren

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Date: Mon, 22 Nov 93 16:38:59 CST  
From: Darren Evans-Young <DARREN@UA1VM.UA.EDU>  
Subject: Iodine test with dark malt

>From: "Mark B. Alston" <c-amb@math.utah.edu>  
>Subject: first all grain! (questions)

>  
>2) This dark color brought out another problem. There would be no way  
> to tell if iodine went black or not. The mash was black on it's own.  
> Thus, I could not test for conversion. I simply let the mash sit  
> at conversion temp for almost 2 hours. The liquid tasted sweet at  
> this point so I went on. I achieved an O.G. of 1.061 so I must have  
> gotten conversion. So, how do you check for conversion of a dark  
mash?

Mark,

What I do is put one or two drops of mash liquor on the edge of a  
white dish. Tilt the dish so the dark liquor drips to the opposite  
edge of the dish. Put one or two drops of iodine next to this  
long drip mark and tilt til they run together. Your dark liquor  
spread out across a dish will essential be clear so you can see  
the reaction with the iodine.

Darren

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Date: Mon, 22 Nov 1993 19:13:41 -0800 (PST)  
From: Domenick Venezia <venezia@ZGI.COM>  
Subject: Harsh bitterness/Haze/Extractf

I tend to do the same recipe until I get it right. Before I commit to the third attempt I thought I'd run some things by the community and see what you-all think. So my second Fullers ESB clone is now four weeks old and still hazy with a harsh note to the bitterness. Here's my guess as to what is going on, correct me if I speak nonsense or drivel.

I think the harsh bitterness, which is slowly mellowing, is from the high alpha hops (Cluster) that I used to bitter (about 80% of the IBUs are from Clusters, the rest Kent Goldings). My guess is that my high sulfate (400ppm) water treatment and the humulone analogs from the Clusters (a la G.J.Fix in HBD #1264) combined to to give this harshness.

The first batch had the same harshness which faded in time, and it also cleared very nicely. In the latest I ... (small embarrassed cough) ... forgot to take into account the water retained by the grist so came up about a gallon short on my sparge. It gets worse. I drained the grain bed dry, then sparged again with an additional 1.5 gallons @ 180F.

Whereas the original 7 gallons of sparge water had been "burtonized", the last 1.5 gallons had not. The burtonized sparge water had enough buffering potential to keep the pH low during that part of the sparge, but the last 1.5 gallons had no buffering potential at all. Also the grain bed was dry, but kept in a warmbox where it stayed above 150F, then I hit it with 1.5 gallons of pH 7+ water at 180F and I think I pulled out just enough tannins to create a persistent haze but no noticable astringency, though I must admit the harsh bitterness may well be masking it.

After 4 weeks of bottle conditioning the haze has cleared from only the top inch of the brew, and a very definite line of demarcation has formed between the cleared brew and the hazy brew. If you've ever seen an aerogel, it kind of looks like that. There's no ring around the collar and no off flavors and I am meticulous in my sanitation, so I doubt that it's an infection.

The recipe was 80% Maris Otter 2-row pale malt, 10% crystal and cara-pils, and 10% flaked maize. Everything was mashed because I find steeping a pain. And of course I do no mash out. So now that half of you are convinced this explains the haze, what about the other half?

Also, if anyone remembers EXTRACTF, a small program for calculating extraction efficiencies, it was finally uncompressed, detarred, and put

Lastly, no one has yet responded to my request (now I'm begging) for a Samuel Smith Oatmeal Stout clone. A number of people have queued up for the results, but no one has come through with the goods.

Thanks in advance,

Domenick Venezia  
ZymoGenetics, Inc.  
venezia@zgi.com

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Date: Mon, 22 Nov 93 22:32 CST  
From: arf@mcs.com (Jack Schmidling)  
Subject: Leaches and Kettles

>From: Ed Hitchcock <ECH@ac.dal.ca>  
>Subject: pH and leaching tannins

> I know he's only baiting us, but I feel like a sucker this morning. The mash has a buffering effect, yes. As the goodies are drawn off, however, the pH does rise. This is quite variable....

Indeed it is and makes it clear that I wasn't baiting anyone and the rest of your response makes a mockery of all the absolute dogma that has been pronounced on the subject. Every situation is different and brewers must either know exactly what conditions prevail or experiment to find out what works best.

>It does indicate, however, that your pH is rising, and soon will reach a level that will extract noticeable quantities of tannins from the husks.

Rising, yes.. but "soon"? How can you possibly know that without knowing the water chemistry and that of the mash? And what magic level "extracts noticeable quantities of tannins"? What if I don't reach that level till the last pint of sparge water?

> In the decoction mash, you have a thick mash which has not had the sugars and acids removed, so the pH stays low. Where's the problem?

I believe I was the one who suggested that there is no problem.

>From: prf@cherry-semi.com (Paul Ferrara)  
>Subject: Stepping up to a 5 gallon boil

>Or should I really spend many \$\$ and buy a stainless steel pot, propane cooker, picnic cooler mash tun, sparging manifold, etc, etc, etc ....

I may be biased but I think you should buy a 32 qt enamel kettle and put an easymasher in it. (total cost about \$50) That is all you need for mashing, lautering, boiling and fermenting. One piece of equipment does everything including a super boiler for extract beer till you are ready to move on to all grain. What you save on enamel over ss will pay for the propane cooker if you need one.

If you do go stainless, do not compromise on anything less than 10 gallons (not dogma, just experience) and sooner or later, that will be too small for boiling but will still make a great mash tun.

js

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Date: Tue, 23 Nov 93 00:17 CST  
From: akcs.wally@vpnet.chi.il.us (John Walaszek)  
Subject: Ancient Ale

>From Monday 11/22/93 Chicago Tribune page 15:

"Blast from the past"

"Thanks to British archeologists and a Scottish brewery, you soon may be able to party like a pharaoh. Cambridge University scientists studying hieroglyphics and wall paintings at the buried city of Tell al-Amarana believe they have deciphered the recipe and the brewing methods for a bread-based ale flavored with anything from honey to flowers, Newsweek reports. The Scottish & Newcastle Breweries hopes to tap kegs of the strong elixir by next year."

Sounds pretty similar to something Anchor did a few years back.  
- Wally

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End of HOMEBREW Digest #1279, 11/23/93  
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Date: 23 Nov 93 00:39:15 MST (Tue)  
From: rcd@raven.eklektix.com (Dick Dunn)  
Subject: twist-offs, and bottlestuff

I don't think there's any particular trend to twist-off caps. Brewers just choose one or the other when they get going.

Sierra Nevada has *\*always\** used twist-offs, as far as I remember. I can't verify that all the way back to the beginning, but I've got an '83 Celebration Ale here, and one of the original Bigfoot with the line-drawing (no color) label, both of which are twist-off. [BTW, anybody know when that first Bigfoot was brewed? I'm sure it's 86 or earlier. Is it time to drink it yet?:-]

As for re-capping twistoffs, it's probably a good-news/bad-news situation. The good news is that the "threads" on the bottle are pretty fragile, so if a bottle is getting old, that might be the first place that fails. The bad news is that you find out the bottle is getting old *\*after\** you've filled it and tried to cap it.

In this area, there seems to be a microbrewery preference for the 22 oz (US arcane measure) longnecks. They seem to be reasonably sturdy, and the packing density on storage shelves is pretty good. I used to like the 25 oz Tooth's Sheaf Stout bottles, but they've changed the bottle (phoo on the silly CUB stamped label) and it's a lot easier to get bottles from the variety of products from 4 local breweries plus various west-coast micros than from one brew shipped half way 'round the world. 5 gal, even with carboy headspace and sediment, is still more than 2 cases of 22 oz, but I bottle the rest in 12 oz for taste checks, solo drinking, etc.

- - - -  
Dick Dunn    rcd@eklektix.com    -or-    raven!rcd    Boulder, Colorado USA  
    ...Simpler is better.

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Date: Tue, 23 Nov 93 07:59:18 EST  
From: 23-Nov-1993 0757 -0500 <ferguson@zendia.enet.dec.com>  
**Subject: Getting the yeast to drop**

>Date: Mon, 22 Nov 93 15:44:44 EST  
>From: "Anton Verhulst" <verhulst@zk3.dec.com>  
>Subject: clarifying Wyeast 1028

>  
>I've never had problems clearing beer until I started using Wyeast #1028  
>(London Ale). Is there a fining agent other than Isinglass that will  
>get this yeast to drop to the bottom?

Tony, you might try chilling your brew (while in the fermenter) to make  
the  
yeast drop. One micro I toured in the UK does this to clean their beer -  
they chill their ale to make the yeast fall...

JC ferguson

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Date: Tue, 23 Nov 1993 08:38:39 -0600  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Bottle Pressure (was Crabtree Effect)

In HBD 1279, Todd Carlson writes:

As for the CO<sub>2</sub>, the 1.61 moles produced would increase the pressure to about 2 atmospheres or 30 psi (again using  $PV=nRT$ ) assuming the beer is already saturated with CO<sub>2</sub>. As for the ethanol, this would be a maximum estimate. What is the desired CO<sub>2</sub> pressure of finished beer? Does this sound about right?

For most beer styles, 2.5 volumes of CO<sub>2</sub> is normal. At 70F, beer contains about 2.4 volumes at 28 PSI, and 2.7 volumes at 32 PSI. This from a chart published by Standard-Keil (a beverage dispensing equipment manufacturer). So your calculations are right close, perferesser. Thanks.

t

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Date: Tue, 23 Nov 93 8:20:31 MST  
From: npyle@n33.stortek.com  
Subject: RE: clarifying Wyeast 1028

Anton Verhulst writes:

>I've never had problems clearing beer until I started using Wyeast #1028 (London Ale). Is there a fining agent other than Isinglass that will get this yeast to drop to the bottom?

Anton, if memory serves me correctly, 1028 is the stickiest yeast I've ever used. I mean it goes to the bottom, and stays there; which makes for great pouring. I wonder if you've got another problem unrelated to the yeast??

Norm

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Date: Tue, 23 Nov 1993 10:19:00 EST  
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>  
Subject: Get a life!

To those of you have been bashing anyone and everyone that you don't agree with, I really thought that this was supposed to be a constructive and informative forum on Homebrewing. Jim Koch is not, I repeat not a homebrewer, he is a salesman. Frankly, I'm almost as tired of reading all this "venting" on the Digest as I am of hearing Koch's commercials on the radio, but I'm not calling for a boycott of the digest. Why don't you all stop whining out inane opinions and get back on track and talk about brewing! Most of us out here seem to be seeking advice and are not out to stroke our own egos by flaming those we don't agree with. If you don't agree with someone, offer a polite, constructive and well-thought alternative. Enough mothering, let's get back to brewing.

Remember, PLAY NICE!

Pam Day

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Date: Tue, 23 Nov 93 10:15:20 EST  
From: Lee=A.=Menegoni@nectech.com  
Subject: chiller break in

Assuming you made an Immersion chiller:

The only thing you need to do is ensure there are no machine oils on the out side. When I made an immersion chiller. I soaked it in a bucket full of hot water and lots of dish soap, dish soap cuts through oil. I rinsed it off and then soaked it in a bucket that I added vinegar to. The thing came out looking like a new penny.

When I brew:

After completing my sparge I drain my mash tun into a food grade bucket and add any extra acidified sparge water. I soak the chiller in this the low PH cleans off the metal. I then put it in the boiling wort, this cause the boil to subside, when the boil commences again I wait 3-5 minutes before running the water. I also capture run off water in the base to my shop vac, in which I have put my brew pot sitting on top of a couple bricks. This reduces water use and reduces cooling time.

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Date: Tue, 23 Nov 93 11:24:57 EST  
From: Mark Bunster <mbunster@hibbs.vcu.edu>  
Subject: sam and wasted wort

\* Chris>Your loss. Although Koch may be a slime bag, he makes a decent  
\* Chris>product.  
\*  
\*Yes, he makes decent beer. But so do literally hundreds of good, decent  
people  
\* who avoid using the strong-arm tactics of the neighborhood bully to  
sell their  
\*product. Of the hundreds of brewers attending this year's GABF, the BBC  
tmtmtm  
\* was the only one in violation of GABF marketing rules. They were only  
allowed  
\* to attend because the GABF feared the threat of a lawsuit, which it  
certainly  
\* does not need. So, why would you want to buy beer from these people?  
You can  
\* buy good beer, better than Koch's, from good people. I'm with Al on  
this one:  
\*  
\* BOYCOTT SAM ADAMS PRODUCTS!!!

Please elucidate on the GABF situation. I always wondered how you could  
have  
the "best beer", since I assumed there were about 500 zillion categories.  
What exactly does it win?

Also, I see this thread an awful lot in music--ie, so and so "sold out."  
The implication becomes that if you can get it anywhere, it must not be  
very  
good, and the only thing that saves your own beer drinking ego is if you  
can  
prove you know of some great obscure beer produced in a chicken shack by  
two  
dwarf gypsy albino seamstresses with no arms that you can only get three  
days  
of the year cause that's the only time they come to market with it.

Until I see evidence of slave labor, rats in the bottles, or use of a  
counterflow chiller (just kidding Mr. Schmid), I need more proof before I  
eschew dollar draft Sam's at my local pub.

\*  
\* >Would you eat a sandwich you dropped on the garage floor?  
\*  
why would anyone want to ferment a sandwich??

:-)

\*When I was ready to take the plunge to all-grain,  
\*several friends talked me into going with the picnic  
\*cooler setup. I'm glad they did; it's the closest you can  
\*get to unattended brewing. There is no worry about scorched  
\*grain, stirring, etc.  
\*

Can you describe this method further??

\* Subject: Boiler siphoning

\*

\*

\* I am leaving too much wort behind in my boiler after siphoning to  
\* primary fermenter. I leave about .75 gal as a combination of what is  
\* held in the hops and what is left because the hop bed causes my siphon  
\* to "break". I use a Sankey keg as a boiler. It has a 1/2" pipe  
\* nipple coming in from the side and an elbow and nipple going down into  
\* the botto. Over the nipple is a screen (1/8" grid) to keep out the  
\* whole hops. When I let liquid out and there is no hops, then all but  
\* about 1/2 cup of liquid is removed.

\*

\* 1) How much liquid do you leave in your boiler including  
\* in the hop bed.  
\* 2) Any suggestions, or do I just figure in the excess wort  
\* needed to be left behind?

Not to once again discount the folks who like to build stuff for their  
brewing (not at all, really), but here's what we do:

1. Boil.
2. grab sanitized saucepan and sanitized strainer, common household kind.
3. fill saucepan with wort and lots of hops, pour into strainer.
4. fill saucepan with wort and as little hops as possible, pour into strainer.
5. when strainer is full of hops, dump and repeat from #3 until pot is empty.

The whole hops do a really good job of straining everything else, like  
pieces of whole hops, pellets from perhaps a finishing, and some of your  
specialty malt grains. Just don't set either the saucepan or the strainer  
down, to keep things clean.

I'd say we waste about 6 oz of concentrated wort with this method. It  
takes  
two people to work best, though. Maybe some of these machines are to help  
you  
better brew alone, to which I say shame on you--find a friend to help.  
Cuts  
costs, passes time better, spurs a perhaps previously unknown bond  
between  
you. Or (gasp) maybe even try to involve your spouse! Brewing beer alone  
I  
fear would make me pretty much a drunk.

- - -

Mark Bunster |Exchange conversation if you dare--  
Survey Research Lab--VCU|Share an empty thought or a laugh.  
Richmond, VA 23220 |  
mbunster@hibbs.vcu.edu |  
(804) 367-8813/353-1731 | -edFROM

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Date: Tue, 23 Nov 93 09:16:00 -0600  
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)  
Subject: PureSeal caps

In HBD 1279 Carl Howes wrote:

CH> what good is a PureSeal (tm) cap considering that it has been  
> shipped/stored in a 20 percent oxygen atmosphere for some  
> indeterminate period before use?

According to the instructions from the manufacturer, the caps are moisture activated. They should not be boiled, but rather rinsed with sanitizing solution and used immediately. If you're real gutsy you can just use them without sanitizing and give your bottle one quick shake after capping to let the beer do the activation.

Chuck

\* RM 1.2 00946 \*

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Date: Tue, 23 Nov 1993 13:00:26 -0400  
From: Ed Hitchcock <ECH@ac.dal.ca>  
Subject: Tannin extraction

To my comment:

> > I know he's only baiting us, but I feel like a sucker this morning.  
> The mash has a buffering effect, yes. As the goodies are drawn off,  
> however, the pH does rise. This is quite variable....

Jack rebuts:

> Indeed it is and makes it clear that I wasn't baiting anyone and the  
rest of  
> your response makes a mockery of all the absolute dogma that has been  
> pronounced on the subject. Every situation is different and brewers  
must  
> either know exactly what conditions prevail or experiment to find out  
what  
> works best.

Ahem. Absolute dogma? Now who has been spouting that? I agree,  
and state in my post that situations are different for different brewers.  
Jack, on the other hand, has said to (I paraphrase) "ignore the experts  
and  
do it my way," without reference to the fact that it may be fluke that  
his  
way works. Agreed, as many options should be expressed as possible, but  
an  
explanation, caveat, disclaimer, whatever should be included if known.

> >It does indicate, however, that your pH is rising, and soon will reach  
a  
> level that will extract noticeable quantities of tannins from the  
husks.  
>  
> Rising, yes.. but "soon"? How can you possibly know that without  
knowing the  
> water chemistry and that of the mash? And what magic level "extracts  
> noticeable quantities of tannins"? What if I don't reach that level  
till the  
> last pint of sparge water?

Excuse my brevity. Read: "Tannins are extracted to a greater  
degree the more the pH of the mash rises above 5.3, and if unchecked this  
rise will lead to astringent flavours. This rise is dependant on water  
chemistry, ingredients and techniques." There is no "Magic level". It  
is  
a gradual process, but cumulative.

> > In the decoction mash, you have a thick mash which has not had  
> the sugars and acids removed, so the pH stays low. Where's the  
problem?

>  
> I believe I was the one who suggested that there is no problem.

You suggested there was no problem with the sparge, and argued it  
by asking why tannins were not extracted during a decoction.

---

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |  
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |  
Dalhousie University, Halifax | \_\_\_\_\_|

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Date: Tue, 23 Nov 93 12:23:42 EST  
From: dweller@GVSU.EDU (RONALD DWELLE)  
Subject: yeast wash

Can someone clarify for me:

The "yeast.faq" describes the process of washing yeast. You pour the sterile water into the carboy, slosh, and pour it back into the jar. Then you "agitate the jar to allow separation of the components. Continue to agitate periodically until obvious separation is noticeable."

This step doesn't seem to work. The more I agitate, the more homogeneous the stuff becomes. Can someone elaborate. Does the yeast stay in suspension and everything that settles is trub? (It looks like the yeast settles too, no? Or did I just wait too long?) I was doing lager yeast--is that maybe different from ale yeast? Is the sterile water separate from the yeast?

Tanks,  
Ron Dwelle (dweller@gvsu.edu)  
"Ninety-Nine Bottle of Beer on the Floor."

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Date: Tue, 23 Nov 1993 10:30:37 -0800 (PST)

From: davep@cirrus.com (David Pike)

**Subject: Glatt malt mill users**

Ok, all you Glatt malt mill users,  
please email me directly with your satisfaction rating for this mill. Its  
time to give my list to Santa and this may make the final cut.

Cheers,

Dave

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Date: Tue, 23 Nov 1993 10:43:51 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: "beer" adds

I know this has nothing to do with homebrewing, but neither does the Sam Adams debate that is ravaging this list right now. This is just to vent my frustration:

I am getting a little disgusted with commercials for mega-swill "beers" that are humorous but that have absolutely nothing to do with the beer itself. I mean, a few years ago they would at least take a five second breather from the funnies to show a glass with some pale yellow liquid in it, and actually say something about the swill. now they don't even do that. I doubt very seriously that anyone who is on this list drinks bud light, but there has to be something else we can do besides just avoiding the stuff. I just don't think it's fair that these corporations have so much power.

- --james

p.s. maybe I should just avoid all forms of media so that I don't get so annoyed about this.

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Date: Tue, 23 Nov 1993 11:30:59 -0500 (EST)  
From: gelinas@ekman.unh.edu (Russell Gelinas)  
Subject: new chiller, SA

A great way to clean a new immersion chiller is to boil it in a solution of vinegar and water. About '\*this much\*' vinegar should do it :-). The chiller will come out shiny.

As for Jim Koch/Sam Adams, we boycotters realize he makes a good beer, that he's allowed some credit for the microbrewing boom, and he personally is probably not really a slimeball. But his marketing tactics are obnoxious, harmful to the Boston brewing climate, and ultimately unnecessary. Personally, I don't much care if he wants to spend his money on advertising, though I would appreciate a little more truthfulness. What irks me is when he uses his money to hire lawyers for copywrite lawsuits, etc., forcing other breweries to use \*their\* money to fend him off. He would have my \$\$ to brew and advertise, he won't get it to run down other breweries.

Russ Gelinas  
eos  
unh

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Date: Tue, 23 Nov 93 10:53:35 PST  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: Anchor "clarifications"

Glen A. Wagnez writes (in response to my post about Anchor's Fritz Maytag's claims that dry-hopped beers last longer):

> Have these beers that last this long been carbonated via  
>priming or forced carbonated? I was under the impression that beers  
>that are carb'd via priming last only about 2-3 months, due to the  
>presence of the spent yeast sediment in the bottle. Please "clarify"  
>whether these long lasting beers were primed or forced and other  
>necessary specifics.

> Thanks In Advance-

> Glen

>P.S. Thanks for the catalog, are the '93 whole hops in yet?

I don't know how the original Liberty/Christmas Ales were carbonated, but all of Anchor's current products are "naturally carbonated" which they do by sealing their secondary fermentation stage so the CO2 goes into solution instead of escaping to the atmosphere. I don't believe they are "krausened" with gyle, just sealed up at the appropriate time in fermentation. The beers are all centrifuged to remove the yeast and then flash pasteurized on the way to bottling. BTW, the very first, and only, Liberty/Christmas/Anchor Ale was made with sugar as well as malt, because "that's the way the Brits did it."

I have heard that the presence of yeast in the bottle also tends to help the beer keep. I have some one-year old SNPA that is still fine.

We are shipping some '93 now and will have it all available in a few weeks. Please call for details as this is not the politically correct place to post details.

Mark

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Date: Tue, 23 Nov 1993 11:39:00 PST  
From: Patrick\_Waara.WBST129@xerox.com  
Subject: Metallic/Mineral Flavor

Hi,

The last two batches of beer I've made have had an unpleasant (but not undrinkable) metallic/mineral flavor. You can taste it on the back of your tongue and on the roof of your mouth. Both of these beers are a darker variety (a brown ale and a stout). I have only had this happen two other times in the nearly 100 or so batches I have made, and I cannot figure out what could have caused it. The first two times it happened (over two years ago), I blamed it on adding Bourton Salts or Gypsum to my water. I stopped adding anything to my water and the flavor did not reappear until now. The only difference in these batches and identical successful batches is that I used Wyeast liquid ale yeast instead of Whitbread dry ale yeast. I used the Irish ale yeast for the stout and London Ale yeast for the brown ale. I have used other Wyeast varieties with no problems whatsoever.

Can anyone tell me what may have caused this metallic/mineral flavor in these batches? Is there some specific thing that can cause this flavor? It isn't just a characteristic of these yeasts, is it?

If possible, please respond by mail to Waara.wbst129@xerox.com. I have been having difficulty keeping up with the digests lately, so please excuse me if this has been discussed recently.

~Pat

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Date: Tue, 23 Nov 93 14:58:11 EST  
From: rowan@landfill.rutgers.edu (Andy Rowan)  
Subject: howto siphon hot wort

OK, first the preliminaries. I'm talking about extract brewing, so keep in mind the restrictions: lazy, uninformed, etc.

Having heard all the hullabaloo about hot side aeration, I want to avoid it. Up until now I pour from the kettle, through a funnel, into the carboy which has 3gal cold water in it. So siphoning instead of pouring seemed like a simple solution. So I tried a couple of stupid ideas, which didn't work, and now I'm looking for better ideas.

I did my last batch with pellet hops, so I wanted to keep the crud from going into the carboy. So I stuck some cheesecloth over the end of the hose but it slowed the flow so much that I couldn't keep the siphon going. I guess the pot scrubber idea is worth trying, but will the hop crudge pass through it? And how do you keep it on there?

Has anyone come up with a nifty-neato design for something to do this? Something like a metal tube with a little screen doohickey on the end?

Not being a welder, I don't really want to make a hole in my kettle and install a spigot so I don't have to siphon...

Andy

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=====
| Andy Rowan |
| Center for Remote Sensing and Spatial Analysis |
| Rutgers University, New Brunswick NJ USA |
| rowan@ocean.rutgers.edu |
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"Is the glass half empty or half full?"  
I ask her as I fill it.

"It doesn't really matter,  
pretty soon you're bound to spill it."

- --Indigo Girls

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Date: Tue, 23 Nov 93 15:07:14 "EST"  
From: Gary S. Kuyat <gsk@sagan.bellcore.com>  
**Subject: Lovibond**  
Full-Name: Gary S. Kuyat

I remember reading that there was some formula or chart describing how to mix Michalob (sp?) and water to get x degrees Lovibond. True or False? This probably belongs in a FAQ... If nobody knows, are there any books with pictures?

- - -

-Gary Kuyat  
gsk@sagan.bellcore.com  
(908)699-8422

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Date: Tue, 23 Nov 93 13:25:42 MDT  
From: Trever Miller <amby@wooga.cuc.ab.ca>  
Subject: Tarpit Stout && Can we repitch with champagne yeast in secondary?

Here's something we started the other day... questions follow at the end.... -- BUG

=====

Ye Olde Tarpit Stout

(Brewed on November 21 1993 by Ambush Bug and Satanic Garden Rake)

Ingredients:

Munton & Fison Dark-hopped Malt Extract (3.3 pounds)  
Munton & Fison 3 pound Stout Kit  
4.5 pounds blackstrap molasses (About 60% sucrose and 40% flavoring extracts)  
25 grams of Fuggles leaf hops  
a pinch of cinnamon (Just a pinch! Or, Mr. Bug's idea of a "pinch". Ie., a small handful)

Destructions:

Over a period of about an hour's worth of boiling, the following were added:

Brew pot 1: (Bug's pot)  
Bring 2.5 gallons water to boil  
dump in stout kit  
stir  
dump in 5 grams leaf hops  
stir  
dump in dark malt (15 min into boil)  
stir  
dump in 1/2 the rest leaf hops(35 min into boil)  
stir

Brew pot 2: (SGR's pot)  
Bring 1.5 gallon water to boil  
dump in 4.5 pounds molasses. (NOTE: Not all at once. Spread this out over about the first 1/2 hour of the boil.)  
stir  
dump in 5 grams leaf hops  
stir  
dump in 2 cups corn sugar (40 min into boil)  
stir  
dump in remaining hops(45 min into boil)  
stir

BOIL THE HELL OUT OF IT! (Specifically, about an hour or so.)

Dump contents of brew pots into primary fermenter. Stir. Pad volume with boiling water to 5 gallons. Cool down. Pitch. GO YEASTIES!!

NOTES:

November 22, 1993

4 1/2 pounds of blackstrap molasses may actually have been a tad excessive. (This was the thickest, darkest wort I've ever seen on ANY homebrew.) That actually makes quite a hefty portion of the total fermentables, like about 35% or so. That in itself wouldn't be bad, but the molasses in that quantity may prove to have a really overpowering flavor. You can smell the wort from outside the door of our apartment. It may have been better to go with lighter molasses, or less of it.

(Mind you, that may turn out to be a good thing. I dunno. I'll have to sample some when we transfer it to the carboy. I have a feeling that once the yeasties finish munching on this one, we may be kicking on some barley wines for strength.) -- SGR

[Also, we didn't bother to borrow a hydrometer... My guess is we can eyeball it for when it's time to transfer to secondary etc. -- BUG]

November 23, 1993

We have a good fermentation going... approx a 6" head of nice brown foam and the hop leaves. -- BUG

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Query : We pitched the dry yeast that came with the stout kit. We were wondering how one would go about pitching some sort of champagne yeast upon transfer to the secondary. We've already got just over 23 litres in the primary, and don't want to add any more volume than necessary (won't fit in secondary....).

If we just pitched in one or two packets of dry champagne yeast into it upon transfer to secondary, what's going to happen? Will the original yeast be too numerous for the new ones to get a foothold? -- BUG

- - -

millertr@cuug.ab.ca (Preferred)    Snail Mail: #557, 918 - 16 Ave NW  
or    Calgary, Alberta T2M 0K3  
ambush\_bug@wooga.cuc.ab.ca

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Date: Tue, 23 Nov 93 12:35:21 PST  
From: pickerel@micom.com (Don Pickerel @ Micom.com)  
Subject: Mail Order

A public thanks to everyone that took the time to send me info on mail order supplies. I guess the picture of a fellow brewer going dry was a scary thought. I've put the replies together into a list if anyone else is interested, though it would be nice if it got into an FAQ (hint).

Also, one of the most recommended places was St. Patrick's of Texas in Austin. While talking to Lynne she said she could read e-mail but not get anything out, so if there are any volunteers in that region.... I would offer but it's kind of hard to trouble shoot from S. Cal. I will offer any advice I can.

Again thanks.

pickerel@micom.com

- --  
-Don-

- ----  
-Don-

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Date: Tue, 23 Nov 1993 16:06:13 -0600  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: Kegging FAQ

I have begun work on a kegging FAQ and I will need a few knowledgeable contributors and reviewers to help me. I mean to cover a pretty wide range of topics that will include bottle conditioning. I am especially looking for chemists, physicists, cellarmen, and biologists to contribute

to and review certain parts of the FAQ. I plan to develop the FAQ over a

period of several weeks, but I do expect to make progress. I am also interested in submitting the FAQ to Brewing Techniques for publication.

I do not plan to post every iteration of the FAQ to the two Internet Digests.

A proposed outline is below.

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=====

```
Tom Leith InterNet: trl@wuerl.WUstl.EDU
4434 Dewey Ave. CompuServe: 70441,3536
St. Louis, Missouri 63116
"Tho' I could not caution all
314/362-6965 - Office I still might warn a few:
314/362-6971 - Office Fax Don't lend your hand
314/481-2512 - Home + Infernal Machine to raise no flag
atop no Ship of Fools"
```

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## I) Kegging Procedures and Equipment

### a) Introduction

- i) Kegging vs. Cask Conditioning vs. Bottle Conditioning, What Does It Mean, and How Does It Taste?
- ii) What's the Same wrt Bottling
- iii) What's Different wrt Bottling

### b) Carbonation

- i) Carbonation Levels
- ii) What's Meant by "Volumes"
- iii) Chemistry & Physics of Carbonation  
Include ideal gas law, and equations
- iv) Practical Application of Principles  
Include tables generated from iii

### c) Equipment

- i) Kegs
- ii) CO2 Tanks
- iii) Pressure Regulators
- iv) Dispensing Equipment
- v) Refrigerators and Controls
- vi) Filters and Such

### d) Putting Product into Kegs

- i) Sanitation
- ii) Transfer from Carboy
- iii) Transfer from Another Keg
- iv) Filtering

### e) Dispensing

- i) Maintaining Carbonation
  - ii) Maintaining Sanitation
  - iii) From Keg to Glass
  - iv) Troubleshooting
  - f) Cask Conditioning
    - i) Introduction
    - ii) Procedures
    - iii) Dispensing Equipment
    - iv) Troubleshooting
  - g) Equipment Suppliers
  - h) References
-

Date: Tue, 23 Nov 1993 17:00:20 -0500  
From: Larry Atkinson <atkinson@cae33.Mitel.COM>  
**Subject: Kegging FAQ**  
Subject: Used Brewery Kegs

I was walking around the local flea market last weekend and came across an old Labatts brewery keg (labelled 1987). The size looked like the standard 66L (15.5 gal) keg, but instead of a single fitting on top for both CO2 and beer tap, this one had two circular fittings, one on the top, presumably for CO2 and another on the side near the bottom probably for a tap. On the side about halfway up was a bung. Here's the catch. Neither CO2 or tap connection had any hardware connected to it.

Does anyone out there in homebrew land know anything about this type of keg especially if and where you can buy the attachments?

I am presently kegging with one 5 gal. pop keg, but up here in Canada even the used Cornelius kegs go for \$80 Cdn (\$65 US), so I would hate to pass up a bargain if the Labatts keg is useable. Any thoughts or comments are welcomed.

On a related note, I tried calling Defalcos in Texas about kegs, but got the same response as another recent poster, that they will not ship these anymore. Seems that UPS is just too much of a pain for them. Does anyone know of an alternate source in the Northern New York area. Ottawa is only 1 hr from the New York border (and ~3 hrs from Syracuse) so I figure that a Saturday day trip is not out of the question.

Thanks,

Larry Atkinson

atkinson@cae.mitel.com

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Date: Tue, 23 Nov 1993 16:54:38 -0600  
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)  
Subject: kegging pressures

Last week, there was a kegging question, that I fired a from-the-hip answer to. The concepts were OK, but I got a constant wrong. Here is the table of values I really used when designing my dispensing system. This will end-up in the kegging FAQ, but I promised it sooner than that 8-)

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Resistance Data - Source: Standard-Keil Catalog

inside diameter	pounds of resistance per running foot		
	Vinyl	Polyethylene	Stainless Steel
3/16"	2.20	2.20	-----
1/4"	.60	.60	2.00
5/16"	.20	.20	.50
3/8"	.10	.064	.20

Two feet of vertical lift provides 1 pound of resistance  
Two feet of vertical drop adds 1 pound of apparent pressure,  
ie: requires 1 pound additional resistance  
Proper flow-rate is two ounces/second at the faucet

The goal: match the resistance of the dispensing line to the pressure in the keg. Pressure at the faucet should be very nearly zero. So, if your beer is stored under 14 PSIG, and your faucet is 18" above the center of your keg:

3/4# resistance due to vertical rise  
1# resistance due to miscellaneous fittings  
12-1/4# resistance due to 5'7" 3/16" vinyl beer line  
-----  
14 PSI

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Date: Tue, 23 Nov 1993 21:54:40 -0400 (EDT)

From: WESTEMEIER@delphi.com

Subject: Rauchbier aroma

My personal specialty is a Bamberg-style rauchbier. The smoke flavor is something I really enjoy and I always get great comments on it whenever I make a batch. My technique is very simple. I use an ordinary backyard smoker. I get the grain slightly damp, smoke it over wood chips for an hour or so, then let it dry for a few days. After that, I mash and brew normally. Experimentation has shown that the Wyeast Bavarian Lager yeast works best, and smoking between one-half and three-quarters of the grain provides the right level of smokiness.

My problem is that although the smoke comes through wonderfully well in the flavor, my beer is always eliminated in competitions because the smoke is so subtle in the aroma that it's not in the same league with the winners.

I have tasted some of the winners at competitions in this category, and they generally smell and taste like the brewery was burning down around the batch as it was brewed. What am I not doing right?

Short of using some sort of "liquid smoke" solution (which I absolutely refuse to try), is there some trick to get the smoke aroma to express itself more strongly?

Any suggestions would be welcome.

Ed Westemeier, Cincinnati, Ohio westemeier@delphi.com

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Date: Tue, 23 Nov 93 16:50:00 +0800  
From: rob.skinner@kandy.com (Rob Skinner)  
Subject: calcium chloride

I found that a good source for calcium chloride, lactic acid, and any many chemicals needed for various experimentation is Chem-Lab Supplies at (714) 630-7902. Their price for lactic acid is \$8.75 for 4oz. Calcium chloride runs \$6 for 16 oz.

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Date: Tue, 23 Nov 93 12:12 CST

From: korz@iepubj.att.com

Subject: Hops as preservatives/Dryhopping problem/Brown Ale yeast/dark mash

Mark writes:

>Actually there are studies that show that hop oils (responsible for the  
>aroma) do have a preservative effect and do inhibit the growth of  
>bacteria.

Interesting.

>And for an informal opinion, Fritz Maytag strongly believes  
>that dry-hopped beers last much longer (like 10-20 years) than beers  
>that  
>are not dry hopped. He bases this on tasting his Christmas Ales from  
>many years ago (that he has in his own collection and that people send  
>to him). He claims that a 17 year old Christmas Ale he tasted was still  
>quite good, but he admits it is not exactly the same as when it was  
>brewed,  
>but certainly not spoiled.

I don't believe this is a valid datapoint. I contend that Christmas Ales  
are often much higher in alcohol and that may skew this data.

>Also historical data shows that IPAs (the  
>real ones destined for India by boat) were called for (by contract) to  
have  
>a high dry hopping level ("2 lbs of Kent hops per hogshead" which  
translates  
>to 2.47 ozs per five gallons).

You fail to mention that they had bittering hop rates that would  
translate  
to IBUs in the vicinity of 200. High dryhopping levels may just have  
been required so that there is some hop nose in the final product. Recall  
that these were wooden kegs and that oxygen is known to kill hop nose.

I don't disagree with the initial premise, but the last two examples I  
feel  
are not good supporting arguments.

\*\*\*\*\*

Drew writes:

> This morning, I took gravity readings and tasted both sub-batches.  
>The non-dryhopped bottle was at 1.024, crystal clear, and tasted  
>great. The dry hopped batch was at 1.014, cloudy, and astringent, and  
>I can only assume, infected. There are three possibilities that I see:  
>  
>1) unclean equipment used in the dry hopped sub batch - Very Unlikely  
>  
>2) bacteria carried on hops into the beer - ???  
>  
>3) Excessive handling with bare hands introduced bacteria into dry  
> hopped batch - very likely

I think it may have been 1, 2 or 3, but more likely not bacterial, but  
rather wild yeast, and most likely (IMO) the mesh bag. I, personally,  
feel that they are difficult to sanitize well and difficult to clean well  
after use.

\*\*\*\*\*

George L writes:

>Does anyone know whether British Ale Yeast is the most appropriate liquid yeast for brewing Northern style Brown Ales?

It would be appropriate, but if you like diacetyl (butterscotch) you may want to consider using Wyeast Irish (#1084). The British is reportedly the Whitbread triple-strain yeast (with nice, tart overtones), whereas the Irish Ale is allegedly the Guinness yeast. I think that either of these yeasts are a good choice for a Northern-style Brown Ale.

\*\*\*\*\*

Mark A writes:

1) I brewed a porter because my water is high in bicarbs and I didn't want to worry about messing around with my water too much. Since Noonan and Miller and just about everyone else says that a dark mash has a higher p.h. I assume that they mean that I should add the dark grains to the mash at mash in. Otherwise, I will have a mash which is the same as a pale ale mash and will have p.h. problems. Is this not correct?

You got everything right except switched the high-low pH deal. Dark grains acidify your mash, i.e. LOWER pH, so if you have high carbonate water, you do want to add the dark grains in the mash.

> gotten conversion. So, how do you check for conversion of a dark mash?

You place a drop of mash liquid and a drop of iodine next to each other on a white plate and then carefully watch as you run one into the other. It's not easy to spot color change due to starch/dextrins, but you'll get the hang of it.

> according to miller it seems that I should do the following:

>  
> Degrees =  $(1.061 * 4.25)/10 = .45$

>  
> since my total grain bill came to 10 lbs (8 lbs pale malt) and I was only left with 4.25 gal.

You should leave off the water (1.000) when you do this:

Points =  $(61 * 4.25)/10 = 25.92$

Basically, 26 points/lb/gal. Not bad -- I would say a decent extraction is between 25 and 30.

Al.

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Date: Tue, 23 Nov 93 13:27 CST  
From: korz@iepubj.att.com  
Subject: Crabtree/sterols/peroxide

Ulick writes:

>I have one question. Al mentioned that the Crabtree effect will occur if  
>monosaccharides predominate. Is this true for fructose, and if so what

Yes. If fructose + glucose levels are above a certain level (0.5% I believe)

the yeast will have a tendency to go into anaerobic fermentation (Crabtree effect) also. Note that if Oxygen levels are VERY high (sorry, don't have

my books here) the Pasteur effect can force the yeast to go into respiration.

It is my understanding (from discussions with George Fix) that in a high monosaccharide, high-O2 environment, the Crabtree and Pasteur effects are in contention -- I must admit I don't really know all there is to know about this.

>happens when sucrose is present? Would the sucrose become invert (fructose  
>and glucose) if added to the slightly acid beer as a bottling sugar, or  
>would the respiration phase be initiated as in the case of maltose or

Sucrose is converted to a glucose and a fructose pair by the enzyme invertase which is excreted by the yeast.

BTW, I read somewhere, that sucrose has twice the carbonating potential of corn sugar (dextrose, glucose), but have never seen it anywhere else. I don't think this is true. Anyone know for sure?

\*\*\*\*\*

Somone (sorry) asked about sterol synthesis.

I believe the sterols are used in building the cell walls. Poorly oxygenated wort is said to reduce the yeast's alcohol tolerance and this may be related to the sterol synthesis.

\*\*\*\*\*

Fisher writes:

>A good friend of mine works in the food processing industry, and he  
>says that I should use hydrogen peroxide to sanitize, like the food  
>pros do. Is this a good idea? I am not motivated to change, but he  
>won't leave me alone without a rebuttal.

You can use B-Brite or One-Step Sanitizer. They are peroxide-based. The active ingredient in both is Sodium Percarbonate, which (if I understand correctly) is sort of like Sodium Carbonate (washing soda) and Hydrogen Peroxide when it is mixed with water.

Al.

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End of HOMEBREW Digest #1280, 11/24/93

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Date:Wed, 24 Nov 93 08:13 EST  
From: <GNT\_TOX\_%ALLOY.BITNET@PUCC.PRINCETON.EDU>  
Subject: Hello Everyone

Hello everyone, I'm new to homebrewing and I'm new to HBD but I like what I see. I do have 2 questions:

1- I've read that Aluminum should not be used as a brewpot, and that cast iron is bad also, because both can impart a metallic taste to the beer. If I can't use cast iron or aluminum, what am I supposed to use?

2- What do the readers of HBD think of using Grolsch flip top bottles to bottle beer. I know homebrew shops carry gaskets for these bottles, but I've never seen anyone buy them. Any help would be greatly appreciated.

3- And, if you live in Northeast PA, 1-Quart A-Treat soda bottles are wonderful for brewing. They cap nicely, and you can bottle one quart at a time. Makes filling less tedious(sp?)

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Date: Wed, 24 Nov 93 09:03:06 EST  
From: John DeCarlo<jdecarlo@homebrew.mitre.org>  
**Subject: Hello Everyone**  
"Glen A. Wagnecz, X6616" <wagnecz@PICA.ARMY.MIL>  
Subject: Re: Shelf-Life of Beer

"Glen A. Wagnecz, X6616" <wagnecz@PICA.ARMY.MIL> writes:  
> I was under the impression that beers  
>that are carb'd via priming last only about 2-3 months, due to the  
>presence of the spent yeast sediment in the bottle.

Yow! I don't know where you heard that, but it is actually the reverse,  
if  
anything. While there are many factors affecting beer stability in the  
bottle, the presence of live yeast means that the beer will last \*much  
longer\*  
in the bottle.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own  
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org  
If I were you, who would be reading this sentence?

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Date: Wednesday, 24 November 93 08:30:23 CST  
From: LLAPV@utxdp.dp.utexas.edu  
Subject: ATTN: BEER HUNTERS

Howdy,

Disclaimer: I'm not interested in SA "politics", so please don't include this posting in any "Koch bashing".

I have a 6-pack of Noche Buena at home, & am interested in trading 2 bottles of it for 2 bottles of Sam Adams Cranberry "Lambic". I figure that someone out there on the east coast might think this is a fair deal. For those who don't know, Noche Buena is brewed by the Cervezaria Moctezuma in Mexico. It's a deep amber lager, full bodied & mild. Very good, & it hasn't been on the American market for a few years now. It's brewed especially for Christmas. This is the beer that George Fix referred to in a recent HBD posting. He would refer to this beer as a Vienna style, I believe (but I don't want to stick words into his mouth for him). Anyway, e-mail me directly if you are interested. First come, first serve. I'm also willing to trade a couple of bottles of homebrew in the deal, if you are! BTW, 'cuz of Thanksgiving, it may be Monday before I respond to any responses.

Peace,

Alan, Austin

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Date: 24 Nov 93 15:04:07 GMT  
From: GANDE@slims.attmail.com  
Subject: Sodium Hydroxide

If I wash all my metal brewing equipment with a sodium hydroxide solution, what's the best process for ensuring that it's all rinsed off? Can any Microbrewers on the digest offer a 'professional' opinion that I can take to the bank?

TIA....GA

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+-----+  
| Internet: gande@slims.attmail.com |  
| Glenn Anderson |  
| Manager, Telecom. Facilities |  
| Sun Life of Canada |  
+-----+
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Date: 24 Nov 93 15:10:28 GMT  
From: cssc!cong@scuzzy.attmail.com (brew )  
Subject: Sodium Hydroxide

Subject: Brunswick Brew Club

To CENTRAL NEW JERSEY HOMEBREWERS

There is a new Homebrew club in town, The Brunswick Brew Club.  
NO DUES but plenty of FREE info and encouragement.

We are a new club who has developed a simple charter.  
We wish to elevate the art of Home Brewing to it's highest level.  
If we happen to tip a few beers in the process, even better.

The club meets every third Thursday of the Month at 7:00 PM at  
Brunswick Brewing Supply, 727 Raritan Ave (Rt. 27), Highland Park, NJ.  
Next Meeting, December 16.

We are an AHA recognized club in search of new members with any level  
of experience. We have some Beer related road trips planned and are  
always looking for more road trip ideas.

Everyone attending a Brunswick Brew Club  
meeting is invited to bring along a few homebrews for tasting

cong

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Date: Wed, 24 Nov 93 10:10:56 EST  
From: Mike Peckar 24-Nov-1993 0956 <m\_peckar@cscma.enet.dec.com>  
Subject: Frank Jones Brewery

A group is forming to attempt to purchase The Frank Jones Brewery in Portsmouth, NH. The brewery is a 4800 bbl producer that is currently in receivership and is slated to be auctioned within three weeks. Investors are being immediately sought. The minimum investment will be five thousand dollars. Investments will be discounted 10% and put into escrow pending the results of the auction. The Frank Jones name would be preserved if the deal goes through. Contact me by email if you are interested in becoming an investor.

Mike

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Date: Wed, 24 Nov 93 09:22:04 CST  
From: nfarrell@ppco.com (Norman Farrell)

**Subject: Frank Jones Brewery**

Subject: Beer adverts. and new yeast in secondary  
James Clark writes about his displeasure with megabrew adds:  
And, I must make a loud second to his complaints. I suppose  
this is flame bait, but here goes. The mega brews and their  
adverts. do all responsible drinkers and homebrewers a great  
diservice. Maybe James is right and it is not enough to simply  
not buy their swill. "Budmiller" is dangerous to our rights.  
It offers no sensation of fullness or gustatory (\$5 word)  
satisfaction until you have drank a lake of it. These beers  
are intended to be and are soda pop for adults. They are  
nothing more than an alcohol delivery system. They have only  
a limited usefulness in our society. They encourage abuse  
by their very characteristics. I bet the neo-pro's love it.  
The "joe/jane six pack" culture plays right into their hands.  
There, have I raved enough? Say yes already.

Trever Miller on adding yeast to the secondary.  
Oxygen will be depleted by racking time and yeast added to the secondary  
will not respire much. That is, they will not increase in number  
from what you pitch. So, pitch a vast quantity of yeast slurry.  
In order to have enough O2 to start respiration again without  
oxidizing the beer you would need to add 2 1/2 to 3 gallons  
of fresh wort with the new yeast. Your fermenter probably will  
not handle that!

Hoppy Turkey Day to All  
Norman (nfarrell@ppco.com)

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Date: Wed, 24 Nov 1993 07:40:26 +0800  
From: bjones@novax.llnl.gov (Bob Jones)  
Subject: Two types of Rauch beers

>WESTEMEIER@delphi.com asks about smoked Rauchbier aroma

>

>

>My problem is that although the smoke comes through wonderfully well in  
>the flavor, my beer is always eliminated in competitions because the  
>smoke is so subtle in the aroma that it's not in the same league with  
>the winners.

>

>I have tasted some of the winners at competitions in this category, and  
>they generally smell and taste like the brewery was burning down around  
>the batch as it was brewed. What am I not doing right?

>

Well I'll get up on my soap box and suggest there are two Rauch beers  
here.

The ones that are drinkable and ones that win competitions! I have had  
several very well made Rauch beers and personally enjoy the subtle play  
of  
smoke and malt flavors and aromas. Now I had the smoked ale at the AHA  
nationals that won Paddy Giffen homebrewer of the year. IMNSHO it was too  
smokey! We're talken rip your lips off with smoke! There is this numbing  
phenomena that goes on at competition judging that desensitizes all  
judges  
palates. So you need to decide if your brewing your Rauch beers to your  
taste or for competitions.

Maybe Tom Altenbach would jump in here and tell us a few tales about his  
great Rauch beers and his mixed success in putting them in competitions.

Bob Jones  
bjones@novax.llnl.gov

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Date: Wed, 24 Nov 1993 10:40:42 -0500 (EST)  
From: "David H. Thomas" <dhthomas@lis.pitt.edu>  
Subject: Beer ads

May I suggest to Mr. Clark that he take his television and throw it out the window, much as they once did at the beginning of SCTV (way back when). I agree wholeheartedly with him regarding beer advertising, which is merely the worst aspect of television advertising (or television itself, for that matter). It's been several years now since I threw out my television so as not to turn into a quivering blob of mindless animal matter, and the few occasions I get to see tv remind me all over again why I did it.

Frankly, I'd much rather kill brain cells hoisting homebrews than watching tv.

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Date: Wed, 24 Nov 93 16:18:00 +0000  
From: SCHREMPP\_MIKE/HP4200\_42@ptp.hp.com  
Subject: Rauchbier

Ed Westemeier asks about smoke aroma...

I think your problem is that you're losing the aromatic smoke oils during your boil.

I suggest "dry smoking" your beer. Add a few handfuls of smoke in the secondary and let it really soak in. Or, you could use an EasySmoker(tm) (sorry Jack, I beat you to it) made of charred sticks tied around the end of a copper pipe. You can make your own easily or buy one from me (not an advertisement).

Mike Schrempp

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Date-Warning: Date header was inserted by HELIX.MGH.HARVARD.EDU  
From: "John J. Magee" <magee@HELIX.MGH.HARVARD.EDU>  
Subject: Iodine Test: Use or Not?

Last night, for my 3rd all-grain attempt I brewed up 4 gallons of a strong Scotch Ale, and managed to achieve only about 20 points extraction. This obviously hurt the necessary beefiness of a Scotch Ale wort; going into the fermenter the gravity was 56-57 rather than the target 80. Oh well.

Since I've achieved rates of about 25 on my last two batches ( I was counting on 27+ this time due to practice & better technique), I think here the problem might be traceable to incomplete starch conversion. Why? 'Cause there were traces of black in my iodine test when I decided to sparge.

'Why decide to sparge when your iodine test showed some black?', you ask. Well, the mash had been happening for about 1.5 hours (single temp; 152-156 deg.), and a previous test had shown rampant black. Now the blackness appeared granular- there were lots of little tiny dots of black rather than a true black color. I've read Miller, and he says that the iodine test is useless because cellulose particles react like starch. I decided that those little tiny dots were probably cellulose particles. I sparged. This was probably stupid. I have a Wee rather than a Wee Heavy :).

Did I mess up? Are iodine tests useful? It was depressing to be counting on (and needing for style) my highest extraction rate yet and to end up with a pathetic

one. But the best thing about homebrew is that within broad limits it's  
always  
tasty as long as it's not infected.

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*****  
John J. Magee*      magee@helix.mgh.harvard.edu  
*****  
Research Assistant/Computer Systems  
Mass. General Hospital  
Neuropsychology  
(617) 726 3669  
*****
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Date: Wed, 24 Nov 93 11:37:55 EST  
From: ulick@michaelangelo.helios.nd.edu (Ulick Stafford)  
Subject: sterilizing bottle caps and Rauchbier

Chuck Wettergreen suggest sanitizing Pureseal caps prior to use with a sanitizing solution. This comment got me wondering. I never sterilize my caps by boiling or anything prior to use because of laziness and a fear that heat may deform the plastic lining. Are caps a risk? Has anyone

taking a slant of packaged caps to see what may live on them, or noticed contamination that could be blamed on unsterilized caps?

Ed Westmeier wants very smoky beer - why not bubble smoke through the secondary (dry-smoking?)? Seriously, apart from competition reasons, why do you want smokier beer? I personally think Rauchbier, or at least the commercial stuff, is one of the foulest tasting beers on the market (acquired taste, maybe?). I had the stuff at Zekes, a bar in Dowagiac in Southwestern Michigan with over 150 imports, and was informed by my homebrewsuppliessupplier that once when he and a group of friends were there one of them asked for their foulest beer, and without hesitation the barmaid got a Rauchbier. I remember that the giggest problem, IMHO, was an overbearing sweetness.

---

'Heineken!?! ... F#\$% that s@&\* ... | Ulick Stafford, Dept of Chem. Eng.

    Pabst Blue Ribbon!' | Notre Dame IN 46556  
    | ulick@darwin.cc.nd.edu

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Date: Wed, 24 Nov 93 11:51:16 EST  
From: Lee=A.=Menegoni@nectech.com  
Subject: Crabcake Effect / Sam Adams beers

RE: The CrabCake effect.

Recent studies have shown that moderate to heavy bodied beers, when consumed in moderation, can lead to the CrabCake Effect in humans. Stated briefly the precursors to the CrabCake effect are low quality crabcakes, usually found in frozen food sections, that contain a high fraction of bread, flour or other grain based filler. These cakes when consumed in conjunction with small amounts of beers higher in Final Gravity than most American Premiums and Light cause an apparent recombination in the stomach with the consumer suffering from a feeling that one is filled with a giant CrabCake. The most obvious outward symptom is the inability to consume more beer. Found particularly capable of producing the CrabCake effect were products produced by the Boston Beer Company, brewers of Sam Adams beers. Additional research is being conducted to determine if the method of chilling the prefermentation product has an impact on this effect. Noted Italian chefs have indicated that a similar phenomenon, The Gnochì Syndrome, can be avoided by the consumption of Red Wine. Though red wine with fish is anathema with wine lovers research is under way as to the effect of white and blush wines on the Crab Cake Effect.

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Date: Wed, 24 Nov 93 12:32:57 EST  
From: Spencer.W.Thomas@med.umich.edu  
Subject: Crabtree/sterols/peroxide

korz@iepubj.att.com writes:

> BTW, I read somewhere, that sucrose has twice the carbonating  
potential of  
> corn sugar (dextrose, glucose), but have never seen it anywhere else.  
I  
> don't think this is true. Anyone know for sure?

Per molecule, maybe. Per weight, no way. Just count carbons.  
1 mole of monosaccharide makes 2 moles ethanol and 2 moles CO<sub>2</sub>:  
C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> -> 2 C<sub>2</sub>H<sub>5</sub>OH + 2 CO<sub>2</sub>  
1 mole of sucrose (disaccharide) makes 2 moles of monosaccharide:  
C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> + H<sub>2</sub>O -> 2 C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>

but they weigh almost the same (1 mole of sucrose (342 grams) is 18  
grams lighter than 1 mole each glucose & fructose (360 g total)).

Alternatively, 1 g of glucose makes .489 g CO<sub>2</sub> and .511 g ethanol. 1g  
of sucrose would make .515g CO<sub>2</sub> and .538g ethanol. So, yes, the  
carbonating potential of sucrose is slightly higher (5%) than that of  
glucose.

=S

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Date: Tue, 23 Nov 93 11:23:41 EST  
From: lyons%adcl@swlvx2.msd.ray.com  
Subject: Imprtnce of competing chemical reactions?

In HBD #1279 Todd gave the following reactions:

>eq 1: fermentation of glucose  
>  
>C6H12O6 -----> 2 C2H5OH + 2 CO2  
> (ethanol)  
>  
>eq 2: respiration of glucose  
>  
>C6H12O6 + 6 O2 -----> 6 CO2 + 6 H2O

One reaction converts sugar to water, while the other converts sugar to alcohol. Does this imply that two different batches of beer, with identical OGs & FGs, could have significantly different alcohol concentrations based on the initial oxygen content prior to fermentation? Would this imply that pitching a large yeast starter (maybe using the dreggs of the previous batch) and not aerating the wort would result in a more potent product? I'm wondering why the homebrew in which I attempt to match the OG & FG of some commercial products always seems to have more of a kick too it?

Chris

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Date: Wed, 24 Nov 1993 12:24:07 EST  
From: "Mark T. Berard" <mtberard@dow.com>  
Subject: PET Bottles

I recently posted asking about PET bottles. The responses have been very positive, that is, there don't seem to be any Major problems with using them. A few of the key comments are shown below. Thanks to all who responded.

>From: John Mare <cjohnm@ccit.arizona.edu>  
Notes that "Several high-quality British brewers are marketing "real ales" in PET bottles (eg. Sam Smith). I have also encountered a South African (Mitchells) and Canadian (Wellington) who successfully use these plastic bottles."

>From: Drew Lynch <drew@chronologic.com>  
Notes that the bottles are clear and so one must consider UV degradation of the beer, which "can give it a skunky smell... so you may want to keep them covered."

>From: John DeCarlo <jdecarlo@homebrew.mitre.org>  
>1) They may be oxygen permeable--I wouldn't store in them over a year.  
>2) People have reported that some versions (Dr. Pepper?) of soda leave a  
> lingering taste--I use the Seltzer ones primarily.  
>3) You can squeeze them to tell if carbonation is complete.  
>4) They can stand higher pressures than regular glass bottles, in case  
you  
> worry. [Heaven Forbid!]  
>5) They are perfect for parties--you don't care if you don't bring the  
bottle  
> back home with you.

Overall the use of PET bottles seems perfectly reasonable. Just pour your beer into a nice looking glass before you let your friends see it! ;-)

Dr. Mark T. Berard | Internet: mtberard@dow.com  
Snailmail: | Voice:504-353-8418  
Dow Chemical, La. R&D, Bldg. 2506 | FAX: 504-353-6608  
PO Box 400, Plaquemine LA 70765 | SCIENCE!

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Date: Wed, 24 Nov 1993 11:35:10 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: Ads/ Keg Faq/ Mail Order/ Keg Parts/ Taps and Mac ClipArt/

>  
> James- grumbleS 'bout beer commercials (but lets NOT start a  
discussion!)  
>  
\* Just sit back, enjoy the buxom breasts and bulging biceps and  
pretend  
it's a Nike commercial. Crack another hb and wait for Trek to return. :  
)

\*\*\*  
Keg Faq- add counter pressure filling. Otherwise the outline looks  
good. Let me know if I can help. :) Tho- I'm no pro...  
\*\*\*

>  
> Dan (?) pickerel@micom.com had a list of Mail order supplies:  
>  
\* I just typed up a list of suppliers from Brewtechniques Vol 1. No. 4  
and some from the southwest brewing news. I could e-mail it to anyone  
who asks. Most of the ones I gathered had 800 numbers and free catalogs.

I do have an extensive list (hard copy) , but never had the motivation to  
TYPE it into a database, but BOY that would be nice to have! NationWide!  
\*\*\*

Larry Atkinson was looking for fitting for kegs- real bar type kegs.

\* I don't know what type the Labatts counts as- but here is a supplier  
for bar equipment, including all kinds of fittings and pieces for kegs-  
some are useful for soda keg usage too. Things like shanks and taps.

Oliver D. Ennis 4151-53 Sepulveda Blvd, Culver City, CA. 90230  
800-843-6647

Foxx Equip. 421 SW Blvd, Kansas City, MO.  
800-821-2254/  
Have some stuff for big kegs. They might be able to tell you what you  
need.

\* No connection, just have their catalogs! Bonk Bonk! Tell 'em Jim!

\*\*\*\*\* QUESTIONS \*\*\*\*\*  
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1. Hey- Anyone know of a source for nice taps handles. You know the  
tall  
kind of pull taps, to go on a fridge shank, not onto a bar...  
good beer brands would be preferable to shmits (- the l ) Hep' me!?

2. Anyone have any good beer/brewing related clip art. Prefereably MAC  
format. PICT is good. I am especially looking for pictures of HOPS,  
BARLEY, KEGS, CASKS, GLASSES, MUGS, But especially decorative hops and  
barley vines, and sheafs. I have various animals, and some mugs, but  
not much to make BEER labels from.

ALSO: I'd really like to find a GOOD picture of a....C O Y O T E..what  
else!  
Ideal would be a COYOTE howling, maybe even a cactus nearby, or a moon.  
..

If you haven't figured out...trying to get a LOGO together for my "brewery".

I will gladly send homebrew or mead to anyone able to help me sufficiently!

\*\*\*\*\*  
Today is SCOTCH ALE day. Oh yum. Gotta go grind! I get to try my new belgian malts for the first time! (Thanx Lynne!)

So many beers to brew, so many beers to sample...whats a guy to do but brew.

Chow for Now.  
John (The Coyote) Wyllie SLK6P@cc.usu.edu

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Date: Wed, 24 Nov 93 13:34:35 EST  
From: Keith MacNeal 24-Nov-1993 1323 <macneal@pate.enet.dec.com>  
Subject: getting wort into primary/chiller cleaning/changing yeast midstream

JC Ferguson asked about cleaning immersion wort chillers prior to use. I soaked mine in a solution of TSP, bleach, and water (the same solution I use to clean bottles and remove the labels). It worked great in getting the grease and grime off. The only thing I do now to get it ready for use is to put it in the boiling wort 15 minutes or so before removing it from the heat. The copper tubing does get a bit brighter after use, but I don't think a little copper oxide is going to hurt anything in the beer (if it did, we'd have to scrap all of our copper plumbing).

To get my wort into the primary after chilling, I use the same approach Mark Bunster outlines in Homebrew Digest #1280 (November 24, 1993). And if by chance some of the break material and hop pellets work their way through the strainer into the fermenter, I relax and have a homebrew. I know Dave Miller likes to get the beer off the trub as soon as possible but I really haven't seen any compelling information that makes me want to start whirlpools and siphons, drill holes in my brewpot, worry about filters, or add another racking step (and all its complications) to my process.

In Homebrew Digest #1280 Tever Miller asks about repitching his Tarpit Stout with champagne yeast. My response is why? I brewed an Imperial Stout using only Irish Ale yeast from Wyeast. I didn't have any problems with it fermenting out.

Keith MacNeal  
Digital Equipment Corp.  
Hudson, MA

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Date: Wed, 24 Nov 93 14:23:29 EST  
From: Mark Bunster <mbunster@hibbs.vcu.edu>  
Subject: rauchbier

\* My problem is that although the smoke comes through wonderfully well in  
\* the flavor, my beer is always eliminated in competitions because the  
\* smoke is so subtle in the aroma that it's not in the same league with  
\* the winners.

\*

\* Short of using some sort of "liquid smoke" solution (which I absolutely  
\* refuse to try), is there some trick to get the smoke aroma to express  
\* itself more strongly?

\*

This is just a thought--no idea whether it will work:

try rigging up some way to smoke your hops. Not necessarily the bittering  
hops

(although you can try that too), but the finishing hops, the ones that do  
much to give aroma. If you don't use finishing hops, maybe try.

Ah, rauchbiers. I remember being treated to one as a 17 year old in  
Nuernberg

Germany, in a bar near the medieval castle downtown. My grandfather  
explained

its origins (it's known as a Schlaenkerla there) and handed me a half-  
litre.

The smell about knocked me down, and I remember the omnipresent feeling  
that

I was drinking a beer and bacon fat solution. It grew on me, though, and  
by

the bottom of the glass I was ready for another. My grandfather wisely  
demured--when we stood to go I was pretty wobbly.

- - -

Mark Bunster |Exchange conversation if you dare--  
Survey Research Lab--VCU|Share an empty thought or a laugh.  
Richmond, VA 23220 |  
mbunster@hibbs.vcu.edu |  
(804) 367-8813/353-1731 | -edFROM

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Date: Wed, 24 Nov 1993 12:16:53 -0800  
From: oeinkeranen@esd114.wednet.edu  
Subject: wyeast types

I was fortunate enough to get a copy of the following Wyeast Yeast Profiles from Wyeast Labs (1-503-354-1335) courtesy of our good friends at Evergreen Brewing Supply in Bellevue, Wa. (1-800-789-BREW). BTW, they (EBS) have an impressive list of Belgian malts which, as far as I know, no one else in town carries (and I've been in them all).

WYEAST LABORATORIES YEAST PROFILES

Ales    Saccharomyces cerevisiae  
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1007 Our original Ale Yeast of German origin. Ferments dry and crisp leaving a complex yet mild flavor. Produces an extremely rocky head and ferments well down to 55xF. Flocculation is high and apparent attenuation is 73-77%.

1084 Irish-style Ale Yeast. Slight residual diacetyl and fruitiness is great for stouts. It is clean, smooth, soft and full-bodied. Medium flocculation and apparent attenuation of 71-75%.

1338 European yeast from Wissenschaftliche in Munich. A full-bodied complex strain, finishes very malty. Produces a dense, rocky head during fermentation. High flocculation, apparent attenuation of 67-71%.

1098 British Ale Yeast from Whitbread. Ferments dry and crisp, slightly tart and well balanced. Ferments well down to 65xF. Medium flocculation, apparent attenuation 73-75%.

1056 American Ale Yeast. Ferments dry, finishes soft, smooth and clean, and is very well balanced. Flocculation is low to medium. Apparent attenuation of 73-77%.

1028 London Ale Yeast. Rich mineral profile, bold crisp slight diacetyl production. Medium flocculation. Apparent attenuation 73-77%.

1214 Belgian Ale Yeast. Abbey-style top fermenting yeast suitable for high gravity beers, doubles, triples, and barley wines. Medium flocculant strain which clears well. Apparent attenuation 71-75%.

Lager    Saccharomyces uvarum  
-----

2007 Our original Lager Yeast Strain. Specific for pilsner-style beers.

Known as many things, we call it Pilsen. Ferments dry, crisp, clean and light. Medium flocculation. Apparent attenuation 71-75%.

2308 Munich Yeast from Wissenschaftliche in Munich #308. One of the first pure yeast available to American homebrewers. Sometimes unstable, but smooth, soft, well-rounded and full-bodied. Medium flocculation, apparent attenuation 73-77%.

2042 Danish Yeast Strain. Rich, yet crisp and dry. Soft, light profile which accentuates hop characteristics. Flocculation is low, apparent attenuation is 73-77%.

2206 Bavarian Yeast Strain used by many German breweries. Rich flavor, full-bodied, malty and clean. Medium flocculation, apparent attenuation of 73-77%.

2035 American Lager Yeast. Unlike American pilsner styles. It is bold and complex and woody, produces slight diacetyl. Medium flocculation, apparent attenuation of 73-77%.

2124 Bohemian Lager Yeast. The traditional Saaz yeast from Czechoslovakia. ferments clean and malty, rich residual maltiness in high gravity pilsners, medium flocculation, apparent attenuation of 69-73%.

2112 California Lager Yeast. Warm fermenting bottom cropping strain, ferments well to 62xF while keeping lager characteristics. Malty profile, highly flocculant, clears brilliantly. Apparent attenuation of 72-76%.

YEAST and BACTERIA CULTURE PROFILES      *Saccharomyces delbrueckii*, s. *cerevisiae*

3056 Bavarian Weissen. A blend of s. *cerevisiae* and *delbrueckii* to produce a south german style wheat beer with a cloying sweetness, when the beer is fresh. Medium flocculation, apparent attenuation of 73-77%.

Wine Yeast  
- - - - -

3021 Prise de mousse, Institute Pasteur champagne yeast race bayanus. Crisp and dry, ideal for sparkling and still wine and fruit wines. Low foaming, excellent barrel fermentation, good flocculating characteristics. Ferments well at low (55xF) temperatures. Also can be used for Barley wines.

3028 French (bordeaux) wine yeast ideally suited for red and white wines which mature rapidly or reds requiring aging. Moderate foaming, low sulphur production over a wide temperature range. Enhances the fruity characteristics of most wines.

Sake Yeast      *Saccharomyces sake*  
- - - - -



3134 Japanese Rice Beer Yeast Strain for use in conjunction with Koji (Aspergillus oryzae) for making a variety of sake styles. Full-bodied profile with true sake character.

Malo-lactic Bateria

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Leuconostoc oenos

4007 Malo-lactic culture blend isolated from western Oregon wineries. Includes strains Ey2d and Erla. Excellent for high acid wines and low pH. Softens wines by converting harsh malic acid to milder lactic acid. Can be added to juice any time after the onset of yeast fermentation when sulphur dioxide is less than 15 ppm.

BRAND NEW ALE, LAGER, AND LAMBIC YEAST STRAINS (as of 11-18-93)

1968 Special London Ale Yeast. Highly flocculant ale yeast with rich malty character and balanced fruitiness. High degree of flocculation makes this an excellent strain for cask conditioned ales.

1728 Scottish Ale Yeast. Rich smokey, peaty character ideally suited for Scottish style ales, smoked beers and high gravity beers.

2565 Kolsh Yeast. A hybrid of Ale and Lager characteristics. This strain develops excellent maltiness with subdued fruitiness, and a crisp finish. Ferments well at moderate temperatures.

2278 Czech Pils Yeast. Classic dry finish with rich maltiness. Good choice for pilsners and bock beers. Sulphur produced during frementation dissapates with conditioning.

3068 Wheinstephen Wheat Yeast. Saccharomyces delbrueckii single strain culture for German wheat beers.

3944 Belgian White Beer Yeast. Rich, phenolic character for classic Belgian styles, including Grand Cru.

3273 Brettanomyces bruxellensis. Belgian lambic style yeast with rich, earthy, odiferous character and acidic finish.

Vic Keranen

just in case you are wondering, I don't work for either co. Just a homebrewer who figured I should pass this on since I haven't seen this info anywhere else.

oeinkeraanen@vaxj.esd114.wednet.edu  
oeinkeraanen@vaxj.esd114.wednet

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Date: Wed, 24 Nov 93 15:11:00 PST  
From: "Moore, Brian" <Moorebw@hvsmtpl.mdc.com>  
Subject: Grains/Easymashing

Hello All,

Just a few general grain questions:

First of all, I've been looking at a lot of recipes lately to find some tasty pale ales and such. Many of these recipes call for something on the order of 1/2 # 30 (L) Crystal, and 1/2 # 90 (L) Crystal. Would this not be the same as 1 whole pound of 60 (L) Crystal? Would there be any difference in the flavors either way?

Secondly, I've been considering buying one or two fifty pound sacks of 2-Row malt (There's a place in Orlando where you can get a fifty pound sack for \$19.95). Since I don't have a mill, I'm going to buy the grains pre-crushed (Free crushing). I will probably use them all within a couple of months. I've heard talk that crushing grains and then keeping them around for a while will cause the grains to "go stale/bad". What exactly does this mean? Will the stale/bad grains not give me as much goodness? Will my beer taste stale? Should I even be concerned or is this more of the boogy/bogyman talking?

Now on to easymashing ...

Sorry Jack, this isn't about an E(e)asymasher (I'm a cooler man myself). Here is a technique John Goodman and myself have used to cut our all-grain brewing time in half. Hopefully this will help some of you out there who are afraid of the extra time all-graining takes. Since my house is only about 5 miles from work, I go home for lunch (about 10 minute trip). Immediately upon arrival, I put about 2.5 gallons of water on my propane burner to heat to about 175 F. In the seven minutes this takes, I put all of my premeasured grains in the cooler (slotted copper manifold, etc. etc.). Once the water is heated, I mash-in and put the lid on the cooler (The mash temperature stabilized at about 158-160). Now I grab a quick sandwich (not necessarily off the garage floor) and return to work. Total time: about 45 minutes.

Once back in the office, I work for about 2 to 2.5 hours (this technique does call for leaving early, although I guess a 3 or 4 hour mash isn't out of the question). When I get back home, the mash temperature is down to about 145 F. Next, I heat the sparge water (10 minutes), sparge (30 minutes), begin heating runnings immediately after recirculation, bring to

boil (20 minutes), boil (90 minutes), cool/aerate/pitch yeast (30 minutes).

Total time after work: 3 hours. Done by dinnertime! If only I could find a way to sparge while I'm at work.  
Brian Moore

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Date: Wed, 24 Nov 93 14:54:53 MST  
From: dwatson@as.arizona.edu (Dan Watson)  
Subject: Thanksgiving

Good afternoon fellow brewophiles,

Came upon a copy of "Early American Beverages" (John H. Brown, Bonanza Books, 1966) the other day. This delightful history is full of recipes for beers, wines, mixed, "temperance", and medicinal drinks from early colonial times to about the Civil War. In the spirit of Thanksgiving, I offer this excerpt:

"Common Beer: Two gallons of water to a large handful of hops is the rule. A little fresh-gathered spruce or sweet fern makes the beer more agreeable, and you may allow a quart of wheat bran to the mixture; then boil it two or three hours. Strain it through a seive, and stir in, while the liquor is hot, a teacup of molasses to every gallon. Let it stand till lukewarm, pour it into a clean barrel and add good yeast, a pint, if the barrel is nearly full; shake it well together; it will be fit for use the next day.

The Way To Live Well, 1849"

How's that for turnaround time! of course there were better brewers around too:

"English Beer, Strong: Malt 1 peck; coarse brown sugar 6 lbs.; hops 4 oz. ;  
good yeast 1 tea-cup; if you have not malt, take a little over 1 peck of barley, (twice the amount of oats will do, but are not as good,) and put into an oven after the bread is drawn, or into a stove oven. and steam the moisture from them. Grind coarsely.

Now pour upon the ground malt 3 1/2 gals. of water at 170 or 172 degrees of heat. The tub in which you scald the malt should have a false bottom... bored with gimlet holes... to hold back the malt meal. When the water is poured on, stir them well, and let it stand 3 hours, and draw off by a faucet; put in 7 gals. more of water at 180 to 182 degrees ; stir it well, and let it stand two hours and draw it off. Then put in a gallon or two more of cold water, stir it well and draw it off; you should have 5 or 6 gals. (sic) Put the 6 lbs. of coarse brown sugar in an equal amount of water; mix with the wort and boil 1 1/2 to 2 hours with the hops; you should have eight gals. when boiled. When cooled to 80 degrees put in the yeast, and let work 18 to 20 hours, covered with a sack; use sound iron hooped kegs or porter bottles, bung or cork tight, and in two weeks it will be good sound beer, and will keep a long time; and for persons of a weak habit of body, and especially females, 1 glass of this with their meals is far better than tea or coffee, or of all the ardent spirits in the universe."

I'll Bet! Happy Thanksgiving Y'all.

Dan Watson  
Steward Observatory  
Mirror Lab

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Date: Wed, 24 Nov 93 13:41:40 PST  
From: ELQ1%Maint%HBPP@cts27.comp.pge.com  
Subject: Box crates, Lids, G.L.V.M., AND Smoke

Hoppy Thanksgiving All you Brew Dudes and Gals,  
A few ago one person asked about crates for beer bottles, I contacted  
a local dairy and was told that the plastic crates are not for sale, I  
lack blocked grey matter to steal, so I made some out of 1x8 and 1x3 pine,  
cost was about \$11 for material and produced 4 stout clean boxes, much  
cheaper than a \$15 plastic crate and a whole lot cheaper than jail. Size for  
30 bottles, 12oz is 12 1/2"x 15" I.D. If any need plans, just hollar.

After fighting the lids on my plastic fermenter and disturbing the  
sediment, I bought some lids from a paint store, they are NEW, HDPE,  
and they hav an airtight 2 1/2" bung that is handy for checking progress  
and access for racking. The lid has skirts on the side for easy removal  
and installation. Cost: \$2

Has anyone out there tried using the cousin of hops for flavoring or  
any other value? I refer to Green Leafy Vegetable Matter, its a sick bird,  
[ill-eagle] Results? I am just curious...

In HBD #1280 Ed asks about Rauchbier, hey Ed I am going to try this;  
Take some apple wood from my pruning, let dry and "charcoal" in my  
smoker, then add to the primary and let it perk away, just a few  
briquets should have some good clean flavor to it. Any other ideas?

Ed Quier, ELQ1@maint@hbpp  
not my lifestyle, just my name

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Date: Thu, 25 Nov 93 09:47:08 EST  
From: barling@merlin.anu.edu.au (Pat Barling)  
Subject: brewmart danish style pils problem

recently I put down the above kit as per instructions (I only added light malt extract instead of sugar), included in kit was a special pilsner enzyme to be pitched in with yeast.  
after 2 weeks I racked to a secondary, added finings and bottled 7 days later F.G. 1.006.  
last night I noticed that there was a cloudy layer on the top of every bottle, hygiene is not a problem.  
any ideas? is it the enzyme? thanks in advance for any help  
pat.  
email suggestions to barling@merlin.anu.edu.au

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End of HOMEBREW Digest #1281, 11/25/93  
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Date: Wed, 24 Nov 93 14:01:22 MST  
From: npyle@n33.stortek.com  
Subject: Partial Mash

#### Partial Mash for Extract Brewers

To do a partial mash, the extract brewer has to do a small amount of tinkering, and invest in a small amount of additional equipment. By doing this, the brewer can learn the methods of mashing, get an idea of the time involved, and see a difference in the beer, without having to make large investments in lots of equipment. This procedure can be used to modify all-grain recipes which include uniquely flavored grains, but that require mashing, including but not limited to Belgian 2-row pale malt, vienna malt, munich malt, biscuit malt, and victory malt. It also treats specialty grains such as crystal, chocolate, etc. in a manner similar to the all-grain setup. The extract brewer can substitute pale malt extract for most or all of the relatively large amount of base pale malt (usually 2-row) and mash the rest of the grains, without building or buying a large kettle, etc.

An easy setup involves a small (3-6 gallon) cooler of any shape. These are found in almost any home and serve nicely as a small mash tun which will hold liquid and grains at temperatures up to about 170F. An occasional use in this manner will not harm it for later use as a cooler. In order to reclaim the liquid in it, a simple manifold can be made from two feet of 3/8" soft copper tubing. You can crimp the end of the tubing and drill some small holes in it or cut a few notches in it with a hacksaw. The openings in the manifold should face downward so that grain will not plug them up. Another choice would be to clamp a small piece of stainless steel screening onto the end of the uncrimped pipe. The type of manifold isn't critical, as it is the grain that actually does the filtering. This lautering mechanism will pull the liquid out of the grain using a siphon.

Remember that during mashing/sparging sanitation is unnecessary (although general cleanliness is always a good idea) because the hot liquor goes immediately into the kettle for boiling. The following equipment is necessary; much of it is probably already used by the extract brewer:

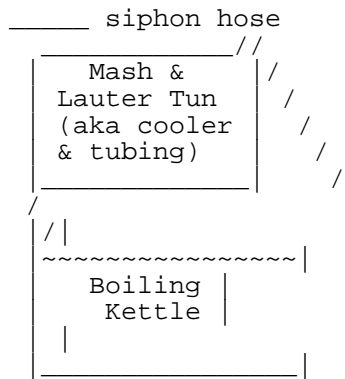
Usually these are the only two items needed to purchase:  
2' of soft copper tubing  
tincture of iodine (optional)

Most extract brewers have these items around the house:  
Small cooler

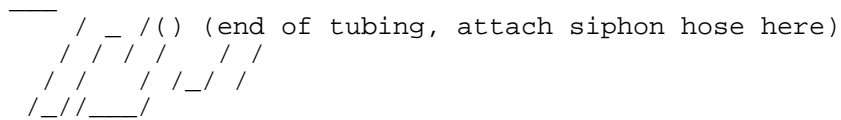
siphon hose  
 white plate (optional)  
 hydrometer  
 thermometer  
 kettle  
 fermenter  
 etc.

Diagrams:

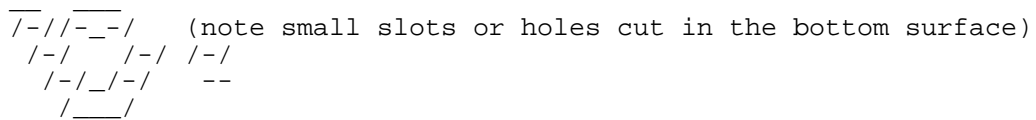
SIMPLE MASHING SETUP



SIMPLE COPPER TUBING MANIFOLD

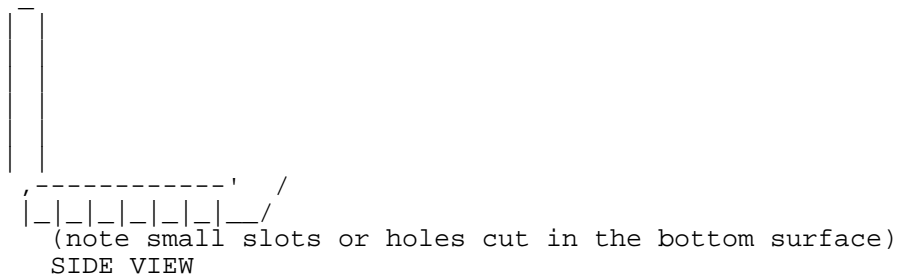


TOP VIEW



BOTTOM VIEW

(end of tubing, attach siphon hose here)



Up-front work:

Bend the copper tubing (be careful not to kink it) into a shape similar to the

one shown above, keep the up-pipe below the cooler lid level so the lid will close. The only reason for the funny bends are to allow the tubing to stand up by itself while dumping in the grains, etc. You can do your own versions of it and probably come up with something better (a partial loop comes to mind).

Put the copper tubing in the cooler to check the fit.

The mash:

Dump the crushed grains (have the homebrew shop crush them for you) on top of the manifold. Add hot water per the recipe and "dough-in" the grain. This involves making sure that all the big chunks of grain are all moistened. Check the temperature and adjust with hot or cold water to get to the proper mash temperature (usually 150-156F). The enzymes in the barley will handle short durations of temperature extremes with no problems, so don't worry. Just make sure you have a couple quarts of near boiling water and tap water ready to adjust the temperature. When you hit your mash temperature, close the lid and wait 30 minutes. Recheck the temperature (it is best to just leave the thermometer in the mash) and adjust back up with hot water if it has dropped more than 4 degrees. Wait another 30-60 minutes and do the iodine test if desired. During the mash, you can be heating the sparge water so it will be ready at the end of the mash.

The iodine test (optional):

With a clean spoon, stir the mash a bit and let settle for 5-10 minutes. Dip some liquid (a spoonful is plenty) off the top of the mash and pour it onto a clean white plate. Drop a drop of the iodine onto the mash liquor. If the iodine changes black in any part, there is starch remaining and you should continue the mash. If it remains the same red/brown color, starch conversion is complete and you can continue. It is probably good to do this test at the very beginning of the mash, just to see a positive starch test as a reference. Then do it again after mashing; the starch test should be negative.

The mash-out / sparge:

Dump the ground specialty grains into the cooler. Then dump all the sparge water at once into the cooler and stir the mash. Close the lid for a few minutes to allow settling. Note that this is not a true mash-out because the

overall temperature of the mash doesn't rise very much due to the thermal mass of the goods already in the cooler. Mash-out for the homebrewer is debatable at best and it is not important for the beginning masher. Next open the cooler, attach the siphon hose, and start a siphon by sucking on the hose or any other convenient method. Remember, sanitation is not an issue at this point because this liquid is heading for the boiling kettle. Drain off all the liquid into your kettle. Note that it is best to have the kettle 2-3 feet below the mash/lauter tun (cooler) so you can maintain a good strong siphon to drain the liquor from the grains.

The rest is just like an extract brew. Add your extract and boil away. All of these extra steps will take a couple of extra hours but it will give you an idea of what all-grain brewing takes, and should increase the variety of recipes available to brew. Best of all, it is easy and cheap!

Norm

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Date: Wed, 24 Nov 93 9:40:23 MST  
From: npyle@n33.stortek.com  
Subject: Whining/Kegging FAQ/Starch test/Sanitizers

Pam Day writes:

>..... Why don't you all stop whining out inane opinions and get  
>back on track and talk about brewing! Most of us out here seem to  
>be seeking advice and are not out to stroke our own egos by flaming  
>those we don't agree with. If you don't agree with someone, offer a  
>polite, constructive and well-thought alternative. Enough mothering,  
>let's get back to brewing.

Pam, seeking advice is fine, but you have to put up with the egos of the advice givers. That's life. Deal with it. This forum is give and take and it really frosts me when the only reason for a post is to flame/counter-flame etc. Give something or take something, but don't whine about it.

\*\*

Tom Leith writes:

> I have begun work on a kegging FAQ and I will need a few knowledgeable contributors and reviewers to help me.

Whoa pardner! You might talk to Dion Hollenbeck and coordinate. He has been doing the same thing for the past several weeks. Also, not to gripe (more information is always welcome), but your FAQ looks more like a book. Sounds great, though.

\*\*

I would add one thing to Mark A's "iodine test on dark mash liquor" problem. I always advise people to do an iodine test at the very beginning of the mash (dark/light doesn't matter), as a reference. Then do it again at the end of the mash. If you know what a positive starch test looks like, it is much easier to determine a negative starch test. I still do this sometimes when I'm bored.

\*\*

Fisher writes:

>A good friend of mine works in the food processing industry, and he  
>says that I should use hydrogen peroxide to sanitize, like the food  
>pros do. Is this a good idea? I am not motivated to change, but he  
>won't leave me alone without a rebuttal.

Tell him that there are any number of sanitizers that are perfectly acceptable for homebrewing. Off the top of my head: bleach, iodophor, B-brite, boiling

water/steam, alcohol, many others. I think the Zymurgy Gadgets & Equipment issue has a long article about them, but it has some wholes in it as well. Bleach is probably the cheapest of them all, but they all have different pros/cons.

Norm

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Date: Wed, 24 Nov 93 22:36:00 EST  
From: bobreg@aol.com  
Subject: Alternative FAQ Formats

I recently downloaded the Yeast FAQ and found that it was chock full of great info. However, I found it difficult to use as is, so I decided to create a booklet out of it with PageMaker. In addition, I also created a Yeast FAQ Windows Help File. The point of this post is to ask if anyone would find either of these formats useful?

The booklet file is a HP Laserjet print file of about 93K compressed. All that is needed to print a booklet on 8.5 X 14 paper (8 sheets) is DOS and a HP Laserjet. It's a great way to distribute FAQ's to your friends and club members.

The Windows Help file is about 60K and runs with Windows 3.1, although it probably would run with 3.0 also. It's loaded with all of the nifty Windows Help stuff.

The idea here is to create a Help File and Booklet for all of the other homebrew FAQ's and then upload them to the archives, if there is enough interest. IS THERE?

If anyone can assist me in getting in touch with the right people to arrange for uploading at sierra.stanford, I would appreciate it.

If you have any comments, email me at b\_regent@holonet.net, or to rec.crafts.brewing. (bob regent)

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Date: Wed, 24 Nov 93 21:28:47 PST  
From: Mark Garetz <mgaretz@hoptech.com>  
Subject: 200 IBUs/Grains of Paradise

Al Korzonas writes in response to my posting of a historical reference that IPAs of the time had IBU ratings of around 200!

My first reaction was that this can't be right! So I went back and checked the reference that gave me the 2.47 ozs number (per five gallons) for dry hopping.

I recalled calculating the IBUs for the "ordinary home ales" and came out with 52 IBUs based on 5% alpha hops and 20% utilization and Rager's gravity adjustment. OG of the ale was 1.080 and hopping rate was 8 lbs/quarter of malt. It took 12 quarters to produce this strength of beer, so 96 lbs of hops was used in 1900 gallons (US) of wort.

But the same reference also states that "20 lbs per quarter of the best hops shall be used" for ales and porters brewed for the India government.

Assuming the same 5% alpha and OG of 1.080, this translates to 203 IBUs at 30% utilization (Rager's formula unmodified). Using my more conservative utilization of 20%, we still get a whopping (hopping?) 143 IBUs!

So Al is right (or close anyway). These musta been some beers! Buffalo Bill Owens (who started the first US brewpub and coined the term) brewed an ale called Alimony Ale, "the most bitter brew in the world" but I never tried any (I've had the real alimony, thank you). Has anyone ever brewed or tasted beer this bitter? I think I'm going to add some iso alpha extract to some Anchor Liberty and get it up to 150 IBUs to see what it tastes like. I'll let you know if was actually palatable or not.

BTW, in case anyone's interested, the reference I'm using is The Manual of Brewing: Scientific and Technical by Egbert Grant Hooper, 1891.

\*\*\*\*\*

Now I'll ask a question. In the recent Zymurgy, an article talks about hop substitutes, as does Hooper in the aforementioned book. Here's a quote (talking about hop substitutes): "Narcotic principles are little used now except in very low neighborhoods. We have, however, reason to fear that grains of paradise are still sometimes employed with the object of increasing the intoxicating character of the beer, and imparting a fictitious sense of strength."

What is (are) grains of paradise? I would have assumed opium of some sort, but a previous sentence reads: "the substances which at various times have been used to wholly or partially replace hops or intensify the bitter or narcotic character of the beer are very numerous, and include gentian, quassia, aloes, marsh trefoil, broom, wormwood, cocculus indicas, grains of paradise, opium, tobacco, picric acid and strychnine."

Note that grains of paradise is listed separately from opium.

Clues anybody?

(Yes. Strychnine and picric acid. Don't try this at home kids.)

Mark

-----

Date: Wed, 24 Nov 1993 21:22:43 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: almost there

well, we bought our equipment today and will start brewing on friday (if  
i  
can wait that long). we got a carboy for free from a friend and got a  
great  
deal on the rest of our equipment. altogether, for everything but the  
extract, it only cost us about \$35!!  
we are going to brew the "righteous real ale" in papazian's book.  
i just had a few questions:  
1) will 5 grams of dry english ale yeast be enough?  
2) instead of the dried malt extract we are going to use bulk syrup. the  
owner of the store where we bought everything brews a batch a week and  
said  
that she has never had any problems with the bulk stuff. anyone out  
there  
think it is a bad idea?  
thanks a lot  
- --james

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Date: Thu, 25 Nov 1993 11:17:31 -0400 (AST)

From: EKELLY@admin.stmarys.ca

**Subject: brew belt problem**

I am a very careful brewer and have been brewing successfully for the last two years without incident. However, my last six batches have been flops due to contamination. I have exhausted all avenues and am getting very disgusted. I even sought advice on the net to ensure my bottle washer is germ free.

I consulted a friend who is a microbiology lab technician and she has the following theory about the use of brew belts. I have purchased a brew belt 6 batches ago and coincidentally never had a good batch since. I consulted a few brewers on the use of brew belts and they said no problem and to look elsewhere for the contamination source. I only use the brew belt for 12 to 24 hours to start the fermentation since by basement is 60 degrees. She claims that 75 degree wort is a good environment to permit yeast to grow and overpower the small amount of nasties present in initial wort. She claims all initial wort has a certain amount of nasties due to the fact that it is next to impossible to be 100% sterile in a home environment. She believes that the surface temperature of the brew belt (100 degrees +/- 5) kills the yeast which is in the general vicinity of the belt (1 to 2 inches). She claims that this area which is void (or almost) of yeast is a natural incubator for nasties which can grow rapidly at 100 degrees with little or no yeast to worry about.

Any thoughts?

Ed

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Date: Thu, 25 Nov 93 10:48:30 MST  
From: "Mark B. Alston" <c-amb@math.utah.edu>  
Subject: Re: Counterpressure Bottler Questions

>The way I used it is as follows: put contraption in bottle. Open  
>gas valve (noise of gas filling bottle and equilibrating). Open valve  
for  
>a while to purge bottle (noise of gas escaping from bottle). Close  
valve,  
>close gas line, open beer line. Wait for beer to fill bottle under  
>pressure. Remove contraption and cap immediately.

O.K. as I understand what you are doing, you are missing a step. Here  
is the procedure as I am told. (Keep in mind that I have never done  
this, only read about it--story of my life :)

- 1) open valve to CO2 to presurize bottle.
- 2) open bleed valve to purge bottle of air.
- 3) close bleed valve and repressurize bottle.
- 4) close valve to CO2 5) open liquid valve -- beer will not flow at  
this point since the pressures are equal
- 5) slowly open bleed valve. This will reduce the pressure in the bottle  
and allow the beer to fill it up.
- 6) When bottle is full: close liquid valve and remove counterflow
- 7) cap.

That should do it.  
Mark

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Date: Thu, 25 Nov 1993 11:23:01 -0800 (PST)

From: Jim Cave <CAVE@PSC.ORG>

Subject: Error in Zymergy

When reading Ed Westemeier's article in zymergy about the old (as in historical) English recipes, I noted that the extraction/efficiency rates for these recipes are out of line. These are for 6 U.S. gal recipes. For example, the Usher Stout:

18 oz pale malt.  
6.5 oz carapils  
4 oz black xstal  
2 oz xstal  
2 oz Amber  
2 oz Brown

...This to produce 6 gals at 1.056 O.G. In this instance, I figure the recipe is out by about a factor of 6 (i.e. the recipe is for 1 U.S. gallon). The extraction rate would be about 32 points per pound per gal, which in itself might be optimistic for yields of only 6 gal. I'm not sure about the hopping but that might also be out by a factor of 6.

This logic does not seem to follow for the Whitbread porter:

2.5 lbs pale malt  
7 oz brown  
2.5 oz Black --- 1.060 O.G. 6 gallons

When I follow the logic for the Usher stout in this situation, I get 1.100+,  
So....what gives?

I think Ed is on the digest so perhaps he could comment?

Jim Cave, Vancouver B.C. Canada. "In Heaven, there is no Beer  
That's why we drink it here!"

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Date: Thu, 25 Nov 93 16:58 CST  
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)  
Subject: Jim Koch

I find it strange that there are people in this forum that judge a man by the beer that he makes. Unfortunately, that's not how it's supposed to work. You judge a man by his actions, deeds and the way he treats others. Jim Koch is no exception. He should be judged by his actions and not the beer that his company makes.

I think there are currently enough people out there who have been sued or threatened with lawsuit by Koch to start a new forum. Call it the lit.koch.sued.digest or something like that. This man is a monster but unfortunately since I'm an atheist there is no hell for him to burn in.

I remember years ago when the gay community waged their campaign against Anita Bryant and her homophobic preachings. Remember? Every time she went to speak in a public forum she would get a cream pie in the face. Pictures of her with pie on her face got more media attention than her message. Eventually she gave up. A fiendishly effective tactic if you ask me.

chris campanelli

ps. I too choose to boycott Samuel Adams products.

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Date: Thu, 25 Nov 93 18:15:27 MDT  
From: Trever Miller <amby@wooga.cuc.ab.ca>  
Subject: Tarpit stout && repitching w/diff yeast

>Date: Wed, 24 Nov 93 13:34:35 EST  
>From: Keith MacNeal 24-Nov-1993 1323 <macneal@pate.enet.dec.com>  
>Subject: [...] cleaning/changing yeast midstream

[...]

>In Homebrew Digest #1280 Trever Miller asks about repitching his Tarpit Stout  
>with champagne yeast. My response is why? I brewed an Imperial Stout using  
>only Irish Ale yeast from Wyeast. I didn't have any problems with it  
>fermenting out.

My line of thinking was that there's a large amount of fermentables in this batch, and I used the dry yeast packet that came with the kit.

I'm not sure if they'll be able to make full use of all the goodies...

I have had batches where the provided dry yeast didn't ferment anywhere past approx 4%/vol, even though there was ample fermentables, and was hoping to get somewhere between 8% and 10% with this batch.

Perhaps my paranoia is unwarranted, as for the past day or day and a half the sounds coming from the primary are akin to a LARGE bowl of rice crispies... I guess the yeast really likes it :-)

>  
>Keith MacNeal  
>Digital Equipment Corp.  
>Hudson, MA

- - -  
millertr@cuug.ab.ca (Preferred) Snail Mail: #557, 918 - 16 Ave NW  
or Calgary, Alberta T2M 0K3  
ambush\_bug@wooga.cuc.ab.ca

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End of HOMEBREW Digest #1282, 11/26/93

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Date: Fri, 26 Nov 1993 02:53:44 -0800 (PST)

From: Jim Posey <dodger@quack.kfu.com>

Subject: Liquid vs. Dry

A Beginners Query.

I've recently begun brewing and have only used WYEAST Liquid yeasts. All batches showed activity 12-32 hrs. after pitching, and all have taken at least twice the stated "normal" time to finish fermenting. Some simple batches have taken 2 weeks, more complex batches 6 weeks. My carboy sits in a room heated to 70~ and sanitation doesn't seem to be a problem. (They all taste great!) I know the WYEAST is underpitching, but... Which is better, all around for the entry-level brewer, liquid or dry?

email to me at dodger@quack.kfu.com or post any info you think deserves sharing. Thanks very much in advance.

Jim Posey

ps I enjoy reading everyones opinion, but not over and over again.

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Date: Fri, 26 Nov 1993 11:38:39 +0000  
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)  
Subject: 200 IBU's and Old British Beer recipes

>From: Mark Garetz <mgaretz@hoptech.com>  
>Subject: 200 IBUs

>  
>Al Korzonas writes in response to my posting of a  
>historical reference that IPAs of the time had IBU  
>ratings of around 200!

>  
>My first reaction was that this can't be right! So

>  
> [snip]

>  
>But the same reference also states that "20 lbs per quarter  
>of the best hops shall be used" for ales and porters brewed  
>for the India government.

>  
>Assuming the same 5% alpha and OG of 1.080, this translates to  
>203 IBUs at 30% utilization (Rager's formula unmodified).  
>Using my more conservative utilization of 20%, we still get a  
>whopping (hopping?) 143 IBUs!

Yes. There are references to hopping rates of 20 lbs per quarter, and yes the formula does equate this to 200 IBUs (but how accurate is the formula when extrapolated to these extremes?) Rather than adding hop extract to get some theoretical level of IBU, why not try brewing a beer with this hop rate?

>So Al is right (or close anyway). These musta been some beers!

They are, I can assure you!

> Has anyone ever brewed or tasted beer this  
>bitter?

Yes. A number of times. The Durden Park Old British Beers book gives the following recipe for one Imperial gallon (1.2 US gal):

Original India Pale Ale   OG 70  
    3lb Pale Malt  
    2.5 oz Goldings Hops

An infusion mash and 90 min boil - I leave the detail to you. The recipe corresponds to the heaviest IPA shipped from Burton-on-Trent in the 1830s according to the reference. Simmond's of Reading were shipping an almost identical formulation (2.9lb pale malt plus 2.25oz hops) in 1880.

It should be matured for \*at least\* eight months (it was a long way to India)

Give it a go Mark

>BTW, in case anyone's interested, the reference I'm using is  
>The Manual of Brewing: Scientific and Technical by Egbert Grant  
>Hooper, 1891.

Ref: W H Roberts, The Scottish Ale Brewer, 1837, and the Courage  
Brewing Archives.

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And while people are publishing recipes from our book :-)

>From: Jim Cave <CAVE@PSC.ORG>

>Subject: Error in Zymurgy

>

> When reading Ed Westemeier's article in zymurgy about the old (as in  
>historical) English recipes, I noted that the extraction/efficiency  
rates

>for these recipes are out of line. These are for 6 U.S. gal recipes.

>For example, the Usher Stout:

>

> 18 oz pale malt.

> 6.5 oz carapils

> 4 oz black xstal

> 2 oz xstal

> 2 oz Amber

> 2 oz Brown

>

ALL RECIPES in the Old Beers Book and when reproduced in Zymurgy are  
FOR 1.2 US GALLONS. That is one Imperial gallon

Make the Usher's Stout it's well worth it. Not only that, but I used that  
grist formulation (at about a factor of two) to produce an Imperial stout  
at OG 106. I tasted it for the first time last week and it is superb.

> This logic does not seem to follow for the Whitbread porter:

> 2.5 lbs pale malt

> 7 oz brown

> 2.5 oz Black --- 1.060 O.G. 6 gallons

Again, a wonderful beer with a simple recipe.

>So....what gives?

The recipes are out by a factor of 5. And I think it was my fault that  
the  
error arose.

Geoff

[Currently G.A.Cooper@qmw.ac.uk; from 1st Jan 94 will be G.A.Cooper@gre.  
ac.uk]

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Date: Fri, 26 Nov 1993 20:41:27 +0000 (U)  
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>  
Subject: beer clip art

beer clip art  
coyote...

I too am a Mac/Homebrew person, and would love to share in any clip art you run across.

As for coyotes, how 'bout some of the stylized southwestern ones you see in the media now adays? I think there's one you could modify; it comes with either Adobe Illustrator or Photoshop as a sample poster, but you could base your stylistic coyote on that one.

george

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Date: Fri, 26 Nov 1993 10:04:26 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzter)  
Subject: re: almost there

James,

congratulations on getting set up!

As to your questions,

yes, 5 grams of dry yeast should be plenty. Some people want to pitch the larger packets, or two small ones, and the more you get in there, the better, but 5 is enough. Be sure to aerate *\*very\** well. Doesn't matter how much yeast you put in if there's no oxygen for it to use...

no, there should be no problems using the liquid extract instead of dry.

I have heard arguments that syrup is better, because it has not been as highly refined as the dry, and I've heard counterarguments that syrup is just dry with water added back. In either case, you don't do *\*worse\** by using syrup. One caveat: syrup is equivalent to dry plus 20% water, so, if your recipe calls for 5 lbs dry, you need 6 lbs syrup.

Mike

- - -

Michael Fetzterpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

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Date: Fri, 26 Nov 1993 10:04:33 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzner)  
Subject: re: brew belt problem

EKELLY@admin.stmarys.ca writes:

>a home environment. She believes that the surface temperature of  
>the brew belt (100 degrees +/- 5) kills the yeast which is in the  
>general vicinity of the belt (1 to 2 inches). She claims that this  
>area which is void (or almost) of yeast is a natural incubator for  
>nasties which can grow rapidly at 100 degrees with little or no  
>yeast to worry about.

I've never used one of these gadgets, but I'd say your friend is right.

Beer yeast \*does\* thrive at 75, and anything over 90 is not good for it.  
On  
the other hand, ~100F is perfect for the nasties to breed in.

Why do you bother with the setup? Even tho your basement may be at 60, if  
your wort is at 75 when you pitch, it will take hours if not a couple of  
days to equilibrate down to 60. Why not just put a jacket of glass wool  
around the carboy/fermenter? When it eventually reaches 60F, it's still  
(barely) warm enough to ferment ales.

You might also be able to put some insulation between the brewbelt and  
the  
fermenter, so it doesn't come in direct contact with the wort, or even a  
second waterbath that you keep warm, and put the fermenter in that.

One thing's for sure: I'd brew my next batch without the belt, and see  
what  
happens.

Mike

- - -  
Michael Fetznerpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

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Date: Fri, 26 Nov 1993 18:53:52 -0400 (EDT)  
From: WESTEMEIER@delphi.com  
Subject: Rauchbier replies & Zymurgy recipe correction

Many good ideas about my rauchbier aroma question:

Bob Jones suggests that Rauchbiers can be divided into the ones that are drinkable and ones that win competitions. He also advises me to decide if I'm brewing them to my taste or for competitions.

I agree completely. As a Certified judge myself, I can appreciate the problem of the jaded palate after a half dozen score sheets. I think I'll forget the competition aspects of it and just brew the beer I enjoy.

By the way, I was surprised that so many people asked why I would bother with the style. The fact is that the only commercial example I know of in this country (Kaiserdome) is pure swill. I don't know if it's a shelf life problem or what, but if that's your only experience with the style, you're right to question my sanity. It's nothing at all like what you'll find in Franconia. Brew some yourself (or come to Cincinnati and try mine) to see what it's really like. A fine Oktoberfest with a subtle smokiness that adds to the flavor and doesn't compete with it. THAT'S Rauchbier!

Mike Schrempp suggests "dry smoking" by adding a few handfuls of smoke in the secondary. This is a marvelous idea, and I'll give it a try, but I use pretty thick smoke and I don't know if I can force it through the narrow neck of a carboy. His other suggestion sounds more practical. I've already sent off my \$29.95 for an EasySmoker (tm).

Ulick Stafford's idea of bubbling smoke through the secondary is probably more practical, but I don't feel comfortable with the infection risk in such an arrangement. Intriguing thought, though!

Mark Bunster's idea of smoking the finishing hops is also very intriguing. It may not have a large effect, but if the smoke is kept fairly cool, it might work.

Ed Quier's idea of putting apple wood charcoal in the primary is interesting, but I guess it won't impart much smoke flavor or aroma. I'm very curious to hear the results of the attempt, however!

Thanks to all for the suggestions and interest.

+++++

ZYMURGY RECIPE ERROR

Jim Cave asks about the (obvious) error in the recipe quantities in my Zymurgy article. Others also probably missed the correction so here it is again:

The quantities shown are for ONE Imperial gallon, NOT 6 US gallons.

To convert to 5 US gallons, multiply everything by 4.2

To convert to 6 US gallons, multiply everything by 5.0

The Zymurgy editor has promised me that a correction will appear in the next issue. No one is really sure how it happened, but it is clear that it would not have occurred if they had sent out proofs for review prior to printing. Ah, deadline pressures!

Again, apologies to all for the recipe errors.

Ed Westemeier  
Cincinnati, Ohio  
westemeier@delphi.com

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Date: Fri, 26 Nov 93 20:07:51 EST  
From: sean v. taylor <sean@chemres.tn.cornell.edu>  
Subject: Cider Problems

Well, I opened up my first bottle of cider last night and I was very disappointed. It was well carbonated, crystal clear, and altogether okay but for one thing: it had an overpowering sulfur flavor. The good cider flavor was there, and the added cinnamon was as well, but the sulfur was the dominant flavor. Yuck.

My guess is that I overdid the campden tablets. Outside of adding them and sterilizing with a weak (as advised in a winemaking book) solution of metabisulfite, I don't know how else I could have gotten the sulfur flavor in there. Anybody have any other ideas? I took sweet cider (read:unfermented) added some cane sugar to raise the S.G., some tannin, acid blend, yeast nutrient, and champagne yeast. It fermented in primary for one week, and in secondary for about one month. I bottled and it has set for about one month.

Any ideas on what went wrong?  
Does it just need to age longer?  
Can I salvage this stuff?

Thanks for any advice,

Sean V. Taylor  
sean@chemres.tn.cornell.edu

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Date: Fri, 26 Nov 1993 21:18:50 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: very low s.g.

my friend and i tried to make our first batch of beer today (try being the operating word). it was a semi-disaster, but between a cracked carboy and burnt malt extract on the bottom of the pan (dude, are we supposed to stir this?) we got the stuff racked. here's the problem: we weren't really that exact with our water. we just cooled the wort, dumped it in with some cool water and topped off the carboy (good thing we had three of them available) so that there was about three or four inches of air space left. we thought we had it, but the starting gravity was way too low. the recipie says o.g. should be about 1.036 and ours was 1.014. so, should we just throw it out and start over, or can we introduce some super- concentrated wort, or should we even worry about it? or should we just call it "unintentional light beer"?

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Date: Fri, 26 Nov 1993 21:49:16 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: thanks

i'm sorry, i was going to put this in the last letter, but i forgot:

just in case i forgot to reply to anyone who sent me info,  
i really appreciate the help and encouragement i received in regards to  
our  
first batch (to bad it didn't turn out better, but the blame for that  
rests  
on our heads alone). i feel like a leach because i get all this help,  
but  
i'm not really able to contribute to the HBD in a positive way (yet).  
anyways, thanks again.  
- --james

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End of HOMEBREW Digest #1283, 11/27/93  
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Date: 27 Nov 1993 02:31:05 U  
From: "MN15-Gateway" <mn15-gateway@mn15-gw.mavd.honeywell.com>  
**Subject: Undeliverable Mail**

Unknown Microsoft mail form. Approximate representation follows.

Message: Homebrew Digest #1282 (November 26, 1993)  
Sent: Fri, Nov 26, 1993 2:30 AM  
To: Semrau Bill  
On Server: MN17-IIIO



Date: Sat, Nov 27, 1993 2:31 AM

Reason: Could not be delivered because the destination Microsoft Mail server

**Subject: Undeliverable Mail**

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Date: Sat, 27 Nov 1993 10:39:19 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: HSA

i am preparing to start another batch and i want to be a little more organized than i was with the last one.  
one thing that i couldn't figure out was how cold you should get the wort before pouring it into the carboy. everyone says to cool it down in ice water, but they don't say what the final temperature should be.  
- --james

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Date: Sat, 27 Nov 1993 10:58:48 -0800  
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzner)  
Subject: re: \_very\_ low s.g.

/>here's the problem: we weren't really that exact with our water. we just  
>cooled the wort, dumped it in with some cool water and topped off the  
>carboy (good thing we had three of them available) so that there was  
about  
>three or four inches of air space left. we thought we had it, but the  
>starting gravity was way too low. the recipe says o.g. should be about  
>1.036 and ours was  
>1.014.  
>so, should we just throw it out and start over, or can we introduce some  
>super- concentrated wort, or should we even worry about it?  
>or should we just call it "unintentional light beer"?

You have 5 gallons of this stuff? Does it smell/taste burnt? (you did mention burnt malt at the bottom of the pot.)

I guess I would say I'd need more info before I can tell you what to do with it... what's your setup? I.e., how big a batch of wort can you make at one shot? What was the recipe? I.e., did you hop this stuff 'appropriately'?

If the proportions are right, you could just brew another batch of wort and thicken it up a little. If they're all out of whack, or it tastes burnt, toss it.

On the other hand, if you can make a decent beer out of OG 14 wort, Anhaeuser Busch will pay you millions for the recipe. :)

>i'm not really able to contribute to the HBD in a positive way (yet).

Heh... just share that super recipe with us so we can share in the wealth. ;)

Mike

- - -  
Michael Fetznerpgp 2.2 key available on request  
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer  
Bitnet: FETZERM@SDSC  
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

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Date: Sat, 27 Nov 93 12:01:56 -0800  
From: eurquhar@sfu.ca  
Subject: golden syrup - the last chapter

Enough with the golden syrup and treacle. In an attempt to settle this here is how it's made and what it's made from.

Golden Syrup is a british style sugar product. It is made by a controlled hydrolysis (breakdown) of concentrated (read saturated solution 67% w/v) cane sugar syrup with a strong acid usually hydrochloric acid. The reaction is terminated after approx. 1 minute by neutralizing the acid with a strong base usually sodium hydroxide. This gives the finished syrup a dark golden colour and caramel flavour with a very slight salty taste as table salt (sodium chloride) is produced during the reaction. Treacle is produced in a similar way just a requires a longer conversion time. Invert syrup is produced similarly with an acid such as citric acid or by enzymatic means. Both reactions take place in hot syrup to speed the reaction. Chuck Wettergreen's recipe is a good example of how invert syrup is made as it is often not neutralized after the reaction is finished to your satisfaction ie. is a lvely rich golden colour. Heed his words about boilover and make sure that all the sugar and acid is dissolved fully at low heat before starting the conversion step. The reaction would work as well just below boiling except maybe take a little longer.

Golden syrup but not treacle is made in Vancouver, British Columbia by Roger's Sugar by the exact same processes as Tate & Lyle in Great Britain from usually Australian raw sugar. Tate & Lyle was asked by Roger's Sugar to setup their plant in British Columbia before the turn of the century. No I won't ship any to anyone but ask your major supplier to call them and inquire. They are STRICTLY WHOLESALE. While your at it inquire about their demerara sugar. Makes american brown sugar look like ordinary granulated white sugar. Once you taste it you'll never go back.

For what it's worth, before heading back to university I worked as a quality control technician in the B.C food industry and am quite certain of my facts.

Eric Urquhart (eurquhar@sfu.ca)  
Centre for Pest Management,  
Dept. of Biological Sciences  
Simon Fraser University,  
Burnaby , B.C. Canada V5A 1S6

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Date: Sat, 27 Nov 1993 15:46:53 +0500 (EST)  
From: "David M. Fresco" <fresco@gibbs.oit.unc.edu>  
Subject: Beer Labels EPS file

Hello,

Recently someone posted a post script file for making beer labels which a dutifully extracted from the post. However, through some reason unknown to me, neither Photoshop nor MS Word (for mac) could read it as an EPS file. Would the poster of this gem please send it out again (or just to me) along with some brief instructions on how to use it?

Thanks in advance.

David Fresco

```
=====
= David M. Fresco =
= Department of Psychology =
= CB#3270, Davie Hall ____o =
= Chapel Hill, NC 27599/<, =
= Internet: fresco@unc.edu `,'(*) =
= fresco@med.unc.edu (*) . ./"" =
= Voice: (919) 962-5082"""" =
= Fax: (919) 962-2537=
=====
```

-----

Date: Sat, 27 Nov 1993 20:08:43 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: Gravity

for anyone who got a good laugh at my last post, you'll like this one  
(i'm  
only writing this to redeem my reputation):

i realized that an original gravity of 14 was damn near impossible  
barring  
any major disasters in the brewing process, so thought about it for a  
while and then it hit me: we had poured the 3 1/2 gal. wort into about a  
gallon of cold water and then topped the carboy off with cold water. this  
mixed with the wort just enough so we couldn't see the inversion layer we  
had created.  
sure enough, today we carefully stirred it up with a sterilized coat  
hanger  
and took a reading and it was up to 28. i guess that's still pretty low,  
but our yeast has been going like crazy for the last 18 hours, accounting  
for at least a few points.  
by the way, (when) will the fermenting beer clear up?  
- --james

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Date: Sun, 28 Nov 1993 02:29:57 -0500  
From: TiM@world.std.com  
Subject: "Falstaff Tappers"

At my not-so-local homebrew haunt, I encountered a person who had several old "1-case capacity" Falstaff Tappers. They looked like mini-stainless kegs with a tap on one end. It appeared the keg was intended to lie on its side. The kegs looked like they would make great homebrew "travel-kegs" much like the new "party-keg" CO2 cartridge taps. The mini-kegs looked about 15 years old, but who knows, they were found in an attic.

Does anyone know how to care for these mini-kegs? Can they be re-used as "travel-kegs" for homebrew? We spent about 15 minutes looking at the keg, and couldn't figure out exactly how to get the mechanism on the bottom of the keg unlocked, or how to pressurize the keg if we did.

There must have been quite some expense in setting up to produce all these "Falstaff Tappers".

Thanks for any responses.t(  
TiM@world.std.com Genie>T.ROAIX AOL>BrewTim Prodigy>SSVE83A

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Date: 28 Nov 1993 02:50:20 U  
From: "MN15-Gateway" <mn15-gateway@mn15-gw.mavd.honeywell.com>  
**Subject: Undeliverable Mail**

Unknown Microsoft mail form. Approximate representation follows.

Message: Homebrew Digest #1283 (November 27, 1993)  
Sent: Sat, Nov 27, 1993 2:42 AM  
To: Semrau Bill  
On Server: MN17-IIIO



Date: Sun, Nov 28, 1993 2:50 AM

Reason: Could not be delivered because the destination Microsoft Mail server

Subject: Undeliverable Mail

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Date: Sun, 28 Nov 1993 08:55:02 -0500 (EST)  
From: Andy Kurtz <ak35+@andrew.cmu.edu>  
Subject: brewcap

hi y'all,

I bought a brewcap last summer and have just gotten around to using it. So far, despite my trepidation over having 5 gallons of belgian-style ale tipped upside-down in my study (the bubbling helps me think), it seems to be working quite fine. Anyway, I seemed to have lost the instructions that came with it and I need to know the procedure for siphoning the priming liquid into the carboy. Any brewcap users out there?

thanx, andy

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Date: Sun, 28 Nov 1993 11:04:43 -0400 (EDT)  
From: HARCH@delphi.com  
Subject: **hombrew subscription**

homebrew-request%hpfcmr@hplabs.hp.com  
thanks  
Hal Adams  
HARCH@delphi.com

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Date: Sun, 28 Nov 1993 16:27:46 -0500  
From: jeclark@ucdavis.edu (James Clark)  
Subject: infection?

our first batch has now been fermenting for about 36 hours and the kreusen has already stopped. however, last night it was so active that we were getting a bubble every two or three seconds into the overflow container. i sniffed the stuff in the container today and it has a very sweet smell. does this mean that our beer was infected, or is this just because the impurities in the foam smell bad? also, we have a brown ring around the neck of our container from the kreusen. the pictures in papazian's book show just a white foam. so is the brown stuff bad news?  
thanks  
- --james

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Date: Sun, 28 Nov 93 21:22:18 EST

From: gorman@aol.com

**Subject: English pub glasses found**

For any Washington DC area brewers:

English pub style glasses (straight sides with a bulge running around the glass about 3/4 of the way up) available at Dean & Deluca, 3276 M Street

in Georgetown. Perhaps they're a

also available in the NY area Dean & Deluca's. \$2.50 each.

They look like just the thing to drink a good bit  
ter from.

Good Brewing,

Bill Gorman

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Date: Mon, 29 Nov 93 08:40:34 MET  
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>  
Subject: Durden Park address, hopping rates

Hello all,

It seems the Zymurgy issue on Old English Beers has caught the attention of quite a lot of us (not least because of the unfortunate mistake concerning volumes). Well, first some questions: I don't subscribe (and suspect the sub is astanomical to Switzerland), but have read here various opinions on the publication, ranging from good to a complete waste of money..... Well, should I ask Santa Claus for yet another present? Secondly, has anyone got Harrisons (sp?) address, or alternatively that of the Durden Park club? (Sorry to whoever supplied me with it before, our mail server choked and died YET AGAIN recently and I lost all my saved messages).

Finally, a comment on the hop rates in the Zymurgy issue: I've brewed a 1055 Pale ale with 3 oz Fuggles and 2 oz Goldings. At bottling time I regretted it considerably, since it tore the roof of my mouth off. However, about half a year later (sorry no notes here) it was wonderful. The hop flavour was unlike what I get by any other means.

On the same subject, Clive LaPense (sp?) who also write a book on historical beers, has commented on his recipes in a freebee Brewing and wine making magazine in Britain. His detractors all questioned the "ridiculous" hopping rates he gave. His answers were:

1. Let it mature long enough, and
2. Try it.

I would definately agree.

Rob. Thomas.

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End of HOMEBREW Digest #1284, 11/29/93

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Date: Mon, 29 Nov 1993 08:06:53 -0500 (EST)  
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>  
Subject: Demerara Sugar

eurquhar@sfu.ca writes:

> While your at it  
> inquire about their demerara sugar. Makes american brown sugar look  
like  
> ordinary granulated white sugar. Once you taste it you'll never go  
back.

I have used Demerara sugar by Tate & Lyle and have also used domestic  
light  
and dark brown sugar in homebrewing. While I found the imported Demerara  
sugar  
interesting, IMO it is not vastly superior to domestic brown sugar. T&L  
Demerara sugar has a smooth, pleasant flavor of molasses. This character  
is  
easily emulated with a quality domestic light brown sugar or light  
molasses.

Rob Reed

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Date: Mon, 29 Nov 1993 05:44:37 PST  
From: Crawford.Wbst129@xerox.com  
Subject: German Malt sources request

I have been using the Belgians malts for a while and would like to try some other malts to see what effect it has on the malty character of my beer. I have seen a couple of messages go by that mention good quality German malts. Does anybody know where I could mail-order some good German malt?

Thanks,

Greg

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Date: Mon, 29 Nov 93 09:14:01 EST  
From: 29-Nov-1993 0911 -0500 <ferguson@zendia.enet.dec.com>  
**Subject: for James Clark**

>Date: Sun, 28 Nov 1993 16:27:46 -0500  
>From: jeclark@ucdavis.edu (James Clark)  
>Subject: infection?  
>  
>our first batch has now been fermenting for about 36 hours and the  
>kreusen  
>has already stopped. however, last night it was so active that we were  
>getting a bubble every two or three seconds into the overflow container.  
>i sniffed the stuff in the container today and it has a very sweet  
>smell.  
>does this mean that our beer was infected, or is this just because the  
>impurities in the foam smell bad?

Relax mon. Everything sounds like it is going in a normal way.  
If you want, you can rack it off to a secondary container, but this  
isn't necessary.

>also, we have a brown ring around the neck of our container from the  
>kreusen. the pictures in papazian's book show just a white foam. so is  
>the brown stuff bad news?  
>thanks

don't worry about it mon! a brown ring of stuff is perfectly normal.

-JC

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Date: Mon, 29 Nov 93 09:39:19 EST  
From: btalk@aol.com  
Subject: which yeast?

I have a doppelbock recipe that has performed well in contests, and in the quest for the best( also known as the never ending tweak), I started thinking about choice of yeast. I've used Wyeast 2308 Munich, made into a starter. Fermented @47 f for 3 weeks, 55f for 1week,back to 47 f for 1 week, then lager at 32f for 3 -4 weeks. Does anyone have experience with (or contrast/compare) Wyeast 2308 munich vs. Wyeast 2206 Bavarian?

The 2206 Bavarian description seems to stress the smooth maltiness that a doppelbock should have.

I have a fridge to use for lagering, so low temp ferments aren't a problem for me.

Any thoughts here would be appreciated.

THANKS MUCH.

Bob Talkiewicz, Binghamton, NY

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Date: Mon, 29 Nov 93 09:39:58 EST  
From: Mark A. Stevens <stevens@stsci.edu>  
Subject: Alternative FAQ Formats

In Homebrew Digest #1282, Bob Regent (b\_regent@holonet.net) mentioned that he was creating a PageMaker layout and Windows help file of the Yeast FAQ and asked if these were useful.

My feeling on this is "No---not the way they are."

While a nicely laid out booklet format for the FAQ might be useful, putting it up on the net in a vendor-specific format requiring a specific brand and model of printer is decidedly net-user-hostile. Generally Bob, people put things up in a format that is NOT limited to one software and/or hardware vendor's products so that as many people as possible can make use of your hard work and so when the specific product you geared your work toward is phased out your work doesn't become a useless disk-space waster.

For most information, ASCII text is the most useful format, so you'll find that no matter how great a job you do, the ASCII format will still probably be more often used because EVERY platform and software can handle an ASCII file. For a layout, PostScript is the most intelligent choice because it is supported by a wide range of different vendors and because PostScript file viewers are available for most platforms and because LOTS of different software can import PostScript. (DVI or TeX are not unreasonable choices, but not as many people know how to handle DVI or TeX files so these aren't optimal choices).

For the Windows help files, I'd say these are pretty much useless for two reasons:

- 1) Form doesn't follow function. When I'm brewing or culturing yeast, I'm doing so in my kitchen, not at my computer. A document like the layout can be printed out and taken to the kitchen with me to look at as I perform whatever process is being described, a help file is totally useless because I don't keep my computer in my kitchen. Simply a mis-application of technology.
- 2) Vendor-specific again. Not EVERYBODY uses or wants to use MS-Windows.

If you really are enamored of hypertext help, then a generically useful format that allows for information discovery might have some utility. This means investigating tools like HTML and WWW to put up a net-based hypertext that anyone anywhere in the world can access with a click of the mouse. This might require some work, but would be a useful tool.

In any case, stay away from vendor-specific formats if you want to be a good net citizen.

Salut!

- ---Mark Stevens  
  stevens@stsci.edu

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Date: Mon, 29 Nov 1993 9:13:40 -0600 (CST)  
From: "SMSD::MRGATE::/"A1::WESTERMAN\_ROBERT/"@smsd.jsc.nasa.gov  
Subject: "Closed" fermentation -vs- "Open" fermentation

From: NAME: ROBERT B. WESTERMAN  
FUNC: SP52  
TEL: 33742 <WESTERMAN\_ROBERT@A1@SMSD>  
To: smtp%"homebrew@hpfcmi.fc.hp.com"@mrgate

In the NCJOHB it says there is an advantage to the removal of the very bitter and brown resinous scum on top of the kraeusen (less of a "bite" and the "fusel" oils are removed which contribute to what is referred to as "beer headaches"). A "closed" fermentation system (5 gal carboy with a overflow tube) facilitates this. I use a 6 gal carboy with an airlock ("open" fermentation system). Should I switch to a "closed" system and is there really a noticeable improvement in the flavor of the brew?

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Date: Mon, 29 Nov 1993 11:26:31 -0400

From: Ed Hitchcock <ECH@ac.dal.ca>

Subject: HSA again...

In Austin + Pugsley's article in the special issue Zymurgy they describe the technique for a good infusion mash. They say to use enough hot water to cover the false bottom, then run a stream of strike water and a stream of crushed malt together, so the malt is thoroughly covered with water when

it gets to the bottom. Once the mash lands, leave it. They also say that

the streaming process traps air in the mash, making it more buoyant, so that it does not jam up the false bottom. This mention of trapping air in

the mash set off little alarm bells. Can it be that less air contact is made this way than gently stirring? Or is this just the case for large scale mashes, where "gently" stirring is next to impossible?

---

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |

Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |

Dalhousie University, Halifax | \_\_\_\_\_ |

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Date: 29 Nov 93 10:59:56 EST  
From: Steven Grove <70003.3234@CompuServe.COM>  
**Subject: Please add me to you distribution**

Please add me to your distribution of brewing information. My address is:

70003.3234@CompuServe.COM

Thanks,

Steve Grove

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Date: Mon, 29 Nov 93 10:16:27 CST  
From: biszek@rose.rsoc.rockwell.com (Don Biszek)  
Subject: Please relax!!

IN the latest HBD...

jeclark@ucdavis.edu (James Clark) writes [  
Subject: infection?

our first batch has now been fermenting for about 36 hours and the kreusen has already stopped. however, last night it was so active that we were getting a bubble every two or three seconds into the overflow container. i sniffed the stuff in the container today and it has a very sweet smell. does this mean that our beer was infected, or is this just because the impurities in the foam smell bad? also, we have a brown ring around the neck of our container from the kreusen. the pictures in papazian's book show just a white foam. so is the brown stuff bad news?  
thanks  
- --james ]

If you are reading Papazian, then why don't you follow his strongest advice, and Relax!! Your beer will be the same whether or not you worry and post 20 questions about each bubble that perks up!  
don

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Date: Mon, 29 Nov 93 9:37:22 MST  
From: Jason Goldman <jason@bluestar.cnd.hp.com>  
Subject: Re: Rauchbier

This last May, I took a beer trip to Germany and one of my stops was in Bamberg, home of Rauchbier. My only previous experience with this style was Kaiserdom Rauchbier, which I found to be totally undrinkable. However, when we were in Germany, a friend of mine (who is not known for drinking 'weird' beer) recommended Spezial from Bamberg. Also, Michael Jackson recommends Schlenkerla in his world guide to beer. So, we stopped in at Spezial first. I was amazed at how good the beer was. The smoky flavor was clearly there, but balanced perfectly with a wonderful malty sweetness. While the smoke was assertive, it wasn't a sharp, harsh, or chemical-like flavor. I was talking to my table-mates (who were all local) about America and beer. They asked me how I liked my beer. I told them that I liked it alot and that I had only had Rauchbier once before I came to Bamberg and that it had been Kaiserdom. Before I could say that I hadn't cared for the Kaiserdom, my table-mates spit on the floor and told me, "Peh!! That is awful beer. No, Spezial is the real Rauchbier." Then they leaned forward to impart a great secret: that the \*best\* Rauchbier is Schlenkerla. They proceeded to draw me a map to get to the place. One fellow explained that I would have to have 3 beers when I went there. He said I might find the first one a little bit strong. He wasn't able to tell me if it was strong with smoke or alcohol. Anyway, by the time I finished the first one, I'd be accustomed to the beer and be ready to have a second, where I could really appreciate the taste. I asked him why I should drink a third. He looked at me as if I were crazy, "Because it is so good, of course."

We made it to Schlenkerla the next day. This beer was also very malty. The smoke flavor was slightly heavier and the beer was more alcoholic. I liked it from the first sip (no need to get acclimated), but my wife preferred the Spezial because it was mellower.

I judged Smoked beers in the first round of the AHA nationals (in Denver). The style includes rauchbiers as well as other styles. I was warned that many of the entries would be likely to rip our heads off with smoke flavor. Actually, I found two or three good examples of rauchbier which had assertive yet complementary smoke flavor. I also learned that peat smoked beers (like at least one smoked porter and some smoked Scotch ales) can have a very harsh, phenolic character. There were also a couple of entries that had very little smoke character at all. One of the other judges was familiar with Bamberg style rauchbiers and both the other were experienced with other smoked beers. I think that we passed on some good beer, none of which were overwhelmingly smokey. However, I do believe that this is a style where one person's evaluation of overwhelming corresponds to another's evaluation as perfect.

Jason Goldman  
jason@bluestar.cnd.hp.com

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Date: Mon, 29 Nov 93 9:59:20 MST  
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>  
Subject: Dark malt & iodine test/cider vs juice

Mark Alston wrote:

> This dark color brought out another problem. There would be no way  
> to tell if iodine went black or not. The mash was black on it's own.  
> Thus, I could not test for conversion.

One way to avoid this problem is to wait to add the dark malts until  
mash-out (or until after conversion). I do this with my porters,  
and have achieved excellent results. You still get all the color  
and roastiness out of the malt, and perhaps get less harsh tannins &c.  
out of the black grains.

I've got a question of my own regarding apple cider. I made my first  
batch this fall, using apples from the tree in my back yard. Boy howdy,  
pressing apples is a pain! Next year I'll probably use fresh,  
unpreserved juice to start off with. However, you see both "apple  
juice" and "apple cider" in the stores. Is there a difference? If so,  
is it chemical, biological, or just legal/regulatory? And of course,  
which will make better hard cider?

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com  
Hewlett Packard Co.Fort Collins, Colorado  
"Midnight shakes the memory as a madman shakes a dead geranium."  
- T.S. Eliot

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Date: Mon, 29 Nov 93 08:17:00 -0600  
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)  
Subject: Sour 2-row grain

Some time ago, maybe as much as a year ago, someone posted information about a bag of Schreier two row that ALWAYS produced a sour batch. I believe they said that the mash smelled sour beginning right at the mash in. I'd like to talk (e-mail) to whoever posted those comments. Thanks

Chuck.Wettergreen@Aquila.com  
\* RM 1.2 00946 \*

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Date: Mon, 29 Nov 93 05:34:10 PST  
From: gabrio@tc.fluke.COM (Steve D. Gabrio)  
Subject: Black Treacle and Hunter AirStat

There has been talk recently about Black Treacle and the Hunter AirStat. Both items are available at the supply shop in Seattle that I frequent; The Cellar. Their order line is 1-800-342-1871. The Black Treacle is \$4.95 for a one pound can. The Hunter AirStat is \$29.95. They do not, however, sell orgasms :( or basketballs.

Steve

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Date: Mon, 29 Nov 93 12:16:33 -0600  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Caustic washing

Glenn Anderson asks in HBD#1281 about residuals from caustic (NaOH) detergents.

First, let me say that a 2% sodium hydroxide (NaOH) solution is the most effective detergent known to me for removing heavy organic soils. This, however, is not play stuff. Protective gloves and glasses are definitely required to prevent severe burns.

Pure reaction quality NaOH can be obtained in grocery stores under various product names. The one most widely available in the Southwest is called Red Devil. Analysis has shown that it is indeed 100% NaOH, and contains no impurities. You can get the same stuff from Fisher Scientific, but at an outrageous price.

Caustics are strong surfactants, and will definitely leave an inorganic film. Vigorous hot water rinsing may or may not completely remove this film.

Thus in commercial practice a caustic wash is followed by a rinse with a sequestering agent to remove inorganic residuals. The most popular such agent by far is phosphoric acid. The main reason for this is that it is a weak acid that is natural to beer. A widely used sequence goes as follows:

- a. Hot water pre-rinse
- b. Caustic wash
- c. Hot water rinse
- d. Phosphoric acid wash
- e. Hot water rinse

This is generally all that is required of brewing equipment. Cooling apparatus, fermenters, et al need an additional sanitation sequence.

Misc. Notes:

1. Large industrial brewers apply the caustic solution at 180-195F. I have personally found that a solution at 120-140F is almost as effective, and a good deal more practical for hand operations. We are now recommending that even small micros and brewpubs use the lower temperatures. This has proved to be adequate. See e.g. Dave Miller's column in Brewing Techniques.
2. If you have any doubt about inorganic residuals, apply a standard iodophor solution. The former will turn the latter as white as snow.
3. The most widely used iodophor in commercial practice is the version which has iodine and phosphoric acid as the only active ingredients. This provides some sequestering action to counteract surfactants, however the sequestering step (step d above) is still used in the wash cycle.
4. Industrial brewers typically use a 5% phosphoric solution for sequestering. I have personally found that a 1% solution is adequate for all but extreme cases. While this solution is only weakly acidic, gloves are still recommended. The sequestering solution

can be added at ambient temperature.

George Fix

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Date: Mon, 29 Nov 93 11:21:21 -0700  
From: John Glaser <glaser@analog.ece.arizona.edu>  
Subject: Re: very low s.g.

I think I know why you may have your very low gravity. If you only boiled a gallon or so, it has a very high density (gravity) and hence will sink to the bottom of the carboy. I literally saw this happen with some of my first batches. Eventually, the temperature differential will cause some mixing, but you will be better off mixing it immediately after pouring. Actually, you will be really better off getting a larger pot and a wort chiller. Get some mail-order brewing supply catalogs for ideas, see the Zymurgy magazine special issue on gadgets, and beg, buy, or borrow some books on the subject. A stitch in time etc. :<)

John Glaser (glaser@analog.ece.arizona.edu)

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Date: Mon, 29 Nov 93 09:32:15 EST  
From: garti@mrg.xyplex.com (Mark Garti mrgarti@eng.xyplex.com)  
Subject: pH Meters

Are there digital pH meters? Do they work well, or  
need calibration (how often)? Does anyone know of a  
source if they do exist?

Mark  
mrgarti@eng.xyplex.com

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Date: Mon, 29 Nov 93 12:47:52 -0600  
From: gjfix@utamat.uta.edu (George J Fix)  
Subject: Noche Buena

The first words out of my mouth upon first tasting this beer (many moons ago) was "mucho bueno". Ever since I have been given to misspelling this beer's name. BTW Noche Buena is the Spanish name for Christmas Eve. I hope my misspelling did not confuse anyone.

The initial test markets are Az, Tx, Ca, Wa, NM, Nevada, and Chicago. This distribution may be expanded if sales go well.

Laurie has formed her taste panel, and I will report on the results from that when they are available. I also have a call into Alberto Jimenez, the head brewer at Monterrey, to see if he would share some technical info about this version of Noche Buena.

George Fix

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Date: Mon, 29 Nov 93 13:27:41 EST  
From: sdlsb.dnet!73410%sdllcc@swlvx2.msdl.ray.com (Carl Howes)  
Subject: Guinness clone?

I will be brewing a stout this weekend with which I hope to emulate Guinness. I looked at Papazian, Miller, and Cat's Meow over the weekend and developed the following extract/specialty recipe:

7 lbs. M&F light DME  
1 lbs. flaked barley  
1 lbs. roasted barley  
0.75 lbs. crystal malt  
1.66 oz Chinook hops (12.6%) at 60 min.

A note on my current limitations. Brewpot: 16qt size, effective maximum capacity 12qts. This is why the hopping is so heavy, to compensate for the very high SG in the pot. Scaling is based on Papazians' table with the goal of coming out equivalent to 15AAU in a full volume boil. The questions: some sources call for rolled barley, some for flaked. My local supplier had never heard of rolled. Are they the same thing? Papazian and Miller both simply specify "high alpha" hops in their "Toad Spit" and "Dry" stout recipes. In scanning the back HBDS I have on hand, I find Goldings (I assume Kent) recommended by Brian Bliss in #1145, and Geoff Cooper in #1150 states that Guinness uses Target. Where all the hops are for bittering, does the variety really matter? Several sources call for an addition of soured ale for a Guinness clone. I assume a lactobacillus souring, or is this a momily? TIA.

Carl

-----

Date: Mon, 29 Nov 93 14:00 CST  
From: korz@iepubj.att.com  
Subject: Liquid/Sdry yeast/Counterpressure filler

Jim writes:

>I've recently begun brewing and have only used WYEAST Liquid yeasts.  
>All batches showed activity 12-32 hrs. after pitching, and all have  
>taken at least twice the stated "normal" time to finish fermenting.  
>Some simple batches have taken 2 weeks, more complex batches 6 weeks.  
>My carboy sits in a room heated to 70~ and sanitation doesn't seem  
>to be a problem. (They all taste great!) I know the WYEAST is  
>underpitching, but... Which is better, all around for the entry-  
>level brewer, liquid or dry?

With the recent arrival of much better dry yeasts, I'd say that perhaps dry yeast might be better for beginners because it is easier to use. The slow, long ferment with Wyeast is probably due to under-oxygenation. A package of dry yeast contains much more yeast than a package of Wyeast and since the yeast is oxygenated just before drying, dry yeast can cope better with under-oxygenated wort. This is a common occurrence for dry yeast users when they first switch to liquid yeast. A starter will also help shorten lag time and reduce fermentation time quite a bit.

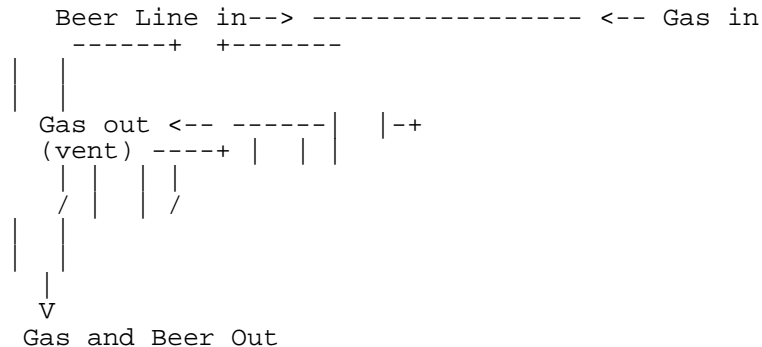
Did anyone else notice that two first-place winners in the AHA National Competition were made with EDME dry yeast?!?! I also happen to know that the Best of Show winner at the 1993 Chicago Beer Society Spooky Brew Review was brewed with Red Star Ale Yeast!

\*\*\*\*\*

Dave writes:

I recently recieved a counterpressure bottler as a gift. Yesterday I got the assorted hoses and connectors that I need to run the thing, and it didn't take long to find out that I don't really know how to work it. There are two general possibilities: I'm hooking it up wrong, or I'm using it wrong. So, first, this is how I hooked it up:

<I've modified Dave's drawing to be hooked up properly>



The way it should work is to first let CO2 through the "Gas in" leg, with the "Gas out" valve opened to purge the O2 from the bottle.

Then, close the "Gas out" vent valve to pressurize the bottle.

Next, close the "Gas in" valve and open the "Beer Line in" valve.

Gently open the "Gas out" valve to fill the bottle.

Once the bottle is full, close the "Beer Line in" valve and remove the device.

Al.

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Date: Mon, 29 Nov 93 12:25:58 PST  
From: dbell@cup.portal.com  
Subject: Milwaukee brew stops?

How about some suggestions for worthwhile (non-industrial) brewpubs and/or microbreweries in the 'beer city'? A couple of us have to travel there in the next couple of weeks, and would like to locate some good sites!

Dave  
dbell@cup.portal.com

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Date: Mon, 29 Nov 1993 14:21:32 -0600 (MDT)  
From: COYOTE <SLK6P@cc.usu.edu>  
Subject: IceBeer/ CP Fill/ Sulfer Cider/ Filter then Bottle?/ Xtal Entity

\*\*\*

RE: commercials and commercial beer:  
>These beers are intended to be and are soda pop for adults.  
They are nothing more than an alcohol delivery system. They  
have only a limited usefulness in our society. They encourage  
abuse by their very characteristics.

\* E.G.: Ice Beer by Miloooooor. Ads say it's "ice brewed, till  
xtals form, then cold filtered" makes it "easier to drink"...  
implied: Lots and Lots of it! Right?

So what the %&\$ is the deal here. Ice brewed? Now they got a  
special yeast which ferments at FREEZING temps or something?  
And what's the point of the xtals. Do they filter them OUT so the  
beer is "stronger", then water it down again so it's suitable as  
Utah 3.2 near-beer?

I intend to distill, ugh...uh...ummm.....I mean- "enhance" a brew  
this winter, by doing the ice beer thing. Concentrate, yes that's it!

Plastic bucket, outside after fully fermented, then rack away from  
the ice. Keg, and carbonate. Anyone ever tried it? I would think  
that with the colds we've had already, getting it frozen shouldn't pose  
a problem. Hope no cops see it sitting outside! (or high schoolers for  
that matter!)

But what does Miller think their process is? Anyone REALLY know, or  
is it what I presume, another advertising ploy to impress the ignorant  
mindless masses who don't have a clue what REAL brewing is all about?!!!

\*\*\*

> Dave Rose. asks bout cp filling  
>close gas line, open beer line. Wait for beer to fill bottle under  
pressure. Remove contraption and cap immediately.  
The problem: Well, if I thought about it i would have figured out  
that since the keg and the bottle are under the same pressure, there is  
no  
reason at all for the beer to move from the keg into the bottle. In  
fact,  
this is exactly what happens: nothing. Or at least very little.

...responded to by Mark

- 1) open valve to CO2 to presurize bottle.
- 2) open bleed valve to purge bottle of air.
- 3) close bleed valve and repressurize bottle.
- 4) close valve to CO2
  - \* Be sure to do this!
- 5) open liquid valve -- beer will not flow at  
this point since the pressures are equal
- 5) slowly open bleed valve. This will reduce the pressure in the bottle  
and allow the beer to fill it up.
- 6) When bottle is full:
  - \* You might want to first close exit valve, then  
... close liquid valve and remove counterflow
  - \* Even more important. REMEMBER THIS! Unless you want beer  
flying everywhere!
- 7) cap.



\* Have your cap ready in capper (magnet! :) and a towel underfoot, I've understood this to be a gushing experience.

- \* Make the kegs be as cold as possible to reduce foaming. Chilling the bottles after sterilization if a good thing too. You may want to have another set of hands attached to you, or someone else near by for this. I've heard it takes an octopus!

NOW... "That should do it.... Sounds good."

RE: Setup of lines: Miller shows two alternatives (BWGB):  
the one you had

```
gas in---|____|-- Beer in
|
|_|-- Gas out/purge
Bottle
```

and

```
gas in---|____|-- Purge, gas out
|
|_|--Beer in
Bottle
```

Both have a T connector splitting the gas line between cp-filler and keg. Therefore they stay under the same pressure.

BTW: I've haven't done this yet- so yes I'm blowing out my \_\_\_\_\_  
BUT: I've read, discussed, and thought about it a fair bit! So nyah.  
\*\*\*

Sean V. Taylor has <<<sulfer cider>>>:

Any ideas on what went wrong?  
Does it just need to age longer? \* BINGO!!!  
Can I salvage this stuff?

\* Patience grasshopper. When you can snatch this pebble from my palm you will be ready to quaff that cider!

\* The ciders I've done and tried were sulfury when young (as with some wines/fruit meads) and the sulfur aroma dissipated with age.

You could let the bottle breath for a time before drinking too. Pour it fairly roughly. But really- age is the best solution. Mine have set for half a year, to a year, then were wonderful!

\*\*\*

A friend is starting to brew, and has access to filter equpt, but does not keg. He does have a pump, so it could be done.

But why? My thoughts on filtering leave me in the 2-3 micron range, big enough for yeast to pass, w/o losing body. (too much) But not sterile filtering. If he's gonna bottle he has to be sure to leave yeast for carbonation, or repitch. Either way there will be sediment in the bottles.

Question is: Is there any advantage to be gained by filtering that wouldn't be better served by fining with ---something, anything!--- rather than hassle with filtering. It just seems so simple a step to add for a kegger (ya sure, you betcha it's on my x-mas wish list!) but for a bottler?

ANYONE FILTER WHO DOESN'T KEG? HOW / WHY / WHEN / WHERE / WHO...what?  
\*\*\*

>Many of these recipes call for something on the order of 1/2 # 30 (L) Crystal, and 1/2 # 90 (L) Crystal. Would this not be the same as 1 whole pound of 60 (L) Crystal? Would there be any difference in the flavo2s;either way?

\* Uh,,, no. Sorry but it doesn't work that way. The kilning process darkens the malt to different degrees. Along with this are changes in the quality of starches, sugars, and colors of the malt. Each crystal is considered separately in estimating color.

Lighter crystals will give a sweeter note to beers. Darker crystals will give less sweetness, more body, and a "toasty" quality. Using some from either end gives you the best of both worlds and using twice from in between gives you some of each...sort of.

Mixing and matching crystals is a favorite pastime in the Coyote grain room. A general rule of thumb is are you staying light, or leaning into ambers, or yet darker. Stick below 60 (or 80) if you're working in pale territory, and go higher if you want RED amber beer, or are into the roastier nut browns.

...snip...

>(There's a place in Orlando where you can get a fifty pound sack for \$19.95). Since I don't have a mill, I'm going to buy the grains pre-crushed (Free crushing).

\* Say what? \$20 for 50# ! I've seen \$30 for 6 row, but that's the best. What a deal. Send me their address/phone! Shipping will kill it tho. What kind of malt is it? Belgian NOT I'm sure!

>I've heard talk that crushing grains and then keeping them around for a while will cause the grains to "go stale/bad". What exactly does this mean? Will the stale/bad grains not give me as much goodness? Will my beer taste

\* If you store it in a dry, fairly cool location it should be ok. Some of the enzyme/substrate quality of the grain will decrease. You can expect lower extraction rates. Just UP YOUR GRAIN BILL. If you use the malt within a reasonable amount of time and store it well (metal cans/plastic buckets...fairly airtight.) and concede to use more (which at \$20/50# = .40 \$/# isn't a problem!) you will be fine. Some people may encourage you purchase their grain mill, or you may come across a cheap... cor---onet!! or something. And that's handy! I'd say use within 6 months, and you're alright. Longer than that...

Brew More OFTEN. Brew MORE...often. a BREW more often.

- -----Happy Turkey Gobbling to all!-----  
May your cranberries ferment as well as mine!  
~~~~~ John (The Coyote) Wyllie SLK6P@cc.usu.edu ~~~~~

The SCOTCH Ale is well underway. A cranberry/spice ale alongside. Next is Pilsner Time, then to the X-mas Stouts...so much to brew (repeat)

Date: Mon, 29 Nov 93 13:28:27 PST
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Sierra Nevada and the Hop Back/Yeast

A long while ago I promised some info on Sierra Nevada's use of the hop back. I was supposed to take a tour with my homebrew club a few weeks ago, but illness prevented me from attending. I did finally talk to one of the guys who went, and here's the deal:

Sierra Nevada no longer uses the hop back in production of any of their beers. Instead, they have switched to dry hopping. The rate of hops was disclosed, but the person I spoke with couldn't remember, so I'm going to have to ask someone else. They use whole hops (everywhere) and put the hops in a hop bag for dry hopping. BTW, the reason given for discontinuing the use of the hop back was that it was too much of a hassle to clean and sterilize.

Other interesting tidbits: The question was asked if Wyeast 1056 (aka American and/or Chico) was the same strain as they used. The answer was to that they had no idea, but wondered why it would matter since "you can get our yeast from a bottle of our beer." Their yeast came from Siebel, and is banked there, so maybe someone with a connection at Siebel could tell us more. Also, they claim never to wash their yeast, and they repitch it about 20 generations before starting with a fresh culture.

I'll report again when I've had a chance to debrief more of the club members.

Mark

Date: Mon, 29 Nov 93 17:33:01 EST
From: magnan@server1.dfci.harvard.edu (Rick Magnan)
Subject: cool ferment temps, mixing yeasts

Mike Fetzler writes:

> Why do you bother with the setup? Even tho your basement may be at 60,
if
> your wort is at 75 when you pitch, it will take hours if not a couple
of
> days to equilibrate down to 60. Why not just put a jacket of glass wool
> around the carboy/fermenter? When it eventually reaches 60F, it's still
> (barely) warm enough to ferment ales.

My recent experience with Wyeast 1056 is that 60 is indeed barely warm
enough to ferment. The beer fermented out pretty well but it was mild.
Does anyone have any recommendations for yeasts that work well at that
temp?

Should I think about using lager yeasts? Maybe a lager/ale combination?

Someone asked a couple weeks ago about mixing yeasts in a batch, a
question

I've wanted to ask the HBD community for several years since in making
one

of my first beers, a pack of dry lager yeast was purchased by mistake and
used along with a dry ale yeast. This was one of my better beers of that
era. I don't recall seeing any responses to the question of blending
yeasts.

Its often said that yeast is one of the major factors in the flavor of
beer - seems like this must have been tried at least a few times?

rick
brookline, MA

Date: 29 Nov 93 17:03:50 -0600

From: mbarre@nomvs.lsumc.edu

Subject: yeast, cowboy beer

Homebrewers,

In response to the liquid/dry yeast question, I vote for liquid yeast only. The only batch in which I ever used dry yeast (EDME) came out tasting very metallic. I tried a bottle that had aged for six months and it was better, but still only barely drinkable, and this from a guy who sometimes enjoys mega brews. The last time I was at the homebrew store, the proprietor was testing the Doric, Windsor, and Nottingham (sp?) dried yeasts in side by side comparisons. He judged the Winsor and Doric better than the Nottingham, but said he would not use dry yeast in anything he brews personally.

On the subject of historical beer, I saw "High Plains Drifter" the other night and wondered to my self, "Self, what kind of beer is that saloon serving?" It came from the tap under pressure, the glass was half full of head, and it was light golden. I guess it came from a wooden keg and was pretty harsh. Anyone know?

Date: 29 Nov 93 18:43:34 EST
From: Harry Covert <73232.167@CompuServe.COM>
Subject: New Refrigerators

I just got a new fermentation/lagering fridge but since it's the only one I have, would it be harmful for me to leave a batch in the fridge that has been through the fermentation cycle (40s for fermenting, 30s for lagering), while I do another batch. In other words, will the temperature fluctuation hurt the beer after it has been lagered?

I also got a small serving fridge and I plan on putting a tap through the top. Any recommendations on how to move that little freezer compartment out of the way. The freon lines run through it, so it will be kind of tricky. Also, what equipment will I need for the tap? Thanks

Harry Covert
73232.167@compuserve.com

Date: Mon, 29 Nov 93 20:45:43 EST
From: "Brynczka, Marc J" <KRNJ%MARISTB@VM.MARIST.EDU>
Subject:

PLEASE SEND ME SOME INFO

Date: Mon, 29 Nov 1993 20:39:16 -0600 (CST)

From: THOMAS VODACEK <VODACEK@uwplatt.edu>

Subject: Leinenkugel's Winter

Just had some of Leinenkugel's Winter beer. Not bad. Reminds me of my last few batches of oktoberfest that ended up much too dark. I have heard that one of the megabrewers bought up Leinenkugel's last year and that regular Leinie's is no longer brewed in Chippewa Falls, just specialty seasonal beers. Can anyone tell me the true story?

Tom

Date: Mon, 29 Nov 93 18:58:52 PST
From: Richard Cox <rcox@hsc.usc.edu>
Subject: dark malt extract

Here's a question I've never quite answered. What characteristics -- besides color -- does dark malt extract contribute to the wort.

I'm an extract brewer with seven batches under my belt (literally). My technique with every batch has been to use the palest possible dry malt extract and add specialty grains to achieve the desired color, body and sweetness.

Now I'm contemplating brewing my first stout (an oatmeal stout), and I don't know whether to use dark malt extract like all the recipes recommend, or to stick with my usual method.

I'd be grateful for any insight on this.

Thanks,

Richard

Date: Mon, 29 Nov 1993 21:50:56 -0600
From: donald oconnor <oconnor@ccwf.cc.utexas.edu>
Subject: Whitbread update

A month or so ago, Chris Lyons asked about the new Whitbread.

The new Whitbread dry yeast has never been distributed due to the inability of the processor to produce a clean product. Repeated attempts have failed. Crosby and Baker states that the new Whitbread will not be available for at least another 6 months and they are not terribly optimistic about that given the recent history of contaminated Whitbread.

George Fix has claimed, on the digest and in Zymurgy, that the new Whitbread is available and that it is clean. Moreover George claimed to have received very good scores at homebrew competitions for beers made with the new Whitbread. George claimed that new production procedures are the reason for the new and improved Whitbread. It's now glaringly obvious that all of these reports were in error. I advised digest readers months ago to view the reports as wishful dreaming lacking any sound scientific basis because of the patently obvious flaws in George's methods.

For those who still put credence in George's earlier reports, just ask him where to buy a pack of the new Whitbread.

For those who are still purchasing Whitbread, please note that Crosby and Baker, the U.S. distributor, states it was produced well over a year ago.

don

Date: Tue, 30 Nov 93 03:53:00 BST
From: d.garrison@genie.geis.com
Subject: Aluminum Brewpots?

I am relatively new to homebrewing, having made just two extract batches. However I am starting to scrounge up the hardware for mashing. My wife has a canning setup she has had almost forever. It has a 2-gallong pot and a 6 gallon pot, both made of aluminum.

Should I use them for boiling my brew? I know back in the '80s there was talk of a link between aluminum and Alzheimer's Disease. I thought that had been downplayed or disproven, yet I never see aluminum listed in the brewing books as an alternative. If safety is not the issue, why can't I use these? I would point out that a LOT of jams and jellies have been made in them, without apparent ill effects. <At least I don't REMEMBER any loss of memory! ;^) > They haven't dissolved or corroded. Why would wort be any different?

Any feedback will be appreciated. I really don't relish shelling out bucks for a new pot when these are already here.

Donald W. Garrison, Attorney at Law
(Member of the Bar, in both senses!)

D.GARRISON@genie.geis.com

End of HOMEBREW Digest #1285, 11/30/93

Date: Tue, 30 Nov 93 06:42:46 -0600
From: bliss@pixel.convex.com (Brian Bliss)
Subject: Guinness & more

sdlsb.dnet!73410%sdllcc@swlvx2.msd.ray.com (Carl Howes) writes:
>I will be brewing a stout this weekend with which I hope to emulate
>Guinness. I looked at Papazian, Miller, and Cat's Meow over the weekend
>and developed the following extract/specialty recipe:
>
>7 lbs. M&F light DME
>1 lbs. flaked barley
>1 lbs. roasted barley
>0.75 lbs. crystal malt
>1.66 oz Chinook hops (12.6%) at 60 min.
>
>A note on my current limitations. Brewpot: 16qt size, effective maximum
>capacity 12qts. This is why the hopping is so heavy, to compensate for
>the very high SG in the pot. Scaling is based on Papazians' table with
>the
>goal of coming out equivalent to 15AAU in a full volume boil. The
>questions: some sources call for rolled barley, some for flaked. My
local
>supplier had never heard of rolled. Are they the same thing? Papazian
and
>Miller both simply specify "high alpha" hops in their "Toad Spit" and
"Dry"
>stout recipes. In scanning the back HBDs I have on hand, I find
Goldings
>(I assume Kent) recommended by Brian Bliss in #1145, and Geoff Cooper in
>#1150 states that Guinness uses Target. Where all the hops are for
>bitting, does the variety really matter? Several sources call for an
>addition of soured ale for a Guinness clone. I assume a lactobacillus
>souring, or is this a momily? TIA.

first of all, omit the crystal malt. guinness is a very dry beer,
regardless of first impressions, and if you brew extract/partial biol,
the beer will probably be too sweet anyway (caramelization).

1.66 oz of chinook may not be enough if you only do a partial boil.
I've tried and tried to dup guinness, but keep underestimating its
bitterness. I now agree that it doesn't matter what kind of hops
you use if you boil long enough to drive off ALL flavor and leave only
bitterness. I'm an anti-american/high alpha* hop fanatic myself, and if
I
do taste any hop flavor (which you will if you use fresh morris-handbury
hop plugs even after a 60 min boil) in my stout, I like golding best.
(I mean kent goldings - I've haven't used much styrian goldings).

* => N Brewer is a notable exception.

If you use target hops, boil for 90 min. My long boils, however, may
be producing too clear of a beer for guinness (draft, at least -
guinness extra stout is actually quite clear, albeit dark). Don't
use any irish moss.

I've had good luck adding soured beer to the boil (but other flavors
and high hopping rates in those batches may be more the reason), and
bad luck adding lactic acid to the finished product, in varying amounts.
Does the boil drive off most of the lactic acid? No soured beer is
added to extra stout, only the draft version, to the best of my
knowledge.

Guinness has a lot of roasted barley flavor, and 1 lb is not enough, IMHO, for a "normal mash". people who add the dark grains at mashout may differ.

- brian_13 tries and still hasn't quite imitated guinness_bliss

- -----

Al K writes:

>Did anyone else notice that two first-place winners in the AHA National
>Competition were made with EDME dry yeast?!?!

I've drank a coupla brews that I would swear were brewed with a chimay culture but were actually brewed with edme.

- -----

john willie (COYOTE <SLK6P@cc.usu.edu>) writes:

>RE: commercials and commercial beer:

>>These beers are intended to be and are soda pop for adults.

>They are nothing more than an alcohol delivery system. They

>have only a limited usefulness in our society. They encourage

>abuse by their very characteristics.

yeah, but I find it safer than needles, and much more pleasant than everclear :-)

>So what the %&\$ is the deal here. Ice brewed? Now they got a
>special yeast which ferments at FREEZING temps or something?

...

>I intend to distill, ugh...uh...ummm.....I mean- "enhance" a brew

>this winter, by doing the ice beer thing. Concentrate, yes that's it!

I thought that they were freeze-distilled. What IS the deal?

I thought freeze-distilled meant that they had to be sold as hard alcohol? But then again, sherry and port wine have brandy added, but aren't sold as hard alcohol. Are they trying to force legal precedent?

>But what does Miller think their process is? Anyone REALLY know, or

>is it what I presume, another advertising ploy to impress the ignorant

>mindless masses who don't have a clue what REAL brewing is all about?!!

!

Well, they seem to have pulled zima off. Seriously, if they like it (and I've tried it, but much prefer a good gin & tonic), let the yuppies have it. Just don't call it "beer" (and they don't).

- -----

From: donald oconnor <oconnor@ccwf.cc.utexas.edu>

>The new Whitbread dry yeast has never been distributed due to the
>inability of the processor to produce a clean product.

...

>For those who are still purchasing Whitbread, please note that Crosby
and

>Baker, the U.S. distributor, states it was produced well over a year ago.

I've seen it distributed by GW Kent, and more recently by C&B. I thought the C&B stuff was the "new, improved" whitbread. Nevermind, they both worked, I've never had a sour batch from either, and many a good batch.

(what do a few impurities matter if it takes off quikly enough to
overpower
them?) Sadly, the supply seems to be drying up again.

bb

Date: Tue, 30 Nov 1993 08:43:53 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: Cider requirements

Down here in the mountainous South, we can get a thick, brown apple
cider
(nothing like the pale sweet stuff foisted on kids). Being a big fan of
Westcountry (England) cider (again, nothing like Woodpecker or Strongbow
--
more like Silas's secret recipe), I'd like to make some of it. Since I
would guess this is as close as I can get to pressing my own, what steps
would have to take to get it fermenting? The stuff seems to ferment by
itself, even
in the refrigerator, so I'm guessing I really just need to control the
natural process.

Any suggestions/firsthand experience??

Paul Beard
AT&T Tridom, 840 Franklin Court, Marietta, GA 30067
404 514-3798 * FAX: 404 429-5419 * tridom!paul.beard/beardp@tridom.com

Date: Tue, 30 Nov 93 08:45:58 -0600
From: gjfix@utam.uta.edu (George J Fix)
Subject: Whitbread Report

I started not to reply to O'Conner's flame in HBD#1285, however he has been responsible for so much misinformation on HBD I could not let this one pass.

The new Whitbread yeast was initially distributed to various commercial operations. It proved to be a poor flocculating yeast in unitanks, and the ADF achieved was lower than desirable (68-72%) in these tanks. Crosby+Baker decided not to distribute the yeast because of this. There were absolutely no complaints about the yeast not being clean. The bacterial and wild yeast counts were exceptionally low. O'Conner is blatantly lying about that point.

Don writes:

>George Fix has claimed, on the digest and in Zymurgy, that the new
>Whitbread is available and that it is clean. Moreover George claimed to
>have received very good scores at homebrew competitions for beers
>made with the new Whitbread. George claimed that new production
>procedures are the reason for the new and improved Whitbread. It's
>now glaringly obvious that all of these reports were in error. I
advised
>digest readers months ago to view the reports as wishful dreaming
>lacking any sound scientific basis because of the patently obvious flaws
>in George's methods.

The score sheets of the competitions entered are on file with Crosby+Baker.
O'Conner has never asked to see these and check them out. The names of the judges are on the sheets, and given that many are on HBD I am deeply offended by O'Conner's wild assertions.

Another reason C+B decided not to distribute the new Whitbread is that they have been getting good reports on the Mauri and Red Star strains. I recently entered a bitter in the Spooky competition that was fermented with the Red Star yeast. It took BOS. I have not received the score sheets (can someone in Chicago help me here), but copies of these will be sent to Crosby+Baker when I get them. Those and all the others can be obtained from C+B for those that are interested.

George Fix

Date: 30 Nov 93 15:06:37 GMT
From: cssc!cong@scuzzy.attmail.com
Subject: Refrigerator Conversions

RE:

>Date: 29 Nov 93 18:43:34 EST
>From: Harry Covert <73232.167@CompuServe.COM>
>Subject: New Refrigerators
>
>
>I also got a small serving fridge and I plan on putting a tap through
the
>top. Any recommendations on how to move that little freezer compartment
>out of the way. The freon lines run through it, so it will be kind of
>tricky. Also, what equipment will I need for the tap? Thanks
>
>Harry Covert

When dealing with freon, caution is warranted. The most important thing
in relocating the freezer compartment is not to crack the freon lines.
The lines are usually constructed of fairly pliable metals than can allow
some freedom of relocation. You might try dropping the front of the
freezer compartment down to give you access for your tap line/s in the
front.

The freon lines are most likely attached to the box in the back, but if
you have connections in the back and the front you may have some
problems.

There will also be some kind of thermostat control attached to the box
that may need to be detached from the box to regain temperature control.
Remember when you alter the unit, the cooling capacity is also altered.
Since older units are less likely to be frost free (that's good for
temp control) moving the freezer may cause heavy frosting. An Air Stat
or similar temperature control device will be helpful. In older,
single door fridges the freezer unit is often the cooling unit
for the entire fridge.

As far as equipment needed to install a tap, you will need a
Beer Faucet & Shank (Available from some Homebrew shops and mail order).
The shank should come with a Hose Tail Piece and Coupling Nut.
Make sure the hose tail piece is the same diameter as your dispensing
lines from your keging system. Since you wish to install the faucet on
the
top of the fridge you will need a dispensing tower on which to attach
the faucet. The most recent copy of Zymurgy advertises such a device on
the inside back cover. Bar supply stores will also carry the tower
as well as the faucets and hardware.

It might be easier to install through the door rather than on the top of
the
fridge. It would avoid the hassle of moving the freezer and the added
cost of the dispensing tower.

cong

Date: 30 Nov 1993 07:02:26 -0800
From: "Dan Peterson" <dan_peterson@quickmail.apple.com>
Subject: UNSUBSCRIBE

Reply to: UNSUBSCRIBE
UNSUBSCRIBE

- - - - -

Date: 11/30/93 0:57

To: Dan Peterson

Subject: UNSUBSCRIBE

!!!! Original Message >= 24K; See following enclosure. Preview follows !
!!!

HOME BREW Digest #1285 Tue 30 November 1993

FORUM ON BEER, HOME BREWING, AND RELATED ISSUES
Rob Gardner, Digest Coordinator

Contents:

Demerara Sugar ("Robert H. Reed")
German Malt sources request (Crawford.Wbst129)
for James Clark (29-Nov-1993 0911 -0500)
which yeast? (btalk)
Alternative FAQ Formats (Mark A. Stevens)
"Closed" fermentation -vs- "Open" fermentation
("SMSD::MRGATE::/"A1::WESTERMAN_ROBERT/")
HSA again... (Ed Hitchcock)
Please add me to you distribution (Steven Grove)
Please relax!! (Don Bizek)
Re: Rauchbier (Jason Goldman)
Dark malt & iodine test/cider vs juice (Jeff Benjamin)
Sour 2-row grain (Chuck Wettergreen)
Black Treacle and Hunter AirStat (Steve D. Gabrio)
Caustic washing (George J Fix)
Re: _very_ low s.g. (John Glaser)
pH Meters (Mark Garti mrgarti@eng.xyplex.com)
Noche Buena (George J Fix)
Guinness clone? (Carl Howes)
LiquidVSdry yeast/Counterpressure filler (korz)
Milwaukee brew stops? (dbell)
IceBeer/ CP Fill/ Sulfer Cider/ Filter then Bottle?/ Xtal Entity
(COYOTE)
Sierra Nevada and the Hop Back/Yeast (Mark Garetz)
cool ferment temps, mixing yeasts (Rick Magnan)
yeast, cowboy beer (mbarre)
New Refrigerators (Harry Covert)
("Brynczka, Marc J")
Leinenkugel's Winter (THOMAS VODACEK)
dark malt extract (Richard Cox)
Whitbread update (donald oconnor)
Aluminum Brewpots? (d.garrison)

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Send UNSUBSCRIBE and all other requests, ie, address change, etc.,
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then you MUST unsubscribe the same way!

If your account is being deleted, please be courteous and unsubscribe
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Please don't send me requests for back issues - you will be silently
ignored.
For "Cat's Meow" information, send mail to lutzen@novell.physics.umr.edu

Date: Mon, 29 Nov 1993 08:06:53 -0500 (EST)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Demerara Sugar

eurquhar@sfu.ca writes:

> While your at it
> inquire about their demerara sugar. Makes american brown sugar look
like
> ordinary granulated white sugar. Once you taste it you'll never go
back.

I have used Demerara sugar by Tate & Lyle and have also used domestic
light
and dark brown sugar in homebrewing. While I found the imported Demerara
sugar
interesting, IMO it is not vastly superior to domestic brown sugar. T&L
Demerara sugar has a smooth, pleasant flavor of molasses. This character
is
easily emulated with a quality domestic light brown sugar or light
molasses.

Rob Reed

- - - - -

Date: Mon, 29 Nov 1993 05:44:37 PST
From: Crawford.Wbst129@xerox.com
Subject: German Malt sources request

I have been using the Belgians malts for a while and would like to try some other malts to see what effect it has on the malty character of my beer. I have seen a couple of messages go by that mention good quality German malts. Does anybody know where I could mail-order some good German malt?

Thanks,

Greg

- - - - -

Date: Mon, 29 Nov 93 09:14:01 EST
From: 29-Nov-1993 0911 -0500 <ferguson@zendia.enet.dec.com>
Subject: for James Clark

>Date: Sun, 28 Nov 1993 16:27:46 -0500
>From: jeclark@ucdavis.edu (James Clark)
>Subject: infection?

>
>our first batch has now been fermenting for about 36 hours and the
kreusen
>has already stopped. however, last night it was so active that we were
>getting a bubble every two or three seconds into the overflow container.
>i sniffed the stuff in the container today and it has a very sweet
smell.

>does this mean that our beer was infected, or is

- ----- RFC822 Header Follows -----

Received: by quickmail.apple.com with SMTP;30 Nov 1993 00:56:59 -0800

Received: from [15.254.48.2] by federal-excess.apple.com with SMTP
(5.64/26-Sep-1993-eef)

id AA04085; Tue, 30 Nov 93 00:43:12 PST

for dan_peterson@quickmail.apple.com

Received: from hpfcrdg.fc.hp.com by hpfccla.fc.hp.com with SMTP

(1.37.109.4/15.5+IOS 3.20) id AA28928; Tue, 30 Nov 93 01:29:36 -0700

Received: by hpfcmi.fc.hp.com

(16.6/15.5+IOS 3.22) id AA16228; Tue, 30 Nov 93 01:00:51 -0700

Date: Tue, 30 Nov 93 01:00:51 -0700

Message-Id: <9311300800.AA16228@hpfcmi.fc.hp.com>

Subject: for James Clark

From: homebrew-request@hpfcmi.fc.hp.com (Verify address before sending)

Reply-To: homebrew@hpfcmi.fc.hp.com (CHANGE THIS IF NECESSARY)

Errors-To: homebrew-request@hpfcmi.fc.hp.com

Precedence: bulk

Subject: Homebrew Digest #1285 (November 30, 1993)

Date: Tue, 30 Nov 1993 10:15:10 -0500
From: mgx@ornl.gov (Michael D. Galloway)
Subject: Sam Smith Nut Brown Ale - Need Clone

Ok ...

I bartered away a batch of beer with a friend, and she wants a batch of Samual Smith's Nut Brown Ale. Does anyone have a tried-and-true all-grain recipe for this delicious ale? Any suggestion as to what an appropriate yeast would be? thanks in advance, as always.

michael

Date: Tue, 30 Nov 93 09:18:00 PST
From: "Moore, Brian" <Moorebw@hvsmtpl.mdc.com>
Subject: Cheap Grains!

Howdy,

Tried to mail this directly to Coyote but it bounced.

* Say what? \$20 for 50# ! ...What a deal. Send me their address/
phone!

The place is called Heart's Home Beer and Winemaking Supply (800-392-
8322)
(Insert disclaimer of your choice here). The deal is for a 50# sack of
Pale
Klages for \$19.95. Shipping here to Alabam' is about \$12. To Utah,
probably
more like \$25. Heart's also has neat glass blow-off tubes.

Brian Moore

Date: Tue, 30 Nov 1993 09:09:15 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: Desired format for file distribution

In reference to Mark Stevens' comments on the need to stay away from vendor-specific file formats, I concur; I am all for PostScript file dumps. I assume most of us have access to a PostScript laser printer and as long as we keep things at Level I PS for awhile, it should work great.

If anyone wants to help out the new brewers like myself by assembling some references as PostScript files, please feel free. I've never found myself researching/reading as much as I have since I got interested in this. Some folks think cooking or woodworking are knowledge-intensive; brewing borders on wizardry!

Paul Beard
AT&T Tridom, 840 Franklin Court, Marietta, GA 30067
404 514-3798 * FAX: 404 429-5419 * tridom!paul.beard/beardp@tridom.com

Date: Tue, 30 Nov 93 10:59:51 EST
From: Mark Stickler Internet Mail Name <mstickle@lvh.com>
Subject: Leinenkugel, Weizenbock and H2O ph.

In HBD 1285 Tom Vodacek writes:

From: THOMAS VODACEK <VODACEK@uwplatt.edu>
Subject: Leinenkugel's Winter

I have heard that one of the megabrewers bought up Leinenkugel's last year and that regular Leinie's is no longer brewed in Chippewa Falls, just specialty seasonal beers. Can anyone tell me the true story?

I attended a Pennsylvania Beer Festival recently and, along with a bunch of micro breweries, Miller and Strohs were present. Miller had their two all barley malt beers (I liked the ale) and two Leinenkugel beers (one with a red label and the other with a black label). Miller said they now own Leinie's but still brew it @ Chippewa Falls. Strohs had three different lines of beers. One called Augsberger included a "dopplebock" that had little or no aroma and could not have possibly been a true dopplebock. There was also a Signature series and a Cream Ale made by a company in Canada (starts with an "S") that had no label on the bottle, just raised glass lettering. Nice bottle, okay beer. The best beer was probably Red Feather Ale made in Chambersburg, Pa.

Just recently returned from Munich and the best beer I had was a weizenbock from Schneider called Avintinus. It is served in a very unique wheat beer glass at their beer hall near Marienplatz.

Here's my homebrew related question: I have been brewing for three years now (all grain for 2 1/2 years) and have not had too many problems. I and my friends think the beer tastes fine (I also took first place in a LOCAL contest in the pale beer category in '92 with a Dortmunder Export)

However, I usually taste a slight metallic off-flavor. I think it might be related to my water ph. Basically my water ain't base, in fact its acidic. I have a spring feed house and the ph is in the 4.0-5.0 range. As a result I usually have to add Calcium Carbonate to RAISE me mash ph rather than gypsum to lower it! Is this really strange? My shower has a tendency to turn copper blue every several months! This my be a question for the plumber's digest but its the acidic water slowly eating away at my copper pipes? I haven't splurged for a complete water analysis yet but I'm certain the water is soft (I boil it and get no white residue). Any advice? TIA.

Mark Stickler

Date: Tue, 30 Nov 1993 08:19:15 +0800
From: bjones@novax.llnl.gov (Bob Jones)
Subject: Young's yeast

Does anyone out there in HBD land have any experiences with Young's ale yeast? Maybe someone in the UK has some experiences with this yeast.

Bob Jones
bjones@novax.llnl.gov

Date: Tue, 30 Nov 1993 11:36:27 -0500

From: WKODAMA@aba.com

Subject: Siphon Hot Wort

In #1280, Andy Rowan asked how to keep the pot scrubber on the end of his siphon.

Use a sanitized, intelligently placed rubber band to keep the scrubby on, and make sure it's a copper scrubby.

Hoppy trails,
Wesman

Date: Tue, 30 Nov 93 11:11:18 CST
From: Paul Sovcik <U18183%UICVM@UICVM.UIC.EDU>
Subject: Bottling Sanitation Experiment

Well, after a year of "taking" from the HBD, I will "give" a little back. In the spirit of Jack Schmidling and true science, I decided to conduct an experiment that would help me decide on the value of sanitizing my bottles in terms of homebrew taste.

MATERIALS AND METHODS: One five gallon batch of porter was prepared using standard homebrew procedures. At bottling time the bottles were divided into three groups. Group one was unsanitized bottles that were only rinsed out after the last homebrew was emptied from them. Group two was santized with a weak bleach solution with a contact time under 3 minutes and rinsed with tap water, the bottles in this group were actually filled with about 3 oz. of solution and this was swirled about once. Group 3 was anally sanitized with a full soak for 30 min in a weak bleach solution, and then rinsed with tap H2O. The bottles were then separated and stored under similar aging conditions.

RESULTS: The anally sanitized batch and the "casually" sanitized batch (groups 3 and 2, respectively) did not differ in terms of taste. The unsanitized batch of bottles (Group 1), however, had a noticable off flavor. This was confirmed in both an unblinded way (I tasted the marked bottles) and in a blinded way (I poured for a friend without telling him that one was bad!)

DISCUSSION: I conclude from my results that sanitation is necessary, but anal retentive sanitation is not. Actually, I expected to find that sanitization was not necessary, and that the unsanitized group would be fine. I also was surprised that the off-flavor (which I cant identify...it was kind of a cidery taste most promenant in the aftertaste...a "thinness", if you will) was prominent in many of my early attempts (about 5 yrs. ago) at brewing.

Well, just my futile attempt to try an actual (gasp) experiment here, instead of relying on the contradictory opinions of "expert" authors.

Paul Sovcik | Email- U18183@uicvm.uic.edu
University of Illinois at Chicago |
Department of Pharmacy Practice | "I Take Drugs Seriously..."
Chicago, Il |

Date: Tue, 30 Nov 93 09:36:57 -0800
From: tims@ssl.Berkeley.Edu
Subject: cleaning Easymasher, big tuns

Hello Homebrewers,

I have been using Mr. Schmidling's Easymasher system for about 5 batches now, and have found it to perform as advertised, that is, very well and very easy. I have run into one small problem, which is that it seems to be getting a little clogged after multiple uses, leading to stuck or slow sparges. Examination shows some of the screen holes plugged. I have gone after it with needles and a toothbrush, but does anyone else have a good method for cleaning? Also, I could replace the screen every 5 batches or so. Hints?

My other question has to do with setting up my own pico-brewery, for 10-15 gallon batches. I would like to set up a large mash tun, made out of some good metal material, like a half barrel or something. Questions are, what is good way to set up sparge (would Easymasher work?) or false bottom the diameter of the tun with holes. Also, every commercial brewery I have seen has two tuns, one for mashing, one for boiling. Is there a good way to use the one vessel for both (ala Easymasher)? I have liked the time savings coming from starting to boil immediately with the sparge, but I wouldn't want to be hiking from my garage to stove 2 cups-at-a-time with sparge output. What do others do? Lastly, would you recommend getting a propane burner, or using natural gas, tapped in from house supply (assuming I could do this or have this done without turning my house into a Hindenburg.) Any suggestions would be appreciated.

Thanks,

Tim Sasseen

Date: Tue, 30 Nov 93 09:28:30 -0800
From: Drew Lynch <drew@chronologic.com>
Subject: Re: Counterpressure filler

Al (and net-folk),

I also have one of the CP fillers like the one you describe. I found that one additional step helps keep down foaming: Before I close the beer flow, I close the gas out valve. I then close the beer flow, and reopen the gas out valve slowly. It adds a little time, but I've found it reduces the likely hood of last second foam buildup.

I was curious about a couple of things...

- 1) What pressure do you run the system at?
- 2) I was considering replacing the gas in and beer in valves with ball valves, and adding a ball valve to the gas out line. It seems to me that this would save a lot of finger wear and tear. Has anyone else tried this?

Drew Lynch
Chronologic Simulation, Los Altos, Ca.
(415)965-3312x18
drew@chronologic.com

Date: Tue, 30 Nov 93 12:48:25 EST

From: yeebot@aol.com

Subject: Help!

I'm not sure this should be posted here, but knowing how hooked up everyone here is I though I should give it a try. If anyone can suggest a better suited forum, please...

A) I know a fellow who's interested in brewing a beer specifically for an Asian market. He'd like to license a brewery with extra capacity. Unfortunately, he doesn't have a recipe, just an idea of what the end-product should taste like. There are similar beers already on the market but not from any large brewers. Does anybody know how he would develop a recipe? A consultant, perhaps? Will the brewery be able to work with him? Can anybody suggest a brewery, preferably on the west side of the US? Thanks alot.

B) How do I get in touch with Pierre Celis? (I hate to ask but) does he speak English, I heard he doesn't?

Michael Yee
Angst Brewing Co., NY

Date: Mon, 29 Nov 93 20:52:00 +0000
From: SCHREMPP_MIKE/HP4200_42@ptp.hp.com
Subject: beerhunter - SF BAY area

Item Subject: beerhunter - SF Bay area

For any viewers in the SF Bay Area, Channel 9 (PBS) will be running the Beerhunter Series next Saturday (12/4) Starting at 3:00 and continuing through 7:30.

Mike Schrempp

Date: Tue, 30 Nov 93 12:57:09 CST
From: bjw@techsun1.cray.com (Benjamin Woodliff)
Subject: Re: Leinenkugel's Winter

VODACEK@uwplatt.edu comments and queries:

> Just had some of Leinenkugel's Winter beer. Not bad. Reminds me
> of my last few batches of oktoberfest that ended up much too dark.

The chocolate malt is really emphasized by the brewery-- very distinct, and the slight boost in alcohol content seems appropriate for a wintertime beer. It's a specialty beer, available for only two months: Nov - Dec '93.

> I have heard that one of the megabrewers bought up Leinenkugel's
> last year and that regular Leinie's is no longer brewed in
> Chippewa Falls, just specialty seasonal beers. Can anyone tell me
> the true story?

Jacob Leinenkugel Brewery of Chippewa Falls was purchased by Miller Brewing Co. in 1988. Apparently Miller was very interested in acquiring an established beer with a regionally popular label while the Chippewa Falls brewery needed capital and increased brewing capacity to service the heavy beer markets in the Milwaukee-Chicago corridor. The acquisition finally broke the 120 or so years of Leinenkugel family ownership although the family still runs the brewery. A friendly arrangement as far as it goes; the expected outcries from loyal drinkers.

The first year, Miller did nothing to affect the product. A year or so later they started using the Leinenkugel label on beer made in Milwaukee using the Leinenkugel recipe. To the exception of the water that is, as Chippewa Falls has a world-class pure water spring that the brewery draws from. Leinie's regular is made in both locations-- it depends on distributorship which location your local supply comes from.

Thus far, what you've heard is correct. Each specialty beer (Leinenkugel's Limited, Red Lager, Bock, the Dark Lager from last year, and the Winter Lager from this year) are made exclusively at the Chippewa Falls brewery. There are no immediate plans to change this as the brewing practices of the specialty beers will keep it mostly regionally successful while Miller continues to probe the mega-market with its own speciality products for now (e.g. Miller Amber, Reserve, Clear, etc.).

Ben Woodliff

Date: Tue, 30 Nov 93 10:43:42 -0800
From: froeh@texan.ecc.naa.rockwell.com (Michael Froehlich)
Subject: A Wedding, Homebrew, and Texas

Hello Fellow Homebrewers,

I have made a great decision in my life. No, it does not concern whether I will use a counter-flow chiller over a immersion chiller (definitely the counter-flow). I have asked a wonderful girl in Texas to be my wife. The wedding has been set for July 2, 1994 in Fort Worth, TX.

I want to provide a substantial amount of the beer for the reception. I am going to try the logistical equivalent of the Desert Storm in homebrewing by brewing 50 gallons beer, 10-15 gallons of mead, and 15 gallons of hard cider. All of the beverages will be in the 5 gallon kegs to allow for easy storage, transporation, and serving. It will be a sizable reception of about 400 guests. This may not be enough beer but with the Coors Light (ughhh!) kegs for the Mother-in-Law, this should be a good start.

Here is my dilemma, I live in Los Angeles, CA and either have to brew here and transport there or brew in Texas on the few weekends that I go back. Either way, I will need a place to store the beer out of the Texas heat. If anyone can help me by suggesting a storage place or allowing me to brew with their equipment, I would be most grateful (even compensational with the beer that is brewed). Please respond at the E-mail below.

Brewing for a Better Tomorrow,

Michael Froehlich

/*
Michael Froehlich(310) 647-1482
froeh@ecr.ecc.naa.rockwell.com or froeh@129.172.56.36
*/

Date: Tue, 30 Nov 93 13:34:59 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Whitbread-continued

I just got off the phone with Scott Birdwell of DeFalco's of Houston. His is one the few homebrew shops that got some of the new Whitbread yeast. DeFalco's is known for its high standards, and for its wide assortment of products. Scott has been selling the Whitbread yeast now for several months. Anyone wanting info on how this yeast has done in homebrewing, as well as comparisons with other strains (he carries them all- dry and liquid) can contact him at 713-523-8154.

George Fix

Date: Tue, 30 Nov 93 14:49:40 EST
From: rchilder@schwab.com (richard a childers)
Subject: Turkey Leftovers & Scrumpy

(sent to Home Brew Digest)

I was telling a friend of mine about recent efforts to create a cherry mead, and we started talking about brewing in general.

Amidst our discussion, my friend mentioned "scrumpy".

"Scrumpy" is a British brew, usually beer (although it can be cider) to which has been added, in addition to the more conventional fermentable materials, some sort of meat.

The concept apparently extends back through antiquity. Naturally, the question of "why" arose.

My friend asserted that the addition of meat to the ferment created a better head ... foamier, longer-lasting. This, he confided, was straight from a friend of his, whom brewed at 20 Tank Brewery, here in San Francisco. (Said friend added turkey to his home brews, not to 20 Tanks' professional products, I hasten to add.)

I speculate that there might be an element of truth to this - perhaps the addition of meat, after decomposition in an environment otherwise devoid of the usual corrupting bacteriological agents, results in free colloids in the solution, which not only change the taste in a subtle way, but have the valuable and primary additional consequence of changing the characteristics of the brew's resulting foam, when poured.

So, if you were wondering what to do with those turkey leftovers, now, you have a way to get rid of that chunk of breast meat, and contribute to the cause of brewing science, simultaneously ... (-:

- -- richard

(PS : replies to <pascal@netcom.com>, please.)

Date: Tue, 30 Nov 93 15:12:32 EST
From: U-E68316-Scott Wisler <wisler_scott@ae.ge.com>
Subject: cool ferment temps

Ed talks about having a cold basement and the use of the Brewbelt.

I too have a basement that gets down to around 60 F or below in the winter and had a slow start on an ale last January. After 3 days I figured I had to do something. My solution was to waterbath the carboy in a 20 gal plastic trash can.

Total cost: 0\$ The trash can was holding Al cans for recycling, and my neighbor had a `gerbol from hell' that chewed up their fish tank - so he donated an aquarium heater to the cause.

There was a circumferential temperature gradient in the trash can, so I will use 2 heaters next time. I will also use some bleach in the water during the secondary fermentation. But overall it worked pretty well.

The waterbath with aquarium heater is also an effective way to maintain temperature while growing up yeast starters during the winter.

Ed, thanks for telling us about the Brewbelt problems.

scott

swisler@c0431.ae.ge.com
GE Aircraft Engines
Cincinnati, OH

`I've learned that you shouldn't confuse a black crayon and a tootsie roll'
-age 6

>From Live and Learn and Pass it On by H Jackson Brown

Date: Tue, 30 Nov 93 15:07:44 EST
From: Keith MacNeal 30-Nov-1993 1501 <macneal@pate.enet.dec.com>
Subject: Ice beer/Mixing yeast

Coyote, where have you been? Ice Beer is getting alot of hype in the Northeast US and in Canda. Molson, Labatts, and Genessee are all offering Ice Beer. They talk about brewing at ice cold temperatures, not fermenting (I considering brewing to be the entire process from mashing to bottling) so I don't get too worked up about the advertising terminology (for this and any other product). I believe Ice Beer has been discussed a few times in here and I'm pretty sure someone even verified that "freeze distillation" is not regulated/prohibited the same way as regular distillation.

Someone asked about mixing yeasts in beer. I've read that American Cream Ale and Kolsch styles of beer used both ale and lager yeasts. The recent posting about Wyeast strains listed a new Kolsch yeast which has both lager and ale characteristics.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Tue, 30 Nov 93 12:37:16 -0800
From: Dan Needham <dann@hpsadr2.sr.hp.com>
Subject: Soda Ash Residue

I threw some labeled bottles in a sink of hot water last night and sprinkled some soda ash on top. In the morning the labels slipped off nicely but there was a thin opaque film that I rubbed off the outside of the bottles with hot water. The film is also on the inside. A bottle brush will get some out, but there are still patches with brush streaks. Running them through the dishwasher rinse cycle didn't remove more.

Is the film from the soda ash, the glue on the labels, or water chemicals?

I've usually used chlorinated TSP in the past, and will go back to that if soda ash is a problem. Also what is the chemical name for soda ash?

Thanks for your help.

Dan Needham

Date: 30 Nov 93 14:21:00 CST
From: "DEV::SJK" <SJK%DEV.decnet@mdcgwy.mdc.com>
Subject: Noche Buena y Leon/Guinness error/FAQ format

All this talk of Noche Buena (anyone know where I can get it in southern CA?) reminds me of one of the best bottled beers I've ever had. It's called Leon and it's brewed in the Mexican state of Yucatan. Some buddies and I were out cruising around the jungle and climbing the odd pyramid or two when we ran across this stuff at a cervceria in some town I never knew the name of. They had Corona and Leon (?caliente o frio?). Being familiar with Corona, the only choice was Leon, whatever that might be. Well, as it turned out, Leon was a very tasty dark red Vienna lager. Yar! My favorite style! I KNEW all that chanting "malted beverage malted beverage malted beverage malted beverage" on the airplane on the way down would please the Maya beer gods. Very well-balanced, not very sweet but with lots of body, and almost no hop aroma. A little like Spaten Oktoberfest in taste, only a little drier. A case of these babies on the veranda at Uxmal in the rain, jungle all around, a belly full of pollo pibil, and a real Havana cigar (I know, ruins the taste. Wait 'til Leon numero cinco before lighting up.) is heaven indeed. Stupid guy tricks. !Muy fabuloso!

As I remember it was about \$8US a case to begin with, \$3 if you brought all your empties back (!). They reuse rather than recycle their bottles. Either one helluva ("Oh, sorry" -- T. Jones 'A Fairy Tale') bottle-washer or the worst job in the Beer World. We looked around in Merida on our return from deepest darkest Mexico and couldn't find it. As Merida is the only thing that even resembles a city in the area, you'd think it'd be a good market. I really gotta wonder where this stuff is brewed. 'Course, we could have missed it... We also hunted a LOT for precious bottles of Leon upon our return to Cancun (having been unable to refrain from quaffing them within minutes of having said "let's save these"), but to no avail. Next trip I will make a serious effort to hunt this brewery down. I guarantee a case of this stuff will be one of my carry-ons when we come back from Cancun this September. Anyone care to trade for some Cranberry Lambic? ;-).

While I'm not working, I had an interesting (embrassing, really) experience the other night at the house of some buddies'. These guys have a keg fridge that is always well-appointed. They've had SA, Spaten Okt, Anchor, Newcastle, etc. you get the idea (They live in Costa Mesa, CA. Address avail on request). Well, I went over, helped myself to a free whatever was on tap, and thought to myself "that's the darkest beer they've ever had here." Looked, smelled, and tasted like a porter. My first thought was SN Porter (way off!), but it wasn't sweet enough. This went on for a while and I finally had to ask. The answer was Guinness. I really felt dumb. You'd think that somebody who drinks as much of the stuff as I do (my cat's name is Guinness) could pick out at least the tanginess of a Guinness.

There are two things that I can think of that might explain/excuse me: 1) the keg was at the proper temperature ('bout 55?) so what little sweetness there is may have come through and 2) while the keg may have been conditioned at one point with nitrogen (or is it CO2 & nitrogen?), it was about half gone and was being dispensed with CO2 only. It definitely did not have a typical Guinness head (big bubbles that didn't last very long). At no time did it really taste like Guinness to me. Thoughts? Ridicule?

And finally (finally!), a comment or two on Mark Steven's comments

on special-format FAQs. I think that while a rearranged or different format FAQ IS of limited usefulness (I rearrange my own), this would mean that much of the stuff already in the archives is of similar low worth (eg, brfware, brewsheets, images, co2.c, etc.). I work with 1974 technology (VMS, VT330) and do not have access to even PostScript (Though I'm not sure. Hard to tell with the hindrance called "VMS".) I think it's a mistake to say "let's use something everybody has" because that is the case, as Mark says, only with flat files. I'd still like to see what the brewsheet looks like. If there's enough interest, and it's acceptable to the good folks at Stanford, then Bob should get to post his reformatted FAQ. I think we have a little pride in having accomplished something here. Bob spent his own time on something he thought he himself might find useful. Having accomplished this and, in fact, finding it useful, he simply wants to know if anyone else MIGHT ('s'free, you know) also find it useful. Nada mas.

Dos mas cervezas rapido, por favor. Gracias y buenos noches.

Scott Kaczorowski
sjk%cl7fcs.decnet@mdcgwy.mdc.com

Date: Mon, 29 Nov 93 14:58:53 MST
From: npyle@n33.stortek.com
Subject: Used Kegs?

Now that it appears DeFalco's won't ship used soda kegs anymore, does anyone have a good source that will ship small quantities at reasonable prices? My local shop wants \$35 each for them, which appears pretty high when compared to DeFalco's \$15 + shipping. Maybe part of the difference is made up in the fact that the homebrew shop has already replaced the o-rings, etc. and maybe DeFalco's hasn't (hadn't). This is no rush, I have two kegs on loan, but it would be nice to find a good price sometime so I can own my own.

As long as I'm talking kegs, I have a question. When you shake a keg to carbonate it, it is inevitable that some of the liquid will be forced into the gas inlet hose. I've seen check valves advertised in some magazines, but they are designed to keep the liquid out of your regulator (a good idea). They don't appear to address the issue of contamination via a dirty gas hose. Do you sanitize your gas hose? How? I don't particularly like the idea of disassembling the gas hose every time I do a batch, but if that's what it takes...

Norm

Date: Tue, 30 Nov 93 13:10:00 PST
From: "SIMPSON, Mark (x-4378)" <Simpson@po2.rb.unisys.com>
Subject: SS Fitting

Howdy Brewpeople!

I am trying to rebuild my SS sparge keg, which currently has a brazed-on galvanized, screw-in fitting for my 1500 watt, electric hot water heating element, low density type (ala Rodney Morris' RIM system). I would like to remove the fitting and replace it with a stainless steel boss fitting, as I am having corrosion problems. Anybody out there have a good source for large SS fittings???

Thanks mucho,

Mark, The Brew-Cat

End of HOMEBREW Digest #1286, 12/01/93

Date: Tue, 30 Nov 93 16:57:27 EST
From: Steve Scampini <scampini@hp-and.an.hp.com>
Subject: no subject (file transmission)

I have been sitting on the sidelines, reading HBD for a good part of a year, building up energy to actually ... you know, BREW BEER! The continued encouragement, support and lent equipment from my local brewer/engineer friends made it possible to spill wort on my sneakers this past Saturday. Other than fumbling around with a clogged strainer as I poured the wort into the primary carboy, it wasn't as difficult as I had imagined. My steam beer knock off is merrily bubbling in the basement (57 degrees F). Of course, it may be foreign beastie city in there - only time will tell. I think I'm hooked on this brewing thing and hope to contribute some wildly passionate, learned treatise on some important beer topic such as the whether to use stick or book matches to light the cooking stove (just kidding, I love fanatics). Anyway, all you almost-brewers out there, it is not (so far) as mysterious as it sounds!

P.S. A good word for St. Patrick's of Texas for prompt and courteous service in correcting a minor order problem.

Steve Scampini

Date: Tue, 30 Nov 1993 14:22:23 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: Golden Syrup

I've been catching up on some older HBD's and notice a thread on golden syrup. There were a few posts indicating that it was a single substance that could be approximated by creating invert sugar, or caramelising and so on. In fact, it's a rather special combination of sugars. Here's the information I got out of a book some time ago

It's composition is:

| | |
|-----------------|-------|
| sucrose | 27% |
| reducing sugars | 47.4% |
| other organics | 4.4% |
| ash | 3.2% |
| water | 18% |

I've seen reference to it in an American book as "golden invert syrup", as one form of liquid sugar. At any rate, the sugars make up 74.4% by weight of the stuff. If this was in the form of sucrose alone, it would crystallize out, likewise if it were reducing sugars, glucose would crystallize. The proportion (1.75 reducing sugars to 1 of sucrose) produces a stable liquid. In the refining process, none of the syrups in process have a high enough reducing sugar content, so special batches of "invert syrup" are made (sucrose solution heated in acid environment -> equal quantities of glucose + fructose). This is added to other syrups to obtain the right proportions.

Peter

Date: Tue, 30 Nov 93 17:33:26 EST
From: Allan Rubinoff <rubinoff@BBN.COM>
Subject: hop utilization

I brew from malt extract, boiling only about half the wort and then adding it (after chilling in a water bath) to cold water in the carboy. I know that one of the problems with this approach is that hop utilization is less than optimal due to the high gravity of the boil.

It occurs to me that there may be a simple solution to this problem: boil the hops in plain water for an hour, and then just add the extract and boil for another 15 minutes to sterilize it. This should maximize hop utilization without compromising sanitation.

This seems like such a simple (and obvious) solution, that I wonder why I've never seen it mentioned anywhere. Does anybody know of any reason not to do this?

Thanks in advance,

Allan Rubinoff

Date: Tue, 30 Nov 1993 17:50:23 -0600 (CST)
From: James D Rickard-1 <rick0018@gold.tc.umn.edu>
Subject: Re: Whitbread or Fullers ESB, Please!

Do any of you British Ale fans have all grain recipes for Whitbread Pale Ale or Fullers ESB taste alike? I love the bitter notes in Whitbread, they say on their label propaganda that they use their own goldings hops. I've also heard tell that they use unmalted wheat. Any other suggestions?

Date: Tue, 30 Nov 93 16:48:16 PST
From: troy@scubed.scubed.com (Troy Howard)
Subject: cool ferment temps

Rick Magnan asks about an appropriate yeast for fermenting at around 60F. Try Wyeast 2112 (California Lager). It is quoted as fermenting well up to 62F while keeping its lager characteristics. I, myself, have used it for ales (a couple of steam beers and a brown ale), and it has performed well even at 65F. Since it is a lager yeast it should not have any problem at 60F. I have a brown ale made with this yeast ('cause its what I had on hand) which has been raging at 63F.

Troy

Date: Tue, 30 Nov 93 20:18:43 EST
From: lyons%adc3@swlvx2.msdl.ray.com
Subject: New red star yeast

I have experimented (tried) the new red star yeast on two different batches and would like to compare notes with anyone else who has tried it.

My notes include:

Lag time: slow (approx. 1 day).
Attenuation: 78% for all malt extract recipes (using 100% M&F light).
After taste: Thought it gave the beer a somewhat phenolic flavor, but this faded after 2 months in the bottle.
Fermentation: Very strange primary ferment ... a thick (1") head of yeast (I think this is what it was?) remained on top of the beer after the end of the primary ferment. Had to siphon below the yeast cake(?) when racking to the secondary. Never observed this with any other yeast?

Does anyone else have any comments on this particular yeast?

Thanks in advance,
Chris Lyons

Date: Tue, 30 Nov 93 20:48:49 EST
From: lyons%adc3@swlvx2.msdl.ray.com
Subject: RE: Guinness clone?

In HBD #1285 Carl gives the following recipe for a stout.

- > 7 lbs. M&F light DME
- > 1 lbs. flaked barley
- > 1 lbs. roasted barley
- > 0.75 lbs. crystal malt
- > 1.66 oz Chinook hops (12.6%) at 60 min.

I've often wondered if adding flaked barley contributes anything to an all extract recipe. I've tried it on three occasions and am not sure it added anything. Is this an adjunct that needs to be mashed?

Chris Lyons

Date: Tue, 30 Nov 93 20:26 EST
From: Tom Clifton <0002419419@mcimail.com>
Subject: RE: Questions from COYOTE <SLK6P@cc.usu.edu> on filtering

My thoughts on filtering.... Why bother! According to Papazian a bit of yeast helps add to the stability of the brew. If you have followed the basics of good wholesome brewing (sanitation) there won't be any bacteria you need to filter out. Best of all, if you want good clear beer with no chill haze problems once you have carbonated your brew (primed and waited 7-10 days) all you have to do is to put the bottles in your 'fridge for two weeks or so at 34-36 degrees and the chill haze and "stuff" will precipitate out and you will have sparkling clear brew. Besides that, if you are brewing with a lager yeast this will give you a reason to wait another couple of weeks before drinking all your brew!

Tom

Date: Tue, 30 Nov 1993 22:37:06 -0500
From: jeclark@ucdavis.edu (James Clark)
Subject: aeration/recipe/smaller batch?

to don biszek, who writes
>If you are reading Papazian, then why don't you follow his strongest
advice,
>and Relax!! Your beer will be the same whether or not you worry and post
>20 questions about each bubble that perks up!
>don

don,
i assure you that i am not stressed out about our beer, i am merely
asking
questions so that i don't make the same mistake twice. i'm sorry that
all
these questions are bothering you, but i will stop asking questions when
a) i run out of them
b) people stop responding because i am bugging them
i guess the answers to these are obvious, but remember that i really have
no clue as to the proper brewing procedure.
BTW: i have found that a good way to relax is to drink a few sierra
celebration ales (anybody know the % alcohol in those things? they sure
are
strong. i also couldn't quite place the flavors. anyone know what they
add?)

now for the real questions:

1) is it okay (or even advisable) to shake up and thus aerate the beer in
the middle of fermentation?

2) for our next recipe we plan on just improving on the righteous real
ale.

i thought a good recipe for 5 gallons would be:

- 6.6 lbs John Bull amber malt extract syrup
- 3/4 lb. cracked crystal malt
- 2 oz. cascade hop leaves (boiling)
- 1 oz. willamette hop leaves (aroma)
- 1/2 oz. willamette hop leaves (finishing)
- 2 pkgs. (10 oz.) Windsor dry English ale yeast
- 3/4 cup corn sugar (bottling)

does anyone know if these proportions are okay? i just kinda thought them
up, so i don't really know if it will work.

3) i want to try a batch without using the blowoff method, but i still
want
to use a 5 gallon carboy. if i make 4 gallons will the kreusen still
reach
the top of the carboy or would i be safe to just put the fermentation
lock
on?

thanks for all the help so far. if everyone gets sick of me just stop
answering my questions and i'll take the hint.

- --james

Date: 01 Dec 1993 00:35:24 -0700 (MST)
From: "Steven W. Smith" <SMITH_S@gc.maricopa.edu>
Subject: Kirschenbier and stream of consciousness

Whenever I can find cherrys again, I plan to try adding them to my standard bock. It seems reasonable (to me) to wash the whole fruit in a mild bleach solution, rinse, dry, smash (how?), force into a carboy (how?), then siphon from the primary onto them. I'm thinking about 10 pounds of cherries to a 5 gallon batch. Maybe freezing/thawing before smashing? Do the pits matter? Any comments appreciated, I'm flying blind.

Many thanks to the person who suggested that hops have no place in melomel. I'm eagerly anticipating the next batch without that "something's not quite right" effect.

Some beginner's advice on eliminating that pesky air bubble from a racking cane: if the wort's flowing at a good rate, a flick (thwack?) (like you'd deliver to a dog nose encroaching on your pizza) where the bubble is will cause the air to "break up" and flow down the siphon hose. As with a dog nose, it may take several strikes to be fully effective.

Finally, on megabrew advertising: I'd much rather see large-breasted, presumably buzzed young women cavort on the beach than Santa Claus shopping at K-Mart. For an extended slow-motion-bikini-volleyball scene, I might even buy a sixpack to give to visitors I wouldn't waste homebrew on :-)

,/_|
/o.O; Steven W. Smith, Programmer/Analyst
=(__)= Glendale Community College, Glendale Az. USA
USMITH_S@GC.BITNET
smith_s@gc.maricopa.edu
"Now 25% less politically correct!"

Date: 30 Nov 93 22:02:31 MST (Tue)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: hopping bracket?

Should bracket be hopped at all?

If so, what's a reasonable basis for the hopping rate? I can think of two references--the potential alcohol and the malt content--which suggest values that differ by roughly a factor of two. That is, if you do hop it, are you aiming to balance against the residual character of the malt, or the eventual alcohol, or somewhere in between?

I'd be interested to hear from either folks who have made (what they consider to be) a successful bracket, or anyone who has historical information on how bracket was really made. Since it was a fairly old style, was it really before hopping ale was common?

Mind you, I'm not tied to historical precedent, but I'd like to know what folks did with it.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
 ...Simpler is better.

Date: Tue, 30 Nov 1993 09:02:44 -0600 (CST)
From: winstead%brauerei@cs.tulane.edu (Teddy Winstead)
Subject: Beer Hunting in Belgium

Could somebody please tell me where I can find the "Beer Hunting in Belgium" series that was posted here recently? Or could somebody tell me the issue numbers of the articles so that I can ftp them? Thanks alot!

Happy Brewin' and Drinkin',

Ted

Date: Wed, 1 Dec 93 13:10:41 MET
From: ROB THOMAS <THOMASR@EZRZ1.vmsmail.ethz.ch>
Subject: Scrumpy!!

hello all,
having just finished reading hbd 1286, I have to pick up the bait.
Richard Childers mentioned Scrumpy, and the fact that it contained
meat. Well, Scrumpy is always Cider (ie never beer, as said in hbd1286).
It also does not by definition or tradition contain any form of meat.
SOME scrumpy contains meat (often beef due to sanitation laws). This
arose historically because often rats or even mice fell into the open
fermentors
quite regularly. The benefits of the extra meat were noted, and people
started
throwing stuff in to simulate the effect. What the effect is, I'm not
sure. Scrumpy is live (ie contains yeast), often unclear (due to lumps
of apple), and more often than not strong. I don't think it is GENERALLY
more fizzy, or with better head. But I will stand down on that if I
get a flame from a producer of such a product.

Oh my, and I said I'd never flame..... well, it's only a little spark.
Rob. Thomas.

Date: Wed, 1 Dec 1993 12:36:34 +0000
From: ANDY PHILLIPS <"/G=andy/S=phillips/OU=cell biology/OU=lars/OU=i a c
r/"@AFRC.ac.uk>
Subject: Old British Ales

On the subject of high hopping rates in the "Old British Beers"
booklet (Durden Park Brewing Club), I recently brewed a barley
wine in a similar style to those in the book.

Ingredients (UK units and malts throughout):

7lb crushed pale malt
7lb " lager malt
2lb " wheat malt
1lb flaked rice

Mashed with 3.5 gal treated water at final temperature of 65-66C for 90
min in

picnic cooler. Sparged slowly to 3 gal total wort (I sparged a further
4 gal for a second beer). Boiled 90 min with 5 oz Goldings and 2 tsp
Irish

Moss. Final yield 2.3 gal at 1.112. Pitched with 500ml starter from Edme
dried yeast. Fermented 6 days, then racked into 2 gallon jars with
airlocks.

Fermented a further 21 days, then racked again into jars. Gravity when
last
taken was 1.035.

Despite the high hopping rate - I can't remember the IBU rating from BRF,
but it was well over 100 - this is not noticeable bitter. I suspect that
this is partly because the flavour is overwhelmingly malty, and the hop
taste can't get through, and partly because of the lower hop utilization
at high SGs. I don't know whether BRF is capable of an accurate
calculation
in the high SG range - the formula used may not be valid.

Moral - don't be frightened to overhop, especially at high SGs. Even if
the beer
tastes disgusting at first, it will mellow with age.

Cheers,
Andy Phillips

Date: Wed, 1 Dec 1993 08:31:44 -0500
From: paul.beard@gatekeeper.mis.tridom.com
Subject: Turkey Leftovers & Scrumpy

I mentioned something this on either r.c.b or alt.beer. The scrumpy my family knows from the southwest of England is a strong cider, guaranteed to get you legless in one glass or less. It is not a commercial product, more like a farmbrew and I was told that the addition of a dead rat in a sock (like a teabag and for a similar reasons) was used advocates by some older practitioners.

In that region, scrumpy is hard cider and is not for the fainthearted. There's enough beer down there as it is and they call it beer, nothing else.

Has anyone else heard anything about this meaty concept? As a vegetarian, I could never drink the stuff, but I'm not sure I'd want to.

Date: Wed, 01 Dec 1993 09:27:16 -0500 (EST)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: ICE BEER

There has been some discussion regarding ice beer in the last few digests:

My information on the recently in-vogue ice beers is that that these beers are fermented like their non-ice beer brethren, and then aged at below freezing temperatures. While ice crystals are indeed formed, I think another important effect is the flocculation of certain substances that could make the beer less than "smooth". I know that LaBatt's, Molsen, and AB are making ice beers, but *not all* ice beer brewers filter out the ice particles that form during aging. Thus, some ice beers are normal strength and others have higher than "normal" alcohol content. Now if we could convince them to leave out the corn, rice, and heading agents...

Rob Reed

Date: Wed, 1 Dec 93 09:49:29 EST
From: oswald@columbia.sparta.com (Don Oswald)
Subject: Turkey Leftovers & Scrumpy

I read the entry on HomeBrew Digest regarding Scrumpy, and I happen to have a lot of turkey sitting around . . .

Does anyone have a "good" recipe for scrumpy?

I am at least curious about when the bird goes in the brew - --during the boil or mash?

I suppose the feathers would help strain out the trub :))

Reply to me, and I will summarize to the digest

Also appreciated would be some pointers to document how far in antiquity the scrumpy practice goes.

Don Oswald
Re-Creational and Recreational Brewing

Date: Wed, 1 Dec 1993 10:21:55 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Ice Beer & Witbread bashing

RE: Ice Beer

I believe the process used to mass produce ice beer is as follows:

1. Regular wort fermented (lower initial OG??, Same OG??)
2. Still beer passed through chilled line, forming ice crystals in suspension.
3. Ice crystals filtered out, along with yeast, proteins, and anything else that would give residual flavor to the product.
4. Deaeriated water *added* back in to the finished bright beer tank.

Obvious questions arise over the value of adding back in water that was just iced out. I have yet to sample one, but the brewers feedback is that it does taste different, and somewhat better. Yet another variation on the mass market products.

RE: Whitbread & flame baiting

First of all, I could care less about any dry yeast, even though I find the discussions interesting. I do care about intelligent debate on the forum, and hope that we rise above the flame mode. As I discussed with Dr. O'conner via private email, I have no problem with different opinion, provided that the opinions are presented with some technical issues/merits /procedures, just some supporting evidence. To just come to the opinion that so and so is plain wrong without presenting any supporting data is an example of poor scientific method. I certainly hope that most of us in the scientific community approach issues with an open mind, perform tests/experiments, and then analyze the results. Maybe Dr. O'Conner has done this, and has supporting evidence to back up his claims, it is quite difficult to ascertain this by his posts.

Good brewing,
Jim Busch

Date: Wed, 1 Dec 93 10:18:05 EST
From: dturner@ganymede.sca.com (David Turner)
Subject: TSP Disposal

Greetings!

As a new homeowner, I suddenly find myself concerned for the welfare of my septic tank and well in the presence of my brewing activities. I have been convinced that the chlorine I use for sanitizing is dilute enough so as not to cause problems with my septic tank (and it can only improve the health of my groundwater well), but I am worried about the Tri-Sodium Phosphate (TSP) that I occasionally use to clean grungy bottles. The package has a great many warnings about eye protection, rubber gloves, etc., leading me to believe that it is rather toxic (or at least caustic). I'm not sure I want to be pouring it down my drain, killing valuable bacteria in my septic system. Nor do I want to contaminate my (or my neighbor's) well by dumping it on the ground in a corner of my property.

So, what's the collected wisdom on this issue? Is TSP environmentally hostile? How do fellow homebrewers dispose of this stuff?

Please e-mail me directly (dturner@sca.com) if possible; I need the information soon! Eagerly awaiting your replies...DT

- ----
David Turner
dturner@sca.com

Date: Wed, 01 Dec 93 09:37 CDT
From: David Atkins <ATKINS@macc.wisc.edu>
Subject: Open v. Closed Fermentation

In response to Robert Westerman's query into open v. closed ferments.
Tried to
post to your private email, but kept receiving return to senders:

I use a similar set-up with a 7 gal primary & 5 gal secondary. To clear
the
beer of whatever ills reside in the gunky parts of the krausen, I use a
technique tauted by Dave Miller. Once the krausen starts to fall back
into the
beer, rack the beer out from underneath the krausen and into your
secondary. I
try to wait till the last minute, allowing some of the cleaner foam the
chance
to fall back into the beer...retaining some head retention goodness. I
like to
keep as much beer as possible.

David Atkins

Date: Wed, 1 Dec 1993 10:46:40 -0600 (CST)
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Lovibond Scale

In HBD #1279 Allen Ford asks for formuli to determine beer color.
In HBD #1280 Gary Kuyat recalls some recipe for making lovibond color
samples from Michelob Dark. I too am looking for this recipe will
someone please post the refernce. TIA

WAK

Date: Wed, 1 Dec 1993 17:25:08 +0000

From: ANDY PHILLIPS <"/G=andy/S=phillips/OU=cell biology/OU=lars/OU=i a c
r/"@AFRC.ac.uk>

Subject: Re: Durden Park Beer Club - address

I have an address for Dr. J. Harrison of the Durden Park Beer Club,
publishers of the booklet "Old British Beers and How to Make Them".
When I bought it (1992) the cost was 3 pounds sterling plus
postage. It would be sensible to allow for inflation and
for the higher cost of overseas postage, although the book is quite small
(40? pages softback).

Dr. John Harrison
5 Dorney Reach Road
Maidenhead
Berks
SL6 0DX
England

Good luck,
Andy Phillips
Long Ashton Research Station, Bristol, UK

Date: Wed, 1 Dec 93 09:38:52 PST
From: Bob.Clark@Eng.Sun.COM (Bob Clark)
Subject: Re: Refrigerator Conversions

-> From: cssc!cong@scuzzy.attmail.com
-> Subject: Refrigerator Conversions
->
->
-> It might be easier to install through the door rather than on the top
of the
-> fridge. It would avoid the hassle of moving the freezer and the added
-> cost of the dispensing tower.

A friend of mine made the brilliant suggestion of putting the taps
on the *side* of the fridge, instead of the front.

I think it is a much better way to go. A front typically has a plastic
surface on it for holding eggs & such, while the side is two metal
surfaces
with insulation in between. Also, you don't have all that hosing moving
around every time you open the door.

Bob C.

Date: Wed, 1 Dec 93 10:46:09 -0800
From: arne thormodsen <arnet@kaibutsu.cup.hp.com>
Subject: Washing Soda and Glass

Date: Tue, 30 Nov 93 12:37:16 -0800
>From: Dan Needham <dann@hpsadr2.sr.hp.com>
Subject: Soda Ash Residue

>I threw some labeled bottles in a sink of hot water last night
>and sprinkled some soda ash on top. In the morning the labels
>slipped off nicely but there was a thin opaque film that I rubbed
>off the outside of the bottles with hot water. The film is also
>on the inside. A bottle brush will get some out, but there are still
>patches with brush streaks. Running them through the dishwasher rinse
>cycle didn't remove more.

>

>Is the film from the soda ash, the glue on the labels, or water
chemicals?

>I've usually used chlorinated TSP in the past, and will go back to that
>if soda ash is a problem. Also what is the chemical name for soda ash?

>

>Thanks for your help.

Soda ash is (if I remember right) Sodium Carbonate, also called washing
soda. It is alkaline enough to very slightly etch glass. When you are
washing off the "film" you are probably rubbing off and/or polishing
the etched glass on the surface. Glass is not as insoluble as people
think, and you shouldn't use really alkaline cleaners on glass. Read
the labels on some of the harsher spray cleaners sometime, they almost
all say to not use on glass. Next time, you might use ammonia, which
isn't harmful to glass. Of course, you need to use it outside.

- --arne

>

>Dan Needham

Date:Wed, 1 Dec 93 14:16:41 EST
From: "Glen A. Wagnecz, X6616" <wagnecz@PICA.ARMY.MIL>
Subject: Copper in a boil/Wheat Yeast Stains

Folks-

I've brewed two batches of wheat beer so far, both of which have been using extracts and both with Wyeast 3056 Bavarian Weissen liquid yeast. I've made 1 qrt. starters with the same composition as the main ferment before pitching and have had good quick startup's to fermentation. I really like the weissen taste, and I'm wondering if the 3056 is the best strain for this flavor. I've seen talk of both Red Star Ale Yeast (dry) and a new "Wheinstephen Wheat yeast (3068?). What's the opinion out there as to which is the best?

The second question I've got (thanks for bearing with me!) is whether or not it would be adviseable to use copper fittings in a boiler. I've obtained a SS half keg, ala budweiser (legally) and I want to use a copper double sided male connector through a hole in the side of the keg. This is the kind used for joining two flare fittings. One side would connect to 1/2 inch copper tubing going to a wort chiller, and the other would be slightly inside the boil. A cut down nut (also copper) would compress two gaskets (teflon) to provide a seal. Would there be any problems with: toxicity or taste degradation? Corrosion? Or would it be better to spring for a SS fitting?

Thanks In Advance-

Glen

Date: Wed, 1 Dec 93 12:54:51 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: Scrumpy

Richard Childers writes:

> "Scrumpy" is a British brew, usually beer (although it can be cider)
> to which has been added, in addition to the more conventional fermen-
> -table materials, some sort of meat.
>
> The concept apparently extends back through antiquity. Naturally, the
> question of "why" arose.

According to an article I read on cider, the reason for adding meat to the fermenting brew was to prevent a stuck fermentation over the winter months. The meat provided nitrogen and other nutrients to help the yeast survive the colder temps. Today, you can probably get the same effect by adding some store-bought yeast nutrient (unless, of course, you actually *like* scrumpy :-).

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Wed, 1 Dec 93 15:05 CST
From: korz@iepubj.att.com
Subject: Phenolics/Siebel yeast @ SN/Sam Smith's yeast

Jason writes:

>learned that peat smoked beers (like at least one smoked porter and some
>smoked Scotch ales) can have a very harsh, phenolic character. There

Currently, my basement smells a bit like a decent scotch ale, but not
because I'm brewing one...

...I tracked down the aroma to the rubber wheels on my new handtruck.

Mark writes:

>Other interesting tidbits: The question was asked if Wyeast 1056
>(aka American and/or Chico) was the same strain as they used. The
>answer was to that they had no idea, but wondered why it would
>matter since "you can get our yeast from a bottle of our beer."
>Their yeast came from Siebel, and is banked there, so maybe someone
>with a connection at Siebel could tell us more.

Siebel's BRY-96 is the same as Wyeast #1056 American Ale.

Michael writes:

>a batch of Samual Smith's Nut Brown Ale. Does anyone have
>a tried-and-true all-grain recipe for this delicious ale?
>Any suggestion as to what an appropriate yeast would be?

I'm afraid I can only offer speculation on this, and what I
propose is a bit risky, so take these comments with a grain
of salt. What you want is a high-diacetyl beer. One of the
biggest diacetyl producers is Wyeast #1084 Irish Ale. Here's
the risky part: try aerating the beer *during* fermentation.
It's basically what they do at the Tadcaster brewery when they
make Sam Smith's beers. I've read that the reason they do this
is because their yeast is highly-flocculent (too flocculent)
and they need to get it back into suspension. What this
aeration has a tendency to do is to increase diacetyl production.
Another risky proposition: when the beer is pretty much fermented-
out, chill it abruptly to drop the yeast. Alternatively, you could
use finings, such as Isinglass, to drop the yeast so they have
less opportunity to re-ingest the diacetyl.

Granted, I'm not speaking from experience here, only passing on
information gathered from various sources, so I would be
very interested in any personal experiences with either of the
two "risky" propositions I've put forth here.

Al.

Date: Wed, 1 Dec 93 18:20:38 est
From: Michael Wolter <WOLTER@DICKINSON.EDU>
Subject: acidic water/Red Feather Ale

In response to Mark Stickler's acidic water problem:

We recently had the gizmo installed to neutralize acidic water. It looks and works much like a water softener, but is filled with some sort of limestone. It definitely eliminated the green stain problem. Hard to say if it made much difference in the taste of my beer or wine (I like to think that the flavor improves as I learn more and refine my techniques). Email me if you have any questions.

You mentioned a "Red Feather Ale" that's made in Chambersburg. Do you know the name of the brewery? I live pretty close to Chambersburg, and this sounds like it could be a fun trip!

-Mike Wolter
wolter@dickinson.edu

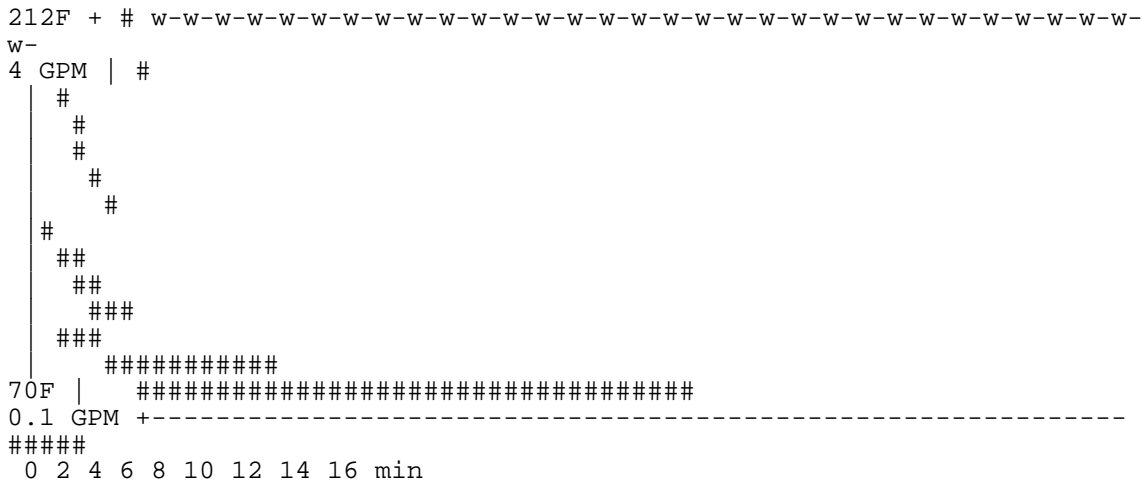
Date: Wed, 1 Dec 93 18:02:28 PST
From: relay.hp.com!daver!nexgen!bart (Bart Thielges)
Subject: London supplies

I'll be passing through London next month. I'd like to bring home some hard to find supplies. Does anyone have suggestions for good homebrew supply stores, particularly in the south Thames (Balham, Brixton, Clapham, Battersea, etc.) area ?

Last night. I dunked my immersion chiller and monitored the temperature. It seemed to stall about 100F. The reason ? I forgot to turn the burner off.
Duh !

For those immersion chiller users out there concerned with conserving water, consider gradually reducing the cold water flow as the wort chills. At 212F, a high flow can really transport a lot of heat. However, by the time the wort is below 100F, you really don't need any more than a trickle.

My time vs. temp, flow curve looks like :



Where the "#" curve represents both the temp falling from 212-70F and the water flow rate dropping from 4 to 0.1 gallons per minute. The "w-w" curve represents the "wasteful" method of leaving the water on full blast for the whole cooling cycle. Of course, the wort will cool a little faster with the full blast method, but not by much. As you can see, the water savings are tremendous and is well worth the extra minute or two (at 0.1 gpm no less !) of cooling time. But you probably already knew this.

This reasoning applies only if the outflow is not re-used. I've seen many clever posts by frugal brewers saving the clear water to wash clothes, etc. My method is to run the outflow hose outside so it waters my trees, but that doesn't apply now that the rainy season has come to San Jose.

Cheers,
Bart
bart@nexgen.com

Date: Wed, 1 Dec 1993 08:58:53 -0600 (CST)
From: jim@n5ial.mythical.com (Jim Graham)
Subject: Re: Desired format for file distribution

In today's HBD, paul.beard@gatekeeper.mis.tridom.com (Paul Beard) writes:

```
> In reference to Mark Stevens' comments on the need to stay away from
> vendor-specific
> file formats, I concur; I am all for PostScript file dumps. I assume
most
> of us have access to a PostScript laser printer and as long as we keep
> things at Level I PS for awhile, it should work great.
```

Bad assumption. There are still lots of non-PostScript printers out there, and there are, I'm sure, a lot more folks other than myself who don't have access to a PS printer.

And before anyone suggests GS, remember that it's output isn't always all that great (e.g., I have a 24-pin printer that I can drive at 360x360 dpi, but GS insists on 180x180 dpi ... and when I force the issue, GS forgets important details, such as the size of the paper, and so on)...besides, some of us don't have it (I have it archived somewhere, but can't afford to waste badly-needed disk space on it when I'd never use it anyways).

So, I have a suggestion that might make things a lot easier. If you're going to do PS documents, please include an ASCII version. Yes, some of the graphics may have to be left out. Perhaps they could be converted to GIF files? I don't know.... I know very little about converting from one graphics format to another. But at least the text portion would be available, where it wouldn't be otherwise.

I would suggest that another alternative format might be TeX. I could help in that area, if people are interested. From TeX's DVI output, you can go to just about any format you want. Then you just distribute the TeX source, and people can do whatever they want with it (including convert it to other formats, if desired).

Just a thought....

Later,
--jim

```
- - -
#include <std_disclaimer.h>      73 DE N5IAL (/4)
- -----< Running Linux 0.99 PL10 >-----
-----
INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.
32W
AMATEUR RADIO: (packet station temporarily offline)  AMTOR SELCAL: NIAL
- -----
-----
E-mail me for information about KAMterm (host mode for Kantronics TNCs).
```

Date: Wed, 1 Dec 1993 20:45:42 -0800
From: pascal@netcom.com (rIchARd cHildErS)
Subject: Scrumpy, Colloids & Foam

Got a little flack from one or two people (whom apparently missed the very explicit request at the end for mail to be sent to me here at pascal@netcom.com) suggesting I didn't know what I was talking about.

Let's step through the sequence of thought here ... take small steps.

'collegen' is a term which refers to "fibrous protein which occurs in vertebrates", according to Webster's 9th New Collegiate Dictionary.

'colloids' are defined as "gelatinous or mucinous substance found in tissues in disease or normally". Perhaps I selected the wrong word here, as what I was referring to were the threads of protein of which muscle and meat are composed ... which I understood to be colloids.

I'm not sure what agents exist within a wort or cider or other solution (yes, I include beer in the 'scrumpy' category, as well as cider) of fermenting fermentables, but it is undeniable that they exist, since meat placed in cider and other fermenting solutions undergoes change and dissolution.

Such an action must inevitably result in the tissue being teased into either shorter threads of protein (muscle is made up of longer threads) ... or component molecules.

Such threads as may exist might prove a tangible explanation for better head (which is so far strictly hearsay, and I haven't the slightest wish to test this hypothesis on a perfectly good batch of cider) on one's brew. This is strictly a theory, propogated for the interest of those of you with a scientific bent. (Jack, maybe a few others. [flamebait :-])

Surely people have been putting meat into their fermenting solutions for some reason over these many centuries. "Why" remains to be answered ..
.

- -- richard

Truth : the most deadly weapon known to civilization. Possession forbidden by employers, governments, and authorities, across the known universe. Violation of this regulation punishable by death.

richard childers pascal@netcom.com

Date: 01 Dec 1993 15:51:29 -0400 (EDT)
From: "Mr. Dudley" <S29711%22681@utrcgw.utc.com>
Subject: Microbrewing Equipment

In the interest of minimizing expenditure, I am interested in purchasing some used (versus new) microbrewing equipment. I envision purchasing such equipment from a micro that's upgraded.

Does anyone know if there exists a "clearing house" or other type of consignment operation dealing in such equipment? Alternatively I'd be interested in finding out if there anyone in the NY, CT, MA area who may be in a position to sell equipment like this.

Please respond to me directly at the following address:
S29711%22681@utrcgw.utc.com

Thanks
Jeff Dudley

End of HOMEBREW Digest #1287, 12/02/93

Date: Thu, 02 Dec 93 04:52:32 EST
From: John Pedlow <TKSJJOHN@UBVM.CC.BUFFALO.EDU>
Subject: Corsendonk Monks Ale ?

The local supermarket stocks a few imported brews. Normally these go for from \$1 to \$2 per approx 12 oz bottle. Corsendonk Monks Ale is currently being offered in "a hand painted gift bottle imported from Belgium". The cost is \$44.88 for a 100 oz bottle with a "save 4.00" appended.

Anyone enjoyed Corsendonk Monks Ale and can share why it is so expensive? Can "they" make money stocking a brew this expensive? What is its shelf life? And, of course, what does it taste like? Thank you.

John Pedlow in Buffalo, NY

Date: Thu, 2 Dec 1993 12:02:15 +0000
From: G.A.Cooper@qmw.ac.uk (Geoff Cooper)
Subject: Re: Durden Park Beer Club - address

Andy Phillips writes:

>I have an address for Dr. J. Harrison of the Durden Park Beer Club,
>publishers of the booklet "Old British Beers and How to Make Them".
>When I bought it (1992) the cost was 3 pounds sterling plus
>postage. It would be sensible to allow for inflation and
>for the higher cost of overseas postage, although the book is quite
small
>(40? pages softback).

The retail price still remains at 3 pounds with discounts for larger orders.

It is quite small, 56 pages softback, and contains 60 recipes. Since the recent articles, interest has been shown in it being stocked by more suppliers in the US - watch this space.

Oh, and yes, John doesn't mind his address being published.
If you wish to write to him, about the book or anything else, Andy has it correct:

>Dr. John Harrison
>5 Dorney Reach Road
>Maidenhead
>Berks
>SL6 0DX
>England

Geoff
(No disclaimer: Being a member of Durden Park I have a vested interest in the book)

Date: Thu, 2 Dec 93 09:28:32 EST
From: sims@pdesdsl.scra.org (Jim Sims)
Subject: mead questions

I've got a coupla mead and fruit mead batches under my belt. I've been keggering my homebrew for about 6 months now, and am wondering about keggering future batches of mead. Is there any reason that I *shouldnt* keg my mead insterad of bottling? What about using stainless vessels for primary or secondary fermentation also, since they take up a fermenter for a coupla months?

First hand experience, no urban legends, please.

Also, is there a Mead mailing list similar to HBD?

thanks,
jim

Date: 02 Dec 1993 10:02:02 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: Wort Processor Krush-Off: Part II

As a followup to the Worts successful Klub Krush-Off in September, the club held a second Krush-Off at the November meeting. Several Worts had recently received 'improved' grain mills and we wanted to see for ourselves how good the new mills really were.

Bob Gorman brought an 'improved' Glatt mill in which the rollers had been redesigned with a fine knurled covering as opposed to the long grooves in previous models. And Dan Listerman sent the club an improved PhilMill for testing. The knurl was much coarser than in the previous model. The malt used for this Krush-off was again pale 2-row. Each mill was adjusted for crush quality, then 2 lbs. of malt were run through in a time trial. Results and comments are shown below:

The Time Trials:

1) The Knurly GlattMill - Powered by a normal household drill, this mill crushed the malt in an impressive 26 sec., nearly as fast as the Schmidling MaltMill (21 sec) in our original Krush-Off.

2) The original GlattMill - Also powered by a normal household drill, this mill took 1 min. 6 sec. to crush the same amount of grain. [Note: this mill took 45 sec to crush the same amount of grain in the first Krush-Off. Obviously there can be substantial variations in the crush-time depending on how the mills are adjusted and the speed of cranking]

3) The New-Improved Listerman PhilMill - When powered by the normal household drill, this mill refused to budge. Even when the adjustment screw was backed off slightly, the operator was afraid to continue, citing fear of drill burnout. Not to be dissuaded, however, Tim Dalton dragged out a monster industrial 5 amp drill. It didn't hesitate when attached to the mill and crushed the malt in 38 sec.

General Comments:

The Knurly Glatt was much faster than the Slotted Glatt and also threw a bit less grain behind the mill than the Slotted one. But this is still a design bug and can be easily fixed by extending the drop shoot up higher to cover the back of the rollers.

The Slotted Glatt gave a very nice crush as we had previously observed, but

most of the husks were still cut in half width-wise. I assume this was due to the large slot size. The Knurly Glatt also gave a very nice crush, but the adjustment was slightly off, so although the kernels were cracked many of the husks still held together. However a little tweak between the fingers caused them to fall apart nicely. But this did give the appearance of un-crushed kernels and the question was raised as to whether they would open up in the mash or not.

We did a follow up crush on the Knurly Glatt with the rollers a couple of notches tighter. At this point the Knurly Glatt produced a bit more powder than the Slotted Glatt, although still well within acceptable ranges.

The New-Improved Listerman Mill required a lot more torque to crank than the Glatt Mills. It should be noted that the drill used to turn the Glatt mills was very beat and it took a few seconds to get up to full speed when using the Glatts which are extremely easy to turn. However, even if the drill had been in perfect shape it would still have had a very hard time turning the Listerman Mill. The bigger drill was definitely needed and was a whole lot more fun to use. Of course, manual operation of the mill is always an option!

The crush of the Listerman was good. However the adjustment of the rollers was a little on the tight side, so the crush came out a bit more powdery. It's too bad the operators didn't adjust this mill better because we would have liked to have seen how much powder and husk demolition the New-Improved Listerman Mill would have produced if properly adjusted. Nevertheless the crush was still acceptable.

As a followup it would be interesting to see a qualitative analysis of the different mills run at different speeds. It is possible that the slotted roller design might do much better at a slower speed.

Some personal comments:

The 'improved' mills do appear to be real improvements over the models tested in the first Krush-Off. Taking workmanship, ease of use, and quality of crush into account, I would personally rate the new Glatt mill and the Schmidling MaltMill about equally. The MaltMill has faster throughput due to its longer rollers and this could be important if you crush large amounts of grain. I

also think that the MaltMill is a more 'mature' mill. By that, I mean that JS has been constantly making small improvements to the MaltMill over the last few years. Even though the Glatt delivers an excellent crush and is easy to use, there are a few spots where improvements would make it an even better product (like raising the height of the back cover plate, redesigning the handle attachment, and downsizing the cover box that partially obscures one of the adjustment screws). Personally I don't think that most homebrewers would go wrong with either one of these two mills.

Although the new Listerman PhilMill gives a nice crush and is certainly adequate for most homebrewing, I personally am bothered by its lack of bearings, given its price, and its means of attachment to a table via screwhooks is kludgy.

For the money, the Glatt (~\$80) appears to be the big winner, especially given its adjustable rollers. The comparable adjustable MaltMill retails for ~\$129, although the non-adjustable model is only ~\$99. The Listerman retails for ~\$75.

BTW, I am a satisfied MaltMill customer and have no commercial interest in any of the above products.

Steve Stroud

Date: 02 Dec 1993 08:32:50 -0700 (MST)
From: "Steven W. Smith" <SMITH_S@gc.maricopa.edu>
Subject: Barleywine, temp fluctuation

Got a couple of burning questions for the oracle (Jack Oracle, yeah, that's him). First, what's the difference between beer and barleywine? Is it the yeast used, alcohol content, carbonation, whim of the brewer? If it's alcohol content, when does doppelbock cross the line and become barleywine? Are there any commercial barleywines?

Second: someone recently asked if temperature fluctuations would adversely affect a lager. Well? (tap tap tap)... I've had five gallons of doppelbock in my fridge for 2 months and it's still happily fermenting. It finally slowed down a bit; 1 bubble every 18 seconds or so.

3 weeks ago I racked it again and had a taste (ok, a big lager glass). It's still noticeably sweet, and I'm running low on homebrew. If it won't horribly desecrate my first actual lager, I'd like to bring it up to room temperature (about 74F) for a few days to accelerate fermentation. It would also be kinda handy to have the veggie drawers and more than 1 shelf again after all this time. The experience has taught me to shop carefully and stack creatively; also that I'm not as patient as I thought I'd be. TIA

—'—/|
/o.O; Steven W. Smith, Programmer/Analyst
=(__)= Glendale Community College, Glendale Az. USA
USMITH_S@GC.BITNET
smith_s@gc.maricopa.edu
"Hark! 'tis the pathetic mewling of users."

Date: Thu, 2 Dec 93 10:58:53 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: highly hopped beers

We tasted a bottle of Alimony Ale last night -- Bill Owen's "Bitterest Beer in America". Well, it ain't. It's not a bad beer, but the SN Celebration Ale and the homebrew raspberry stout we tasted before it were definitely more bitter.

ObHB: Raspberry Stout (from Hal Buttermore)

2 cans MtMellick Stout
1 lb crystal malt
1 oz galena
2 oz N Brewer
10 lbs Raspberries ("picked by virgins" :-)

Do the obvious thing. (This is a reduced volume boil recipe. If you want to do a full-volume boil, cut the hops, maybe in half.) Raspberries added to primary. Probably not sanitized in any way.

I think the original was fermented with Doric dry yeast.

Very tasty, beautiful red-brown head, almost opaque, but lovely red color when shining a flashlight through about 1/4inch of it. Raspberries jump into your nose, and follow through in the flavor. At this point (brewed summer 1992) it's balanced towards the tart side, but there's still sufficient sugar to stand up to the hops bitterness & fruit acidity. Yum!

=S

Date: Thu, 2 Dec 1993 11:19:15 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: Budweiser/Budvar

Did anyone see the news that Bud, the US megabrewer is looking to=
buy a
piece of the original Budweiser from Slovakia? They are looking to=
buy out
their name licensing fee, from the sound of it, as well as get a=
chance to
distribute their stuff deep in Europe.=20

If only these large companies were as obsessed with quality as they=
are
with marketshare, like everyone here seems to be=8A

Paul Beard
AT&T Tridom
840 Franklin Court
Marietta, GA 30067
404/514-3672
=46AX 429-5419
tridom!paul.beard/beardp@gatekeeper.tridom.com

Date: Thu, 2 Dec 93 11:25:40 EST
From: Keith MacNeal 02-Dec-1993 1103 <macneal@pate.enet.dec.com>
Subject: 60F ferments and Kirschenbeir question

In Homebrew Digest #1287 (December 02, 1993) Troy Howard posts:

>Rick Magnan asks about an appropriate yeast for fermenting at around
60F.
>Try Wyeast 2112 (California Lager). It is quoted as fermenting well up
to
>62F while keeping its lager characteristics.

I have successfully brewed with (gasp!) Whitbread dry yeast at 60F. In
the
winter months my basement is too cool to brew ales and the first floor
goes
through wide temperature fluctuations due to a setback thermostat. So, I
ferment on the second floor where the bedrooms are and the thermostat is
set
at a constant 60F.

Also in HBD #1287, Steven W. Smith <SMITH_S@gc.maricopa.edu> posted:

> Whenever I can find cherries again, I plan to try adding them to my
standard
>bock. It seems reasonable (to me) to wash the whole fruit in a mild
bleach
>solution, rinse, dry, smash (how?), force into a carboy (how?), then
siphon
>from the primary onto them. I'm thinking about 10 pounds of cherries to
a 5
>gallon batch. Maybe freezing/thawing before smashing? Do the pits
matter?
>Any comments appreciated, I'm flying blind.

After reading some suggestions in here and some books, here is what I did
for
a peach ale using fresh peaches. I washed the fruit under running tap
water,
pitted it, put it in large Zip-Loc freezer bags, and put them in the
freezer.
The night before I moved the beer from primary to secondary I took the
fruit
out of the freezer to thaw. When thawed I simply squished them all up by
hand
while they were still in the bag. I then poured them from the bag (with
the
assistance of a sanitized stainless steel spoon) into the secondary and
siphoned the beer on top of it. Next time I would use a sanitized funnel
made
from a gallon plastic milk jug to help with the transfer.

As you noticed I didn't sanitize the peaches and I pitted them. Some
suggest
using camden tablets to sanitize the fruit (I really wouldn't recommend
using
bleach) a couple of days before adding the fruit to the beer. I counted
on
the alcohol content and high yeast population in the beer to prevent
infection

and it worked. I pitted the peaches since the pits are large and I would have had trouble fitting the peaches down the neck of the carboy if I didn't. Personally, I wouldn't pit the cherries -- it would be too much work. Freezing the fruit definitely aided in smashing them up. I've read that freezing ruptures the cell walls and makes the fruit sugars easier for the yeast to get to for fermentation.

Speaking of fermentation, you will get a great deal of activity after adding the fruit. Use a 6 gal. carboy with a blowoff tube for a 5 gal. batch with fruit added. Even with this setup I ended with a clogged blowoff due to a peach that didn't get mashed well.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Thu, 2 Dec 93 12:04:24 -0600
From: bliss@pixel.convex.com (Brian Bliss)
Subject: Re: scrumpy

rchilder@schwab.com (richard a childers) writes:
>"Scrumpy" is a British brew, usually beer (although it can be cider)
>to which has been added, in addition to the more conventional fermen-
>-table materials, some sort of meat.

>The concept apparently extends back through antiquity. Naturally, the
>question of "why" arose.

I've always wanted to make bacon stout, but thought that the oils
would kill the head retention.

A nice fresh bottle of sam smith's oatmeal stout has a very bacony
taste to it, and a little real bacon in the brew might be interesting.

bb

Date: Thu, 2 Dec 93 13:04:21 EST
From: sdlsb.dnet!73410%SDLCC@swlvx2.msdlcc.com (Carl Howes)
Subject: John (lotsa)Bull

jeclark@ucdavis.edu (James Clark) writes:

>1) is it okay (or even advisable) to shake up and thus aerate the beer
in
>the middle of fermentation?
>
>2) for our next repipe we plan on just improving on the righteous real
ale.
>i thought a good recipe for 5 gallons would be:
> 6.6 lbs John Bull amber malt extract syrup
>[snip]
>
>3) i want to try a batch without using the blowoff method, but i still
want
>to use a 5 gallon carboy. if i make 4 gallons will the kreusen still
reach
>the top of the carboy or would i be safe to just put the fermentation
lock
>on?

Taking these in order:

1) In the middle of fermentation there should not be any oxygen to aerate with, and you want to avoid aeration after fermentation begins anyhow.

2) Check the label on that can! The John Bull syrup that I have seen is stretched with corn syrup (can you say ripoff boys and girls?) If you go with 6 lbs of dry extract you will get more fermentables per pound (any syrup also contains water) and your cost may be lower pound for pound (I have found this to be so).

3) It should be fine. I use a 6.5 gallon carboy for 5 gallon batches and just put the airlock on.

Carl

Date: Thu, 2 Dec 93 12:15 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: BRF IBU algorithm

Andy Phillips writes:

> I don't know whether BRF is capable of an accurate calculation
> in the high SG range - the formula used may not be valid.

The BRF's IBU calculation accomodates high gravities. The algorithm is Jackie Rager's. Is it accurate? I think it's fairly accurate. Can the forumla be improved? Probably.

Whether you agree or disagree with Rager's algorithm, the fact remains that it's the only formula around. If someone has a better formula, I'm all ears.

Having brewed a couple of barleywines and just a few :) Imperial Stouts, I agree that high gravity worts need truckloads of hops just to make the bitterness discernable.

Numerically speaking, if you're getting an IBU value as high as 100, dollars to donuts says the bitterness "retardation" value in the algorithm is not adequate. Anyone care to take a stab at updating the algorithm?

chris campanelli

Date: 2 Dec 1993 10:52:13 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: Red Star Ale Yeast

Dave Lyons wrote:

I have experimented (tried) the new red star yeast on two different batches and would like to compare notes with anyone else who has tried it.

(His) notes include:

Lag time: slow (approx. 1 day).
Attenuation: 78% for all malt extract recipes (using 100% M&F light).
After taste: Thought it gave the beer a somewhat phenolic flavor, but this faded after 2 months in the bottle.
Fermentation: Very strange primary ferment ... a thick (1") head of yeast (I think this is what it was?) remained on top of the beer after the end of the primary ferment. Had to siphon below the yeast cake(?) when racking to the secondary. Never observed this with any other yeast?

I have also used Red Star a few times and I like it. I have had very clean tasting beers using it. My statistics are:

Lag time: Good, Within 12 hours, often within 6. (I use a Starter)
Attenuation: 70-ish%, haven't really been concerned with it.
Primary Ferment: Big Krausen that does stick around, I rack out from underneath it as standard practice. Primary time is usually one week for the IPAs I've been brewing.

John Palmer - MDA-SSD M&P palmer#d#john@ssdgwy.mdc.com
"We hold these truths to be self-evident, that all Men* are created equal,
that they are endowed by their Creator with certain unalienable Rights,
that among these are Home Brewing, Women**, and the Pursuit of Science."
* intended at this time to be nonspecific; ** personal preference.

Date: Thu, 2 Dec 1993 12:04:52 -0700
From: c-amb@csc-sun.math.utah.edu
Subject: Re: hop utilization

I brew from malt extract, boiling only about half the wort and then adding it (after chilling in a water bath) to cold water in the carboy.

I know that one of the problems with this approach is that hop utilization is less than optimal due to the high gravity of the boil.

I believe that the high gravity is only one factor limiting hop utilization. The simple fact that you are boiling the hops in less than 5 gal of H2O is the main problem. It seems that as the amount of alpha acids in the wort increases it reduces the gradient between the hops and the wort. Thus, extraction slows down. Now to mentally check this idea at the limit points think about boiling your hops in one or two cups of water. I imagine that quite quickly you would reach a maximum bitterness at which you leave quite a lot of alpha acids in the hops themselves.

This hypothesis would be easily testable by simply boiling a few ounces of hops in 1 gal of water and diluting this to 5 gal. and comparing this to the same amount of hops boiled in 5 gal. I imagine that there would be an appreciable difference.

It occurs to me that there may be a simple solution to this problem: boil the hops in plain water for an hour, and then just add the extract and boil for another 15 minutes to sterilize it. This should maximize hop utilization without compromising sanitation.

As stated above, I don't think that this eliminates the problem of reduced efficiency.

My \$.02

Mark Alston

Date: Thu, 2 Dec 93 14:22:34 EST
From: howitt@sens.com (Food Processor with Ears)
Subject: Kegging procedures

I have just got myself set up with a Cornelius keg and CO2 cylinder. I am told that keggered beer should be pressurized with the cylinder rather than primed and allowed to pressurize itself (as in bottling), but I don't know any particulars, such as what pressure is advisable, how long to let it sit, does it need to mature in the keg, etc. Does anyone have advice, or is there an FAQ with this information?

thanks and cheers,
Wil Howitt

Date: Thu, 2 Dec 93 12:12:19 PST
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Hop Utilization

Allan Rubinoff writes:

>>I brew from malt extract, boiling only about half the wort and then adding it (after chilling in a water bath) to cold water in the carboy. I know that one of the problems with this approach is that hop utilization is less than optimal due to the high gravity of the boil.

The gravity of the boil is not the culprit. It is the reduced boil volume. (I don't want to start another flame fest here. Let's be very clear: In no way am I saying that as beers get higher in gravity, the utilization doesn't suffer. It does, and this is well documented. *BUT* it is an effect produced by fermentation, not the gravity of the boil. Allan is diluting his wort back to a lower gravity before fermentation begins.)

>>It occurs to me that there may be a simple solution to this problem: boil the hops in plain water for an hour, and then just add the extract and boil for another 15 minutes to sterilize it. This should maximize hop utilization without compromising sanitation.

This will work, but again we have the same problem of lower boil volume. You will get higher extraction rates for two reasons: None of the bittering compounds will be lost on the break (around 7-10%) and the pH of the plain water should be higher than that of wort. A higher pH will improve the isomerization reaction. (Before you all try to boost the pH of worts to get better extraction, be forewarned that this has been tried many times throughout history - it results in awful beer!) Whether the pH of the water will also have this effect, I dunno. I suspect not, since it's not all that higher than wort.

Now, what *will* work is to divide the hops 50/50 between the two boils. This will maximize the extractions from both. (This is assuming equal boil volumes, otherwise divide the hops proportionately to the volume). The other advantage to this is that you *should* have some hops in your wort boil to help promote good breaks.

>>This seems like such a simple (and obvious) solution, that I wonder why I've never seen it mentioned anywhere. Does anybody know of any reason not to do this?

Probably because it's really a *lot* simpler to just put in extra hops to compensate. All the extra boiling and time isn't worth it (IMHO) to save a very small amount of money on the extra hops.

Mark

Date: Thu, 2 Dec 93 15:30:16 EST
From: Mark Stickler Internet Mail Name <mstickler@lvh.com>
Subject: Sake Supplies

I know Sake is not really beer but will keep bandwidth to a minimum. I read Fred Eckhert's book (about six months ago) and now I'm interested in getting some of the supplies from a retail homebrew supply store. I'm most interested in the yeast and starter rice (kioji I think) but also polished rice, etc. Please respond via private email. TIA. Also thanks to the people who gave me advice on my acidic water problem.

Mark Stickler
mstickler@lvh.com

Date: Thu, 2 Dec 93 14:34:39 EST
From: ulick@michaelangelo.helios.nd.edu (Ulick Stafford)
Subject: Pete's recipe and miscelaneous

I would like to emulate Pete's Wicked Ale. I plan a batch of 8lb brewers malt, 1lb crystal, 1/2 lb cocolate and 2oz. blackpatent, hopped with 11 AAU high alpha (Nugget) bittering, and finished and dry hopped with Cascade. I plan to use German Ale yeast. Comments? Suggestions?

In hbd 1287 Chris Lyons worries that flaked barley adds nothing to an extract recipe. He is probably right - certainly no starch could be converted, and haze may even form, but perhaps some proteins would be extracted that would add to head retention.

David Turner worries about TSP in his septic tank. The reason TSP and other phosphates are considered pollutants (so much so that their use in laundry detergents is outlawed in many states, even including Indiana) is because they are nutrients and help bacteria and algae grow much better in surafce waters thus depriving fish of oxygen by night. This is probably what you want in your septic system, so moderate use should not be a problem. Worry more about the chlorine.

Bill Kitch wants to know where George Fix' famous Michelob dark figure is.

I have seen it in many place includng recently in a Zymurgy. I am sure it is in Fix' Vienna book, but he can comment on that. However, if you have access to a spectrophotometer you could use the ASBC method. Simply, measure the absorbance of a clear (not turbid) sample of beer at 430 nm, convert this absorbance to absorbance by 1/2" (i.e. if you measure in a 1cm cuvette multiply the figure by 1.27), and multiply by 10. For dark beer you may need to dilute or use a smaller cuvette e.g. I meased a brown ale of mine with a mere 1/4 lb of black patent in a 2mm cuvette and got an ABSC reading of 40 - black stuff that. If you prefer to use the EBC scale, it is based on absorbance at 530 nm, but I know no more details about it. Anyone care to fill in the gap?

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

 Pabst Blue Ribbon!' | Notre Dame IN 46556
 | ulick@darwin.cc.nd.edu

Date: 2 Dec 1993 12:15:46 U
From: "Palmer.John" <palmer#d#john@ssdgwy.mdc.com>
Subject: James Questions, Copper, First Time Info

Hello Group,

Several Items in #1287 caught my eye, I thought I would do a compiled post.

First, some James Questions. :)

>1) is it okay (or even advisable) to shake up and thus aerate the beer in

>the middle of fermentation?

No. Just leave it alone. 1) you are just aerating with CO2, 2) The yeast are probably done respirating.

>2) for our next repipe we plan on just improving on the righteous real ale.

>i thought a good recipe for 5 gallons would be:

6.6 lbs John Bull amber malt extract syrup

3/4 lb. cracked crystal malt

2 oz. cascade hop leaves (boiling)

1 oz. willamette hop leaves (aroma)

1/2 oz. willamette hop leaves (finishing)

2 pkgs. (10 oz.) Windsor dry English ale yeast

3/4 cup corn sugar (bottling)

That's quite a bit of Hops (don't say Hop Leaves, we'll know you are a Newbie)

Are you sure you want that much? Assuming boil times of 60, 15, and 5. And a

starting gravity of 1.05, but only boiling half, I get a total IBU of 30. Which is not bad, really. I would not recommend the Cascade Hops for the Boil,

though. I like it for the finish, but it is too herbaly for the body, IMHO. Use

the Liberty for Boil and Liberty/Cascade for the finish. Hey, whatever you want.

2 packages of dry Yeast is too much, especially if...

>3) i want to try a batch without using the blowoff method, but i still want

>to use a 5 gallon carboy. if i make 4 gallons will the kreusen still reach

>the top of the carboy or would i be safe to just put the fermentation lock

>on?

If you don't want to use a blowoff, two packages is WAY too much. Use one package and a starter if you want a good fermentation. Even 4 gallons will

probably reach the top with a vigorous fermentation. I would stick with the

blowoff and elevate the outlet hose, so that most of the liquid that get pulled

along with the foam will drain back into the carboy. Or use the higher capacity

plastic buckets for the primary.

Second, Copper in the boil.

>whether or not it would be adviseable to use copper fittings in a

>boiler. I've obtained a SS half keg, ala budweiser (legally) and
>I want to use a copper double sided male connector through a hole
>in the side of the keg. This is the kind used for joining two
>flare fittings. One side would connect to 1/2 inch copper tubing
>going to a wort chiller, and the other would be slightly inside the
>boil. A cut down nut (also copper) would compress two gaskets
>(teflon) to provide a seal. Would there be any problems with:
>toxicity or taste degradation? Corrosion? Or would it be better
>to spring for a SS fitting?

No problem with toxicity, I doubt any problems with taste, after all,
many
breweries use all copper boil kettles. Corrosion of the copper fittings
will
occur but I don't see this as a significant problem. You will only see
your
fittings staying clean. Eventually they will need replacement.
The alternative is Stainless Steel, but I would weigh your costs. Its
your
call.

Instructions for the First Time Brewer:

Over the last couple weeks, I have compiled a basically complete,
annotated
recipe/list of instructions for the First Time Brewer. It is everything
the
first timer needs to know to brew a fool-proof extract ale with dry
yeast. I
discuss Sanitization, Ingredients, Equipment, Boiling and Fermentation
Practices, Do's and Don'ts, What that Mold means, and Recommended
Reading.

If any of you are a first (or second) timer, or have friends about to
take
the plunge, I will be happy to email you a copy. Its 10 pages of ascii
text.

I am interested in possibly putting it on the Sierra server when I get
some

feedback on it. Maybe Patrick Weix can help me here...

Email me at palmer#d#john@ssdgwy.mdc.com

John Palmer

MDA-SSD M&P

(sigh) yet another turkey sandwich for lunch...

Date: Thu, 2 Dec 93 13:26:08 EST
From: gheiler@Kodak.COM (Greg Heiler)
Subject: foseil oils & hangovers

I`am a new brewster with several batches underway. I've been hearing about the primary fermentation blow-off method and its advantages. Does the removal of the foseil oil make a significant difference?

I've bought my equipment through Williams Catalogs and they discourage people from using the blow-off method for fear that a clogged tube could cause an excessive pressure built up. I tried to skim at the appropriate time on my last batch but I was uncomfortable with the process (i.e contamination concerns).

Looking for comments on whether it makes a noticable difference and if so, techniques that work the best.

Thanks in Advance;

Greg

Date: Thu, 2 Dec 93 16:49:44 EST
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>
Subject: Beer sources in Minneapolis

Hi gang,
This is not specifically a home brewing question, but does anyone out there know of some stores in Minneapolis with large beer selections? I will be there for a couple of days next month on a job interview and I was hoping to see if there were some interesting regional brews not available in Ohio. Please reply directly unless you have something of general interest.

Thanx,
Mark Fryling
<mfryling@magnus.acs.ohio-state.edu>

"Never let your sense of morality prevent you from doing whats right."
I. Asimov

Date: Thu, 2 Dec 93 12:41:01 PST
From: hollen@megatek.com (Dion Hollenbeck)
Subject: Re: Used Kegs?

>>>> "Norm" == npyle <npyle@n33.stortek.com> writes:

Norm> Now that it appears DeFalco's won't ship used soda kegs anymore,
Norm> does anyone have a good source that will ship small quantities
Norm> at reasonable prices?

The Beverage Company
P.O. Box 839
Anderson, Ca 96007
(916)347-5475
Ask for Ray

\$17 each for pin lock
\$23 each for ball lock

Shipping extra (shipped in quantity of 4, added \$4 per keg from
Sacramento to San Diego, CA)

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucsc!megatek!hollen

Date: Thursday, 2 December 93 17:15:24 CST
From: LLDSC@utxdp.dp.utexas.edu
Subject: Homebrew Digest #1287 (December 02, 1993)

Re: Cherry in beer

I made a batch of cherry stout. I only put 5 pounds of cherries in. The head was tinted red and there was a bit of cherry taste but not much.

TNCJOHB recommends at least 10 pounds. I think that should just about do it.

It also says that you should freeze the cherries first and then put them in the wort after the boil. Let that sit for a few minutes to pasturize the cherries and kill the nasties (I'm just quoting from the book here).

I did a primary fermentation in a plastic 5 gallon bucket so that I wouldn't have to worry about getting the damn fruit through the hole.

Of course, this is only IMHO. :-)

(I've never used that Internet-speak before. Check out the newest Time & U.S. News-the Net is everywhere!

Keep on rockin' in the free world.

Scott lldsc@utxdp.dp.utexas.edu

Date: Thu, 02 Dec 93 23:12:58 EST
From: dweller@GVSU.EDU (RONALD DWELLE)
Subject: ice-beer info

Hi folks--

Just picked the following up off the AP, fyi-----

Labatt suing U.S. brewers over ice beer

The Associated Press

DETROIT -- Canadian brewer John Labatt Ltd. is suing rivals Miller Brewing Co. and Molson Breweries USA in U.S. District Court alleging trademark infringement over ice beer products.

Toronto, Ontario-based Labatt says it filed for trademark protection for the ice brewing process and for the resulting product in November 1992. The application is pending.

"Competitors will not be permitted without challenge to misappropriate Labatt's rights in this area where Labatt has demonstrated clear leadership and innovation," the company said.

In the suit filed Monday in Detroit, Labatt claims that Milwaukee-based Miller and Molson, Breweries USA, a wholly owned subsidiary of Miller, are guilty of; unfair trade practices in the promotion of their ice beer products in the United States.

Labatt began exporting ice beer to the United States in October.

Miller spokeswoman Susan Henderson called the Labatt lawsuit without merit. She said ice beer was developed in Germany in the 19th Century and was known as "Eisbock." Miller began selling Icehouse last summer.

MAYBE I SHOULD TRADEMARK "homebrew," EH?

Cheers,
Ron Dwelle (dweller@gvsu.edu)

Date: Wed, 1 Dec 93 14:04:00 -0500
From: bret.lanius@ehbbs.com (Bret Lanius)
Subject: Homebrew Digest #1284 (No

I made a batch of Porter based on TNCJOHB's Sparrow hawk porter. While it turned out VERY well I was of course wanting to tweak it before starting the next batch of the same.

Original Recipe:

3.3 lbs Muton Fison Plain Amber Malt
3.3 lbs Muton Fison Plaid Dark Malt
1 lbCrushed Black Patent Malt
1 Oz Northern Brewers Hops
1 oz Tettnang Hops
1 tsp Gypsum
1 Pkg Irish Ale Yeast

I found the Black to be a bit much and thought I'd substitute chocolate for half of that, and I plan to dry hop as well.

What I'd really like is to sweeten this brew a bit.....
Thought maybe Crystal but I don't know if that would do it!
Suggestions appreciated.....

Bret LaniusINTERNET:bret.lanius@ehbbs.com

- - - -
. JABBER v1.2 #188 . Enlightenment is not a destination, but a journey.

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+-----+
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| Ed Hopper's BBS - Home of uuPCB - Usenet for PC Board - Atlanta, GA |
| Node 1 - USR HST - 404-446-9462 Node 2 - V.32bis - 404-446-9465 |
+-----+
-----+

Date: 3 Dec 93 00:27:41 MST (Fri)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: RE: Questions from COYOTE <SLK6P@cc.usu.edu> on filtering

Tom Clifton <0002419419@mcimail.com> writes:
> My thoughts on filtering.... Why bother! According to Papazian a bit
> of yeast helps add to the stability of the brew...

This sounds backwards! (doesn't matter whether Charlie said it or not;-
)
Conventional wisdom [did JS just twitch?] is that you keep more character
by not filtering, but if you're going to keep the beer for a while you're
better off filtering it. Be that as it may, what's the reasoning behind
yeast adding stability.

>...I[[f] you have followed the basics of good
> wholesome brewing (sanitation) there won't be any bacteria you need to
filter
> out...

If only...

No, actually (a) there will be bacteria there regardless of how careful
you've been, and (b) it takes serious filtering to get bacteria out. As
to point (a), Tom's principle is right, that if you're careful the
bacteria
population will be much lower than if you're sloppy. But it's still sub-
stantial. You can't get rid of them all; most of what care and
sanitation
gives you is keeping the bacteria at bay long enough that the yeast get
the available food in early fermentation...keeping the wolf at bay, as it
were. On the other side, for point (b), even if you did filter, would
you
really want to filter that severely?

- - - -
Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

End of HOMEBREW Digest #1288, 12/03/93

Date: Fri, 03 Dec 93 00:47:11 PST
From: mikel@netlink.nix.com (Mike Lemons)
Subject: Oatmeal Stout & Wyeast 1084

I just made an Oatmeal Stout using Irish Ale yeast. Others have remarked that this yeast ferments rather vigorously. In the words of Miss Lilly von' Stupf, "It's twue! It's twue!"

Ingredients:

6 lb bag of William's Oatmeal Stout extract
2 lb (approx) Laaglander Light Amber Dried Malt Extract
10 oz of chocolate malt

Yeast: "Wyeast Irish Ale 1084"

Total boiling time: 60

Hops added: "Bullion" State:"Pellets 9.0%" Amount: 1.00 oz Boiled for: 60

Hops added: "Hallertau" State:"Old Pellets 3.0%" Amount: 0.50 oz Boiled for: 5

Initial gravity: 1.057

When I poured the cooled wort into the plastic primary, so much foam built up that I had to skim it off before I could close the lid. I used a yeast culture and aerated my wort by vigorous shaking. (IMHO, this is more effective than a pump and airstone) I used a blow-off hose for the first time. (I don't believe in it. Hey, I paid for those hops. I want all the bitterness out of them I can get!) Using a blow-off hose was a problem because of the 1" hole. A 1" i.d. plastic hose was too thick to fit and a 1" o.d. hose was too loose. So I smeared some silicon sealant on the hose the night before. Does anyone know a better way? I put the other end in a 1 gal jug. 5 hours later, it was bubbling.

At 20 hours, it was pushing globs of foam through the hose at the speed of 4 feet per minute! When I switched to an airlock, it had accumulated half a gallon of wort. (I think the toughness of the foam was due to the oatmeal)

I just wanted to warn people to use a blow-off hose when using high-gravity wort, Wyeast 1084 or oatmeal. My uncle had an airlock clog with a Belgian ale. He came home from work to find his plastic primary swelled up like a basketball! When he cracked the lid, it sounded like a gunshot and hurt his ears. I heard about someone who had a glass carboy explode in his closet. It coated his clothes with beer and glass.

- - -

INTERNET: mikel@netlink.nix.com (Mike Lemons)

UUCP: ...!ryptyde!netlink!mikel

Network Information eXchange * Public Access in San Diego, CA (619) 453-1115

Date: Thu, 2 Dec 1993 16:54:01 -0800 (PST)
From: Mark Stewart <mstewart@scs.unr.edu>
Subject: immersion chiller plans...

Lots of recent discussion on building immersion chillers has prompted me to submit this post. Here's my 'tried-n-true' recipe (for what it's worth):

- 1) buy 50' coil copper tubing, 3/8" outside diameter, (approx. cost for me at this posting is \$13.99...your price(s) may vary).
- 2) buy 20' length of food grade vinyl tubing, (mine comes in that length, you could get by with 16' for this recipe; I save the extra 4' for whatever comes up in life). (approx. cost for me = \$5.99)
- 3) buy 4 hose clamps (diameter should be small/relative to vinyl tubing diameter). (\$2.00 for 4).
- 4) buy 2 female hose adapters/repair ends (make sure you get the swivel kind so you don't have to turn the whole damn chiller to connect to the water source!). (\$1.26 ea.). Also, make sure to toss the clamp portion; you're only going to need the female part cuz you'll be pushing the vinyl tubing (warmed) onto it.

Total cost with tax is no more than \$25.00 (depending on volatility in the copper market!). BTW, this \$25 gives you TWO chillers: one to keep & one to sell to that buddy of yours that doesn't get the HBD.

Process...

- 1) find halfway point of copper coil (25 ft.). Score. Cut with hacksaw. Now you've got two halves of 25' each. Do this enough times and believe me you won't need to measure, you'll know that midpoint!
- 2) here's the special secret: take a Revereware 8 qt. stockpot (the tried-n-true perfect diameter!) and begin winding 25' of coil around its outside. The main reason for this pot is that it gives a perfect diameter for placement into either the kettle OR 5 gal. bucket, depending on your whim. Do the same for the other 25' of copper. When done, you should have two coils of nicely (tightly will come after you do a few) wound copper that resemble oversized SLINKY'S.
- 3) the art comes in straightening the downtube and out-tubes. Put a coil back around the pot and gently straighten first the downtube (this is because you will then determine the out-tube's length after straightening the downtube) and then the out-tube. Uh-oh, just realized that I'm calling one the out and the other the down. This is likely to spark some controversy so I won't say which of these should be for water-in and which will be for water-out (i.e., some might prefer the top tube as water in and some might prefer the bottom tube as water out or vice-versa...I'm just interested in finishing this post!). Anyway, do this for each coil, hack off the extra copper from the longer of the two vertical tubes on each, then use a file to smooth the rough area around the openings. The nice thing about doing things at home is that you can decide yourself how long you want these vertical tubes to be: I've had some people say, "Mark, I'm a big guy and I like big things..make my tubes extra big"...I guess they mean long so I make the tubes long. Others are a bit more retentive and say, "Heh-heh (<Beevus/Butthead noise) I need maximum cooling...make it so my tubes spend all their time in the wort"...their tubes are shortened!

Whatever you do, I find that an ideal length is one that allows for the

juncture where the vinyl meets the copper (haven't quite gotten there yet)
to remain ABOVE the hot wort. This is ideal in that hot wort *COULD* do *SOMETHING* to the vinyl tubing...(note careful choice of terminology...almost neutral in nature, to avoid any threads).
4) is this step 4 yet? Cut vinyl in 5 lengths of 4 ft. each. Keep 5th length.
5) submerge end of one length into HOT water to soften.
6) using elbow grease, work soft end up and onto female hose repair end. (Did I mention that there are often a variety of diameters available and that the best one to get is about 1/2" to 5/8". I forgot exactly which diameter I get but suffice it to say that if you get one that's too big, you'll know soon enough in step #6). Do this for the other chiller's tube also.
7) once you've gotten this up onto the female repair end as far as your heart desires, all that's left to do is clamp the other ends to their respective copper posts...

Well, there you have it...a chiller of your very own, to do with what you want (i.e., *SWIRL* with, *PUMP* up and down, or *DANCE* around with aon your head at the local Burger King..I've no doubt left something out so direct e-mail if necessary with questions/comments. Now that my secrets are out I'll have to look for another way to fund my education!

p.s., guess I should throw in a disclaimer about SLINKY'S and those two idiots from MTV so here it is:
I endorse neither.
M.

```
*****  
****  
* Mark Stewart "If it isn't published, it didn't happen." *  
* Dept. of Psychology "Don't anthropomorphize computers..." *  
* mstewart@unssun.unr.edu...they don't like it." *  
*****  
****
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Date: Fri, 3 Dec 93 10:11:06 EST
From: jdsgeoac@osg.saic.com (Karen Jdsgeoac Hyrum GEOACOUSTIC)
Subject: 3 Gal Soda Kegs

I am looking for an inexpensive source for a couple of 3 gallon soda kegs (used). My local store wants \$60 which seems a bit high. Thanks.

Hyrum Laney
jdsgeoac@typhoon.saic.com

Date: Fri, 3 Dec 1993 09:56:07 -0600 (CST)
From: cush@msc.edu
Subject: starter gravities revisited

Ok, I know this has been talked about in the past, but I am going to re-open this thread and risk flames and/or a flurry of posts.

Conventional 'wisdom' has it that starter gravities should be about 1.020 in order to maximize cell reproduction and hence cell count. This is of interest to the producers of dry yeast in order to maximize their bulk sales and minimize their costs of production. However, it seems to me that there is another issue being neglected here: health of the cells thus produced.

A close reading of Miller indicates that cells will metabolize sugar in order to build up enough glycogen in their mitochondria (sp?) to reproduce. Miller indicates that in a low gravity wort, the 'first order of business' of the cells is to reproduce...but this leaves the cells with a depleted glycogen content (read: 'they are tired'). I asked the question about a year ago whether a higher starter gravity would produce a more vigorous starter, because after reproduction the yeast would be allowed to process the remaining sugar in the starter in order to increase their glucose supply (read as 'available energy when pitched into a larger volume of wort'). Yes, the cell count would be smaller, but would this be offset by the healthier yeast?

I got no replies or takers.

This issue was first brought to my attention by the brewmaster of Sherlock's home, who says he ALWAYS uses a starter of similar gravity to the wort it is intended to ferment.

Well, I have been trying starters of gravity about 1.040, and volume about 0.75 liters. So far I have had very good results, with vigorous ferments, and lag times on the order of 6-10 hours, whereas I had lag times on the order of 12-15 hours using starters of SG=1.020.

Yes, this is a challenge to the 'net_wisdom': I humbly invite discussion, comments from anyone else using higher SG starters, and ask others to try higher SG starters, and post their findings...

- - -

> Cushing Hamlen | cush@msc.edu
> Minnesota Supercomputer Center, Inc. | 612/337-3505

Date: Fri, 3 Dec 1993 10:01:16 -0600 (CST)

From: cush@msc.edu

Subject: wort dilution vs. SG

Has anyone ever done a study of wort SG as a function of dilution?
Papazian gives some guidelines for dilution, but I am looking for
a curve, or better yet an analytical function fit to experimental data.

- - -

> Cushing Hamlen | cush@msc.edu

> Minnesota Supercomputer Center, Inc. | 612/337-3505

Date: Fri, 3 Dec 93 11:06 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: Ice Beer

I had the chance to taste Molson Ice a couple of days ago. Let me tell you, the beer has no aftertaste whatsoever, but IT HAS NO TASTE EITHER. This baby is made just for the American market where people liek their beers with as little taste as possible. I thought it was awful. Tasted like something severely watered down, and it was so light in color. Probably lighter than any light beer I've ever seen. My initial reaction is unfavorable, obviously. I won't be buying this stuff any time soon. It's 5.6% alcohol, o% taste.

Anyone else had the chance to try any ice beer?

Andy Pastuszak

Date: Fri, 3 Dec 1993 12:25:56 -0500 (EST)
From: "David H. Thomas" <dhthomas@lis.pitt.edu>
Subject: Liquid Yeast Re-Use

To all interested individuals, here is the information I received concerning re-use of liquid yeast. In addition, Bob Surratt (address below) advises that there is a Yeast FAQ (which he was unable to forward to me). If anyone out there could try and forward said FAQ, or tell me where to track it down, let me know.

Date: Mon, 22 Nov 93 11:29:01 PST

From: Bob W Surratt <Bob_W_Surratt@ccm.hf.intel.com>

Subject: Liquid Yeast Re-Use

Dave,

I've reused Wyeast yeast's many times before with no problem. My method is to sanitize a jar, mayo, mason, etc. and pour in the slurry that is left in the "secondary". You won't want the primary trub as it has all the leftovers from fermentation.

I've kept the yeast for up to 2 months before reuse and it's always worked great. I've also reused it up to 5 times from the initial first time. Just take it out of the fridge when you start your recipe so that it can warm up to room temp before pitching.

Hope this helps.

Bob Surratt Orangevale, CA

Date: Tue, 23 Nov 93 09:05:26 EST

From: michael.niemann@mail.trincoll.edu (Michael Niemann)

Subject: Liquid Yeast Re-Use

Here is what I do with Wyeast. I pay \$4.00 per pack and split that into four portions thereby making it \$1.00 per batch.

1. Prepare the Wyeast according to package (burst the nutrient bubble and let it puff up.
2. boil 1 quart of water for 15 min and cool in sanitized bottle (the refrige is best)
3. prepare 1 pint of starter and boil for 15 minutes, add a pellet of hops or so.
4. pour 1 pint of the cold water into a 1.5 liter wine bottle (sanitized of course), add the starter, add the rest of the cold water. This should now be at pitching temperature, so add the Wyeast.
5. ferment for several days until visible fermentation ends.
6. sanitize four bottles and caps. Distribute the starter into these bottles, cap and store in the refrigerator. They should keep for about a half a year.
7. A couple days before you want to brew, make a starter from one of the bottles and ou are ready to go.

It is important to keep everything sanitized.

I have done this for over half a year so far and have had great success. BTW this was posted on r.c.b. earlier this year.

Michael

Date: Fri, 3 Dec 93 12:20:23 -0600
From: gjfix@utam.uta.edu (George J Fix)
Subject: Help with Noche Buena

We will have our flavor panel meet this weekend. I have done some analysis on samples that have been sent to us, and a preliminary tasting. The alcohol content is ~4.0 (by wt) which is way down from the 5.75% (by wt.) of the version that was in circulation in past years. The color is also down (from 12-13 Lov. to 8 Lov.), and the IBUs are down as well (from high 20s to ~16!). Our initial impression is that it is a respectable version of a "Vienese mild". It could not hold a candle to the top 4 or 5 Viennas we evaluated on the GABF panel. What I have got to do now is to think of a civilized and polite way of communicating this in our review for SW Brewing News. Any ideas? Given the folks on the flavor panel, I fear this beer is in for a rough time this weekend. It is, however, a quite drinkable beer. Some have picked up some diacetyl tones in the beer's sweet finish. This may be due to the caramel malts used. In any case, time will tell, for if it is diacetyl it is going to get raunchy.

There is a rumor that there is an undiluted version out there. Such a version, if it does exist, would surely be available in Mexico. Does anyone know anything about this? It is our impression that Guinness Imports only has the diluted version.

George Fix

Date: Fri, 03 Dec 1993 11:56:06 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: CorsenBONK / Kegging Mead/ BarleyWines / Filtering

>From: John Pedlow <in%"TKSJJOHN@UBVM.CC.BUFFALO.EDU">
>Subject: Corsendonk Monks Ale ?

>The local supermarket stocks a few imported brews. Normally these go for from \$1 to \$2 per approx 12 oz bottle. Corsendonk Monks Ale is currently being offered in "a hand painted gift bottle imported from Belgium". The cost is \$44.88 for a 100 oz bottle with a "save 4.00" appended.

>Anyone enjoyed Corsendonk Monks Ale and can share why it is so expensive? Can "they" make money stocking a brew this expensive? What is its shelf life? And, of course, what does it taste like? Thank you.

>John Pedlow in Buffalo, NY

-
* A brew friend - toot - brought one back from somewhere in the real world, and said it had been described as being

"like swallowing a bowling ball"

He was kind enough to share it with me, and it was...well.... like swallowing a thick rich syrupy biteybowling ball!

It is hard to rewire those tastebud memories, but it was very potent, malty, and some of those peculiar "sweet ?" notes that you can't put a finger on. It was obviously a quality beverage. It was also a very small bottle. I've paid \$5 for a single lambic bottle, but I'd rather try to brew a couple (several!) batches than buy a \$50 beer!

Do you have a wife or girlfriend who loves you dearly? The holidays are upon us? Creative hint dropping? Think about it.... :)

>From: in%"sims@pdesds1.scra.org" (Jim Sims)
Subject: mead questions

>I've got a coupla mead and fruit mead batches under my belt. I've been kegging my homebrew for about 6 months now, and am wondering about kegging future batches of mead. Is there any reason that I *shouldnt* keg my mead insterad of bottling? What about using stainless vessels for primary or secondary fermentation also, since they take up a fermenter for a coupla months?

* I keg my beer, but bottle my meads. They are easier to store for x months/years that way, for me at least. Plus I like to get quicker turnover of my kegs.

BUT: I have kegged 1/2 a wine once for a party. Sparkling Loganberry Wine. It worked fine. I don't know if the acid levels can become a problem for metals. I know aluminum is bad news, but stainless steel should be ok. There is the possibility of leaching metallic tastes. A friend whose just started kegging beer claims a "keg taste" is perceptable. Could be forced CO2, could be the keg, could be contamination?

BUT, I haven't noticed it, and have been kegging for a year.

There are differences in the "quality" of carbonation between my bottled and kegged beers. But I prefer the fine/small bubble creaminess of the kegs to the bottles. Plus it sure is easier!

Kegging a mead opens up filtering possibilities that could be a benefit. BUT It sure can disappear faster. Why not keg half, bottle half :)

> First hand experience, no urban legends, please. * Who us?! Never...
<huf>

Also, is there a Mead mailing list similar to HBD?

Yes- But it's not kosher to post it, so ask me via e-mail. :)

thanks, You're welcome
jim John.

**

Barleywine

the yeast used, alcohol content, carbonation, whim of the brewer? If it's

alcohol content, when does doppelbock cross the line and become barleywine?

Are there any commercial barleywines?

* yes. Never tried one (unhappy sigh....yet ;).
Sierra Nevada's Bigfoot. Heard it's heavenly!

Tried a friend's barleywine. Yum. Malty, thick, rich, potent.
I WILL try one ...like real soon.

AHA sez: 1.065-1.120 OG. 6- 12 percent alcohol by volume.
Copper or dark brown. Fruity, bittersweet. Can use strong beer yeast, or champagne/wine yeasts. Aged 6 months to a year.
(but they are not per-se "lagered")

Doppels may overlap in strength, but you're also talking lager yeast vs. ale/wine yeasts. There are differences. It's a matter of style.

*

> 3 weeks ago I racked it again and had a taste (ok, a big lager glass)

.

It's still noticeably sweet, and I'm running low on homebrew. ...

* Get another carboy! :)

horribly desecrate my first actual lager, I'd like to bring it up to room temperature *(about 74F)* for a few days to accelerate fermentation. ...

* Lagers should be warmed at the end of lagering. But not that warm. More like 60. It helps them break down (diacetyl I think? Reference-check)

If you are trying to make a true lager...patience is warranted.

They will benefit from long cold. Clarity, smoothness, balance.

Check the specific gravity. If it is down to say 15 or less (I usually end up between 12 and 8) then- give it a bit of warming (cold closet? or basement handy?) then bottle. You can continue lagering in bottles.

John.

**

filtering and stuff...

>>...I[f] you have followed the basics of good
>> wholesome brewing (sanitation) there won't be any bacteria you
>> need to filter out...

>No, actually (a) there will be bacteria there regardless of how careful you've been, and (b) it takes serious filtering to get bacteria out. As to point (a), Tom's principle is right, that if you're careful the bacteria population will be much lower than if you're sloppy. But it's still substantial*. You can't get rid of them all; most of what care and sanitation gives you is keeping the bacteria at bay long enough that the yeast get the available food in early fermentation...keeping the wolf at bay, as it were. On the other side, for point (b), even if you did filter, would you really want to filter that severely? Dick Dunn

* I dunno Dick. At the beginning- bact/yeast, then LOTS of yeast, and an un hospitable environment for bacteria. If they are inhibited early on they may be pretty well dormant. Yes I agree it is next to impossible to ELIMINATE bacteria, but it is also not TOO difficult to GREATLY REDUCE their presence. Wild yeasts are also likely floating around.

As for filtering. Filtering bacteria requires less than a 1 micron filter. I don't want to do that to my beer. Filtering DOES present advantages, but also potential disadvantages. Chill haze, protein "colloids", some cellular material, and chunks of anything else still floating around can be filtered out. A level of 2 to 3 microns will do this. 5 microns will let almost all cells pass. as low as .1 micron (bacterial filter- sterilizes) will clean up a beer, but will also CLEAN UP A BEER. Body, head retention and other qualities will be lost. The intermediate levels (2-3) will possibly remove some body, but not too much (I hope).

Much of this clearing can be achieved by adding clarifying agents and such. But time is also a factor. Filtering is instantaneous. Clarification can take time. I keg, and would prefer to have NO sediment if possible. But I haven't yet taken the filter plung (PICTURE: arms outstretched, falling back into body of water). It's the expense at this point. But it may well happen. Someday. But I have looked into it!

The question started because a bottling friend has access to the equipment and wanted to know how and why it could be done. I wouldn't just dismiss the idea as some people do, without first examining the pro's and con's.

- - - -
/** "I gave you a 50:50 chance, and you weren't even close! " MR. BIG **
/
_____-----__John (The Coyote) Wyllie SLK6P@cc.usu.edu_____-----

Date: Friday, 3 December 93 12:55:23 CST
From: LLDSC@utxdp.dp.utexas.edu
Subject: DOING THE MASH

Howdy,

I've been brewing with extracts for about nine months or so now. I've become fairly comfortable with the process and want to move on to bigger and better things.

I've been reading the chapter on mashing over and over again in TNCJOH and think I know what's going on. I'm just wondering if anyone out there has any tips/experience/advice/warnings to share with me. In particular, I'm wondering what kind of a lautering tun would be best (igloo cooler, bucket, etc).

Private e-mail is okay if you think this won't be of interest to the more experienced out there.

Remember, there's no "i" in Team.

Scott LLDSC@utxdp.dp.utexas.edu

Date: Fri, 3 Dec 93 14:28:34 EST
From: bgaughan@su19bb.ess.harris.com (Brady Gaughan)
Subject: Frankenmuth German Dark

I just received a 6 pack of this from my Beers Across America subscription, and I really enjoyed it. Anyone else out there heard of it, or tried it? It's made in (you guessed it) Frankenmuth, Michigan.

Anyone tried to duplicate this beer?

Brady E. Gaughan Internet:bgaughan@su19bb.ess.harris.com
Harris Corporation
Government Aerospace Systems Div. "They call me mister know-it-all,
Melbourne, FL I am so eloquent.
Perfection is my middle name...
and whatever rhymes with eloquent"

Date: Fri, 03 Dec 93 11:42:34 PST
From: Larry Richardson <richards@priacc.com>
Subject: Hi there! Request for help.

Greetings to my fellow zymurgists. I am a (very) new subscriber to this forum, although I've been making beer for nearly 7 years.

As I am new to this forum, I hope the following is an acceptable question to post to this list. If not, please excuse the waste of bandwidth and I promise to never, ever do it again.

I have recently restarted producing beer after a two-year hiatus. Before I stopped, I had been obtaining my equipment/malt/hops, etc., from a local beer/wine supply store. Now, unfortunately, the only supply store in the area is a long way away, and geared more to winemaking.

So. I've started using mail-order. The mail order house I'm using only provides the malt in pouches, which I've never used before. To be honest, I'm not sure I like them very much, other than for storage.

My question is, does anyone have a mail-order house they recommend and/or has anyone who does use the pouches discovered an easy/efficient way to get all the stuff out of the pouch.

I look forward to reading everything that comes out in this forum, and I hope to hear from you all about these questions.

Thanks for your time!

Larry

- - -

Larry Richardson, Primary Access Corp -- Work: richards@priacc.com
Home: larry9@netcom.com
Chairman/Chairperson/Committee Head, Department of Redundancy and
Repetition Department
- --Time is an Illusion. Space is an Illusion. Beer is Good.

Date: Fri, 3 Dec 1993 11:34:49 -0800
From: "Paul Jasper" <paul@rational.com>
Subject: Re: Questions from COYOTE <SLK6P@cc.usu.edu> on filtering

On 3 Dec, 0:27, Dick Dunn wrote:
> Subject: RE: Questions from COYOTE <SLK6P@cc.usu.edu> on filtering
>
> Tom Clifton <0002419419@mcimail.com> writes:
> > My thoughts on filtering.... Why bother! According to Papazian a
bit
> > of yeast helps add to the stability of the brew...
>
> This sounds backwards! (doesn't matter whether Charlie said it or not;
-)
> Conventional wisdom [did JS just twitch?] is that you keep more
character
> by not filtering, but if you're going to keep the beer for a while
you're
> better off filtering it. Be that as it may, what's the reasoning
behind
> yeast adding stability.
>
>-- End of excerpt from Dick Dunn

Could it be that it is better to have the yeast consume any free oxygen
than to have it oxidize your beer? Or maybe, if your fermentation is not
complete, any yeast or bacteria still present after the filtration still
has a growth medium. If your filtration was more successful at filtering
out the yeast, the bacteria will have more chance to dominate if you keep
the beer for a while.

Comments?

- --
- -- Paul Jasper
- -- RATIONAL
- -- Object-Oriented Products
- --

Date: Fri, 03 Dec 93 13:46 CST
From: "Bitheaded geek" <\$W\$PR42%LUCCPUA.BITNET@UICVM.UIC.EDU>
Subject: name change

Just in case you need to know, my real name is Peter Brauer, and I am from Chicago.

Date: Fri, 3 Dec 93 14:14:38 EST
From: sdlsb.dnet!73410%sdicc@swlvx2.msdl.ray.com (Carl Howes)
Subject: new brewers

Sorry about the bandwidth, private bounced. John Palmer, I am willing to review your first time brewer writeup.

Carl

Date: Fri, 3 Dec 1993 11:49:52 -0800
From: mfetzer%ucsd.edu@chem.UCSD.EDU (The Rider) (Michael Fetzter)
Subject: Re: Sake Supplies

>From: Mark Stickler Internet Mail Name <mstickle@lvh.com>
>Subject: Sake Supplies
>

>I know Sake is not really beer but will keep bandwidth to a minimum. I read

>Fred Eckhart's book (about six months ago) and now I'm interested in
>getting some of the supplies from a retail homebrew supply store. I'm
>most interested in the yeast and starter rice (kioji I think) but also
>polished rice, etc. Please respond via private email.

Relying to HBD and privately... Sake *is* beer in the sense that it is made from grain, just fermented a bit differently...

>From Fred Eckhart's Newsletter (Sake Connection):

Anzen Japanese Imports, Portland OR (503)233-5111
Fun Fermentations, Orange CA (714)532-5125
GEM Cultures, Fort Bragg CA (707)964-2922
Home Winemaking Shop, Woodland Hills CA (818)884-8586
Wine and Beer Magic of Texas, Dallas TX (800)966-4144
Wine Supply Oregon, Portland OR (503)284-2624
Spagnol's, New Westminster BC Canada (800)663-0954

Incidentally, Sake Connection is a fun little newsletter... Fred's willing to send a free copy or two to anyone interested. If you send me your snail mail address, I'll give him a list. Won't even cost ya the 29c to request a copy!

Reply via email to my address below...

Mike

- - -
Michael Fetzterpgp 2.2 key available on request
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer
Bitnet: FETZERM@SDSC
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

Date: Fri, 03 Dec 93 16:28:00 PST
From: Robert Milstead <rmilsted@Zellar.Vantage.GTE.COM>
Subject: hop utilization and BU's

This is my first submission to HBD and as I am new to both HBD and Internet,
I hope I am following protocols, etc. If not, please turn down the heat on any flaming you think I deserve. BTW, any information on sources for a Microsoft Windows based utility for exploring Internet would be appreciated. Mail me direct.

There has been a lot of discussion about Hop utilization and hopping rates in the last couple of weeks since I've been eavesdropping on y'all such as the high hopping rates of I.P.A.s of 100 to 200 BU's and much puzzlement expressed over why some beers are not as bitter as expected even though a lot of hops were used:

Example:

Andy Phillips writes in #1287:

>Despite the high hopping rate - I can't remember the IBU rating from BRF,
>but it was well over 100 - this is not noticeable bitter. I suspect that
>this is partly because the flavour is overwhelmingly malty, and the hop
>taste can't get through, and partly because of the lower hop utilization
>at high SGs.

He also indicated that he "Boiled 90 min with 5 oz Goldings"

I'm not picking on you Andy, it was just a good example.

The unpredictability of results when hopping may be due more to the isomerization of the hops than hop utilization. Isomerization is an altering of the molecular structure of the substance in hops that imparts bitterness to beer. It is the isomerized molecules that give the bitterness. Only a fraction of the hops are isomerized during the boil (around 25% max) and the degree of isomerization is directly proportional to the length of time the hops are in the boil. Maximum isomerization occurs at around 45 min. of exposure to the boil. After one hour isomerization actually begins to reverse!
Perhaps this explains why Andy's 90 min. boil was not as bitter as expected.

So, actual IBU's can not be calculated without taking %Isomerization into account. Since learning this information from the master brewer at a local contract brewery, my beers have been much more predictable in terms of

bitterness and better overall. I believe this is because I now brew to a specific target bitterness (based on style).

Here are some formulas you can apply to calculate the IBU's for your recipes.

Hops and bitterness units in beer

1 BU = 1 mg/L of Isomerized Alpha Acid (IA)

In brewing, Isomerization is the process of altering the Alpha Acid molecule in hops through the application of heat. The altered (Isomerized) molecule imparts bitterness to the mash.

The taste threshold for bitterness is around 12 BU. Anything less can not be detected. (Swill)

Bud 11 BU
Pilsner Urquell 40 BU
Typical Ale or Lager 20 - 25 BU

Formulas for Hops and Bitterness

$$\text{Hops (g)} = \frac{S * \text{BU}}{\%I * \%A * 1000}$$

where: S = Size of batch in litres (There are 18.9 Litres in 5 gallons)
BU = Bitterness Units
%I = The percent of Isomerization reached after a specific time of boiling. (expressed as decimal) *Note 1
%A = Alpha Acid content in percent of the hops being used (expressed as decimal)

So, for a 5 gallon batch where:

- All bitterness will be from boiling hops and no finishing hops will be used
- A 45 minute boil of hops results in a 25% Isomerization (.25)
- The hops being used have a 5% Alpha rating (.05)
- The bitterness desired is 40 BU's

$$\frac{18.9 * 40}{.25 * .05 * 1000} = \frac{756}{12.5} = 60.48 \text{ grams} * .0353 = 2.1 \text{ oz. (*Note 2)}$$

If you wanted to add 5 more BU's the above for finishing where:

- A 5 minute boil of hops results in a 5% Isomerization (.05)
- The hops being used have a 2.9% Alpha rating (.029)

$$\frac{18.9 * 5}{.05 * .029 * 1000} = \frac{94.5}{1.45} = 65.2 \text{ grams} * .0353 = 2.3 \text{ oz. (*Note 2)}$$

If you know how much hops you have put into a beer that you liked in the past you can calculate the bitterness by the formula:

$$\text{BU} = \frac{\text{Hops} * \%I * \%A * 1000}{S}$$

*Note 1 - 5% of available Alpha Acid will isomerize in 5 minutes,
25% in 45 minutes.

*Note 2 - There are .0353 ounces (oz.) in a gram.

Hope someone finds this as useful as I did. Have a homebrew before
attempting any calculations at home.

Think globally, Drink locally.

rmilsted@zellar.vantage.gte.com (Bob Milstead)

Date: Fri, 3 Dec 93 10:42:43 EST
From: richk@icad.COM (Richard Kasperowski)
Subject: Corsendonk Monks Ale ?

Anyone enjoyed Corsendonk Monks Ale and can share why it is so expensive? Can "they" make money stocking a brew this expensive? What is its shelf life? And, of course, what does it taste like? Thank you.

Around Boston, a 24 oz. bottle goes for about \$7.50, if memory serves me right. If you bought four 24 oz. bottles (96 oz. of beer), that would cost \$30 by my calculations. Is that 100 oz. bottle worth the extra money? (Is the price I remember too low?) BTW, the 24 oz. bottles have painted labels, although I can't tell whether they're hand-painted.

As I recall, the inside of the bottle contains a bottle-conditioned Belgian ale that tasted pretty good (a beer judge I am not).

- - -
Rich Kasperowskirichk@icad.com

Date: 03 Dec 93 17:37:55 -0600
From: mbarre@nomvs.lsumc.edu
Subject: address

- --Interpart.Boundary.19931203173756273
Content-Type: text/plain; charset=US-ASCII; x-DC370=header

Document name: MEMO 12/03/1993 09:09:52.929
Subject: address
Author: Barre, Michael
Class: MEMO
Document type: MESSAGE
Attached msg:

- --Interpart.Boundary.19931203173756273
Content-Type: text/plain; charset=US-ASCII; x-DC370=body

Ed Quier,
What is your address. Mail bounced to ELQ1@maint@hbpp.
Now, back to the show.

- --Interpart.Boundary.19931203173756273

Date: Fri, 3 Dec 93 15:17:00 -0640
From: roy.rudebusch@travel.com (Roy Rudebusch)
Subject: Homebrew Digest #1288 (December 03, 1993)

UNSUB

Date: Fri, 3 Dec 1993 17:47:49 -0800 (PST)
From: Jeremy Ballard Bergsman <jeremybb@leland.Stanford.EDU>
Subject: hopping out/ionic concentration

Chris Campanelli (and others) have written about high IBU's wondering whether they are correct, in other words, is the Rager formula correct?

It would seem to me that for a given length of boil, say 60', there is a practical, although not absolute, limit to the bitterness one can achieve.

The bittering effect is limited by the solubility of the not-yet-isomerized hop resins, which is low. Adding more hops doesn't help much past a certain point since you can't get any more resin in solution to be isomerized. The only solution would be to boil longer.

Has anyone actually determined the IBU of one of these beers that was made with a lot of hops? If not I will add this question to my upcoming series of hop experimental beers (calling you soon Mark).

(Please excuse my inability to backspace and my poor typing. Using an antique telnet.)

- -----
A question:

When people write something like, "sulphate levels higher than 200 ppm enhance hop bitterness." (lets not argue about whether this is a sharp cutoff obviously it's not) do they mean the concentration in the finished beer or in the starting water. People often bndy about numbers like the ionic content of Burton water, but the perception of bitterness is taking place in the beer that is probably at least 150% the ion concentration of the starting water.

I do my calculations for salt additions as follows:

- 1) Make sure that the mash has sufficient CA, proper pH, and is not overly buffered by (H)CO₃.
- 2) Add NaCl and MgSO₄ as desired for the recipe to the boil, based on what the final volume will be. Am I adding less than others? Do other people concentrate their ions from the concentrations in the literature in the boil?

Jeremy Bergsman

- -----
End of HOMEBREW Digest #1289, 12/04/93

Date: Sat, 4 Dec 93 10:51:30 EST
From: poconnor@lager.tn.cornell.edu (Peter OConnor)
Subject: immersion chiller plans??

In HBD#1289, Mark Stewart gave plans for an immersion chiller. Thank you
Mark, but I have one question. What is the diameter of a Revereware 8
qt.
stockpot?

Pete

Date: Sat, 04 Dec 1993 10:10:55 -0500 (CDT)
From: WEIX@swmed.edu
Subject: Yeast FAQ, other docs, and a sake note

Hi,
I am the author of the Yeast FAQ (actually chief editor is a better description). It does indeed exist. I have noticed that many people post to the digest asking for information on the retrieval of various FAQs or documents. I say to them: *READ THE HEADER OF THE DIGEST!* Every day it is the same, and every day it says:
->for archives, ftp to sierra.stanford.edu
->for archives without ftp access, email listserv@sierra.stanford.edu with the body of your message reading HELP.
I am not a major techno, nor do I wish to start a flame, but I would implore all to skim the instructions at least once.

That being said, I am going to update the yeast faq in a couple of weeks and would encourage any and all to send any new strain descriptions or techniques to me at weix@netcom.com.

Sake: Isn't that just warm Bud without the hops? Serve me up a glass now!
+<:-) <-Pope smiley.

Patrick Weix

Date: Sat, 4 Dec 93 07:28:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: BBC and water chemistry

I just received in the mail an unsolicited four-color bi-fold *I'm not sure what this is* "advertisement" from The Boston Brewing Company. It begins on the cover with a history of the Koch Brewing Family.

"James Koch - Brewer By Descent"
and on the next page

"Sam Adams - Brewer of Dissent"
a history of Samuel Adams and his revolutionary exploits.
Page three goes on to explain why James named his beer after Sam and why Patriot James started the company - "I wanted Samuel Adams Boston Lager to lead another kind of revolution - independence from imported beer."
Page four continues the Koch family travails from Germany to the land of opportunity, offers "Come for a tour" AND **offers a FREE Sam Adams T-shirt and a FREE subscription to the Boston Beer Company Quarterly Newsletter** !!! The last line on the FREE offer asks me to check *one* of the following, "I am a: Beer Lover, Retailer, Distributor, Brewer."
I'm not quite sure what to make of this. Could all of Al's talk on HBD of the "B" word have had an effect?

On another subject...

My water, according to the city water report, has 300 ppm of carbonates. When I boil it to precipitate carbonates out, how many (ppm) could I expect to remain in solution? Also, why does my Ph go UP after I boil it? Shouldn't precipitating out the carbonates *reduce* hardness and consequently Ph?

Chuck

* RM 1.2 00946 *

Date: Sat, 4 Dec 93 11:16:26 CST
 From: piatz@tamarack.cray.com (Steve Piatz)
 Subject: dilution

In HBD 1289, Cushing Hamlen asks:
 > Has anyone ever done a study of wort SG as a function of dilution?
 > Papazian gives some guidelines for dilution, but I am looking for
 > a curve, or better yet an analytical function fit to experimental data.

I posted this to the digest a long time ago (that means I don't remember when). I think the analysis behind this was fairly straightforward (and I don't remember that either). I think it is correct for dilution prior to fermentation, I don't know about after fermentation since the alcohol may throw my simplistic approach off. I originally did this when I made an imperial stout that boiled off too much water while getting the hop boil time. I wanted to get back to the planned gravity and Papazian's tables didn't cover the range I needed.

Example usage: assume 5 gallons of 1.100 wort diluted with 1 gallon of water to get 6 gallons of 1.083 wort. We added 20% of the original volume as additional water, intersection of 1.100 row and 20% column.

| O.G. | Dilution By | | | | | | | | | |
|-------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 5% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | 50% |
| 1.010 | 1.010 | 1.009 | 1.009 | 1.008 | 1.008 | 1.008 | 1.007 | 1.007 | 1.007 | 1.007 |
| 1.015 | 1.014 | 1.014 | 1.013 | 1.012 | 1.012 | 1.012 | 1.011 | 1.011 | 1.010 | 1.010 |
| 1.020 | 1.019 | 1.018 | 1.017 | 1.017 | 1.016 | 1.015 | 1.015 | 1.014 | 1.014 | 1.013 |
| 1.025 | 1.024 | 1.023 | 1.022 | 1.021 | 1.020 | 1.019 | 1.019 | 1.018 | 1.017 | 1.017 |
| 1.030 | 1.029 | 1.027 | 1.026 | 1.025 | 1.024 | 1.023 | 1.022 | 1.021 | 1.021 | 1.020 |
| 1.035 | 1.033 | 1.032 | 1.030 | 1.029 | 1.028 | 1.027 | 1.026 | 1.025 | 1.024 | 1.023 |
| 1.040 | 1.038 | 1.036 | 1.035 | 1.033 | 1.032 | 1.031 | 1.030 | 1.029 | 1.028 | 1.027 |
| 1.045 | 1.043 | 1.041 | 1.039 | 1.037 | 1.036 | 1.035 | 1.033 | 1.032 | 1.031 | 1.030 |
| 1.050 | 1.048 | 1.045 | 1.043 | 1.042 | 1.040 | 1.038 | 1.037 | 1.036 | 1.034 | 1.033 |
| 1.055 | 1.052 | 1.050 | 1.048 | 1.046 | 1.044 | 1.042 | 1.041 | 1.039 | 1.038 | 1.037 |
| 1.060 | 1.057 | 1.055 | 1.052 | 1.050 | 1.048 | 1.046 | 1.044 | 1.043 | 1.041 | 1.040 |
| 1.065 | 1.062 | 1.059 | 1.057 | 1.054 | 1.052 | 1.050 | 1.048 | 1.046 | 1.045 | 1.043 |
| 1.070 | 1.067 | 1.064 | 1.061 | 1.058 | 1.056 | 1.054 | 1.052 | 1.050 | 1.048 | 1.047 |
| 1.075 | 1.071 | 1.068 | 1.065 | 1.062 | 1.060 | 1.058 | 1.056 | 1.054 | 1.052 | 1.050 |
| 1.080 | 1.076 | 1.073 | 1.070 | 1.067 | 1.064 | 1.062 | 1.059 | 1.057 | 1.055 | 1.053 |
| 1.085 | 1.081 | 1.077 | 1.074 | 1.071 | 1.068 | 1.065 | 1.063 | 1.061 | 1.059 | 1.057 |

| | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.090 | 1.086 | 1.082 | 1.078 | 1.075 | 1.072 | 1.069 | 1.067 | 1.064 | 1.062 | 1.060 |
| 1.095 | 1.090 | 1.086 | 1.083 | 1.079 | 1.076 | 1.073 | 1.070 | 1.068 | 1.066 | 1.063 |
| 1.100 | 1.095 | 1.091 | 1.087 | 1.083 | 1.080 | 1.077 | 1.074 | 1.071 | 1.069 | 1.067 |
| 1.105 | 1.100 | 1.095 | 1.091 | 1.087 | 1.084 | 1.081 | 1.078 | 1.075 | 1.072 | 1.070 |
| 1.110 | 1.105 | 1.100 | 1.096 | 1.092 | 1.088 | 1.085 | 1.081 | 1.079 | 1.076 | 1.073 |
| 1.115 | 1.110 | 1.105 | 1.100 | 1.096 | 1.092 | 1.088 | 1.085 | 1.082 | 1.079 | 1.077 |
| 1.120 | 1.114 | 1.109 | 1.104 | 1.100 | 1.096 | 1.092 | 1.089 | 1.086 | 1.083 | 1.080 |
| 1.125 | 1.119 | 1.114 | 1.109 | 1.104 | 1.100 | 1.096 | 1.093 | 1.089 | 1.086 | 1.083 |
| 1.130 | 1.124 | 1.118 | 1.113 | 1.108 | 1.104 | 1.100 | 1.096 | 1.093 | 1.090 | 1.087 |
| 1.135 | 1.129 | 1.123 | 1.117 | 1.112 | 1.108 | 1.104 | 1.100 | 1.096 | 1.093 | 1.090 |
| 1.140 | 1.133 | 1.127 | 1.122 | 1.117 | 1.112 | 1.108 | 1.104 | 1.100 | 1.097 | 1.093 |
| 1.145 | 1.138 | 1.132 | 1.126 | 1.121 | 1.116 | 1.112 | 1.107 | 1.104 | 1.100 | 1.097 |
| 1.150 | 1.143 | 1.136 | 1.130 | 1.125 | 1.120 | 1.115 | 1.111 | 1.107 | 1.103 | 1.100 |
| 1.155 | 1.148 | 1.141 | 1.135 | 1.129 | 1.124 | 1.119 | 1.115 | 1.111 | 1.107 | 1.103 |

I suppose you could take the data and pass it to GNUplot if you want curves.

The program to generate the table follows.

```
#include <stdio.h>
#define NUM_PERCENT 10/* number of columns */
#define NUM_GRAVITY 30/* number of rows */
#define PERCENT_STEP 0.05 /* percentage per column */
#define GRAVITY_STEP 0.005 /* gravity per row */
#define INITIAL_GRAVITY 1.010 /* gravity for first row */
#define INITIAL_PERCENT PERCENT_STEP /* percentage for first column */
/
main ()
[
    int i;
    int j;
    float og, fg;
    float dv;
    float dvp;
    printf (" | Dilution By/n");
    printf (" O.G. | ");
    for (j = 0; j < NUM_PERCENT; j++)
    printf (" %3.0f%% ", 100.0 * PERCENT_STEP * (1 + j));
    printf ("/n");
    printf ("-----|-");
    for (j = 0; j < NUM_PERCENT; j++) printf ("-----");
    printf ("/n");
    og = INITIAL_GRAVITY - GRAVITY_STEP;
    for (i = 0; i < NUM_GRAVITY; i++) [
    og += GRAVITY_STEP;
    printf ("%6.3f | ", og);
    dvp = INITIAL_PERCENT - PERCENT_STEP;
    for (j = 0; j < NUM_PERCENT; j++) [
```

```
    dvp += PERCENT_STEP;
    fg = (og + dvp) / (1.0 + dvp);
    printf ("%6.3f ", fg);
]
printf ("/n");

    ]
    exit ();
]
```

Steve Piatz Cray Research, Inc.
steve.piatz@cray.com 655F Lone Oak Drive
612-683-5268 Eagan, MN 55121

Date: Sat, 4 Dec 93 20:49:00 BST
From: r.wize@genie.geis.com
Subject: Dry versus Liquid Yeast

In recent HBD's there has been a number of comments concerning dry vs. liquid yeast. I thought I would share what I tasted on a recent trip to a couple of Brewpubs in Rochester, NY. I had the occasion to eat dinner at a brewpub called Rorhbachs. Their beer was verrrrrry good. They had a terrific highly hopped lager called Gregory Street Lager. The beer was one of the best I have tried to date. After discussing it with the bartender he asked me if I would like a tour. Obviously I was overjoyed at the opportunity! The brewmaster was on site and proceeded to show me the facility. I found that they used Belgium Malt (all grain process) and Wyeast to brew the beer.

The next day I had the chance to stop at the Rochester Brewpub and try a couple of their brews. I was definitely not as thrilled with their beer (however, overall it wasn't bad). As I was looking at the facility I once again had the opportunity to discuss brewing with the brewmaster. To my surprise I found the process to be Malt Extract and Whitbread dry yeast. The difference between what I had tasted the day before was remarkable, the liquid yeast was clean while the Whitbread had definitive tastes left in the beer.

Now the kicker, I had brewed the day before Thanksgiving an all grain Pale that I had planned on using a liquid lager yeast (I was attempting a steam).

However after 2 1/2 days of no activity (I had used a slant of yeast about 3 months old) I decided to attempt to rescue the beer with the only viable option, a packet of Whitbread dry which had been in the fridge since the summer. The brew took off in 3 hours and fermentation was very active. Last night I racked to the secondary and as usual tried a small glass of beer. The beer tasted exactly like the beer in the Rochester Brewpub!! Although the beer is still drinkable, I definitely have converted myself to liquid yeast from here on out.

Date: 04 Dec 93 16:01:27 EST
From: Richard Nantel <72704.3003@CompuServe.COM>
Subject: Clarity and slow fermentation in first all-grain batch

My first batch of all grain beer was racked two days ago. The recipe followed was almost exactly Papazian's Amaizeing Pale Ale from The New Complete Joy of Homebrewing. Two things worry me about this batch. I've been brewing for nearly two years using malt extracts and have never before encountered these quirks:

1. The fermentation with Edme's dried yeast, (no starter--too busy that week) was strong for the first 48 hours and then continued at a slow rate for another six days. I've never left beer in a primary longer than one week and yet may have jumped the gun racking this after 8 days. At racking, my airlock was bubbling about once a minute and the SG was 1.012 for two consecutive days (down from 1.046), The temperature was a steady 73 degrees
F. Does all-grain brewing produce a slower but longer-fermenting wort?

2. Although I was very careful not to disturb the sediment during siphoning, this beer is very cloudy. Of course I've assumed some of this cloudiness is yeast from possibly premature racking. I suspect, though, that there's a fair amount of particle matter from the grains washed off during sparging. I sparged through a depth of about 7-8 inches of grain.
Is this cloudiness normal in all-grain brewing?

I'll sample a bottle in one week (if they haven't all exploded from premature racking). A taste at bottling was promising, featuring a wonderful hoppy nose yet encounterd brewing with extracts.

Richard Nantel
Montreal, Quebec
Canada
72704,3003@compuserve.com

Date: Sat, 4 Dec 1993 14:24:42 -0500
From: jeclark@ucdavis.edu (James Clark)
Subject: Re: Ice Beer

>Andy Pastuszak writes:

>I had the chance to taste Molson Ice a couple of days ago. Let me
>tell you, the beer has no aftertaste whatsoever, but IT HAS NO TASTE
>EITHER. This baby is made just for the American market where people
>like their beers with as little taste as possible.
<snip>
>Anyone else had the chance to try any ice beer?

yea, i tried some budweiser ice draft (i was at a friends house and he
was
swilling it. i didn't buy it, HONEST!). i think this is similar to the
molson ice. i have to agree with andy. STAY AWAY FROM THE STUFF. no
tase
at all. i hear they use more corn to give it a smoother flavor.
this reminds me of something: five years ago i was involved in an
exchange
program with german students. when they were over here king cobra was
still being advertised on t.v. the adds said, "goes down smooth with no
after taste."
i remember the german students rolling on the ground with laughter after
hearing this. i asked one what was so funny (at this time i had never
really tried any beer) and he said, "beer with no aftertaste? the after
taste is the most important part of the beer!"
three months later i was in germany. i tasted real beer for the first
time
and found out that he was right.

- --james

Date: Sat, 4 Dec 93 19:23:22 EST
From: mark.janello@um.cc.umich.edu
Subject: extract pouch extract extraction

Larry Richardson <richards@priacc.com> asked about easy/efficient ways to get all the extract out of those pouches.

Just put them in the microwave. I do mine a minute, then squeeze around awhile, then another minute, &c, until they are quite warm and very soft and squishy (very fun). You could also put them in a sink of hot water or even boil them; I think they are made of the same stuff that Green Giant Niblets in Butter Sauce pouches are made of. At least the pouches I've been getting are claimed to be boil-proof. Ask your supplier.

When they are all soft cut a corner off and hold by the opposite corner. Then you can stir at the same time to avoid scorching. Some more squeezing will get most of the stuff out and a cup or so of hot water put in and then shaken around will get the rest.

Not much more irritating than cans, really

-mark
mark.janello@um.cc.umich.edu
University of Michigan School of Music

Date: Sat, 4 Dec 93 20:35:04 PST
From: hollen@megatek.com (Dion Hollenbeck)
Subject: Wort boiler screen

I just had a disaster with the screen on my wort boiler plugging with hops. I just started all grain 5 gal boils and this is my third batch. The previous batches did not plug with hops. I have a Sankey keg with the top cut out for a boiler. I have welded a nipple in the side, about 2" from the bottom and right over the center is an elbow and short nipple which dip down to within 1/2" of the bottom. The end of the nipple is covered with a coarse screen. I have no idea why it did not plug up the first two times, but did this time.

Here are my questions. If you are using a Chore Girl or an EasyMasher, since both of them are just screens, why do they not plug up? If you have any other methods, please share them.

Date: Sat, 4 Dec 93 22:10:12 PST
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Correction of Sierra Nevada Dry Hopping

I was wrong in my post the other day when I said that Sierra Nevada was now dry-hopping their pale ale instead of using the hop back. They are no longer using the hop back, but they do not dry hop the pale ale. Martin Wilde advised me of this via email, and I double-checked with others who were on the tour. The only beers that they dry hop are the Bigfoot Barley Wine and the Celebration Ale. The pale ale is bitter-hopped with a combination of Perle and Nugget hops at the beginning of the boil, with additions of Cascade at 30 minutes to go and at the end of the boil, which they allow to steep for 20 minutes before chilling the wort.

Sorry for the misinformation.

Mark

Date: Sun, 5 Dec 1993 07:37:34 -0500
From: ukcy@sunyit.edu (Kevin Yager)
Subject: A Killians Recipe

A friend of mine enjoys drinking Killians Red when he is not drinking his own homebrew.

If anyone has a recipe which produces beer like Killians could you please Email it to me.

Thank you in advance.

Kevin
ukcy@sunyit.edu

End of HOMEBREW Digest #1290, 12/06/93

Date: 6 Dec 93 07:25:00 EST
From: "DAVE SMOLINSKY" <SMOLINSKY@merlin.ndhm.gtegs.com>
Subject: Snakebite

Hi all,
Back in September I was in Penryhndeuadraeth, Wales in the U.K. I was staying at a B&B that had it's own small pub. At around closing time, everyone in the pub, except for my friends and I that were staying there, were told to leave. The bartender told me that the law over there states that if you are staying at a B&B that has a pub, they have to keep the pub open until you decide to call it quits for the night!! Isn't that wonderful!!! Anyhow, after hours I was chatting with the bartender and he told me about a concoction pubs used to make, but is now illegal. It was called a * Snakebite*. It was a combination of equal parts of a lager and a cider (I forget what the lager was, possibly Tetley's[??], but the cider was Strongbow). The reason it was outlawed was because of some chemical reaction that occurred that had a not so nice effect on brain cells. Anyone ever heard of this or know what it does to people's brains?? He prepared a small one for me and it tasted pretty good, but I couldn't tell if it had an effect or not, since I was trying every beer in the place ;-]

Dave

Date: Mon, 6 Dec 93 8:07:43 EST
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: SS keg question

Sorry if this has been addressed before and I wasn't paying attention. For those of you who have turned a SS keg into a brewpot, where did you get the keg? How much did it cost you? I've seen references to Sanke kegs for this. Are these the only type of kegs to turn into brewpots? What other kinds have people used?

Private e-mail is fine.

Many thanks in advance.

- - -

Jim Grady | "Immediately after Orville Wright's historic 12 second
grady@an.hp.com | flight, his luggage could not be located."
| S. Harris

Date: Mon, 6 Dec 93 07:51:54 CST
From: nfarrell@ppco.com (Norman Farrell)
Subject: FZ, Icehouse Ale

I raise a glass of my finest to the music and the memory of Frank Zappa
whho
spent his career rebelling against the musical status quo as we
homebrewers
rebel against top 40 mega-brew.

I saw an advert. for "Icehouse Ale" in the Houston Chronicle today.
Claimed
to be a new product and the first ice brewed ale (was I supposed to be
impressed?). I could not tell who was the brewer. My wife asked "why in
the
world would any one make such a beer?" Anyone out there in HBD land know
of
this beer???

Regards,
Norman (nfarrell@ppco.com)

Date: Mon, 06 Dec 93 08:32:00 est
From: "Ball, Timothy B" <ballti@uh2372p03.daytonoh.NCR.COM>
Subject: Frankenmuth Dark

I agree that Frankenmuth Dark is excellent. Actually, all the
Frankenmuth
beers are great. Try Old Detroit and Frankenmuth's Pilsner.

Date: Mon, 06 Dec 93 09:47:55 EST

From: btalk@aol.com

Subject: LaBatt Maximum Ice

A friend just brought me a couple bottles of this version of the new ice beers. This Maximum is 7.1% alcohol by volume!

Still doesn't taste like much , but does have some kick.

This was purchased in Canada.

Bob Talkiewicz

Date: Mon, 6 Dec 1993 10:01:20 -0500 (EST)
From: Darin Bennett <dbennett@mailstorm.dot.gov>
Subject: 'Ice' ain't nice...

Hello all,

In HBD #1289 & #1290 the subject of Molsens' new ICE beer was discussed as the disaster it must be. Last weekend a buddy brought by some Miller 'ICEHOUSE' and tried to convince me it was gods' gift to beer. It seems to me that this should go in the same bin as the 'dry' fad. The logo should read: "We freeze it, so you can't taste it!" My thanks to those who led me to homebrew....

Keep brewin'
Darin

)-|-----
-----|-(
Darin Bennett<|> "I don't pretend to comprehend
Residing in Cyberspace at: <|> the universe. It is much
<|> bigger than I."
dbennett@mailstorm.dot.gov <|> - A. Einstein
)-|-----
-----|-(

Date: 6 Dec 93 15:08:36 GMT
From: cssc!cong@scuzzy.attmail.com (Brian Conger)
Subject: 'Ice' ain't nice...

Subject: Wort Chiller Plans

Pretty good Step By Steps plans for a immersion wort chiller in HBD-1289 by Mark Stewart. I just have a couple of suggestions.

To avoid possible disaster from the failure of either a hose clamp or a hose,
I extended both the In and Out tubing on the Kettle side of the chiller up and out of the kettle and bent it 180 degrees, then attached hoses. Thus no water could get in the kettle to contaminate the wort if any failure occurred.

On the Cold immersion side, instead of the "SLINKY" spiral, I used a tubing bender (about \$1.50 in a hardware store where I bought the tubing) and I bent the tubing in concentric circles in a flatter form. This allow more coil in the ice bath with a smaller pot. You Extract brewers could do this on both coils to allow more coil contact in smaller brew kettles.

Another tool that makes this easier is a tubing cutter. This leaves no jagged edges to file and cost about \$3.50 - \$5.00 at your local hardware store.

cong

Date: Mon, 6 Dec 1993 10:32:39 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Monks Ale, filtering comments

> From: COYOTE <SLK6P@cc.usu.edu>
> Subject: CorsenBONK / Kegging Mead/ BarleyWines / Filtering
>
> He was kind enough to share it with me, and it was...well....
> like swallowing a think rich syrupy biteybowling ball!

The Monks Pale Ale is *broadly* a Tripple, and not bad. The Monks Brown Ale is *broadly* a brown abbey ale. Both are pretty good ales, brewed by a relative newcomer on the Belgian scene, new as of around '84. I actually prefer the Pale.

>
> Barleywine
> the yeast used, alcohol content, carbonation, whim of the brewer? If
it's
> alcohol content, when does doppelbock cross the line and become
barleywine?

^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

Never! A doppel should never exhibit the esters that are prominant in an barleywine. Also, the doppels tend to be darker than Bwines, although the AHA judges seem to feel that Bwines need to be quite dark, which I believe is nonsense.

> AHA sez: 1.065-1.120 OG. 6- 12 percent alcohol by volume.
I think that should be 1.09X - 1.1XX, 8-XX % ABV.

> yeast, or champagne/wine yeasts. Aged 6 months to a year.
Well, Bigfoot is not aged like this, and I dont age mine either. It all depends on your fermentation, if you properly attenuate the beer, the aging time is greatly reduced. If you bottle at 1.030, it will need considerable time to age, but may never be as good as one bottled at 1.020.

My latest is great at brew day + 10 weeks, or keg day + 8 weeks. It was darn good at 3 weeks.

>
> * Lagers should be warmed at the end of lagering. But not that warm.
> More like 60. It helps them break down (diacetyl I think? Reference-check)

Lagers dont *need* to be treated like this. A diacetyl rest at 42F can be used quite successfully. Much of this depends on the yeast strain and overall lagering methods.

> **
> filtering and stuff...
>
> As for filtering. Filtering bacteria requires less than a 1 micron filter.

True. Less than .8 if I recall.

> I don't want to do that to my beer. Filtering DOES present advantages,
> but also potential disadvantages.
> Chill haze, protein "colloids", some cellular material, and chunks
> of anything else still floating around can be filtered out.
> A level of 2 to 3 microns will do this. 5 microns will let almost

> all cells pass.

No! 5 microns is extremely effective in removing the yeast biomass. I assume these are the "cells" you refer to.

> clean up a beer, but will also CLEAN UP A BEER. Body, head retention
> and other qualities will be lost. The intermediate levels (2-3) will
> possibly remove some body, but not too much (I hope).
>

3-5 is a fine level for home and pub brewers. It might not be perfect for extended shelf life, but it is fine for a few months. Below 1 micron, and the foam stand will be suffer.

> falling back into body of water). It's the expense at this point.
> But it may well happen. Someday. But I have looked into it!

It can be done for under \$50. The 5 micron filter carts. are \$23, and a whole house filter can be bought at HW stores for \$22.

Good brewing,
Jim Busch

Date: Mon, 6 Dec 93 10:29:53 EST
From: 06-Dec-1993 1025 -0500 <ferguson@zendia.enet.dec.com>
Subject: work chiller question / 3-gal keg source

I made myself an immersion chiller out of 50' of copper tubing (3/8"). It works quite well, i might add. One question: do folks use copper wire to tie the downtube to the coil of copper tubing? i ask 'cuz my wort chiller would be more rigid with this, however, it would be more of a pain to clean.

- ----

3 gallon keg source: BCI in TN, 3 gal general beverage container is \$34.50.
5 gal corlelius is \$26.50. 5 gal one-handle is 22.50. 10 gal general beverage is \$43.50 (I'm wondering about this one! 10 gallons!). phone number is 800-284-9410. you'll have to pay shipping. they also deal in used co2 containers, etc,etc,etc and keg parts.

jc ferguson
littleton ma usa

(no affiliation with the company; just a satisfied customer).

Date: Mon, 6 Dec 93 9:16:41 MST
From: npyle@n33.stortek.com
Subject: %Utilization / Plumbing Problems

Robert Milstead writes:

> - A 45 minute boil of hops results in a 25% Isomerization (.25)
and later...

> - A 5 minute boil of hops results in a 5% Isomerization (.05)

This is interesting, but I'd like to see your whole utilization (isomerization) table of Time vs. Isomerization. The conventional table, posted by Jackie Rager in Zymurgy, has 26.9% at 45 minutes and 5% at 5 minutes. This is the major problem with all of these IBU calculations; the utilization is debatable. Mark Garetz claims lower utilization across the board, there is lots of discussion about gravity adjustments, etc. etc. etc.

Until something big comes along to straighten out the mess, I'll use Rager's utilization numbers and formula. Why? Because it is very widely used in the homebrew community, making for a good point of reference. If someone tells me a beer has 37 IBU, and I know (maybe I have to assume) they are using Rager's numbers, I have a reference point to use in trying to duplicate it. Other adjustments/utilization tables may be more accurate, but the comparisons are what's important to me.

**

Dion writes:

>I just had a disaster with the screen on my wort boiler plugging with hops. I just started all grain 5 gal boils and this is my third batch. The previous batches did not plug with hops. I have a Sankey keg with the top cut out for a boiler. I have welded a nipple in the side, about 2" from the bottom and right over the center is an elbow and short nipple which dip down to within 1/2" of thte bottom. The end of the nipple is covered with a coarse screen. I have no idea why it did not plug up the first two times, but did this time.

I have had similar problems, Dion. My course of corrective action: use whole hops whenever possible and always put the hops in a hop bag. Pellets are terrible for this problem, and the hop bag will help even with pellets. I would like to hear how others deal with clogging in the kettle.

Norm

Date: Mon, 6 Dec 93 10:20:20 CST
From: shaw@visar.wustl.edu (Andrey Shaw)
Subject: Haze or Contamination

Recently, I opened a bottle from my first batch of beer (made 3-4 months ago). It was a dark extract beer that had been made without any unusual problems and which had been sitting in my basement for several months at room temp. I have very much enjoyed this beer so almost all of the bottles were gone within the first month. Two weeks ago, I found several bottles and put them into the refrigerator and last night opened one to drink. What surprised me about this beer was the haziness, which was new; all of the previous bottles that I drank were clear. I am puzzled as to why or how this beer became hazy. It tasted pretty good so I don't think that it is bugs. Could it be protein precipitation from being in the refrigerator?

Is it common for beers to acquire a haze after several months. Should I hurry up and drink all of the rest of this batch? Any helpful comments will be appreciated.

On another note, based on comments that I acquired on the HBD, I rushed out to buy Coors Winter Lager and the Sam Adams Cranberry Lambic. Maybe its me, but you didn't tell me, I could swear that the Coor winter lager tastes just like Bud Dry and only when it is in a glass do I really notice the difference (it is darker). I guess its not bad for a commercial beer that cost me \$4.29 a six pack, but it wasn't anything to get excited about. The Cranberry Lambic (sic) was interesting and I did kind of enjoy it, but almost everyone I asked to taste it thought it was disgusting. It again wasn't anything that I would rush out and get. Interesting and novel but not great.

andrey shaw

Date: Mon, 6 Dec 93 9:20:03 MST
From: npyle@n33.stortek.com
Subject: Commercial Beer Matrix, Part 1/2

-Part 1/2-

The following commercial beer matrix has been gleaned from various posts in HBD and rec.crafts.brewing. I find it useful, if not for cloning certain beers, for finding out what types of ingredients, OGs, etc. are pleasing to me. The best beers I have brewed were "clones" of commercial beers. They were not exact duplicates, but actually better than the originals (the advantage of homebrewing decisions vs. making money).

I find it interesting to note that some breweries use only one type of base malt and crystal for most or all of their beers, and still provide a wide variety of beers. This is probably due to the economy of mass buying, but it shows how versatile you can be using different quantities of base malts and crystal, and then changing hops and yeast. I don't know anything about the water treatments (if any) of these brews, but that could have a considerable effect as well.

The hops are, I believe, in order of boiling time, as should be evident in most of these beers by the hop variety. They are not all completely accurate, as the growing region of a particular hop can affect its flavor profile greatly (note that Redhook gives "Yakima Hallertau", which I presume is the American version of Mittelfrueh, although I'm not positive. It also lists "Tettnang", which I'm guessing is Tettnanger Tettnang, grown in Germany). You can see that some of this information needs work; also some of it may be dated.

Note that I only assembled this information into a single matrix; I did not gather it originally from the breweries. I would appreciate similar info on other breweries (large and small), other beers by these breweries, and any corrections that you note. If you tour a brewery, take notes!

RedHook Brewery, Seattle, Washington

```
-----  
-----  
Beer Name | Fermentables | Hops | Yeast | O.G. | Comments |  
-----|-----|-----|-----|-----|-----|  
-----  
-----  
ESB | Klages 2-row | Willamette | English | 1.054 | Flagship  
    | Crystal 60L | Tettnang | Ale | | Product  
    | | | 4.3%ABW  
-----|-----|-----|-----|-----|  
-----  
Ballard | Klages 2-row | Eroica | English | 1.045 | 3.8%ABW
```


| | | | | | |
|------------|----------------|---------------|---------|-------|-----------|
| Bitter | Crystal 40L | Willamette | Ale | | |
| | Cascade | | | | |
| Blackhook | Klages 2-row | Willamette | English | 1.047 | 3.9%ABW |
| Porter | Crystal 40L | Eroica | Ale | | |
| | Black Patent | Cascade | | | |
| | Roasted Barley | | | | |
| Redhook | Klages 2-row | Clusters | Belgian | 1.050 | 4.5%ABW |
| Ale | Crystal 40L | Willamette | Ale | | Banana |
| | Black Patent | Eroica | | | overtones |
| | Cascade | | | | |
| | Yakima | | | | |
| | Hallertau | | | | |
| Winterhook | Custom-kilned | B.C. Goldings | English | 1.057 | 4.8%ABW |
| Christmas | 2-row Carastan | Yakima | Ale | | Recipe |
| Ale | (Hugh Baird) | Hallertau | | | changes |
| | Yakima | | | | yearly |
| | Cluster | | | | yearly |
| Wheathook | Klages 2-row | Tettnang | English | 1.034 | 3.7%ABW |
| Wheaten | English Malted | Hallertauer | Ale | | German |
| Ale | Wheat | Hersbrucker | | | hops may |
| | Hallertauer | | | | wrong |
| | Mittelfrueh | | | | |

Sierra Nevada Brewing Company, Chico, California

| Beer Name | Fermentables | Hops | Yeast | O.G. | Comments |
|------------|----------------|------------|-------|-------|------------|
| Summerfest | Pale 2-row | Perle | Lager | 1.046 | 3.5%ABW |
| | Dextrin malt | Hallertau | | | Mittel- |
| | | | | | frueh??? |
| Pale Bock | Pale 2-row | Perle | Lager | 1.064 | 5.2%ABW |
| | Dextrin malt | Mount Hood | | | A beefier |
| | | | | | Summerfest |
| Pale Ale | Pale 2-row | Perle | Ale | 1.052 | 4.4%ABW |
| | Dextrin malt | Nugget | | | Flagship |
| | Crystal malt | Cascade | | | Product |
| Porter | Pale 2-row | Nugget | Ale | 1.058 | 4.7%ABW |
| | Dextrin malt | Willamette | | | |
| | Crystal malt | | | | |
| | Chocolate malt | | | | |
| | Black patent | | | | |
| Stout | Pale 2-row | Chinook | Ale | 1.064 | 4.8%ABW |

| | | | | | |
|-------------|--------------|------------|-----|-------|------------|
| | Dextrin malt | Cascade | | | |
| | Crystal malt | | | | |
| | Black patent | | | | |
| ----- | | | | | |
| Celebration | Pale 2-row | Chinook | Ale | 1.064 | 5.1%ABW |
| Ale | Dextrin malt | Cascade | | | Dry hopped |
| | Crystal malt | Centennial | | | |
| ----- | | | | | |
| Bigfoot | Pale 2-row | Nugget | Ale | 1.092 | 10.1%ABW |
| Barley | Crystal malt | Cascade | | | Dry hopped |
| Wine | Centennial | | | | |

-End Part 1/2-

Date: Mon, 6 Dec 1993 12:00:33 -0500 (EST)
From: gelinas@ekman.unh.edu (Russell Gelinas)
Subject: XXX,yeast,ice,plugged screens

With this talk of Noche Buena, I was wondering if anyone has ever seen a dark malty beer called "XXX" out of Mexico? It was a take on "Dos Equis", but I don't know if it was made by the same company. I wasn't a brewer back then (10 years ago), but I remember it as being a good beer.

Without dredging up the dry vs. liquid yeast debate again, I'd like to point out that the switch from dry to liquid often brings your more subtle brewing mistakes to the fore. Something to watch for.

I'm surprised to hear that Ice Bud/Ice Molson have no flavor, because the Ice Labatts I tried had lots of flavor, most of it bad. Strong phenols. Enough so I actually checked the bottle for yeast sediment (of course there wasn't any). Fwiw, Labatts is suing people over using the term "ice".

And, speaking of plugged screens, I've been having a problem with stuck sparges. I use the 10 gallon cooler with straining bowl type of lauter tun. Worked great for 20 batches, but it just was not working anymore. Why, I dunno. Anyway, after having to pour the whole mash *back* into the mash-kettle to unset the sparge (HSA anyone?), I decided that I'd just put a stainless pot scrubber over the cooler outlet hole, tied on with an elastic, and leave out the strainer bowl. Well, hey, it worked like a charm! No clogs, a couple of quarts before it ran clear. YMWV, but it's likely to become SOP for me.

Russ Gelinas
eos
unh

Date: 06 Dec 93 12:19:58 EST
From: Thomas Livaccari <TJL@CSI.compuserve.com>
Subject: Interested in Homebrew Digest

I would be interested in receiving information about Homebrew Digest.

Tom Livaccari
204 West 80th Street, Apt. 5E
New York, NY 10024

Date: Mon, 6 Dec 93 10:18:19 MST
From: fmicos!argus!dillinger@uunet.UU.NET (Stephen Dillinger)
Subject: Hop bitterness longevity

I have a question about hop bitterness stability/longevity in my bottled beers.

The basic "problem" is that the perceived bitterness in my bottled beers seems to fade rather quickly (over a period of weeks). A beer that is extremely bitter one week, is perfect the next, and a couple of weeks later the bitterness is very subdued.

I've tried the basic 60 minute boil, 5 minute finish, as well as various attempts at dry hopping (which I really like) and hopping at various times during the boil. All share the same lack of staying power in the hops... Could it be the type of hops I use? (goldings, fuggles, willamette).

Anyone know how I can get a desired level of bitterness and have it stick around for awhile?

Thanks in advance for any advice/ideas.

Steve Dillinger uranus!dillinger@uunet.uu.net

Date: Mon, 06 Dec 1993 12:09:19 -0500 (CDT)

From: WEIX@swmed.edu

Subject: Dry vs. Liquid Yeasts

Hi,

I would just like to give a small plug here for the Yeast FAQ. I talk about the magical aspects known as strain variation. Roughly this means: "Not all yeast are the same". Not all dry yeast, not all liquid, not all anything! To those who are disappointed with their variety of dry yeast but

would like to keep using dry yeast, you might try using Red Star Ale Yeast

or Llemand Nottingham or Windsor Dry Yeast.

Not to slam the Whitbread Dry (slam, slam, slam), but dissatisfaction with

it's performance in my first few batches (it gave an odd taste that I don't

know how to describe) is what drove me to compile the yeast FAQ in the first place. I wanted something that listed the available strains and their

flavor characteristics.

Beginning brewers should be especially happy with the Red Star Ale because

of it's fast starting and clean taste.

Patrick, that annoying yeast faq guy.

Date: Mon, 29 Nov 1993 13:50:00 -0500
From: carlo.fusco@canrem.com (Carlo Fusco)
Subject: NaOH a cleaning agent?

Glenn Anderson wrote:

H> If I wash all my metal brewing equipement with a sodium hydroxide
H> solution, what's the best process for ensuring that it's all rinsed
H> off? Can any Microbrewers on the digest offer a 'professional'
H> opinion that I can take to the bank?

I seem to remember George Fix [I think] writing a short blerb on this
topic. I seem to remember that NaOH was used to remove protein build up
inside pipes and tubing and was later rinsed with a weak HCl solution to
nutralize the NaOH. Can any one verify or reject this? What strength NaOH
and HCl were used? Can someone please explain how to the use NaOH as a
cleaning agent?

Thanks,
Carlo

- - - -

* Freddie 1.2.5 * email: carlo.fusco@canrem.com Sharon, Ontario, Canada

Date: Mon, 6 Dec 93 10:48:52 PST
From: dra@jsc-ws.sharpwa.com (Darren Aaberge)
Subject: Re: starter gravities revisited

Cushing Hamlen asks about gravity of starters in HBD 1289.

I initially used starters with a gravity similar to what I was brewing. I was amazed at the difference in lag time between using a starter and not using a starter. Then someone on the HBD claimed that starters should be 1.020, so I switched to that gravity for my starters. It seems like I still got short lag times, but the yeast seemed to be very weak and I was getting high final gravities.

I now use starters that are between 1.030 and 1.040 and am very happy with the results.

Just my \$.02,
Darren Aaberge

Date: Mon, 6 Dec 93 12:46:06 PST
From: troy@scubed.scubed.com (Troy Howard)
Subject: Wort dilution vs SG

Chushing Hamlen (cush@msc.edu) asks if there is a curve or analytic function fit to experimental data to describe wort gravity as a function of (presumably) dilution volume.

You do not really need experimental data. This is a rather simple problem.

Wort gravity is a measure of density. So, using the following notation:

D0 = initial density
V0 = initial volume
Da = density of added liquid (for water Da=1.000)
Va = added volume
Df = final density

then, adding Va of liquid of density Da to a volume V0 of liquid with density D0, will result in a liquid of density

$$Df = \frac{(D0V0 + DaVa)}{(V0 + Va)}$$

or (in case the spaces don't line up when you read the above)

$$Df = (D0*V0 + Da*Va)/(V0 + Va)$$

As an example, if you have 5 gallons of 1.060 wort, and add one gallon of water to it, you will have 6 gallons of

$$(1.060*5\text{gallons} + 1.000*1\text{gallon})/(6 \text{ gallons}) = 1.050 \text{ wort.}$$

-Troy

Date: Mon, 6 Dec 93 16:12:44 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: wort dilution vs. SG

Not sure what you want. You mean "what happens if I add 1 gallon of water to 4 gallons of 1.040 wort?" Almost right formula:
1.040 wort = 40 "points/gallon" = 160 "points" in 4 gallons
160 points/5 gallons = 32 points/gallon = 1.032 wort

To do it right, you first convert from gravity to degrees Plato. Fix posted a cubic approximation to the tables recently. This gives you %sugar (by weight as sucrose) (1 deg Plato = 1% sugar w/w). Multiply by the mass of the solution (4 gallons * ???lbs/gal * 1.040) to get the mass of sugar. Add your gallon of water, and compute the mass of the new solution (original mass + mass of 1 gallon of water (don't forget to temperature compensate)). Then compute the percentage of sugar in the new solution (100 * original sugar mass / solution mass). Finally, convert back to S.G. using the Plato table (or formula).

A close approximation to deg Plato is to divide the "points" by 4. But if you use that, you might as well use the simple method in the first paragraph.

I haven't compared this to Steve Piatz's table, but his code looks like my first method.

=S

Date: Mon, 6 Dec 1993 15:43:29 -0600 (CST)

From: EVANS@smsd.jsc.nasa.gov

Subject: Help!!! San Miguel Recipe Wanted.

Hello,

I'm looking for a recipe that is similar to San Miguel. As I'm pretty new at this, I'd prefer an extract-based recipe. I've checked the Cat's Meow and haven't found anything. I'd really appreciate any help offered.

Please post or respond to "evans@newton.jsc.nasa.gov" Responding directly to this post will not work.

Thanks in advance,

Chris Evans

Date: Mon, 6 Dec 93 15:00:14 -0700
From: Craig Artley <cartley@dix.Mines.Colorado.EDU>
Subject: Re: BBC and water chemistry

> Date: Sat, 4 Dec 93 07:28:00 -0600
> From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
> Subject: BBC and water chemistry
>
>

> I just received in the mail an unsolicited four-color bi-fold *I'm not
> sure what this is* "advertisement" from The Boston Brewing Company.
> [...]
> Page four
> continues the Koch family travails from Germany to the land of
> opportunity, offers "Come for a tour" AND **offers a FREE Sam Adams T-
> shirt and a FREE subscription to the Boston Beer Company Quarterly
> Newsletter** !!!

I got one of those in the GABF edition of the local brewspaper, Rocky
Mountain Brews. I'm still waiting for the T-shirt. Guess I should have
checked "Distributor" rather than "Beer Lover"....

- - - -
Craig Artley cartley@mines.colorado.edu (303) 273-3479
Geophysics Dept., Colorado School of Mines, Golden, CO 80401

Date: Sun, 5 Dec 1993 20:31:50 -0600 (CST)
From: winstead%brauerei@cs.tulane.edu (Teddy Winstead)
Subject: Back To Basics Recipe

Fellow Homebrewers:

My last few batches (Double Bock, Amber Ale, and Papazian's "Holiday Cheer") have all been severely lacking. The Double Bock froze in the fridge, and had to come out (imagine the mess :-() ,resulting in estery off-flavors from the increased fermentation temps, the Amber Ale suffered from a lack of hoppiness and a little HSA, and the "Holiday Cheer" is awful (I think that I should've peeled the ginger) it has a medicinal, phenolic, rough (almost dirty, like mud) flavor to it.

So here's my query(s):

Could somebody please send me (via e-mail, so as not to clutter this list) a good, easy recipe (preferably something with some grains added to the boil for extra body)? Lots of hops, too. Also, one with a liquid yeast. Beleive it or not, I have troubles with liquid yeasts. They seem to have like a 30 hour lag time which makes me incredibly nervous.

Also, could somebody tell me whether or not it's a good idea to put soap in the dishwasher when doing your bottles in there? I'm a little worried that the dishwasher method's detracting from my beer quality.

Finally, could somebody give me a good, step by step method for cleaning and rinsing my carboy (since I don't have a hookup for my bottle-washer anymore, I think that maybe lack of rinsing has contributed to off flavors.

Thanks a million, and happy brewin'

Teddy Winstead

Date: Mon, 6 Dec 1993 17:12:20 -0600 (CST)
From: winstead%brauerei@cs.tulane.edu (Teddy Winstead)
Subject: Various Mailing Lists

Could somebody please e-mail me the addresses for:

The Lambic Mailing List
The Mead Mailing List
The Cider Digest (if it still exists?)

Thanks alot,

Ted

Date: Mon, 6 Dec 1993 09:54:00 -0500
From: stephan.marceau@canrem.com (Stephan Marceau)
Subject: Re: Ice Beer

james>yea, i tried some budweiser ice draft (i was at a friends house and he was
james>swilling it. i didn't buy it, HONEST!). i think this is similar to the
james>molson ice. i have to agree with andy. STAY AWAY FROM THE STUFF.
no
tase
james>at all. i hear they use more corn to give it a smoother flavor.
james>this reminds me of something: five years ago i was involved in an exchange
james>program with german students. when they were over here king cobra was
james>still being advertised on t.v. the adds said, "goes down smooth with no
james>after taste."
james>i remember the german students rolling on the ground with laughter after
james>hearing this. i asked one what was so funny (at this time i had never
james>really tried any beer) and he said, "beer with no aftertaste? the after
james>taste is the most important part of the beer!"
james>three months later i was in germany. i tasted real beer for the first
time
james>and found out that he was right.
james>- --james

Ya, it's quite funny, the Labatt Ice beer is the first beer that my wife actually likes: because of the no after-taste!!! And I have been trying for so many batches to make something that she would actually enjoy - I guess I was on the wrong path with berries!!!

I will admit that I do buy the Ice beer for guests who like "tasteless beer", that's what I call it! That makes them laugh...

Later

Steph

- - - -

* MR/2 1.36 NR * I am free of prejudices. I hate everyone equally.

Date: Mon, 6 Dec 1993 20:16:42 +0500 (EST)
From: "David M. Fresco" <fresco@gibbs.oit.unc.edu>
Subject: Mac Clip Art

Hello,

I'm interested in some beer related clip art. In particular, I'm looking for a recycle symbol (with the three arrows) in the form of a scalable pict. Please send replies to fresco@unc.edu

```
=====
= David M. Fresco =
= Department of Psychology =
= CB#3270, Davie Hall ___o =
= Chapel Hill, NC 27599/<, =
= Internet: fresco@unc.edu `,'(*) =
= fresco@med.unc.edu (*) . ./"" =
= Voice: (919) 962-5082"""" =
= Fax: (919) 962-2537=
=====
```

Date: Mon, 06 Dec 1993 20:44:34 -0400 (EDT)
From: RADAMSON@delphi.com
Subject: Beer Offerings

Fellow Brewers:

I am blessed with a dilemma this season of having an opportunity to influence the tap offerings of my local pub. It has been and will continue to be a brilliant, almost quite proper, Irish Pub. It even goes by the name of Mustang Sally's. For the record, it has to be the freshest, best poured pint of Guinness on Long Island, NY - and we've hunted quite a few along our search. Anyway, his other offerings are Bass, Woodpecker Cider, Kilian's, Bud & Coors.

So, we (my brew partner & I) had an idea of providing a holiday ale (Anchor Christmas, Sierra Celebration, even SA Winter Lager, etc) to him to serve. He could charge whatever for a pint, except for us, of course. Our investment is basic: add a more beer knowledgeable crowd to his clientele; get the place known for a rotating special seasonal Micro beer, etc. I know, skip the details...

Anyway, he's going along with this so far. You're saying, "So, what's the dilemma?" - Certainly not the selection!! I love this season!

What I'd like to throw at him are some industry marketing blitz crap that will help convince him that the special beer will sell (even though he has no cost in the keg (at this point anyway)). He may have to decide which current tap to remove. Can anyone start me in the right direction for trades, articles, etc.?

Thanks in advance,

Richard Adamson, Brewer, Systems guy, Steeler Fan
- RADAMSON@delphi.com

Date: Mon, 6 Dec 1993 21:45:18 -0500 (EST)
From: smag@echonyc.com (Stefan Smagula)
Subject: Oven-mashing, Over active fermentation, Old Yeast

OVEN-MASHING

I have a tip for those who are thinking about trying to mash for the first time. This is how I did my first partial-grain batch. It was easy! Instead of buying or making an insulated box, I used my 8 gal. enamel brewpot, and put it into a warm oven for the steeping periods. I made sure the oven temperature was near that of the mash with the help of a thermometer. When I needed to raise the temperature of the grains (I did a "step-infusion"...I think?), I took the pot out of the oven and heated it slowly on the stove. I was happy, my mash was happy :->

--

Help! I violated the 11th Commandment:
This same 5 gal. batch (1# of cara-pils, 1# of crystal, 4# pale malt, 11# Dry Malt Ext. with about 10 oz of various hops, an OG of >1.100) had one problem: it fermented so fiercely the foam filled all the headspace in my 7 gal carboy and went all over the floor, leaving me with <3 gallons of brew. It was an expensive mess, but worse, it was a sin ;-) Is this normal for high gravity/high hop brews? (this is my first) and how do I avoid it? Note: I did not separate the hot/cold break from the wort. I used Wyeast #1214 (Belgian Ale). I don't think this problem was due to my mashing method--the wort tested OK with iodine.

-

Any advice on using old yeast?
I cleaned the yeast from the trub of this same batch using the method outlined in the Yeast FAQ--thanks Weix, the FAQ's awesome! (Roughly: boil some water, cool, mix with sediment, let settle, pour off everything but settled yeast, repeat, and then pour the cleaned yeast into a sanitized mason jar and store in your fridge). Now, can I safely use this yeast even though I cleaned it over a month ago? I have a microscope--so I could check for bacteria--but I'm not sure what levels of bacteria are "safe" (there was a good number of critters in the original Wyeast package!), and I'm not sure about the viability of yeast stored this long. Thanks.

[enter non-professional mode] I think there should be more orgasms, fake and otherwise, on the HBD! Sorry about the l o n g post.

Date: 06 Dec 93 21:49:30 EST
From: Richard Nantel <72704.3003@CompuServe.COM>
Subject: Yeast FAQ

I'm new to the net and HBD. I'd love to know where I can find a copy of the Yeast FAQ. If it is anywhere near as informative as the Hops FAQ I found CompuServe, it will be worth its bytes in gold.

Thanks

Richard Nantel
Montreal, Quebec
Canada

End of HOMEBREW Digest #1291, 12/07/93

Date: Tue, 7 Dec 93 08:04:26 -0500
From: kopek@karloff.fstrf.org (kopek.edward)
Subject: REAL ice beer

07129308034200E0016800000000

Date: 07 Dec 1993 08:03 EST
From: KOPEK.EDWARD (ACTG Data Mgmt Ctr, FSTRF, Amherst, NY)
Subject: REAL ice beer
cc: KOPEK.EDWARD
Subject: REAL ice beer
Attach:

For anyone who wants to taste a real ice beer, try EKV Kulminator
Urtyp Hell 28 from Germany (That's the entire name of the beer, honest!)

.
It is concentrated by freezing as are the North American "ice" beers.
But, the flavor (and alcohol) are so concentrated, I found this brew
to be undrinkable, unless diluted with some lighter-bodied beer. (I
never thought I'd say a beer was undrinkable, but try it yourself and
let me know how you feel about it.)
You should be able to find this Kulminator without too much trouble;
our local supermarket carries it in the imported beer section. I guess
it's actually a doppelbock in style, except for the freezing treatment.
Oh, and it is reputed to have the highest alcohol content of any
commercial
beer. (Maybe, maybe not). I know it is around 12%, and it packs a
wallop!

-Ed Kopek, somewhere in Buffalo, N.Y.....

"Thank goodness this morning I woke up, instead of coming to!"

.

Date: Tue, 7 Dec 1993 13:38:42 +0000 (GMT)
From: ctmm@sabhal-mor-ostaig.ac.uk (Calum T. MacNeill)
Subject: Snakebite

Smolinsky spoke of his little Welsh B&B giving him a taste of Snakebite and telling him of its illegal status. I have to say that this may be the case in England and Wales but us Scots are smarter than them so we have our own legal system which does not ban this tippie. Either that or my local hasn't heard anything to the contrary! In fact it is quite common around here to order a "snakebite black" which is the half lager, half cider mix but with a dash of blackcurrant. I have to admit though that neither of these concoctions really appeal to me.

On a different note I wonder if anyone could help me with the problem I have with my present batch of 'instant' homebrew. It's one of these buy your tin of wort with everything included except water and sugar. The problem is that primary fermentation went like a dream, but now that i've transfered it to my pressure barrel for secondary fermentation nothing's happening, ie no pressure build up what so ever. I've tried adding extra yeast but to no avail. Please help ASAP as this is supposed to be the main attraction of a Christmas Eve party. HELP!!!!!!!!!!

Date: Tue, 7 Dec 93 09:08:45 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Brigand Ale/beer aging

Popped the cork on a bottle of this stuff last night. Wow! Vinous, fruity, old-ale aroma, beautiful orange-gold color, creamy head, strong!, hoppy in back. Yum!

This is a "Special," a style designation that means almost nothing, as far as I can tell. With an OG of 1080, it's more-or-less in the "strong, blond" category, I'd think.

Jackson says it's best 3-6 months from bottling. Well, the cork on this one said it was bottled 2-90. Still good. There was some crud on the bottom of the cork, which I carefully cleaned out of the neck before drinking. Also yeast "fluffies" in the bottom.

I don't know what this says about aging "on the yeast" versus filtering, but it certainly indicates that a beer can last more than a few months (which many of us already knew). Although it smelt somewhat aged, it didn't taste "old" in any negative sense. I wonder what a new bottle would taste like?

=S

Date: Tue, 07 Dec 1993 10:38:29 -0400

From: Ed Hitchcock <ECH@ac.dal.ca>

Subject: Alpha Acid extraction

I have been playing with Rager's and Garetz' tables, the equation from the hops faq and the like, and it occurs to me there is something missing. I seem to recall (from the spring issue of American Brewer, I believe) that increasing the hop rate decreases utilization. Thus, not only is the utilization rate not linear with time and boil gravity, it is also not linear with hopping rate. Does anyone out there have a polynomial for this?

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |
Dalhousie University, Halifax | _____ |

Date: Tue, 7 Dec 93 7:55:10 MST
 From: npyle@n33.stortek.com
 Subject: Commercial Beer Matrix, Part 2/2

Sorry for the strangeness in the Commercial Beer Matrix, Part 1. It seems something between me and the HBD added a "- " to all of the long lines starting with "----"s. I don't get it, nor do I know how to prevent it from happening to Part 2/2. To clean it up, you'll have to remove the "- " in all those lines. Hope this is useful.

-Part 2/2-
 Boston Brewing Company, Boston, Massachusetts

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-----
Beer Name | Fermentables | Hops | Yeast | O.G. | Comments
-----|-----|-----|-----|-----|-----
-----|-----|-----|-----|-----|-----
Sam| Klages / | Tettninger | Lager | 1.052 | Flagship
Adams | Harrington | Tettngang | | | Product
Boston | 2-row | Hallertauer | | |
Lager | Crystal 60L | Mittelfrueh | | |
-----|-----|-----|-----|-----|-----
Sam| Klages / | English | Ale | 1.056 |
Adams | Harrington | Goldings | | |
Boston | 2-row | English | | |
Stock | Crystal 60L | Fuggles | | |
Ale | Saaz | | | |
-----|-----|-----|-----|-----|-----
Sam| Klages / | Hallertauer | Lager | 1.032 |
Adams | Harrington | Mittelfrueh | | |
Boston | 2-row | Saaz | | |
Lightship | Crystal 60L | | | |
-----|-----|-----|-----|-----|-----
Sam| Klages / | Tettninger | Lager | 1.081 | First
Adams | Harrington | Tettngang | | | runnings
Double | 2-row | Hallertauer | | | only?
Bock | Crystal 60L | Mittelfrueh | | |
-----|-----|-----|-----|-----|-----
Sam| Klages / | Tettninger | Lager | 1.056 |
Adams | Harrington | Tettngang | | |
Octoberfest | 2-row | Hallertauer | | |
| Crystal 60L | Mittelfrueh | | |
-----|-----|-----|-----|-----|-----
Sam| Klages / | Tettninger | Lager | Varies | Recipe
Adams | Harrington | Tettngang | | | Varies
Winter | 2-row | Hallertauer | | | Yearly
Lager | Crystal 60L | Mittelfrueh | | |
| | English | | | |
| | Goldings | | | |
-----
-----

```

Anderson Valley Brewery, Booneville, California

| Beer Name | Fermentables | Hops | Yeast | O.G. | Comments |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------|------|---------------------|
| Poleeko
Gold
Light
Ale | Pale 2-row
Crystal 40L
Northern
Brewer
 Cascade | Eroica
Nugget
 | Ale | | |
| Extra
Special
Bitter | Pale 2-row
Crystal 40L
Munich malt
Brewer
Tettngang | Nugget
Eroica
Northern | Ale | | |
| High
Rollers
Wheat
Beer | Pale 2-row
(60%)
Wheat malt
(40%) | Northern
Brewer
Mount
Hood | | | |
| Boont
Amber
Ale | Pale 2-row
Crystal 40L
Crystal 80L
 Willamette | Eroica
Northern
Brewer | Ale | | |
| Centennial | Pale 2-row
Crystal 40L
Crystal 80L
Munich 40L
Mount
Hood | Nugget
Eroica
Northern
Brewer | | | |
| Deep
Enders
Dark
Porter | Pale 2-row
Crystal 40L
Crystal 80L
Chocolate malt | Nugget
Northern
Brewer | Ale | | |
| Barney
Flats
Oatmeal
Stout | Pale 2-row
Crystal 40L
Crystal 80L
Munich malt
Chocolate malt
Wheat malt
Roasted barley
Oats | Eroica
Northern
Brewer
Cascade | Ale | | Flagship
Product |

Anchor Brewing Company, San Francisco, California

| Beer Name | Fermentables | Hops | Yeast | O.G. | Comments |
|-----------|--------------|------|-------|------|----------|
|-----------|--------------|------|-------|------|----------|

-----|-----|-----|-----|-----|

-----|-----|-----|-----|-----|

| | | | | | |
|--------|------------|--------------|---------|---------|----------|
| Anchor | Pale 2-row | Northern | Lager | 1.050 | Flagship |
| Steam | Crystal | Brewer (US?) | (Wyeast | Product | |
| | Calif. | Fermented | | | |
| | lager?) | at 55F | | | |
| | | Lagered | | | |
| | | at 50F | | | |
| | | 33 IBU | | | |
| | | Kraeusened | | | |
| | | 3.9% ABW | | | |

Norm

Date: Tue, 7 Dec 93 10:04:59 -0500
From: demillo@juliet.ll.mit.edu (Robert DeMillo)
Subject: Brain reaction to Snakebites???

> Date: 6 Dec 93 07:25:00 EST
> From: "DAVE SMOLINSKY" <SMOLINSKY@merlin.ndhm.gtepsc.com>
> Subject: Snakebite
>
> Hi all,
>
> Back in September I was in Penryhndeuadraeth, Wales in the U.K...
> after hours I was chatting with the bartender and he told me about a
> concoction pubs used to make, but is now illegal. It was called a *
> Snakebite*.
> It was a combination of equal parts of a lager and a cider (I forget
> what the
> lager was, possibly Tetley's[?]), but the cider was Strongbow). The
> reason it
> was outlawed was because of some chemical reaction that occurred that had
> a not
> so nice effect on brain cells. Anyone ever heard of this or know what
> it does
> to people's brains??

You've *got* to be kidding me. This sounds like an
"Old Wives' Tale" made into law.

"Snakebites" are pretty common over here in brewpubs (at
least in the Boston area), and are made from a strong lager
and a cider, as the poster states. Usually the lager is the
lager-of-the-house, and the cider is whatever is available.
(At least one brewpub in Boston makes its own cider: Boston
Beer Works.)

If there is a chemical reaction that has a bad effect
on people's brain cells, I haven't know it, and
eye drink a lot of snakebytes....

- - -

- Rob DeMillo | Internet: demillo@juliet.ll.mit.edu
MIT Lincoln Lab | America Online: exgalileo@aol.com
Weather Sensing - Group 43 | Reality: 617-981-2105 (office)

"Operation Goofy now in effect!"
--- Tom Servo, "Gamera vs. Gao," Mystery Science Theater 3000

Date: Tue, 7 Dec 93 10:55:30 EST
From: pacasey@lexmark.com (Patrick Casey)
Subject: CO2 buildup during lagering phase

Hi. When I made my first and only lager this fall, I had a problem at bottling time -- the beer foamed a lot when I filled the warm bottles and later the beer had a way too high level of carbonation. Here's what I figure was going on:

At the lager fermentation temps, the CO2 produced by the yeast tended to stay in solution rather than come out of solution like it does with my ales at ale fermentation temperatures. Since I bottled the beer right out of the fridge after a 2 week primary and 2 week secondary/lager phase, a lot of CO2 was still dissolved in the beer.

This time I think I'll bring the beer out of the fridge a day or two before bottling to let most of the CO2 come out of solution. Seems like I read in Noonan's book that he says the CO2 can be brought out of solution by siphoning the cold beer straight from the fridge into a bottling bucket and then rocking the bucket to coax the CO2 out of the beer. What do you folks do?

Thanks in advance,

Patrick

Patrick A. Casey pacasey@lexmark.com

Date: Tue, 7 Dec 1993 08:19 PST
From: BRUCE@ARVAX.Syntex.Com
Subject: Re: Snakebite

I believe you Welsh friend was spinning you a bit of a yarn with that brain cell story.... (I have always been fascinated by Wales, BTW...)

However, snakebites are definitely EVIL!! I have strayed to the DARK SIDE more times than I care to (or can...) remember. Many Pubs here in the bay area have Dry Blackthorn Hard Cider on tap, and are very familiar with snakebites.

I was introduced to them at Jonathan's Roadhouse Pub in Tahoe City while on a ski trip, and, ever since, I have been hooked. If a place has the cider on tap, I know automatically what I'm going to order.

They're a little sweet with some of the milder lagers, so I suggest trying it with Pilsener Urquell or one of the more robust ales. They're also pretty good with Guinness, believe it or not! I usually get them with the likes of Red Hook or Bass.

With regard to the brain cell thing, I simply cannot believe that it was outlawed for killing brain cells. We all know what does that, and it has nothing to do with a reaction between cider and beer...

These wonderful concoctions do, however have a tendency to sneak up on you and bite your behind! They are tasty, go down smooth, and have quite a kick. I don't know what the alcohol content of the cider is, but I have ended up more inebriated than I have intended on several occasions.

I suggest you search out a pub that has a dry cider on tap, and have them pull a few snakebites for you. But make sure you have a ride home if you're there past closing like you were in Wales.

Enjoy!

Date: Tue, 07 Dec 93 09:28:44 MST
From: Shirley Thompson <DUSTHOMP@idbsu.idbsu.edu>
Subject: mead address

In response to Coyote, there is a mead digest at "mead-lovers-
request@ekletex.com". Any chance of getting your Loganberry mead recipe?

--
Here's to it and to it again, if you don't do it, when you get to it,
you may never get to it to do it again...
-----+-----+-----

--
Shirley Mae Thompson | 1910 University Drive | Cren: DUSTHOMP@IDBSU
User Service Center | Boise, Idaho 83725 | Internet:
Boise State University | (208) 385-4357 | dusthomp@idbsu.idbsu.edu

Date: Tue, 07 Dec 93 10:46:13 CST
From: Al Gaspar <gaspar@STL-17SIMA.ARMY.MIL>
Subject: Image files

What do I need to look at the .jpg files in the images directory at the homebrew archive site? Can the be converted to other formats? I'd love to look at some of these. Thanks for the help.

Cheers--

Al

- - -

Al Gaspar <gaspar@stl-17sima.army.mil>
USAMC SIMA, ATTN: AMXSI-TTC, 1222 Spruce St., St. Louis, MO 63103-2834
COMMERCIAL: (314) 331-4354 AUTOVON: 555-4354
relay1.uu.net!stl-17sima.army.mil!gaspar

Date: Tue, 7 Dec 93 11:49:53 EST
From: Keith MacNeal 07-Dec-1993 1147 <macneal@pate.enet.dec.com>
Subject: dopplebock vs. barleywine

Someone asked if dopplebocks are barleywines. The answer is, no there are differences between the two. The most basic difference being that a dopplebock is a lager and a barleywine is an ale. Lagers are brewed and aged at lower temperatures than ales. Dopplebocks are a high alcohol version of lager while barleywines are high alcohol versions of ale. Barleywines are generally higher in alcohol content than dopplebocks (a tripplebock might be in barleywine range).

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date:Tue, 7 Dec 93 12:29 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: America OnLine

While reading the brewing online text file I noticed that there was no e-mail address given for the author, so I will post the info here.

There is a brewing forum on America OnLine in the "Wine and Dine" section. They keywork "Wine" will get you there. We have about 10 message bases and coming soon will be an interactive database containing HBD.

America OnLine currently costs \$9.95 for the first four hours of the month, and \$3.95 for each additional hour. It's at 2400 baud, but going to 9600 with a month or two. Internet FTP access, UseNet, gopher, and archie access will all be coming before the end of the year. Internet E-Mail gateway already exists.

I would be happy to get a detailed description of the message bases if anyone is interested.. I also have a text file conatining AOL recipes. I can u/l the file to the archive site on request.

Date: Tue, 7 Dec 93 10:34:17 PST
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Disappearing Bitterness

Stephen Dillinger writes:

>The basic "problem" is that the perceived bitterness in my bottled beers
seems
>to fade rather quickly (over a period of weeks). A beer that is
extremely
>bitter one week, is perfect the next, and a couple of weeks later the
>bitterness is very subdued.

I suspect what is happenning is that the iso-alpha acids (responsible for
the bitterness) are dropping out with the yeast (Yeast adsorbs iso-
alphas).

Now if you say "Well my beer is clear when I perceive it to be bitter, so
the yeast has already dropped out," I would say that reasonably clear
appearing beer can still have lots of yeast suspended in it.

Try this experiment: Shake up the beer to re-disperse the yeast and then
taste it. Yes it will be yeasty, but I'll bet the bitterness returns.

Solutions? Increase your hopping rate and let the beer settle a bit more
before bottling. And/or use a more flocculent yeast strain. I haven't
tried it yet myself, but the new Wyeast 1968 Special London Ale is
reported to be highly flocculent.

Mark

Date: Tue, 7 Dec 93 10:03:20 PST
From: ELQ1%Maint%HBPP@cts27.comp.pge.com
Subject: Extract, reply

In HBD#1289 Larry asks about getting all the extract from pouchs.
I use _Trinity Malt Works_, It comes in 6 lb bags that I put in to a
sink
of hot water to soften. It really flows smooth and is easy to get all
the
good stuff. I stick the box and all on top of my wood stove when I
start
the 5 gal. of water to boil and turn the box several times and I get
very
liquid malt.
Michael Barre,
my home address is;
6859 Eggert Rd.
Eureka, Ca. 95503 707-444-8659
Ed Quier. ELQ1@MAINT@HBPP

Date: Tue, 07 Dec 1993 11:18:00 -0800 (PST)
From: David Allison 225-5764 <ALLISON.DAVID@A1GW.GENE.COM>
Subject: Different Beers - Same Flavor

I am having a problem that perhaps you folks out there in HBD-land could help me with. In short (hopefully), my last two brews came out with the same flavor, but I used different ingredients.

First brew -
8# US 2-row
1# US 6-row
1# rye flake
Hops: approx. 45 IBU (don't have varieties on hand)
Yeast: Wyeast - Calif. Lager Yeast

Second brew -
9# British 2-row
1# Crystal 40L
Hops: approx. 45 IBU (don't have varieties on hand)
Yeast: Wyeast - Chico Ale Yeast

In both brews, I used a 1400 mL yeast starter (very active) and fermentation started in about 5 hours. Previously, I had used only 500 mL starters, with fermentation in 24 hours.

The problem is that both beers have a pronounced flavor component to them -- sort of a pear/banana-like aroma and taste (IMO, but it is hard for me to judge). At about 40 hours of fermentation, the second brew went from having a medium-amber color with large aggregates circulating around to a light-amber color with a lot of small particles circulating. The fermentation was very active during this entire period.

Is this characteristic of these yeasts or did something happen to the yeast during fermentation? Any ideas? If I could tell the difference between phenols, esters, aldehydes, ketones, long-chain alcohols, etc. - I guess I could troubleshoot the problem better. But my beer judging needs to improved. (another story) -- BTW, the beers are very drinkable, I just wasn't looking for that flavor. Thanks.

David
(allison2@gene.com)

Date: Tue, 07 Dec 93 14:15 CST
From: "Peter Brauer 312/915-6157" <\$W\$PR42%LUCCPUA.BITNET@UICVM.UIC.EDU>

Subject: Local Chicago Shops

Is there a list out there anywhere of Chicago areas supply houses?
I only know about my brewmaster, "Brewin' Beer" out by O'Hare. I
like his shop but am always willing to look at something new. Thanks.

Also, I am sure that I already missed this being new to this net, but
has anyone tried "Clear Beer?" My family in Minnesota sent me samples
when I told them I was making my own because they thought it was neat.
I can't even give this junk away. One would think that they would assum
e that I only liked something with flavor, body, taste, etc. but there
is no accounting for family. While I can't in good concience throw it
away (there are people in China going to bed sober after all) but i
can't stomach the junk. Anyone else tried it? Are they still making
it or did this particular brewery suffer a timely fire?

Date: Tue, 7 Dec 93 13:51:54 PST
From: tpm@wdl.loral.com (Tim P McNerney)
Subject: Is Stoelting making a magic chiller?

I got this flyer from Stoelting which makes the following claims for its wort chiller:

Chills 5 gallons of wort from 210F to 56F in 15 minutes at .33 GPM.

So basically, 5 gallons of water (.33 * 15) to chill 5 gallons of wort from 210F to 56F. It seems to me that if you were able to obtain perfect heat transfer and the water you were using was 32F, the best you could hope to get is 121F.

Am I missing something here? Here is the rest of the info:

Wort chiller w/ stainless steel housing. Counterflow type. Chill rate: 5 gal. of wort from 210F to 56F in 15 minutes at .33 GPM. 3/8" ID stainless steel wort line wrapped with copper fins. Finned tube assembly centered in 3/4" cold water copper line. 8.5" high x 11.25" diameter.

- --Tim McNerney
- --Loral Western Development Labs
- --(408) 473-4748
- --tpm@wdl.loral.com

Date: Tue, 07 Dec 1993 12:22:23 EST
From: "Mark T. Berard" <mtberard@dow.com>
Subject: Unsolicited Mail Order Catalogue

Hello HBDer's,

I have a digest (etiquette?) question. Today I received at work a mail order homebrew supply catalogue. I don't recall asking anyone to send this to me, and if I had, I'm sure I would have asked them to send it to my home address. While I appreciate getting this sort of thing, I would want to get it at home!

It would appear that they pulled my address from my sig from a couple of recent postings to HBD. While I consider this improper, I'm not sure if it is considered a breach of NET etiquette. I would have preferred e-mail asking if I wanted the catalogue. By including my snail mail address in my sig, am I asking for this sort of thing? Could some NET "Miss Manners" please clue me in to proper behavior in this regard?

Until then, just call me:

Mark "no sig" B.

Date: Tue, 7 Dec 1993 17:00:10 -0600
From: ccamley@mmm.com (Chris Amley - 3M Telecommunications)
Subject: Noche Buena

In HBD 1289 Dr. Fix asks for a polite way to get across the fact that the "new" Noche Buena differs from the old in alcohol, color, and bitterness.

It sounds to me like it's not the same beer, and that's what SW Brewing News

should say: it's not the same beer. Any published note on this beer should

also raise the question: is it ethical to call the new beer by the old name?

Of course, the same note should point out the facts of the new beer.

NB use to be available in Southern California around the end of the year and

it seems a real shame that some people will be misled by this practice, especially given the rarity of Vienna-style brews.

Chris

Date: Tue, 7 Dec 93 22:01:20 CST
From: piatz@tamarack.cray.com (Steve Piatz)
Subject: dilution

In HBD 1291 Spencer.W.Thomas writes:

```
>
> Not sure what you want.  You mean "what happens if I add 1 gallon of
> water to 4 gallons of 1.040 wort?"  Almost right formula:
> 1.040 wort = 40 "points/gallon" = 160 "points" in 4 gallons
> 160 points/5 gallons = 32 points/gallon = 1.032 wort
>
> To do it right, you first convert from gravity to degrees Plato.  Fix
> posted a cubic approximation to the tables recently.  This gives you
> %sugar (by weight as sucrose) (1 deg Plato = 1% sugar w/w).  Multiply
> by the mass of the solution (4 gallons * ???lbs/gal * 1.040) to get
> the mass of sugar.  Add your gallon of water, and compute the mass
> of the new solution (original mass + mass of 1 gallon of water (don't
> forget to temperature compensate)).  Then compute the percentage of
> sugar in the new solution (100 * original sugar mass / solution mass).
> Finally, convert back to S.G. using the Plato table (or formula).
>
> A close approximation to deg Plato is to divide the "points" by 4.
> But if you use that, you might as well use the simple method in the
> first paragraph.
>
> I haven't compared this to Steve Piatz's table, but his code looks
> like my first method.
>
```

To incorporate Spencer's concern for using the more accurate degrees Plato let's use the following:

```
phys_con = pounds/gallon of water
v = original volume of wort
og = original specific gravity
dilution = percent of original volume added as water
```

Assume that the wort and the dilution water are both at the same temperature.

```
percent_sugar = sg2plato(og)
mass_sugar = percent_sugar * v * phys_con * og
original_mass = v * phys_con * og
new_mass = original_mass + (dilution * v * phys_con)
new_percent_sugar = mass_sugar / new_mass
```

Which is:

$$\frac{(\text{percent_sugar} * v * \text{phys_con} * \text{og})}{(v * \text{phys_con} * \text{og} + \text{dilution} * v * \text{phys_con})}$$

Which simplifies to:

$$= (\text{percent_sugar} * \text{og}) / (\text{og} + \text{dilution})$$

Which gives:

$$\text{fg} = \text{plato2sg}((\text{percent_sugar} * \text{og}) / (\text{og} + \text{dilution}))$$

After doing all this the resulting table is identical to the more simplistic approach. The program follows, the #if SIMPLE determines which approach to use.

```

#include <stdio.h>
#define NUM_PERCENT 10 /* number of columns */
#define NUM_GRAVITY 30 /* number of rows */
#define PERCENT_STEP 0.05 /* percentage per column */
#define GRAVITY_STEP 0.005 /* gravity per row */
#define INITIAL_GRAVITY 1.010 /* gravity for first row */
#define INITIAL_PERCENT PERCENT_STEP /* percentage for first column */

double
sg2plato (sg)
double sg;
[
    return 259.0 - (259.0 / sg);
]

double
plato2sg(p)
double p;
[
    return -259.0 / (p - 259.0);
]

main ()
[
    int i;
    int j;
    double og, fg;
    double dilution;
    printf (" | Dilution By/n");
    printf (" O.G. | ");
    for (j = 0; j < NUM_PERCENT; j++)
printf (" %3.0f%% ", 100.0 * PERCENT_STEP * (1 + j));
    printf ("/n");
    printf ("-----|-");
    for (j = 0; j < NUM_PERCENT; j++) printf ("-----");
    printf ("/n");
    og = INITIAL_GRAVITY - GRAVITY_STEP;
    for (i = 0; i < NUM_GRAVITY; i++) [
        og += GRAVITY_STEP;
        printf ("%6.3f | ", og);
        dilution = INITIAL_PERCENT - PERCENT_STEP;
        for (j = 0; j < NUM_PERCENT; j++) [
            dilution += PERCENT_STEP;
#if SIMPLE
            fg = (og + dilution) / (1.0 + dilution);
#else
            fg = plato2sg(sg2plato(og) * og / (og + dilution));
#endif
            printf ("%6.3f ", fg);
        ]
        printf ("/n");
    ]
    exit ();
]

```

Steve Piatz Cray Research, Inc.
steve.piatz@cray.com 655F Lone Oak Drive
612-683-5268 Eagan, MN 55121

Date: Tue, 7 Dec 93 14:57 CST
From: korz@iepubj.att.com
Subject: hop utilization/Barleywine aging/HopGoRound/hop bags/fading
bitterness

Robert writes:

>The unpredictability of results when hopping may be due more to the
>isomerization of the hops than hop utilization.

Yes, but isomerization is one of the many factors that collectively combine to result in a number we call "hop utilization." I disagree that it is unpredictable... I feel that for a given system, one can determine the hop utilization as a function of boil time and other factors. I say "for a given system" because among other things, kettle geometry, whether or not you use a hop bag, and heat source intensity (boil vigor) affect hop utilization. I don't know how much each of these factors, or which ones of them are significant, but for a given system you can figure out a set of formulas that will give you predictable bittering.

>Isomerization is an altering
>of the molecular structure of the substance in hops that imparts
bitterness
>to beer. It is the isomerized molecules that give the bitterness. Only a
>fraction of the hops are isomerized during the boil (around 25% max) and
>the degree of isomerization is directly proportional to the length of
time the
>hops are in the boil. Maximum isomerization occurs at around 45 min. of
>exposure to the boil. After one hour isomerization actually begins to
reverse!
>Perhaps this explains why Andy's 90 min. boil was not as bitter as
expected.

Could you send me your reference for this... I'd like to read more about it.

I've read many articles that contradict this assertion. Thanks.

>So, actual IBU's can not be calculated without taking %Isomerization
into
>account. Since learning this information from the master brewer at a
local
>contract brewery, my beers have been much more predictable in terms of
>bitterness and better overall. I believe this is because I now brew to
a
>specific target bitterness (based on style).

What all the formulas (the ones Robert posted as well as Ragers, etc.) calculate are an approximation for the IBUs in the finished product, not really what gets into the wort. Here's an excerpt from a talk by Bob Foster (Coors Brewing Co) talk at the Siebel Institute of Technology:

PROCESS UTILIZATION OF ALPHA ACIDS

Formula %U = IBU(ppm)/AA added(ppm) * 100

Kettle Utilization: (EG.) %U = 45IBU(ppm)/92.4 AA added(ppm) * 100
%U = (0.4870) * 100 = 48.7%

Fermenter Drop (EG.) %U = 25IBU(ppm)/92.4 AA added(ppm) * 100

RUH Drop: %U = (0.2706) * 100 = 27.1%

Lager Drop: (EG.) %U = 23.5IBU(ppm)/92.4 AA added(ppm) * 100
%U = (0.2543) * 100 = 23.4%

Blending (30% H2O): (EG.) 23.5IBU * 0.70 = 16.5 IBU
%U = 16.5 IBU(ppm)/92.4 AA added(ppm) * 100
%U = (0.1786) * 100 = 17.9%

Overall Utilization 16.5IBU - 1.0 IBU loss = 15.5IBU
(packaged beer):%U = 15.5 IBU(ppm)/92.4 AA added(ppm) * 100
%U = (0.1678) * 100 = 16.8%

Confusing? Yes, I agree, and I'm not sure if the numbers were actuals (measured) or if they were just for example's sake, so we can only take this information with a grain of salt. However, if we assume that the numbers are in the ballpark for a real system (granted, Coors' 650bbl system), then there are a lot more significant factors than just percent isomerization.

Jim writes:

>> yeast, or champagne/wine yeasts. Aged 6 months to a year.
>Well, Bigfoot is not aged like this, and I dont age mine either. It all depends on your fermentation, if you properly attenuate the beer, the aging time is greatly reduced. If you bottle at 1.030, it will need considerable time to age, but may never be as good as one bottled at 1.020.
>My latest is great at brew day + 10 weeks, or keg day + 8 weeks. It was darn good at 3 weeks.

I have wondered about this. I bought a sixpack of Bigfoot back in '91 from a store that is notorious for poor handling. The bottle cap said 1990. I tried one immediately and it was harsh and undrinkable. Very unpleasant. It tasted like it was very highly alcoholic but not a smooth, warming ethyl alcohol. Knowing that high-alcohol beers often require aging (Samiclaus is aged 1 year before distribution), I put the beer aside in a cool crawlspace and forgot about it. Six months later, I tried another bottle -- better, but still harsh. A year after I bought it, I finally tried the third bottle: nectar! The harshness smoothed out wonderfully and it had a very interesting complexity of estery aromas and flavors over a perfectly balanced malt/bitterness/alcohol base. I have two bottles left right now, and I regret that I did not buy more.

When the 1992 Bigfoot came out, I bought a case, this time from a better store. I tried a bottle immediately, expecting the harshness, but it was not there! I know that SN has been changing their procedures (and maybe also their recipes) over the years and perhaps they have reduced the OG or the fermentation temperature or something. The beer seemed more alcoholic than the 1990 version, but it was all the smooth, warming ethanol flavor. Comments?

Norm writes:

>Until something big comes along to straighten out the mess, I'll use Rager's utilization numbers and formula. Why? Because it is very widely used in the homebrew community, making for a good point of reference. If someone tells me a beer has 37 IBU, and I know (maybe I have to assume) they are using Rager's numbers, I have a reference point to use in trying to duplicate it. Other adjustments/utilization tables may be more accurate, but the comparisons are what's important to me.

I tend to agree. I recently bought "Dr. Bob Technical's Hop-Go-Round" a hop version of the Wheel of Beer. I used it last night to compare my Rager-derived numbers with the Hop-Go-Round. For a 60 minute boil in a 1081 wort, they were almost identical, but for a 15 minute boil the H-G-R said 6 IBU where my Rager-derived numbers said 3 IBU! I think that the H-G-R is much too optimistic at the lower end of the utilization curve. I plan to tape my own scale over the existing utilization scale on the back of the H-G-R.

Further, Norm writes:

>I have had similar problems, Dion. My course of corrective action: use whole hops whenever possible and always put the hops in a hop bag. Pellets are terrible for this problem, and the hop bag will help even with pellets. I would like to hear how others deal with clogging in the kettle.

I add 10% to Rager's numbers when I use a hop bag (which is always).

Steve writes:

>The basic "problem" is that the perceived bitterness in my bottled beers seems to fade rather quickly (over a period of weeks). A beer that is extremely bitter one week, is perfect the next, and a couple of weeks later the bitterness is very subdued.

Anytime someone reports something hop-related is good for a while and then turns bad after a while in the bottle, I suspect oxygen is the culprit. I'm not sure exactly how or why, but I would recommend that you evaluate your processes and see if you may be introducing oxygen while the wort is still hot. Another thing is that perhaps it is not bitterness that you are perceiving. Perhaps it is tannin astringency which *does* go away after a while. Perhaps you are extracting a lot of tannins from your grain and you are underhopping -- while the tannin astringency is still there, the beer tastes rather balanced -- when it fades, the beer tastes too malty. Could this be the problem?

Al.

Date: Wed, 8 Dec 93 00:16 CST
From: arf@mcs.com (Jack Schmidling)
Subject: KRUSH-OFF

>From: STROUD%GAIA@leia.polaroid.com
>Subject: Wort Processor Krush-Off: Part II

>1) The Knurly GlattMill - Powered by a normal household drill, this mill crushed the malt in an impressive 26 sec., nearly as fast as the Schmidling MaltMill (21 sec) in our original Krush-Off.

Clearly, a mill that is more than twice as large should demonstrate a significantly higher throughput at a given rpm than what you have described.

This test is only valid if they are both run at exactly the same speed and no mention of the RPM was made.

It should further be noted that the MM as shipped is set up for hand cranking and the grain guides provide a restricted flow to assure ease of cranking with the very large rollers. To maximize throughput when motorized, the grain guides can be trimmed to provide a larger hole that will feed the grain as fast as the 10" rollers will take them.

I have a microbrewery customer that reports a throughput of 17 lbs per minute on his MALTMILL. That's 3.5 secs per lb, roughly 4 times the rate reported for the Glatt.

>From: hollen@megatek.com (Dion Hollenbeck)
>Subject: Wort boiler screen

> The end of the nipple is covered with a coarse screen. I have no idea why it did not plug up the first two times, but did this time.

You were lucky. If the screen is only as large as the diameter or the nipple, all it takes is one petal of a hop flower to clog it.

>Here are my questions. If you are using a Chore Girl or an EasyMasher, since both of them are just screens, why do they not plug up?

The EM screen is a 6" x 3/8" cylinder and needs far less luck to remain clear.

js

End of HOMEBREW Digest #1292, 12/08/93

Date: Wed, 8 Dec 1993 10:07:07 MET
From: "HANSEN M" <0031@et.aarhus.ih.dk>
Subject: A newcomers introduction. Danish brewing

I have been brewing beer for the last 6-7 years but I am new to HBD and I sure like what I see !

I am also one of the few Danish home brewers that brew the 'do it all yourself' beer. The normal procedure in this country is to buy a package that contains all the material you need. But this brew is based on dry yeast and malt-extract which both contribute to the reduction of the taste.

I have read HBD #1281 - #1284, and i have got the feeling that most of you are from America, and that you do not brew your beer the same way that we do in Denmark.

So first I am going to give you a description of the material and the procedures of the Danish way of doing these things. I apologise for my humble English.

We are two students at The Department of Electronics at The Engineering College of Aarhus, in the middle of Denmark, that have build our own brewery in his cellar. In this cellar we brew the kind of beer that is very related to the beer from Pilsen (Czechoslovakia) and Bayern (Germany). The pilsner is (as you might know) most commonly a relative light beer, but is also brewed in more dark sorts, a little like the well-known porter. I guess you all know the Danish Carlsberg Pilsner, which is a very light pilsner. (too light for me that is).

The ingredients we use is 4-5 different kinds of malt, hops, Bog myrtle (Myrica), sugar, salt and yeast.

The malt is a substance like syrup with a very fine taste. The sorts that we can obtain are :

Light Malt for the light flavoured beer.

Dark Malt for the more dark but not necessarily strong beer.

Gold Malt for the semidark and strong beer. This malt is boiled with hops in it.

Porter Malt for the very dark and porter-like beer

Barley syrup which i very similar to the light malt but with a little different flavour. Unfortunately a rare malt.

These different types of malt is of course used in all kinds of compounds. They are all bought in 15 kg cans for about \$20-\$25.

Bog myrtle gives a bitter taste a little like hops, but still different. Rarely used, or in very small amounts.

The yeast is a liquid yeast for bottom fermentation (Saccharomyces Carlsbergensis) that we simply pick up at the nearest brewery according to an ancient Danish rule which says: 'Anyone are entitled to pick up free yeast for his own personal use at any brewery'. Use of this yeast makes it necessary to have plenty of cool storage room for both the yeasting and maturing of the beer, which both must take place in 5-7 Celsiusdeg. (40-45 F.).

Our solution to this are two modified freezers (new thermostat), one 500 liters and one 300 liters. This gives us a total storing capacity of aprox. 200-260 liters in the form of 5 old fashioned 40 liters milk cans, and up to 3 20 liters beer kegs (The type that the commercial breweries uses).

This capacity gives us, if fully utilized, aprox. 40 liters every 10th day.

The procedure is this :

The first thing to do, is to make 30-35 liters of boiling water. This is done in an old milkcan, enhanced with 2 electrical heaters. Meanwhile the malt, hops, sugar and other spices are weighed out. When the water boils, the spices are added and carefully stirred. Then, depending on the malt used, 1 - 1.5 hours must pass with frequently stirring. Light malt must boil longer than darker sorts, to develop the fine taste it is known for. After the boiling, the wort must be cooled of.

For this purpose we have purchased an old milk cooler which run on cold water only. This device can cool 40 liters of boiling water to aprox.

5 - 10 Celsiusdeg. in 15 minutes. Then the yeast (which is reused several times) is added (0.5 liter) and the wort is aired up/ventilated (

I don't know the right expression) by pouring it back and forth a couple of times. Finally the milkcan's opening is covered by a sterile bathing cap (the hospital kind), and placed in the freezer (fridge) for yeasting.

Wait, wait, wait for at least 3 weeks.

Then, after the yeasting the beer is gently transported to another milkcan for maturing (to avoid the sediment), and stored at the same temperature of course. This milkcan is closed with a pressurized lid, and CO2 is added to about 1.5 atm (22 psi). This pressure is maintained throughout the next 3 weeks (at least). Mostly this is done by adding CO2 once every 2nd or 3rd day during the first 1 or 2 weeks. After this maturing the beer is drinkable, but before we drink serious quantities we remove the pressure from the can, and transport the beer gently to two beer kegs which we pressurize and store for 5 - 10 days so that the beer can absorb the right quantity of CO2. After this the beer

is finally a fine, clear and delicate tasting draught beer. The serving is done from a small refrigerator with a CO2 bottle and a suitable placed tap. We also possess a transportable box with CO2 and a tap, for feasts and its like.

This procedure is only the most commonly for unproblematic beer, and will of course be adjusted for beer with lack of behaviour.

What you have just read is only a superficial description of the methods and materials we use. I will be happy to go into details if anyone would be interested.

Second, it seems to me that most of the stuff you guys write to HBD looks a little like a closed discussion. So it is very difficult for me to gain an insight into the methods you use. Therefore I would be very interested in some basic information about the way that you guys brew your beer, thank you. (Some kind of dialogue could be very interesting)

If any of you would want to reply, it might take a couple of days before I will be able to get back to you, simply because I am looking right into to heavy examinations.

Do feel free to mail me directly.

Merry Christmas, Morten Hansen

Date: Wed, 8 Dec 1993 09:21:04 +0000 (GMT)
From: ctmm@sabhal-mor-ostaig.ac.uk (Calum T. MacNeill)
Subject: Snakebite2

After further investigation ie I spoke to an ex-barmaid! the situation regarding the illegality of snakebite in the U.K does cover the whole of the country and not just England & Wales as I suggested.

So why can I get it in my local?

Apparently it is O.K to sell it with a dash of blackcurrant which I would refer to as "snakebite black" but was put to rights on this matter as it is more commonly known as Diesel and taken alongside a bottle of Holsten Pils!!!

Just had to clear up my previous errors.

Calum MacNeill

Date: Wed, 8 Dec 1993 09:51:21 +0000 (GMT)
From: "J.Waghorn" <ts0jwa@orac.sunderland.ac.uk>
Subject: Re: Snakebite

Well I live in England, work behind a bar & as far as the licensing law stands, Snakebite is not illegal, it may be frowned upon, and a friend of mine did say he wasn't able to get it in Merseyside due to a local byelaw..... (Truth or otherwise of this claim unverified)

And anyway if Snakebite was illegal, would it not also be illegal to sell someone a half pint of lager & a half pint of cider or any possible way for them to make a Snakebite, because by selling them I would be an accessory to the "crime"

Not that any of this bothers me at all as I don't count lager as a drink & when I drink cider I drink cider - not polluted with any of this other BS, when I drink beer, I drink gallons (hic)

- - -

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Date: Wed, 8 Dec 1993 07:53:00 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: The Beer Hunter

There was some talk on alt.beer or rec.craft.brewing about Micheal Jackson's series returning to PBS (KQED/SF). I hope everyone knows you can buy the series on 2 cassettes and watch whenever you like. A colleague and fellow brewer graciously loaned them to me; they are available from Discovery, but I dunno how much they are.

Why wait for your local PBS affiliate to get hip?

Paul Beard
AT&T Tridom, 840 Franklin Court, Marietta, GA 30067
404 514-3798 * FAX: 404 429-5419 * tridom!paul.beard/beardp@tridom.com

Date: Wed, 8 Dec 93 08:45:52 EST
From: oswald@columbia.sparta.com (Don Oswald)
Subject: Different Beers -Same Flavor/ No Carbination (was Snakebite)

ctmn@sabhal-mor-ostaig.ac.uk writes about problems with
gettin a beer to carbinate. Potential causes:
 inperfect seal on the barrell
 dead yeast - (I did this once -left steralization
 solution in the bottle)
 No food for the yeast -- You post did not mention how much
 priming suger you used about a cup is usually
 enough for a 5 gallon batch
And a Suggestion for the next batch: (assuming you did what I did
with myfirst batchs of "instant homebrew- makes 5 gallons just add
suger and water")Use the exact same kit and procedures, except
substitute amber Dry Malt Extact for the corn suger. The
resulting beer will have a less cidery taste, more body.

ALLISON.DAVID@1GW.GENE.COM writes
> In short (hopefully), my last two brews came out with the
>same flavor, but I used different ingredients.

The recipies are both for rather mild beers that would
show the effects of processing errors or contamination.
Potential effects and causes:
 Contaimination: The taste could be the hallmark of a
 wiild yeast that has taken up residence at your address.
 If this is the case, either be very carefull with stearylization
 or breew styles which can live with the taste.
 Running Hot: Even a good yeast will produce off flavors
 if picthed to hot, or fremented at to hot a temperature. The
 lager yeast esp.

Date: Wed, 8 Dec 93 08:58:00 EST
From: taylor@e5sf.hweng.syr.ge.com (taylor)
Subject: recipe for Amstel light

Does anyone out there have an extract recipe for Amstel Light. This is the only beer my wife will drink for some reason. I'd like to see if I can make something close. I will also take ideas using extracts and all grain recipes if anyone has one. What hop to use?, DME?, grain? etc... thanks Todd...

.

Date: Wed, 08 Dec 1993 09:22:00 EST
From: Matthew Evans <matt@cadif.cornell.edu>
Subject: HopTech Fruit Extracts

I just got the catalog today from a company called HopTech. Mostly they just sell hops, but they did have some concentrated fruit extracts. They are sold in four ounce bottles and contain enough "stuff" to make about 15 gallons of fruit beer. They don't have any sugars in them, so you add them to the beer right before bottling. Anyone ever heard of this stuff or tried it yet. It is a lot cheaper than the real fruit itself, so it would be a good cost savings, but the question is, will it be good to taste?

Date: Wed, 8 Dec 1993 10:02:27 -0500
From: pgs@thillana.lcs.mit.edu (Patrick Sobalvarro)
Subject: Re: Is Stoelting making a magic chiller?

Date: Tue, 7 Dec 93 13:51:54 PST
From: tpm@wdl.loral.com (Tim P McNerney)

I got this flyer from Stoelting which makes the following claims for
its
wort chiller:

Chills 5 gallons of wort from 210F to 56F in 15 minutes at .33 GPM.

...

Am I missing something here? Here is the rest of the info:

...

The wording is ambiguous, and I presume that what they meant was that
the wort flows at .33 GPM. The coolant is another matter!

-P.

Date: Wed, 8 Dec 1993 07:54:59 PST
From: John_D._Sullivan.wbst311@xerox.com
Subject: Pale Ale

Hi All,

I'm an all-grainer who likes a BIG tasting pale ale, not necessarily in OG or alcohol level, but very malty and very hoppy. Of course the hoppy part is easy, and some yeasts have helped with the malty part. I use M&F pale 2-row and mash at around 155degF. My idea is to add 1/4 or 1/2 lb pale at mash out, to add flavor. What would be the pros and cons of this? Or is there something else I haven't considered?

Thanks much,

John
Rochester, NY

Date: Wed, 8 Dec 93 8:57:52 MST
From: npyle@n33.stortek.com
Subject: Dream Tun

I am a happy all-grain brewer, planning my 21st batch (of which about half have been all-grain) for the upcoming holidays. My grain-mill is a home-made roller mill which should suit my needs forever. My boiler is a very nice, propane fired (converted NG water heater element), 10 gallon cream can from an old dairy. I have a hop-back, and nice CF chiller to boot. I ferment happily in carboys (7g & 5g).

The component I've left out is obviously the mash/lauter tun. It is a Rubbermaid 48 quart cooler with copper pipe manifold. It does what is intended for it to do, which is to serve well as an insulated single temperature infusion mash and lautering vessel. What it does not do, of course, is step mashes, which would be nice, nor does it offer any easy way to add heat if I miss my strike temperature for any reason. Also, it will eventually warp enough from the heat that I'll need to replace it (it is showing signs of this, after many batches).

Kettle mash, you say? I don't want to lose so much heat during mashing that I have to attend the thing constantly; the best thing about mashing is that I can go do other things (such as go to work for a half day, as was mentioned here a few weeks ago). Also, I have had a lot of trouble with temperature overshoot when kettle mashing. I prefer an insulated tun for the non-attendance feature during a normal infusion mash. If I am going to do a step mash or something different, then I certainly wouldn't mind working it.

So, my question is this: if you were able to design the ideal mash/lauter tun system, for homebrewing applications, how would you do it? I'd like to do up to 10 gallon batches, but more capacity than that is not necessary. Assume that cost is a factor (always minimize it), but that I have an unlimited resource in terms of welding, pipe bending, etc. (almost true). I have propane in my brewery/garage, 110V (but no 220V), and soon will have hot and cold running water. I'm looking for something I can use for a lifetime, that is versatile, and most of all: neat!

Should I convert a SS half-barrel keg by insulating it and adding a propane burner? Steam jacket? Hot water jacket? RIMS? uP controlled (I think this

is overkill, personally)? How about an insulated vessel with a steam bubbler?

Or a removable radiator (reverse chiller)?

One more thing, how about a sparge water vessel? I currently use my boiler,
but I have to transfer the water to a bucket, so that I can free up the boiler

for the first runnings. This is one reason I batch sparge most of the time.

The idea of mixing the grain and strike water as they fall into the tun (obviating the need for "dough-in") also intrigues me.

I ask this to generate some discussion and maybe something good will come out

of it for many HBD tinkerers. I'd like to hear what works well for you, but

also what you only dream of making (maybe I'll make it!). As always, we thank

you for your support.

Norm

Date: Wed Dec 8 07:35:01 1993
From: darrylri@microsoft.com
Subject: re: REAL ice beer

KOPEK.EDWARD (ACTG Data Mgmt Ctr, FSTRF, Amherst, NY) writes:
> For anyone who wants to taste a real ice beer, try EKU Kulminator
> Urtyp Hell 28 from Germany (That's the entire name of the beer, honest!
>).
> It is concentrated by freezing as are the North American "ice" beers.

EKU 28 is not, in fact, concentrated by freeze distillation. (See Michael Jackson's "New World Guide to Beer", p. 54.) It is brewed from a wort that does achieve at least 28 degrees Plato (about sg 1.112).

The only true eisbock I'm aware of in Germany is made by the Kulmbacher Reichelbraeu brewery, a smaller neighbor of EKU's. Their Bayrische G'frorns (frozen Bavarian) beer has a calculated OG of 24 degrees Plato, and the beer is far more drinkable (if that is the right word) than EKU 28.

The story is that a tank of beer was accidentally left out in the freezing weather and that when opened, this nectar flowed out.

The Niagara Brewery in Canada produces an eisbock with some regularity. It's an interesting beer, although it makes no attempt to scale the gravity or alcoholic heights, coming with a mere 8% alcohol by volume. It tends to have an estery background, which is probably emphasized by the concentrating process. Even so, it has a lager character to it and I don't think many judges would liken it to a barleywine.

> Oh, and it is reputed to have the highest alcohol content of any commercial
> beer. (Maybe, maybe not). I know it is around 12%, and it packs a wallop!

No; EKU 28 has the highest OG of any regularly available beer. But Hurlimann's Samichlaus, brewed from a slightly lower OG, is a bit more fermentable and so has a higher alcoholic result (and a more drinkable product, IMHO). This, in spite of the boastful claims on the EKU 28 label ("Das starkste Bier der Welt").

--Darryl Richman

Date: Wed, 8 Dec 93 11:16:27 EST
From: <ESF01%ALBNYDH2.bitnet@UACSC2.ALBANY.EDU>
Subject: How can I access the FAQ files in beer-l via listserv?

Hello Homebrew Aficionado's,

My first brew is chugging away merrily - the CO2 vapors coming out of my blow off tube smell heavenly.

I have read Papazian's, "The New Complete Joy of Home Brewing", from cover to cover and would like now to review the FAQ files for beer-l on listserv or anonomous ftp somewhere. I've sent INDEX LISTSERV to LISTSERV@UA1VM.BITNET to get a list of FILELIST but BEER-L doesn't seem to be on the master list.

Can someone either e-mail me directly or if you feel the info would benefit all, email the list with information on how one can obtain the previous postings from BEER-L.

TIA :*) [The * is my red nose from drinking too much of homebrew ...
Ed F.

* Edward S. Frommer ESF01@albnydh2.bitnet *
* NYS Health Dept. Bureau of Production Systems Maintenance *
* Vital Records & Vital Statistics Networking Systems *
* 733 Broadway Albany, NY 12237-0001 Phone: (518)474-5245 *

Date: Wed, 08 Dec 93 10:59:01 EST
From: John Eustace <3JCE1@QUCDN.QUEENSU.CA>
Subject: Pitching Rates

Hi all,
I have a question I'd like to ask concerning pitch rates for lagers. I've recently been given the opportunity to help out my local brewpub. Seems they have been using dried yeasts for quite some time now, and the new brewmaster would like to switch over to liquid yeasts. He has asked me to help him in this endeavour. I have a fair bit of experience at culturing yeast for my own 5 gallon batches, but now we're talking about pitching to 180 gallons.

Using the formula for lager pitching in the yeast faq, I have determined that

I need to pitch .72 gallons of slurry. This figure seems extremely low to me.

So I put it to you, what kind of a fermentation can I expect from such a pitching rate? I imagine it will be an extremely slow one. Any formulas for determining healthy pitching rates, or any other technical information you think might be of use would be appreciated.

I have another, unrelated, request for information, this one on brewery geometry. Basically, I am interested in any information you might have on how kettle and fermenter geometry influence hop utilization and fermentation rates.

TIA and Cheers
JE

Date: Wed, 8 Dec 1993 11:01:56 -0600 (CST)

From: LAEUGER@smsd.jsc.nasa.gov

Subject: Clone for Bahama's Kalik

A friend of mine asked me if I could brew a beer that emulates a beer he had in the Bahamas this past summer. It is called Kalik (spelling questionable) and i` supposedly the number one beer in that country. Does anyone know of a recipe that I could use to try to copy this beer? Appreciate your suggestions.

Michael Laeuger

Date: 08 Dec 1993 11:55:31 -0500 (EST)
From: STROUD%GAIA@leia.polaroid.com
Subject: Re: Krush-Off Comments

>From: arf@mcs.com (Jack Schmidling)
>Subject: KRUSH-OFF
>

>Clearly, a mill that is more than twice as large should demonstrate a
>significantly higher throughput at a given rpm than what you have
described.

>This test is only valid if they are both run at exactly the same speed
and no

>mention of the RPM was made.

>

>It should further be noted that the MM as shipped is set up for hand
cranking

>and the grain guides provide a restricted flow to assure ease of
cranking

>with the very large rollers. To maximize throughput when motorized, the
>grain guides can be trimmed to provide a larger hole that will feed the
grain

>as fast as the 10" rollers will take them.

Jack, you have most likely already answered the question. The hopper
hole
opening into the MaltMill is only a fraction of the length of the
rollers. In
addition, there is a large mesh plastic screen that covers the opening
(for
safety reasons). I suspect that both of these factors work to limit the
speed
at which the malt kernels can reach the rollers, so I am not surprised
that the
MaltMill and GlattMill crush at about the same rate. It is interesting
to
note that the hopper holes of the two mills are about the same size.

BTW, I am sure that you are right that a larger hopper hole would
increase the
throughput on a MaltMill, but we tested it as manufactured. I can
handcrank/crush 8+ lbs of malt in ~2 min. with my unmodified MaltMill.
The
Glatt Mill is a touch slower, but similar. Does it really make any
difference
in the length of my brewday if I spend 2 vs 3 minutes crushing grain??
Not to
me; either one is a vast improvement over my old Corona!

Steve

Date: Wed, 8 Dec 93 12:20:40 -0500
From: kopek@karloff.fstrf.org (kopek.edward)
Subject: Correction

08129312031600E0016500000000

Date: 08 Dec 1993 12:03 EST
From: KOPEK.EDWARD (ACTG Data Mgmt Ctr, FSTRF, Amherst, NY)
Subject: Correction
cc: KOPEK.EDWARD
Subject: Correction
Attach:

I have been reminded by several HBD readers that ECU is not an ice beer in the same sense as the ones from Bud, Molson, etc. The ECU is frozen to precipitate out protein, but the ice is not removed. Thus, it is not a true eisbock. It still tastes pretty darn strong, though.

Sorry for the errant information!

I guess I need to do more, ahem, research into this ice beer dilemma.

I'll start with a Buffalo Blizzard Bock (Buffalo Brewing Company, Buffalo,

N.Y.) I'm gonna have one straight, then I'm gonna freeze one and filter out the ice first. It may not be a real "eisbock" either, but it'll be fun to try!

-Ed (Hit-an-iceberg(eisberg?)) Kopek

.

Date:Wed, 8 Dec 93 12:23 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: EKV 28

In HBD #1292 Ed Kopek talked about EKV Kulminator Urtyp Hell 28.

Well consulting with my family in Germany, I got the scoop on whether EKV 28 is really the strongest commercial beer around. The story in Bavaria is that the 28 in EKV 28 is the PROOF of the beer. You got it. 28 proof aka 14% alcohol. I have a bottle saved from when I last tried the stuff. If you read the label carefully, you'll notice that nowhere on the bottle is it referred to as beer. It is referred to as malt liquor.

Correct me if I'm wrong(and I know you will), but isn't there a federal law that says beer can only be a maximum of 6% alcohol? Anything stronger than that has to be called a Malt Liquor.

Oh well, that my \$0.02...

Andy Pastuszak

Date: Wed, 8 Dec 93 12:40:46 EST
From: bszymcz@ulysses.nswc.navy.mil (Bill Szymczak)
Subject: Chiller model

Yesterday, Tim writes:

>From: tpm@wdl.loral.com (Tim P McNerney)
>Subject: Is Stoelting making a magic chiller?

>I got this flyer from Stoelting which makes the following claims for its
>wort chiller:

>Chills 5 gallons of wort from 210F to 56F in 15 minutes at .33 GPM.

>So basically, 5 gallons of water (.33 * 15) to chill 5 gallons of wort
from
>210F to 56F. It seems to me that if you were able to obtain perfect
heat
>transfer and the water you were using was 32F, the best you could hope
to
>get is 121F.

>Am I missing something here? Here is the rest of the info:

A few weeks ago someone reported that using an immersion chiller
that he was able to reduce 5 gallons of boiling wort to 90F
using only 8 gallons of Texas tap water. At first, I made an
estimate like yours (assuming Texas tap water is 60F) and
concluded that 118F was the best possible. Then I tried a
simple model of an immersion chiller.

Let T_i = the constant inlet tap water temperature
 $T_k(t)$ = the time varying temperature of the wort in the
kettle. (Here I'm assuming that the wort is being
constantly stirred so that its temperature is
uniform.
 $T_o(t)$ = the time varying temperature at the outlet of
the chiller.
 dw = a small amount of water passing through the coil.
 N = the amount of wort in the kettle
 dt = a small time increment
 $R = dw/dt$ = the rate of flow through the chiller
(coil).

Furthermore, if the coil is sufficiently long or R is
sufficiently small then we can assume that

$T_k(t) = T_o(t) = T(t),$

that is, the temperature at the outlet is the same as the
temperature in the kettle.

Then

$dw * T_i + N * T(t) = (N+dw) * T(t+dt)$ (1)

which simply expresses the fact that dw gallons at T_i added
to N gallons at $T(t)$ will equilibrate to $N+dw$ gallons at
temperature $T(t+dt)$. Dividing (1) by dt and rearranging terms
yields

$$\frac{dT}{dt} = \frac{R}{N} * (T_i - T)$$

dt N

which in the limit at $dt \rightarrow 0$ becomes a differential equation.
The solution (assuming the initial temp $T(0) = 212F$) is

$$T(t) = T_i + (212 - T_i) \cdot \exp(-R \cdot t / N) .$$

The amount of time t required to reduce the temperature from 212 to T is

$$t = \frac{N}{R} \log \left| \frac{212 - T_i}{T - T_i} \right|$$

and the amount of water required is $A = Rt$.

So if we had such an optimal immersion chiller and constantly stirred, and the tap water was $T_i = 40F$ and we wanted to chill $N = 5$ gallons to $T = 56F$ we would need

$$A = 5 \log \left(\frac{212 - 40}{56 - 40} \right) = 11.87 \text{ gallons.}$$

I have not done a similar analysis for counterflow chillers, but it seems that either Stoetling was exaggerating or counterflow chillers are more efficient (as far as water conservation is concerned) than immersion chillers. Note that if you simply mixed 11.87 gallons of 40F water with 5 gallons of 212F you would get 16.87 gallons at 90.98F, so immersion chilling is somewhat efficient.

Bill Szymczak
bszymcz@ulsses.nswc.navy.mil

Date: Wed, 8 Dec 93 12:41:41 EST
From: bszymcz@ulysses.nswc.navy.mil (Bill Szymczak)
Subject: Blow-off vrs non-blow-off

Every now and then people have been debating the use or not of using a blow-off, so I thought I would add a data point to this controversy. I brewed 6 1/2 gallons of IG 1.041 English Special Bitter style which was siphoned into a 7 gallon carboy and pitched about 3/4 quarts of yeast starter. After about 3-4 hours I reracked the wort, filling one 5 gallon carboy to about 3 inches from the brim, and the other with the remainder. Both batches began fermenting after about 10 hours and the filled carboy began blowing-off after about 12 hours. Originally, I had planned to bottle both batches after 7-10 days in primary, but after 10 days the blow-off batch was still bubbling every 13 seconds, while the non-blow-off batch seemed finished. So, after 11 days I reracked both batches and was shocked to find the gravity of the blow-off batch to be 1.020, while the non-blow-off batch was down to 1.011. The non-blow-off batch was bottled the next day, while I let the blow-off batch sit in secondary for another 10 days, at which time it was bottled with an FG=1.013. After waiting about 3 weeks I was ready to compare the batches. (I conjecture that the blow-off batch was filled too high and a lot of the healthy yeast got blown out, thereby slowing the fermentation.)

I found both batches to be similar - IMHO a good example of the English bitter style, fruity, malty, full to medium bodied with a nice Kent Golding hop aroma and flavor. However, although I am a BJCP judge, I lost my confidence in distinguishing taste subtleties after failing a self inflicted taste test during a tour of the Anheiser-Busch brewery in Williamsburg VA about a month ago. I could not distinguish between bud, bud-dry, bud-lite and Michelob. Well, maybe bud and Michelob has slightly more lingering aftertastes. (Remember the Simpson's episode where Duff, Duff-dry, and Duff-lite were being filled by the same pipe.) So, I brought samples to the BURP homebrew club meeting for a more unbiased comparison. I did tell them that one was blow-off and one was not, but I didn't identify which was which. Some of the members correctly identified the blow-off batch saying they thought it was slightly smoother, (one correctly identified the blow-off batch but said she liked the non-blow-off batch better). Some incorrectly identified the two batches and some "punted" and said no difference. All agreed that if there was a difference it was minor. Therefore, despite the wide variations in fermentation times, both batches came out nearly identical with the blow-off having little or no effect. Of course, this is just one data point and your mileage may vary.

Bill Szymczak

Date: Wed, 8 Dec 93 12:48:34 EST
From: Keith MacNeal 08-Dec-1993 1242 <macneal@pate.enet.dec.com>
Subject: Snakebites and secondary fermentation question

In HOMEBREW Digest #1292 ctmn@sabhal-mor-ostaig.ac.uk (Calum T. MacNeill)
says:

>In fact it is quite common around here to order
>a "snakebite black" which is the half lager, half cider mix but
>with a dash of blackcurrant.

Sounds like the "Purple Nasty" I was introduced to at a Rugby Club in the
UK.

>On a different note I wonder if anyone could help me with the
>problem I have with my present batch of 'instant' homebrew.
>It's one of these buy your tin of wort with everything included
>except water and sugar. The problem is that primary fermentation
>went like a dream, but now that i've transfered it to my pressure
>barrel for secondary fermentation nothing's happening, ie no pressure
>build up what so ever. I've tried adding extra yeast but to no
>avail. Please help ASAP as this is supposed to be the main attraction
>of a Christmas Eve party. HELP!!!!!!!!!!

Sounds to me like you moved it to the secondary a bit too late if you
were
looking for it to carbonate itself in the secondary. The beer may have
completely fermented out in primary. Trying boiling up a little bit of
corn sugar (I'm not sure of the proper amount since I don't keg, but I
think
it is on the order of 1/3 to 1/2 cup) in some water and adding it to the
secondary.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Wed, 8 Dec 93 10:39:49 -0800
From: tpm@wdl.loral.com (Tim P McNerney)
Subject: Is Tim McNerney an idiot?

Why yes, he is.

Thanks for everyone who pointed out the bloody obvious. The .33 GPM is for the wort (Gee, Tim, why does the amount of water exactly equal the amount of wort when you make your calculation? Must be one of those strange coincidences, Tim, and not something like an obvious flaw in your logic yelling out at you.)

A couple of people have asked about information on the Stoelting equipment, so I guess my post was not completely in vain (though it did my vanity no good).

Stoelting, Inc.
502 HWY 67
Kiel, WI 53042
(800) 336-BREW

Their line of products looks VERY nice. The stats on the wort chiller I mentioned yesterday should give some idea on some of the stuff they sell. The only problem is that their stuff is awfully pricey, but if you want to go first class, this is the way to go. The aforementioned wort chiller runs for \$314. They also have kettles from 7-20 gallons with a bottom drain valve. Their stuff really looks like the "equipment the pros use" only shrunk down to homebrew sizes (if only they left their shrinking system running for a little longer on their prices).

Sorry for wasting space with a stupid question (if you believe there are no stupid questions, go reread mine) and I hope most everyone took time to laugh at me via private email (please feel free to send me mail telling me how clueless I am, even if you didn't read the original article and don't know what I am talking about).

Thanks.

- --Tim

Date: Wed, 8 Dec 93 14:22:00 -0500
From: WESTRA_MICHAEL/HPATC2_02@i3125ent.atl.hp.com
Subject: Trouble Carbonating Lager

Hello all,

I am having trouble getting my first 'custom' lager to carbonate in the bottles. I have read a little bit about adding yeast right to the bottles and re-capping... but would like a little more help before I take a chance with 2+ cases of (so far) good beer.

RecipeYeast Labs L35 California Lager Yeast
for 5 3.5 lbs GlenBrew Hopped Pilsener Malt Extract
Gallons: 2.5 lbs light dried malt extract
1 lb American Caramel malt (10^o)
1 oz. Tettnanger (15 min.) + 1 oz. Saaz (3 min.)

Pitched at 73^o, 5 days primary (plastic) at 55^o, 23 days secondary (glass) started at 55^o and gradually moved down to 45^o. Total=4 weeks.

O.G. = 1.050 / F.G. = 1.020 (F.G. after 5 days was also 1.020)

The beer has been in bottles now for three weeks. There is very little carbonation. I have stored some bottles at 45^o, some at 55^o and even a couple at 75^o and no luck. The beer tastes good - sweeter/maltier than a pilsener (the Calif. Lager Yeast is supposed to do that), noticeable hop flavor/aroma and no off-flavors, but no carbonation.

Any suggestions would be greatly appreciated. (I apologize if this topic has been covered on the digest in the past... unfortunately I don't have the opportunity to read 'em all).

Cheers,
Mike Westra

Please reply to: mwestra@stpaul.msr.hp.com -or- to the Digest

Date: Wed, 8 Dec 1993 11:43:21 -0800
From: mfetzer@UCSD.EDU (The Rider) (Michael Fetzner)
Subject: pasteur yeast: ferment temps?

I'm getting a little pissed at my doublebock, dropped from 70 to 26 like
a
stone and then just sat there for the last week or so. All the yeast
dropped out, fermentation stopped. I just pitched some pasteur champagne
yeast, because it will not change the flavor profile, but should ferment
this stuff lower. Now it occurs to me:

what are ideal ferment temps for pasteur champagne yeast?

Mike

- - -

Michael Fetznerpgp 2.2 key available on request
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer
Bitnet: FETZERM@SDSC
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

Date: Wed, 08 Dec 1993 12:48:12 -0600 (MDT)
From: COYOTE <SLK6P@cc.usu.edu>
Subject: Filtering/ BarneyWine

Hullo Brewmeisters one and all.

Just thought I'd chime in...as always...

RE: Filtering Discussion:

I had this debate last night with a couple fellow brewers. I personally think I'd have something to gain by filtering. I could probably get by with finings and do just as well. I have several times come up with a keg of beer with sediments in the bottom that would easily be filtered out. Otherwise every time the keg is moved it's stirred up again.

Advantages: remove dry hop material/ spices/ clumps in general. Leave most of the yeast behind. Clarify a beer instantly so it can be carbonated by shaking w/o needing to settle afterwards to clear. Then it can be moved w/o clouding.

Jim sez he thinks a 5 micron filter is going to remove cells. Most bacteria are on the order of 1 micron. yeast fall more in the 3 micron range. Cells can aggregate and "act" bigger. But I would contend that a 5 micron filter is definitely not going to "sterilize" a beer. And from my understanding (NOT experience) it will not REMOVE the body of a beer. It may well "thin" things a bit. At 3 microns there is more cell removal, but still not sterilization. I don't have a problem with lowering the cell count in a keg. I force pressurize, so I don't "need" them there, but I like my B-vitamins, so I don't plan to get rid of them ALL.

Barney's Blebbing BarleyWhine: (planofaction)

10# 6 Row Pale Malt
10# 2 Row Pale malt
4# 2 row vienna
2# aromatic munich-belgian
2# Biscuit-"
1# Crystal- 60L
1# Crystal- 120L
1/2 cup roast

Mash. Pull first 6.5 gallons of sparge. Begin boil.

add: 6# Williams english dark extract
2# Brown sugar

Boil Hops: 1 oz Chinook (13a), 1.5 oz Centennial (10a)
1/2 Boil: 1 oz Cascade (7.3a), 0.5 oz N. Brewer (7.6a)='93!
Finish:1 oz Homegrown Cascade- alpha unknown! :) but stinky!

Abbey Ale yeast culture. Warm initial ferment. (65-70).
Then cooler into secondary...maybe even down to the 50 deg basement!

Bottle with 1 cup molasses. Age for a LONG time. :)

I'll draw the 2nd runnings of the sparge and make a 2-penny-ish ale.

Burton ale at that. It may end up getting spiced, or fruited.

Any input? If I get good extraction this should be OVERKILL. :)
I wonder if I'll have to pitch champ. later to deal with all the
fermentables. Hope it don't stall! Some know what a bother that
can be! (so how's it doing now norm?)

RE: The name. My girlfriend and I purchased a purple lava lamp, which
she adores. Endless hours of fascination. I figured that after drinkin
this concoction- after it's PROPERLY AGED>>>> one will probably end up
feeling like that flowing purple goo in the lamp. A kinda warm feeling
all over!

As for the name of the lava lamp itself- you can figure that out!

Just felt like sharing. I'm psyched. the yeast is poached, and dropping
into a starter today. Just got the scottish ale yeast too, can't
wait to use that! Thur night, or friday day. My house will be warm!

Brew on ya'll John (The Coyote) Wyllie SLK6P@cc.usu.edu

Date: 08 Dec 1993 20:05:00 -0500 (EST)
From: Delano Dugarm 36478 <ADUGARM@worldbank.org>
Subject: Hop Teas and Dry Hopping ~#

I am brewing a hoppy pale ale, something like Sierra Nevada's Celebration ale. I started with a 1065 O.G. wort, and hopped as follows:

1 oz Centennial (9.6%) 60 min.
1 oz Mt. Hood (?%) 60 min.
1 oz Cascades (5.4%) 10 min.

I fermented with WYeast American Ale, of course, keeping the temperature mostly below 65. The question I have is how to finish it. The last time I made this I dry hopped with an ounce of Cascades for a week before bottling, and it turned out quite well. My only complaint was that it didn't have the depth of hop taste that Celebration has. I'm leaning towards dry hopping again, but noted a suggestion that you steep hops in a hot water and add this tea at bottling time for greater flavor and aroma. Any suggestions on this issue would be greatly appreciated.

Delano DuGarm
adugarm@worldbank.org

Date: Wed, 8 Dec 93 15:33:44 EST
From: mrg@mrg.xyplex.com (Mark Garti mrgarti@eng.xyplex.com)
Subject: Bulk Lab Equipment / Boston Area

I am planning on buying some pipettes and test tubes from
Whatman LabSales. I'm looking for some other Boston brewers
who might be interested in splitting the ridiculous quantity
with me. 1 box test tubes = 1000 tubes. 1 box pipettes =
6 pipettes.
Mark

Date: Wed, 8 Dec 93 13:26:28 PST
From: ELQ1%Maint%HBPP@cts27.comp.pge.com
Subject: Ice Beer

Just a quick observation and trying to avoid flames, this article on "Ice Beers" was in last nights paper, it is on the Labatts -vs- any other commerical brewer who uses "Ice" method.

>"Ice Beer is brewed at temperatures low enough to allow ice crystals
> to form. It is described as rich tasting but continuing the move
away
> from the heavy beers"

So, it says right there in print that it is "Rich Tasting". if it
wasn't
in print, I for one would not believe it. I guess my fellow HBD'ers
just
don't know taste when it hits them. I also question what "they"
refer to
as heavy beer? Bud? Heavy beer is not bought, its homebrewed!

Please try this at home, remember, your not professionals, just
Homebrewers!

ELQ1

Date: Wed, 08 Dec 1993 13:39:00 -0800 (PST)
From: David Allison 225-5764 <ALLISON.DAVID@A1GW.GENE.COM>
Subject: Noche Buena - SF Bay Area

SF Bay Area Beerheads -

Last night I saw cases of Noche Buena at the Price Club (Price Costco => stupid name change) in Redwood City for about \$16/case. I'm looking for just a six-pack in case anyone comes across one.

- David
(allison2@gene.com)

Date: Wednesday, 8 December 93 16:40:22 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: noche buena by any other name...

Howdy,

In HBD 1292, Chris Amley brings up the question of using the same beer name for different beers. His main concern is that since Noche Buena is brewed with a different recipe than in the past, it should have a different name.

The fact is, this is an extremely common practice. Sam Adams claims to vary their Winter Lager every year, and Anchor actually does vary it's Our Special Ale. Add on that a brewery is going to adjust it's recipes every once in awhile, especially new ones. Celis Pale Bock is definitely not the same beer that they first marketed in March of '92; in fact, it's the 4th version.

I'm not saying it's good or bad, it just is.

Happy brewin',

Alan, Austin

Date: Wed, 08 Dec 93 16:57 CST
From: "Peter Brauer 312/915-6157" <\$W\$PR42%LUCCPUA.BITNET@UICVM.UIC.
EDU>

Subject: Names

I have often wondered, is there any sort of central list of "namebrands" for homebrews? I have a couple of friends that all homebrew and we all have names for our beers, I wondered if anyone keeps a master-list.

End of HOMEBREW Digest #1293, 12/09/93

Date: 08 Dec 93 18:21:23 EST
From: Richard Nantel <72704.3003@CompuServe.COM>
Subject: ICE beer, mailing lists

Bob Talkiewicz mentions in HB1291>
>A friend just brought me a couple bottles of this version of the new ice
>beers. This Maximum is 7.1% alcohol by volume!
>Still doesn't taste like much , but does have some kick.
>This was purchased in Canada.

The Canadian Beer industry has been for years protected from the influx
of
less expensive, American-made beers. With this trade arrangement coming
to
an end in 1994, the major breweries (Molson, Labatt) have been coming out
with a `new' beer almost weekly. This is a last-ditch attempt to produce
brand loyalty before the gates open wide.

The latest trend is for high-alcohol brews. The newest addition is
Labatt's
XXX with 7.4% alcohol. Strangely enough, and to quote a German
acquaintance,
`you have 50 different beers and they all taste alike! The new potent
brews
are no exception. Thank goodness for some excellent Quebec
microbreweries;
most notably St-Ambroise and Hops Brau.

Teddy Winstead writes>Could somebody please e-mail me the addresses for:

>The Lambic Mailing List
>The Mead Mailing List

I too would appreciate these addresses.

Thanks

Richard Nantel
Montreal, Quebec
Canada

Date: Wed, 8 Dec 1993 22:44:15 -0800
From: mfetzer@UCSD.EDU (The Rider) (Michael Fetzner)
Subject: Sake Connection Newsletter

Well, well!

I'm amazed by the huge response I'm getting. Seems as if a lot of people are into Sake!

I'll be passing a compiled list of all the real mail addresses I've gotten on to Fred Eckhardt on the 22nd, so you've got until then to get them in!

Many people have only sent email addresses, at this point that doesn't help much. Maybe there's a way I can digitize a copy of it, or see if Fred's wordprocessor format is compatible with anything I can get my fingers on, and I will upload a copy.

Several folks have suggested starting a sake mailing list... I do not have the ability to start one, nor do I know how to start a listserv operated mailing list. It seems most sake brewing fans are on usenet, reading rec.crafts.winemaking. Much more so that homebrew digest, altho sake is more of a beer than a wine...

Maybe J-Food-L is the place to discuss such things? It has low traffic, but I'm not sure how many people there actually care about making sake, as opposed to drinking it and using it in their cooking?

Anyway, send me your ideas and keep sending mailing addresses if you want to receive a sample of the newsletter!

Mike

- - -
Michael Fetznerpgp 2.2 key available on request
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer
Bitnet: FETZERM@SDSC
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

Date: Wed, 8 Dec 93 13:43 CST
From: korz@iepubj.att.com
Subject: Eisbock/pear-banana aromas

Ed writes:

>For anyone who wants to taste a real ice beer, try ECU Kulminator
>Urtyp Hell 28 from Germany (That's the entire name of the beer, honest!).
>It is concentrated by freezing as are the North American "ice" beers.

According to Jackson, ECU fiercely denies that freeze distillation is used in the making of Kulminator. It indeed is a very strong doppelbock. If it was made using freeze distillation, then it would be called an Eisbock. The AHA has an Eisbock category and if memory serves, there was one in the medals this year -- you might look up the brewer's specifics there.

David writes:

>I am having a problem that perhaps you folks out there in HBD-land could
>help me with. In short (hopefully), my last two brews came out with the
>same flavor, but I used different ingredients.

<recipes deleted>

>In both brews, I used a 1400 mL yeast starter (very active) and
>fermentation started in about 5 hours. Previously, I had used only only
>500 mL starters, with fermentation in 24 hours.
>
>The problem is that both beers have a pronounced flavor component to them
>- -- sort of a pear/banana-like aroma and taste (IMO, but it is hard for me
>to judge).

My guess would be that this is either a characteristic of the pitching yeast or you have a monstrous wild yeast infection somewhere in your system. Does your starter smell like this? If yes, then you've found your source. You may try a lower fermentation temperature as ester production (esters give the fruity aromas/flavors to beers) tends to be lower at lower temps. If you still get too much of these esters for your taste from the lower temps, then I guess you'll have to change yeasts. If it is a wild yeast infection in your system (unlikely because of your reported quick starts), you need to check your sanitation procedures and/or replace scratched plastic equipment.

Al.

Date: Thu, 09 Dec 93 07:34 CST
From: "Leslie G. Hunter" <KFLGH00%TAIMVS1.BITNET@TAIVM1.TAIU.EDU>
Subject: nomail

set homebrew NOMAIL

Date: Thu, 9 Dec 1993 08:54:19 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: Names/Beer festival

My beers will be universally known as Workingman's Reward, whether they be lagers, ales or porters. My brother-in-law actually silk-screens his bottles and I will be asking him how he does it. Then its to the drawing board/computer for a logo design and I'll have a unique gift idea for years to come.

What I would like to see is a local beer festival with brewers donating product for tasting (at a price - for charity); maybe some judging, but more just a good time for a good cause or two.

Does anyone have experience with this type of thing?

Paul Beard
AT&T Tridom, 840 Franklin Court, Marietta, GA 30067
404 514-3798 * FAX: 404 429-5419 * tridom!paul.beard/beardp@tridom.com

Date: Thu, 09 Dec 93 08:59:08 EST
From: Bob_McIlvaine@keyfile.com
Subject: Homebrewers in Cambridge, UK

Are there any homebrewers in HBD
land from the Cambridge, UK area?

I'm actually trying to get in touch with
some old work mates.

Regards,
Mac

Date: Thu, 9 Dec 93 09:28:07 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Pale Ale

Adding malt at mash-out will not contribute to malt flavor, but will very likely give you starch haze. For a maltier flavor, try one or more of the following:

1. Switch base malts (e.g., Maris Otter, DeWolf-Cosyns Belgian Pale, Hugh Baird)
2. Mash longer (1.5 to 2 hours)
3. Add lightly-kilned malts (Munich, Vienna, toasted malt -- make it yourself at 350 for 15 minutes or so) in small amounts
4. Decoction mash.

=S

Date: Thu, 9 Dec 93 09:31:27 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Dream Tun

A friend uses a pico-brewery(tm) system (3 converted SS half-barrels). He's insulated the mash-tun with what looks like strips of cedar (from 2-bys, probably). This apparently works pretty well. With three kettles, he's got one for hot liquour, one for mash, and one for boiling.

=S

Date: Thu, 9 Dec 93 07:59 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: Can you say "ack!" ?

I had a chance over the weekend to try Noche Buena.

I'm sure glad I wasn't the one who paid money for it.

Date: Thu, 9 Dec 93 09:06:26 -0500
From: "Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu>
Subject: burnt aftertaste

Hello homebrewers,

In September I brewed my version of a Christmas ale (strong and hoppy).
The grain bill is as follows:

6 lb pale
3 lb klages
1 lb dark crystal (caramunich)
1 lb chocolate
1 lb carapils
1/4 lb black patent

Near the end of the boil I also added 1 lb of dark brown sugar.
OG 1072, FG 1021 (wyeast 1056).

It has been in a soda keg after completing primary and secondary
fermentation for at least 6 weeks.

It has an overwhelming burnt taste to it! The initial flavor is
strong malt and ETOH (and a lot of hops!) but the charcoal flavor
that follows is enough to scare away my guests. My question is
will this heavy roast flavor soften with age? I am tempted to
pull off the tap and let it sit till next year (there certainly
are enough hops and ETOH to let it withstand the wait). Certainly
next year I am changing the amount of dark grains.

JEFF M. MICHALSKI
michalski_jm@rophys.wustl.edu

Date: Thu, 9 Dec 1993 09:55 EDT
From: Alan_Marshall <AK200032@Sol.YorkU.CA>
Subject: Strongest Beers - the facts

In HBD #1293, darrylri@microsoft.com

D> > Oh, and it is reputed to have the highest alcohol content of any commercial
D> > beer. (Maybe, maybe not). I know it is around 12%, and it packs a wallop!
D>
D> No; EKU 28 has the highest OG of any regularly available beer. But Hurlimann's Samichlaus, brewed from a slightly lower OG, is a bit more fermentable and so has a higher alcoholic result (and a more drinkable product, IMHO). This, in spite of the boastful claims on the EKU 28 label ("Das starkste Bier der Welt").

Samichlaus used to be the strongest. It has been passed three times.

The following is posted occasionally (i.e. whenever a "Molson XXX is the strongest" claim/flame war starts) to alt.beer:

The following reflects my latest revision to the Beer Records FAQ's section on the Strongest Beer. I have revised it to reflect the authenticated current record holder, the past record holder it surpassed, and the pending record holder, subject to authentication. (Those wishing to hasten the record authentication process can do so by sending me a case ;-). I have included Samichlaus and EKU Kulminator 28 in a section called "Other Notables" as their names will often come up in arguments about the world's strongest beer.

I will not repost the entire FAQ (bandwidth considerations). Copies of the Beer Records FAQ are available from me by email (ak200032@sol.yorku.ca). Suggestions and Corrections are always accepted. Flames: Relax, just have a brew! Thanks to Conor O'Neill and Sean Lamb for their updates!

Strongest Beer:

Current:

The Guinness Book of Records has just accepted a newer contender: Uncle Igor's Famous Falling over Water, brewed by the Ross Brewery, in Bristol, UK, which is 17.3% abv. <Supplied by Conor O'Neill -- conor@inmos.co.uk>

Past:

Roger & Out, brewed at the Frog & Parrot in Sheffield, Great Britain, from a recipe devised by W. R. Nowill and G. B. Spencer, is 16.9% abv., and was the old record-holder (GBR, 1992)

Pending:

It has been recently announced that the Boston Beer Company (marketers of the Samuel Adams line of beers) will be marketing a 17.5% "Triple Bock" beer in the near future. While Sean Lamb posted that this would be 17.5% by weight, I would like to see some confirmation on this. Its abv would be in the low 20% range which would be far in excess of

anything else.

Other notables from the recent past:

Samichlaus Dark 1987 (Brauerei Huerlimann, Zurich, Switzerland) is the strongest lager at 14.93% abv. (GBR, 1992) Michael Jackson also refers to this as the "world's strongest beer"

Michael Jackson also refers to EKV Kulminator 28 as having the highest gravity (28 degrees guaranteed, but some have been as high as 30.54 degrees). The alcohol content is 13.5% abv.

Date: Thu, 09 Dec 1993 10:23:16 -0500 (EST)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: Maltier Pale Ale

A post was made in HBD #1293 regarding making a Pale Ale with a maltier character:

I have found that some of the Wolf-DeCosyns grains such as CaraVienne and Aromatic will enhance the malty character of beers. Without making a comment on the quality of M&F base malts, I would also suggest experimenting with the Wolf-DeCosyns Pale malt as your base malt: I believe these grains are some of finest grains you can buy.

My experience with the Caravienne malt is that it adds a very pleasing smooth caramel character to your brew and the aromatic adds a wicked, munich-like character to the aroma and flavor of your beer. I believe their Biscuit malt or home-toasted pale malt adds an interesting malty/toasty character as well.

Rob Reed

Date: Thu, 9 Dec 1993 10:38:55 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Equipment/pitching/filtering/hops

> From: John_D._Sullivan.wbst311@xerox.com
> Subject: Pale Ale
> I'm an all-grainer who likes a BIG tasting pale ale, not necessarily
in
OG or alcohol level, but very malty and very hoppy. Of course the hoppy
part is
easy, and some yeasts have helped with the malty part. I use M&F pale
2-row
and mash at around 155degF. My idea is to add 1/4 or 1/2 lb pale at mash
out,
to add flavor. What would be the pros and cons of this? Or is there
something
else I haven't considered?

I would skip the addition at mash out in favor of using Munich (imported)
and
caramel malts in the mash. My high gravity beers (diluted into the
fermenter)
were attenuating too much, and the addition of Munich and caramel helped.

> From: npyle@n33.stortek.com
> Subject: Dream Tun
>
I favor using a hot water heater for sparge (hot liquor tank), and use
the
kettle to mash in. Transfer the mash to the dedicated lauter tun with
some kind of false bottom (perf sheet works great), insulate the lauter
tun. The disadvantage is you need a way to transfer the mash.

> From: John Eustace <3JCE1@QUCDN.QUEENSU.CA>
> Subject: Pitching Rates
>
> Hi all,
> I have a question I'd like to ask concerning pitch rates for lagers.
I've
> 5 gallon batches, but now we're talking about pitching to 180 gallons.
>
> Using the formula for lager pitching in the yeast faq, I have
determined that
> I need to pitch .72 gallons of slurry.

The rule of thumb is one million cells/ml/degree plato of wort. Pitch
yeast
up in a ten to one ratio to grow the slurry, let ferment each step,
decant
off the beer, and use the slurry. For a micro making lagers be sure to
use
at least 1 lb of thick slurry per BBl of wort. It is better to do cell
counts, but this requires a little lab equipment. John Mallet wrote a
good article on counting cells in the New Brewer Magazine. You dont want
to put 18 gallons of starter into 180, so decant off and use the fresh
slurry.

Bill Szymczak:
> which in the limit at $dt \rightarrow 0$ becomes a differential equation.
> The solution (assuming the initial temp $T(0) = 212F$) is
>

```

> T(t) = Ti + (212-Ti)*exp(-R*t/N) .
>
> The amount of time t required to reduce the temperature from
> 212 to T is
>
> N (212-Ti)
> t = - log|-----|
> R ( T-Ti )
>

```

Neat! Diff_eqs on the digest. I knew I had that class for some reason.

```

> non-blow-off batch better). Some incorrectly identified the two
> batches and some "punted" and said no difference. All agreed
> that if there was a difference it was minor. Therefore,
> despite the wide variations in fermentation times, both batches
> came out nearly identical with the blow-off having little or no effect.
> Of course, this is just one data point and your mileage may
> vary.

```

I had these beers and they were indeed **very** similar. It was a good experiment.

```

> From: COYOTE <SLK6P@cc.usu.edu>
> Subject: Filtering/ BarneyWine
>
> Jim sez he thinks a 5 micron filter is going to remove cells.
> Most bacteria are on the order of 1 micron. yeast fall more in
> the 3 micron range. Cells can aggregate and "act" bigger.
> But I would contend that a 5 micron filter is definitely not
> going to "sterilize" a beer. And from my understanding (NOT
> experience)
> it will not REMOVE the body of a beer. It may well "thin" things
> a bit. At 3 microns there is more cell removal, but still not
> sterilization.

```

The discussion had nothing to do with sterilization per say, .5 micron will result in **sterile filtered beer**. I can assure you that 4/5 microns removes 90+% of the yeast biomass. I would bet the number is closer to 96+%. The local micro filters to 4 microns and there is never any residual yeast evident to the eye, nor do they throw sediment from yeast. If you want to strip your beer of proteins, go ahead and try a <1 micron filter, I have read the head retention drops by a factor of 4.

```

> count in a keg. I forcepressurize, so I don't "need" them there,
> but I like my B-vitamins, so I don't plan to get rid of them ALL.

```

It also changes the flavor of the beer, bringing out more malt/hop notes absent from the affects of yeast cells. I am still experimenting on the effects of hop aroma wrt filtering.

```

> - -----
> Barney's Blebbing BarleyWhine: (planofaction)
>
> 10# 6 Row Pale Malt

```

Why would you ever want 6 row malt in this beer??

```

> 10# 2 Row Pale malt
Why not 20 #s 2 row?

```

```

> 4# 2 row vienna

```

This will be overwhelmed by the caramel/biscuit/roast that follows.
Besides,
the beer should have immense body due to the amount of malt used.

- > 2# aromatic munich-belgian
- > 2# Biscuit-
- > 1# Crystal- 60L
- > 1# Crystal- 120L
- > 1/2 cup roast

Personal preference is to skip the roast.

- >
- > Mash. Pull first 6.5 gallons of sparge. Begin boil.
- >
- > add: 6# Williams english dark extract
- > 2# Brown sugar

Wow, you want black beer , right? I would go with the lightest dry extract to be found.

- >
- > Boil Hops: 1 oz Chinook (13a), 1.5 oz Centennial (10a)
- > 1/2 Boil: 1 oz Cascade (7.3a), 0.5 oz N. Brewer (7.6a)='93!
- > Finish:1 oz Homegrown Cascade- alpha unknown! :) but stinky!
- >
- > Abbey Ale yeast culture. Warm initial ferment. (65-70).
- > Then cooler into secondary...maybe even down to the 50 deg basement!

Interesting! A "Belgian Imperial Stout"!!

- >
- > Bottle with 1 cup molasses. Age for a LONG time. :)
- molasses may indeed lengthen the aging period. Maybe do half with sugar as a comparison. If you have any way to add oxygen do so. As gravity increases, the amount of O2 that can be saturated decreases.

- > From: Delano Dugarm 36478 <ADUGARM@worldbank.org>
- > Subject: Hop Teas and Dry Hopping ~#

- >
- > I am brewing a hoppy pale ale, something like Sierra Nevada's
- > Celebration ale. I started with a 1065 O.G. wort, and hopped as
- > follows:

- >
- > 1 oz Centennial (9.6%) 60 min.
- > 1 oz Mt. Hood (?%) 60 min.
- > 1 oz Cascades (5.4%) 10 min.

If the Hood are from me, they are 6.3%.

- >
- > I fermented with WYeast American Ale, of course, keeping the
- > temperature mostly below 65. The question I have is how to
- > finish it. The last time I made this I dry hopped with an ounce
- > of Cascades for a week before bottling, and it turned out quite
- > well. My only complaint was that it didn't have the depth of
- > hop taste that Celebration has. I'm leaning towards dry hopping
- > again, but noted a suggestion that you steep hops in a hot water
- > and add this tea at bottling time for greater flavor and aroma.

I would add more flavor hops at 30, 20 min to end of boil, and stick with the normal dry hopping. You will increase hop flavor at 20 min additions. I prefer cask hopping/dry hopping over my hop tea attempts.

Good brewing,
Jim Busch

Date: Thu, 9 Dec 93 8:44:48 MST
From: Earle M. Williams <earlew@drc.usbm.gov>
Subject: Head Retention, Beer Labels, and less...

I cracked the top on a bottle of Nut Brown Ale last night, aged two weeks, and i noticed that while the carbonation was good, there was very little head. I tried pouring the beer from about 4 inches (10 cm) and it foamed up nicely, but within about 10 seconds it had settled to a slim memory of a thick foamy head. I hadn't really tried for a thick head in this beer, but it got me to thinking about past brews that had similar characteristics. Is there something I can add or delete to my brews that would encourage more head? I would appreciate some comments, with or without puns. :>

I've put together some slick beer labels using Corel Draw (for the PC) using the clip-art that comes with the package. *Very Impressive*! I noticed the software selling for about \$US140 at a warehouse membership store. The collection of clip-art (on CDROM) that comes with this software makes the purchase more than justifiable.

I was playing with the hop utilization numbers to try and quantify the hoppiness of my last batch, and i realized that I had no clue as to the amount of hops in the canned extract. Anyone have any general or specific ideas as to how much is added to canned extracts? This was an Australian Draft from Cooper's - the first time I've used it, and I hope all works well. Is the hops in the extract altered further by my wort boil, or is it going to remain pretty constant? I'm wondering if it's possible to quantify the added BU's from canned extract. Maybe put it in terms of BUL's, or BitteringUnit-Liters. Just wondering....

Hoppy Christmas,
Earle

Date: Thu, 9 Dec 93 11:06:11 EST
From: jwilliam@uhasun.hartford.edu (John Williams)
Subject: Leinenkugel's true brew

Subject: returned mail for beer
Status: R

Mail error was: 550 <beer>... User unknown

- --- returned mail follows ---
To: beer
Subject: Leinenkugel's real brew

HB

I have a friend who wants to serve Leinenkugel at a Christmas party. I remeber seeing something in the past month about some of the Leinenkugel beers being brewed at the original brewery and some not. Could whoever posted that or has a copy of the post mail it to me? Thanks.

Date: Thu, 9 Dec 93 08:22:07 PST
From: hollen@megatek.com (Dion Hollenbeck)
Subject: Re: SS Fitting

>>>> "Mark" == x-4378 <SIMPSON> writes:

Mark> Howdy Brewpeople!

Mark> I am trying to rebuild my SS sparge keg, which currently has a
Mark> brazed-on galvanized, screw-in fitting for my 1500 watt,
Mark> electric hot water heating element, low density type (ala Rodney
Mark> Morris' RIM system). I would like to remove the fitting and
Mark> replace it with a stainless steel boss fitting, as I am having
Mark> corrosion problems. Anybody out there have a good source for
Mark> large SS fittings???

I would suggest a 1 1/4" to 1" bushing. If you have a SS beer keg, it is made from 304 stainless and it is imperative that you get your fitting in 304 also. You should weld it with 308 wire. One source for this is McMaster-Carr in Santa Fe Springs, CA. I do not have their current phone number since I am at work, and can only look at a catalog several years old. However the part numbers are still good:

1 1/4" x 1" Hex Bushing 304SS #4460K16 \$9.96

The price should not be too much more than the old price. One thing to keep in mind is that the heater elements have NPSM threads (National Pipe Straight Machine) while the bushings are NPT (National Pipe Taper). The 1" threads are both 11 pitch, so they will fit, but not all bushings will fit your heater. If someone while making the bushing ran the tap in too far or not far enough, then you will not get a snug fit in the threads by the time your rubber washer is snug. You may have the threads bottom out too soon and let your washer flap loose. If the first one does not work, exchange it for one which does work.

I was fortunate enough to have a SS supply store here locally when I went to buy these parts and I went through several fittings before finding one which would fit. In fact, the first one I tried did not fit, so I assumed that *none* would fit, so I bought a 1 1/4" x 3/4" and reamed out the inside to 1" and cut 11 pitch straight machine threads in it. Only then did I find out later that most fittings *do* fit NPSM to NPT.

The only drawback is that McMaster-Carr may not sell to an individual. They mostly deal with businesses. You may be able to get them to send it COD, or to give them a credit card number.

If you have any questions, I have made a heater chamber a'la Morris RIMS, have a working RIMS system and have done SS welding on my kegs for thermometer connections. I would be more than happy to help out.

dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucsc!megatek!hollen

Date: Thu, 9 Dec 93 11:54:16 EST
From: emeeks@tx.ncsu.edu
Subject: Question Re: Practical Brewer

Hi folks--

Last week I stumbled across a copy of Practical Brewer, a textbook published by the Master Brewer's Association of America, at a local used book store. The price was only \$5, so I snatched it up. It seems to provide a good overview of how the "big boys" manufacture beer. However, I noticed that this edition was published in 1978. Has there been a revised and updated edition since then? It seems to me that a newer edition might have a chapter or two on microbrewery operations. Anyone have a newer edition, and if so, could we compare chapter titles?

Email welcome. Thanks!

- --Ed Meeks (emeeks@tx.ncsu.edu)

Date: Thu, 9 Dec 1993 12:01:43 +1000

From: esonn1@cc.swarthmore.edu

Subject: Ngoma

Hi hombrewers,

I recently tasted some African beer called Ngoma. The beer tastes great (also has quite a kick to it), but I have a few problems with it. First, it's very expensive (\$33 a case) and second, I think it must be pasteurized because it claims to be brewed and bottled in Africa. Does anyone know what type of beer this is? Anyone tried to copy it? I would be most interested in a recipe. I'm an extract brewer now, but I'm looking forward to doing a partial mash as Norm described in the HBD, so all extract or partial extract recipes are in order.

Thanks in advance and thanks for reading such an obscure posting.

Eugeneesonn1@cc.swarthmore.edu

Date: Thu, 9 Dec 93 09:47:24 PST
From: Jack St Clair <Jack_St_Clair@ccm.hf.intel.com>
Subject: EKU KULMINATOR

Text item: Text_1

In HBD#1292, Ed kopek passed on some date regarding EKU Kulminator Urtyp Hell 28 as being the epitome of 'Ice Beer' and I just wanted to add to his comments. First, the 28 in the title refers to the percent of alcohol in the beer. That's right folks, 28% = 56 proof. The bier is billed as "Die Starkest Bier Das Welt" (sp) or "The strongest beer in the world". It is generally served right out of the freezer as an after dinner liquor in small two-ounce classes (or the equivalent metric size). It pours like, and looks like, maple syrup with absolutely no head. It puts a nice finishing touch on a heavy meal. It is not meant to quaff in bottle quantities. Ed is right, it does pack one helluva wallop

While in Berlin, we did use it to fortify other biers with the predictable results. Ruined good bier for the sake of a quick buzz. If you want to slip someone a "Mickey", EKU Kulminator Urtyp Hell 28 is one good way to do it.

At any rate, try it! It certainly is unique.

Jack St.Clair
Portland, Oregon
Jack_St_Clair@ccm.hf.intel.com

Date: 9 Dec 93 10:40:36 MST (Thu)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: mead list address (corrected) and signing up

Shirley Mae Thompson wrote:

> ...there is a mead digest at "mead-lovers-request@ekletex.com"...

^^^^^^
Please - it's mead-lovers-request@eklektix.com.

Pardon some babble...If you're trying to sign up, please be sure you provide a valid address in the body of your message UNLESS you're sure your mailer puts a good one in the header. This means one of the following:

- ! format address with a machine name registered in the uucp maps
- ! format path relative to a well-known host
- @ format (DNS) address

but NOT:

- mixed ! @ format - this is guaranteed NOT to work
- % @ format - this *might* work but it's a bad bet

Signup requests are examined by a human, so any plausible format of the body of the message is OK.

Sorry for the off-topic posting, folks. I've had to toss some signup requests because I could neither decipher nor reply to them.

- - - -

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
Coordinator, Mead-Lover's Digest

Date: Thu, 9 Dec 93 10:10:25 PST
From: Jack St Clair <Jack_St_Clair@ccm.hf.intel.com>
Subject: Tres Equis

Text item: Text_1

In HBD#1291, Russel Gelinas asked the question regarding "XXX" out of Mexico. Tres Equis "XXX" does indeed exist and is made by the same company as Dos Equis "XX". It is very hard to find in the good ol' U.S. but can be found in some obscure Mexican Restaurants. I ask for it every time I go into a Mexican establishment and sometimes get lucky. "XXX" is a good beer that just didn't catch on here in the states. Since I haven't had it in a while, I don't know if it is still being produced or exported. Some help here would be appreciated. I remember it being quite available in Alamogordo, NM and in El Paso, TX back in the sixties. We used to get it in Juarez, Mexico on a regular basis. Any one knowing any more about this beer might be able to help. Private post OK.

Jack St.Clair
Portland, Oregon
Jack_St_Clair@ccm.hf.intel.com

Date: Thu, 9 Dec 1993 13:39:10 -0500 (EST)
From: "Justin J. Lam" <jl62+@andrew.cmu.edu>
Subject: Shops in PGH?

Any good recommendations for supplies in the tri-state area (WV,OH,Pgh PA?)

I plan to visit Country Wines on Babcock Blvd this weekend, but I've never been there.

Any help or suggestions would be appreciated.

Slammer.

Slammer+@CMU.EDU

Date: Thu, 9 Dec 93 11:52:16 MST
From: pjd@craycos.com (Phil Duclos)
Subject: Dream tun

I tried using steam to heat my mash tun last time and liked it a lot. I used a carefully converted pressure cooker. The result was rapid, even heating with a lot of convection in the liquid. I felt better about this method than the direct flame method and consequently did little stirring. My false bottom traps a gallon or so of liquid so I normally worry about caramelization. The mash also wasn't diluted as is normally the case with hot water additions. I use a keg for the mash/lauter tun but I suspect that this method would work well with a coller setup too.

I liked the setup so well that I chopped my brew rack up to accomodate the steam heat setup. However I did away with the pressure cooker and built a steam generator instead. Its basically a large diameter copper pipe with a burner under it. I ran across a lateral burner from a hot water heater (as opposed to a circular one) so it fits nice. The water supply is from my hot liquor tank and the generator really only needs to be filled once. Fire it up and steam is quickly generated. Open the valve to the mash tun and you're heating. It is important to watch that you don't run out of water, the burner is hot enough to destroy the copper pipe if it is empty. There is also a pressure relief valve on the output of the generator however the pressure does not rise above 2 psi when heating the mash.

I have yet to insulate the mash tun, but that's next on the list.

Please be careful with pressure cookers and high pressure steam - They are dangerous! So be careful.

phil
pjd@craycos.com

Date: Thu, 9 Dec 93 11:47:45 MST
From: npyle@n33.stortek.com
Subject: Old Lucifer update

John the Coyote wrote:

>I wonder if I'll have to pitch champ. later to deal with all the fermentables. Hope it don't stall! Some know what a bother that can be! (so how's it doing now norm?)

I forgot to report on Old Lucifer after things got better (isn't that just like the media? Only reporting the bad stuff). Well, after pitching wine yeast (dry, straight out of the packet) things did not progress any for several days, maybe a week. Then fermentation picked up and it went from 1.036 to 1.022 in a couple of weeks (OG was 1.085). Things settled down and I bottled at 1.022 after a total of 10 weeks fermentation. Its a fine Bwine now. I bottled it without priming sugar for several reasons. I like my barley wines low in carbonation. Most of my homebrews continue to increase carbonation over months (if they last that long). I pitched 2 different ale yeasts and a wine yeast so there are lots of different types of guys in there looking for sugar. I plan to keep some of this stuff for several years. I've read competition judge's comments that said "reduce priming sugar" on barley wines more than once. So, of course it is dead flat now, but it should be great Christmas of 94, and 95, and 96... Anyway, my lesson learned is pitch, pitch, pitch, and aerate, aerate, aerate for high gravity brews!!!

Cheers,
Norm

Date:Thu, 9 Dec 93 14:59 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: NA Beer

Anyone know of a good way to make non-alcoholic beer. I have a friend at work who doesn't drink, and I was wondering if any of the great beer styles of the world can be brewed without alcohol.

Date: Thu, 9 Dec 1993 15:06:30 -40975532 (CST)
From: "J. Andrew Patrick" <andnator@genesis.Mcs.Com>
Subject: America Online: CENSORSHIP

<GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU> writes about
America OnLine in HBD #1292:

>There is a brewing forum on America OnLine in the "Wine and Dine"
>section. They keywork "Wine" will get you there. We have about 10
>message bases and coming soon will be an interactive database
>containing HBD.

I must STRONGLY urge HBD readers not to waste their time with the AOL
Beer
Forum. The head of the Wine and Dine forum there, Mr. Craig Goldwyn,
is a egotistical prude who has no hesitation in using blatant censorship
to remove postings that he finds not to his own personal liking.

I was very active in the AOL Beer Forum, until a recent reorganization
caused several of my lengthy postings to be deleted with neither my
knowledge, not my consent. When I expressed by outrage at this by saying
I was "pissed off", Craig Goldwyn said he had to delete THAT posting
because it used "profanity". He also went ahead and deleted several
follow-up posts I made because they "no longer made sense" after the
original posting was gone. He also deleted several messages from other
members criticizing his censorship. I thought that this sort of blatant,
transparent censorship went out with the Berlin Wall!

He also deleted messages I left there that he claimed contained
"libellous statements" concerning Jim Koch's Boston Beer Company.
In actual fact, all statements I made concerning the BBC were backed
up by hard evidence from the Home Brew Digest, Boston Globe, and
regional Brews Papers. I think the deletions had more to do with
a direct verbal threat from Jim Koch to file a libel suit than any
lack of credibility in my sources.

I have ceased all postings to the AOL Beer Forum, and will not change
this policy until I receive a public apology from Mr. Craig Goldwyn.

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+-----+-----+-----+
| Sysop      | Andrew Patrick | Founder |
| Home Brew Univ | AHA/HWBTA Recognized Beer Judge | Home Brew Univ |
| Midwest BBS   | Founder and Sysop, HBU BBS Network | Southwest BBS |
| (708)705-7263 | Internet:andnator@genesis.mcs.com | (713)923-6418 |
+-----+-----+-----+
```

Date: Thursday, 9 December 93 15:50:23 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: fruit flavorings

Howdy,

In HBD #1293, Matthew Evans asks about the fruit flavorings offered in HopTech's catalogue.

I've tried a raspberry fruit flavoring from St. Patrick's of Texas. My brother & I used it in a wheat beer we brewed this fall. I don't know if it is the same stuff that HopTech is marketing, but I can give my opinion of it.

The flavor came out fine, & was definitely raspberry-ish, but was lacking a little. Also, I felt that the flavor softened after a few weeks in the bottle, almost disappearing. Also, even though it was obviously red in color, it added very little color to the beer itself, which disappointed me because I was hoping for a drink with color.

Overall, I'd have to say that it's an easy & cheap shortcut to producing a fruit beer, but if you are shooting for something high quality, I'd use fruit instead. It's real handy if you only want to make a few bottles of a fruit beer & the rest a regular beer (which is why we tried the flavoring). It's also suggested that you can add the flavoring to your glass instead of bottling. Even though I haven't tried this but once (when trying to determine how much in each bottle to add), I think it might be fun to get an idea how a Sierra Nevada Blueberry Pale Ale or Guinness Raspberry Stout might taste.

Hmm... now that I've piqued my own curiosity...

Alan, Austin

Date: Thu, 9 Dec 1993 15:15:22 -0800 (PST)
From: Jim Cave <CAVE@PSC.ORG>
Subject: Filtration

There has been some limited dialogue on the digest lately about the relative advantages/disadvantages about filtering beers. I regularly filter some of my beers, depending how quickly I use them, how much time I have and for what purpose they will be used. I have also been able to compare various beers which have been filtered with unfiltered "control kegs" from the same batches. Invariably, I have found that filtered beers have a cleaner, more professional quality and are brilliantly clear, however, these beers are less stable, the latter feature I believe due to a couple of aspects of home filtration systems.

I think I remember that I read in Dave Miller's book on Pilsners, that this type of beer benefits from filtration, by removing "green beer" qualities. However, he notes that the life of the beer is reduced by stripping the beer of it's yeast. I concur with this. I find that a home-filtered pilsner that has been kept at serving temperature noticeably deteriorates after about a month to 6 weeks, depending on how much is left in the keg.

If one thinks about it, the home filtration system is affected by our abilities to first, sterilize it and then minimize oxidation. Since effective filtration depends on maximizing the surface to volume ratios of the filtration screen to beer volume, there is a potential for a "surface" with a lot of bacteria and a lot of oxygen, as well as a lot of "paper", as in my situation. I try and sanitize everything but the pads--I just don't want to risk ruining the beer with a sanitizer taste. I then "wash" the pads with lots of sterile, de-aerated water, to remove as much "paper taste" as possible.

I keep beer on the yeast for as long as possible. In the case of lagers, this is cold storage (32 F) for as many as 6-8 months. At these temps., bacterial action and yeast autolysis are minimized. I also "lager" ales which must be kept longer term. I don't bother filtering dark lagers, Wits (and other belgians) or English ales. I do filter pale and amber lagers (including pale bocks) and American pale ales, particularly if they are to be consumed at parties. These are all chilled prior to filtering to bring out the chill haze. If this is not done, chill haze is not removed. I then either drink the beer as quickly as possible or keep it very cold.

Jim Cave Vancouver, B.C. Canada "Drink only beer"

Date: Thu, 9 Dec 93 18:47:49 -0600
From: Brian R Seay </G=Brian/I=R/S=Seay/O=MAC/PRMD=ALCATEL/ADMD=TELEMAIL/C=US/@alcatel.aud.alcatel.com>
Subject: EKU-28

Subject: Time:6:48 PM
OFFICE MEMOEKU-28 Date:12/9/93
before my curiosity makes me waste eleven bucks, has ANYONE out there
ENJOYED EKU-28? In HBD 580, it was referred to as "vile".

Date: Thu, 09 Dec 93 18:26:15 PST
From: Tom Hamilton <tlh@ISI.EDU>
Subject: Iodophor / rinsing

Hi,

does anyone know how long iodophor will retain it's sanitizing abilities after being diluted in water? Does it evaporate out of solution similar to chlorine?

Also to George Fix if you're reading this: do you recommend rinsing iodophor with cheap beer as you did with rinsing dilute chlorine? Or will tap water rinse and/or drip dry suffice?

cheers,

Tom Hamilton

Date: Thu, 09 Dec 93 22:23:25 EST
From: robertw905@aol.com
Subject: Re: #1(2) Homebrew Digest #12...

Please stop sending the Homebrew Digest.

Thank you

Date: Thu, 9 Dec 93 8:50:31 PST
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Fruit Extracts, Celebration Hopping

Matthew Evans writes:

>Subject: HopTech Fruit Extracts

>I just got the catalog today from a company
>called HopTech. Mostly they just sell hops,
>but they did have some concentrated fruit
>extracts. They are sold in four ounce bottles
>and contain enough "stuff" to make about 15
>gallons of fruit beer. They don't have any
>sugars in them, so you add them to the beer
>right before bottling. Anyone ever heard of
>this stuff or tried it yet. It is a lot
>cheaper than the real fruit itself, so it would
>be a good cost savings, but the question is,
>will it be good to taste?

In the interests of HBD protocol, I will let others comment
on how these extracts taste. I just wanted to clear
up Matthew's quantities.

Our Peach and Raspberry come in 4 oz bottles. Blueberry
Cherry and Pear come in 2 oz bottles. With the
exception of the Cherry, they are enough to make 5 gallons,
not 15 as Matthew states. This is at our recommended usage
levels, your mileage may vary, but so far no one has mentioned
that these were wrong (in fact, microbreweries have confirmed
that they are good levels). The Cherry is more concentrated
and will do about 20 gallons. All sell for the same price.

Delano DuGarm writes:

>My only complaint was that it didn't have the depth of
>hop taste that Celebration has. I'm leaning towards dry hopping
>again, but noted a suggestion that you steep hops in a hot water
>and add this tea at bottling time for greater flavor and aroma.
>Any suggestions on this issue would be greatly appreciated.

Add another addition of hops at the end of the boil and let the
wort steep with them for 20 minutes. (If you use an immersion
chiller, it'll accomplish the same thing.) Also, use more hops
when you dry hop.

Mark

End of HOMEBREW Digest #1294, 12/10/93

Date: Fri, 10 Dec 93 11:42:55 +0100
From: steve_t@fleurie.inria.fr (Steven Tollefsrud)
Subject: Answer these questions, three....

Just got my order of brewing supplies shipped from England to sunny old Southern France where you can't find such things as home beer brewing is unheard of. The shipping costs were almost as much as the cost of the supplies (extracts, grains, hops and yeasts), OUCH! Still, I'm gleefully rubbing my hands together in anticipation of brewing my next batch, but wanted to bounce a few questions off the HBD before starting...

Thanks, in advance, for your response(s).

1. Re-using Lager Yeast in Fermenter: I was wondering what risks or advantages there would be if I ferment a second batch on top of the yeast left in my primary after siphoning off the previous batch. I mean to siphon the first batch off, leaving the 1/2 inch or so of sediment and then immediately pour on the cooled (80-85 F) 3 gals of wort and top off with water. How much of this 1/2 inch of trub is live yeast? Would the rest of this dead organic trub impart off flavors? Would the advantages of having a large yeast population and a quick start of fermentation outweigh the risk of off flavors from decaying trub (if there is any)? Would the temps and sudden introduction of concentrated (3 gal) wort and subsequent topping off with water shock the yeasties too much?

2. Oatmeal in Stout/Porter: I generally avoid throwing in things like the kitchen sink. Something of the German Reinheitsgeboet must have rubbed off during my three years in Munich. But I have never forgotten the taste of Sammy Smiths Oatmeal Stout and I noticed several recipes in the Cat's Meow containing different forms of oatmeal. I'm intrigued. What qualities would oatmeal add? Any suggestion on quantities? (I can only find rolled oats here) When should I add it to the boil? Or should it be steeped? Mashed?

3. When/How to Add Specialty Grains: I plan to make the following extract based stout:

- 4 lbs. Muntons Dark Malt Extract Syrup
- 4 lbs. Muntons Light Malt Extract Syrup
- 1/2 lb. Crushed Crystal Malt
- 1/2 lb. Crushed Chocolate Malt
- 1/2 lb. Black Patent Malt
- (1 lb rolled oats ???)
- 1 oz. Northern Brewer Hops (30 min.)
- 1.5 oz Hallertauer loose Hops (dry, in the primary)

None of my homebrew info sources explain when/how to properly use specialty grains for an extract based brew.

In the past I've just tossed my grains in at the beginning of the boil and boiled the hell outta them for an hour. Those batches were VERRRY bitter, though I'm not sure if it wasn't the Northern Brewer (2 oz, loose) which I was trying out at the same time. Should I not let the grains get more than 150 degrees F, as in mash conversion? Should I add them after the boil, below a certain temperature, and let them steep. What temps? What times?

Thanks again,

Steve Tollefsrud
VALBONNE, FRANCE

steve_t@fleurie.compass.fr

Date: Fri, 10 Dec 93 8:41:48 EST
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>
Subject: Observations

Hi Gang,

Just thought I'd throw out a few observations:

First, on the subject of EKU28 Kulminator, I love the stuff. It is an extremely malty, slightly sweet and very strong dopplebock. I had always thought that it was an eisbock, but I am willing to believe the contrary. This stuff is definitely not meant to be quaffed in large quantities but as an occasional treat, I think its great. Personally I prefer it to Samichlaus which to my palate has less body and sweetness than is necessary to balance the high alcohol content. Another very high alcohol beer that I really like is Thomas Hardy's Ale. This is a barleywine style

English ale which is also very sweet and strong with pronounced fruity (pineapple?) flavors and aromas. A buddy of mine was runner up to best of show in a local competition with a clone of this (Toxic Thomas'). Unfortunately, Ohio has wierd laws about high alcohol beers that are still

on the books from the 3.2% ABV days so we cannot get some of the domestic barleywines like Old Foghorn and Bigfoot here but whenever I am out of state I keep my eyes peeled.

Second, I recently helped some friends of mine get started with homebrewing and since it was their first experience with the process, I decided to use dry yeast for simplicity. I have used Wyeast from the start (about 2.5 years of homebrewing) but since these friends didn't know wort from warts, I thought I'd keep it basic. Anyway, I elected for the following recipe:

4# can Telfords Premium Bitter Hopped Extract
3.3# bag of NWestern Gold Liquid Malt Xtract (unhopped)
1 oz homegrown Cascade for finishing
Red Star Dry Ale Yeast

I chose the Red Star because of good reports here on the HBD and sure enough, I tried a bottle of it last night and it was quite good. None of the estery or phenolic flavors that I have heard about with dry yeast. The beer has a nice fruityness and overall is very clean. Im sure it will encourage them to keep up with their new hobby.

Just my \$0.02.

Mark

"Never let your sense of morality prevent you from doing whats right"
I. Asimov

Date: Fri, 10 Dec 93 09:29:28 -0800
From: Jack Tavares <tavares@ctron.com>
Subject: Fountaining Beer

I opened a bottle of my Christmas Stout (after only 5 days .-)_
And it made the most beautiful black, gingery smelling fountain
that I have seen in a long time. My wife, however, was less impressed
with the mess in made.

I used a recipe from Cats Meow 2 (pg 5-20 in my edition).
If i remember correctly the SG had stabilized at around 1.14.
That seems high, but my memory might be off.

Now, i am going to let it sit at least another week before I
open up another bottle.

If i have the same problem, is there anything I can do to correct
it?

Jack Tavares

Sorry, but at DoD minimum speed it is impossible to speak. There is just
too much wind noise. At that speed I am spending all my concentration
allowance on riding, and cannot afford anymore thought for words.
However, when I finish a ride and the bike is in the garage cooling
down, the single word that comes to mind is:

HOME BREW.
Start planning now for the 94 NECDODSF!

Date: Fri, 10 Dec 93 09:27:26 EST
From: lconrad@epoch.com (Laura Conrad)
Subject: NA/beer, Garetz fruit extracts

>> Date:Thu, 9 Dec 93 14:59 EST
>> From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
>> Subject: NA Beer

>> Anyone know of a good way to make non-alcoholic beer. I have a friend at work who doesn't drink, and I was wondering if any of the great beer styles of the world can be brewed without alcohol.

Of the commercial non-alcoholic beers I've tried, the only one I consider even remotely a good copy of its style is the one Miller makes. American Pilsener isn't one of my favorite styles, but it is one of the important beer styles of the world.

Given how remote all the professional attempts at non-alcoholic beers are from the taste I like in beer, I haven't tried doing it myself.

>> Garetz fruit extracts:

I ordered the Raspberry and Cherry fruit extracts from Mark Garetz. I haven't yet had time to brew a fruit beer with them (I might get to a Framboise this weekend), but I have experimented with adding drops to my cyser. The raspberry worked pretty well, but the Cherry is definitely concentrated enough to be hard to control in this mode. Next time I get the urge to try this, I will dilute a dropperfull N to 1, where N is some number like 4 or 5, and add that by drops to my glass.

In any case, the flavors were certainly good, it was just hard to squeeze the cyser bottle hard enough to get the level of cherry flavor I wanted.

Laura

Date: Fri, 10 Dec 93 09:27:26 EST
From: epochsys!lconrad@uunet.UU.NET (Laura Conrad)
Subject: NA/beer, Garetz fruit extracts

>> Date:Thu, 9 Dec 93 14:59 EST
>> From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
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In any case, the flavors were certainly good, it was just hard to squeeze the cyser bottle hard enough to get the level of cherry flavor I wanted.

Laura

Date: Fri, 10 Dec 1993 8:53:18 -0600 (CST)
From: SMITH@EPVAX.MSFC.NASA.GOV (The Ice-9-man Cometh)
Subject: Sour Cherry Syrup in Stout

A question for you all. Has anyone used Sour Cherry Syrup (I found it in the Middle Eastern foods section of the local ethnic market, though it was made in Yugoslavia) in brewing?

I used it in a cherry stout that I started a couple of weeks ago, adding a 16oz bottle to a 5gal batch after the initial fermentation subsided. It foamed up again for a couple of days, due to the sugar, then calmed down; I tasted it, and there was hardly any cherry component. It was pretty seriously cherry-ish in the syrup bottle, though. Any ideas on how much it'd take to do the job? If this will work, it's a whole lot easier than fooling around with fresh fruit....

|James W. Smith, NASA MSFC EP25|SMITH@epvax.msfc.nasa.gov|
| "I'm going home, taking a hot bath, and sleeping alone!"
|--Omaha the Cat Dancer|
| Neither NASA nor (!James) is responsible for what I say. Mea culpa.

Date: Fri, 10 Dec 93 09:55:13 EST
From: mlobo@sentry.foxboro.com (Michael T. Lobo)
Subject: RE: fruit flavoring (Raspberry)

Greetings:

Alan in Austin (HBD 1294) laments the lack of color in his raspberry beer. I made a raspberry stout using a soda raspberry flavoring made by Flavorchem in Il. and it is RED! Straight out of the bottle it tastes horrible (but raspberry-ish) and it will dye everything it touches red.

I used 1/2 the bottle for the stout after fermentation - at bottle time. I tasted the stuff at that time and I was afraid I had overdone it with the flavoring - really strong raspberry flavor. Well, about 1 month of aging has improved this beverage. The stout flavors balance the raspberry quite nicely, and if I hold a bottle to the light, it has a redish glow - the color is certainly there.

The flavoring comes in a small bottle (~ 2 OZ) and cost \$2.58.

Next time I use it I will use 1/3 bottle - less if I'm making a lighter beer.

regards,
Michael

Michael T. Lobo 508 549 2487
Foxboro Co.
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,
my beer speaks for me" -Monty

Date: Fri, 10 Dec 93 9:56:09 EST
From: "Adrian L. Anderson (Andy)" <alanders@mwv.vak12ed.edu>
Subject: New w/question

Brewers,

I am new to the list and to homebrewing. Have one batch of Continental Light, made from a kit, to my credit. My product came out fine body and colorwise w/ good carbonation. The only problem is a very (ultra - mega) yeasty aftertaste. Actually enough to make me shivver after swallowing. The guy at the store where I bought the kit said to chill the next batch before bottling and that should cure the problem. From reading the messages here, I suppose my description is a little cryptic and that without knowing other variables involved it might be difficult to suggest a solution. I just thought that maybe there is a fairly standard cause for excessive yeast flavor. The fermenting went according to directions as far as time and specific gravity readings go.

I read, in one brewing book, a note about skimming the fermenting froth from the top of the batch as it rises during the fermentation. The guy at the store said "No, don't do that." Can anyone offer advice on this yeast mystery?

- - -

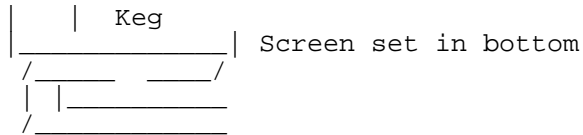
Andy Anderson Winchester, VA
alanders@mwv.vak12ed.edu
"You can't have everything, where would you put it?"

Date: Fri, 10 Dec 1993 09:41:22 CDT
From: "Dennis Lewis" <DLEWIS%jscdo6@jesnic.jsc.nasa.gov>
Subject: perf sheet

In Friday's HBD Jim Busch writes:

"I favor using a hot water heater for sparge (hot liquor tank), and use the kettle to mash in. Transfer the mash to the dedicated lauter tun with some kind of false bottom (perf sheet works great), insulate the lauter tun. "

I have a keg that I fitted with a SS screen false bottom and have a tap coming out of the bottom of the keg as my sweet liquor outlet. The perf sheet I have is 3/32" holes on 5/32" centers. (I got this size from the Brewer's Warehouse sheets. They claim it's the standard microbrewery size. Can anyone verify?)



Tap out the bottom

Anyway, I get a lot of grain particles that bypass the screen, enough that I have to send the runnings thru a strainer to catch the big pieces. I have an adjustable MaltMill and have tried it set as wide as .055" to minimize husk shredding, but I still get granule-size particles passing the screen. Whaddaya think?

I've considered

- * Crushing twice. Once set wide to remove husks, then set close to pulverize everything.
- * Getting a smaller screen size, like 1/16" holes
- * Having the screen welded into the keg or fitting some sort of gasket around the screen. There is a slight gap around the edges, but it appears to be of less width than the holes. Also, right as the last of the liquor drains out, I get a huge amount of grain coming out the tap.
- * Putting a small extension on the keg side of the outlet to raise it about the bottom of the tun floor, letting any crud sit on the bottom.

Any help on this is greatly appreciated. My beers turn out pretty good, but my extraction is suffering (28 ppg for the bucket system, 25 ppg for this) and the frustration level is getting pretty high. Also I've had to add polyclar to the finished beer because the tannins are a bit high from all the husk material making it into the kettle and that eliminates a lot of the malty flavor that I worked so hard for.

Dennis Lewis<dlewis%jscdo6@jesnic.jsc.nasa.gov>
Homebrew, The Final Frontier.

Date: Fri, 10 Dec 1993 08:43:50 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Head Retention

>From: Earle M. Williams <earlew@drc.usbm.gov>
>Subject: Head Retention, Beer Labels, and less...

>

>

>I cracked the top on a bottle of Nut Brown Ale last night, aged two weeks,
>and i noticed that while the carbonation was good, there was very little
>head. I tried pouring the beer from about 4 inches (10 cm) and it foamed
>up nicely, but within about 10 seconds it had settled to a slim memory
>of a thick foamy head.

What you need for good head retention are proteins. Proteins are what provides the surface tension which give the bubbles some strength. However, proteins can also cause haze so you have to have a ballance. Hops are a good source of proteins for head retention but you have a Brown Ale so you have to go easy on the bitterness so use more of a lower alpha acid hop. If you aren't adding hops at all then a good short-cut is to use just enough wheet (2-4 oz) to get some proteins but not so much that you get any noticable wheet flavor. Good hot and cold breaks will be necessary to clear the beer.

The above has worked for me in practice but I have a question about the theory. What is the difference between the proteins that aid head retention and those which produce chill haze? Is it molecular wieght?, length of the molecule? Why does one class coagulate and precipitate and the other doesn't or does so to a lesser degree?

Geoff

--+

| A brewery is like a toothbrush, everyone should have their own. |

--+

| Geoff Reeves: Space Science Division, Los Alamos National Laboratory |
| reeves@lanl.gov (internet) or essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax (505) 665-4414 |

--+

Date: 10 Dec 93 10:47:03-0500
From: MATTHEW.BOHNE@sprint.sprint.com
Subject: BREW PROBLEM..

I RECENTLY BREWED UP A HOLIDAY BRAU AND ADDED THE USUAL ASSORTMENT OF SPICES AND THINGS.. AND I HAD SOME STRANGE RESULTS.

WHEN I MOVED EVERYTHING TO THE FERMENT TANK I DIDN'T GET A BUBBLE FOR THE 1ST DAY, HOWEVER 2 DAYS LATER IT WAS AT FULL CRANK. ON THE 6TH DAY IT BLEW BEER THROUGH THE VAPOR LOCK SOME 9 FEET INTO THE AIR(RATHER FUN TO WATCH BUT A MESS TO CLEAN..) THE HEAD PEEKED AND FELL BACK IN, I DRAINED IT TO THE SECOND FERMENT TANK AND WAITED.. IT BUBBLED SLIGHTLY ONCE AN HOUR, 2 DAYS LATER, I BOTTLED. IT HAS BEEN 2 WEEKS AND I WENT DOWN TO THE CELLAR AND I NOTICED A WHITE RING INSIDE OF ALL THE BOTTLES... WHAT IS THIS?? IT ALMOST LOOKS LIKE A MINI HEAD BECAUSE IT SEEMS TO BE THICKENED FROTH... WILL IT GO AWAY?? SHOULD I JIGGLE THE BOTTLES AND GET IT TO DROP TO THE BOTTOM? I ALSO NOTICED A THICKER SEDIMENT IN THE BOTTOM OF MY BOTTLES THAN USUAL. SHOULD I BE CONCERNED? I OPENED ONE AND GOT THIS MAJOR GUSHER (I SEEM TO BE GETTING A LOT OF THESE THESE DAYS BOTH WITH OLD AND NEW BEERS) -- SHOULD THEY BE CHILLED LONGER? IS THERE ANYWAY TO COUNTERACT THIS?

ALL INPUTS WOULD BE APPRECIATED -- PLEASE CC ME DIRECTLY IF POSSIBLE.

THANKS!!
MATTHEW BOHNE
SPRINT COMMUNICATIONS
SYSTEMS DEVELOPMENT

Date: Fri, 10 Dec 1993 07:53:14 -0800
From: royh@netcom.com (Roy Harvey)
Subject: Murphy's DraughtFlow System / Stuck Stout

Two questions:

1) I just bought a fantastic can(!) of Murphy's Irish Stout that poured like a dream! The can is marketed as containing a "Unique Draughtflow System" - basically a plastic pressurized insert. Can someone please explain how this works? Very Impressed!

2) I've been working on a Stout of my own that seems to be stuck at 1.030 for some time now. The airlock is still held high, though bubbling is maybe once per hour. I used Wyeast Irish Ale to get it going... Thanks!

Roy Harvey
Mountain View, CA
royh@netcom.com

Date: Fri, 10 Dec 93 08:36:19 PST
From: "Ray Siemens" <siemens@unixg.ubc.ca>
Subject: RE: Canadian Microbreweries from HD #1294 (December 10, 1993)

Richard Nantel <72704.3003@CompuServe.COM> writes:

>The latest trend is for high-alcohol brews. The newest addition is
Labatt's
>XXX with 7.4% alcohol. Strangely enough, and to quote a German
acquaintance,
>`you have 50 different beers and they all taste alike! The new potent
brews
>are no exception. Thank goodness for some excellent Quebec
microbreweries;
>most notably St-Ambroise and Hops Brau.

I agree, Richard, that much Canadian beer (like much American beer)
tastes alike, but luckily Quebec does not have a monopoly on excellent
micro-breweries. Last time I was in Montreal I remember drinking some
fine
beer, but I also recall sampling more than a few pints in Toronto (Upper
Canada Breweries, Amsterdam & Rotterdam Brew Pub, and many others). Even
here in Vancouver we have several, my favorite being Granville Island;
that
is, aside from what I make in my own kitchen.

Best,

Ray Siemens
University of British Columbia
siemens@unixg.ubc.ca

Date: Fri, 10 Dec 93 11:44:49 EST
From: Keith A. MacNeal HL01-1/T09 DTN 225-6171 10-Dec-1993 1142
<macneal@pate.enet.dec.com>

Subject: All grains are not created equal

In HBD #1284 Jim Busch made a few comments regarding grains which raised some questions in my mind. Apparently Jim feels that all grains are not created equal (use imported Munich, not domestic, why would you use a 6 row?).

What are the differences between a 6 row and a 2 row malt? What are the advantages of using imported vs. domestic (domestic = American I assume)

.
What should be considered when choosing between say, German, Belgian, British, and American grains?

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Fri, 10 Dec 93 9:56:27 MST
From: Jeff Benjamin <benji@hpfcbug.fc.hp.com>
Subject: Re: burnt aftertaste, homebrew names

Jeff M. Michalski <michalski_jm@rophys.wustl.edu> writes:

> The grain bill is as follows:
>
> 6 lb pale
> 3 lb klages
> 1 lb dark crystal (caramunich)
> 1 lb chocolate
> 1 lb carapils
> 1/4 lb black patent
>

>It has an overwhelming burnt taste to it! The initial flavor is
>strong malt and ETOH (and a lot of hops!) but the charcoal flavor
>that follows is enough to scare away my guests. My question is
>will this heavy roast flavor soften with age?

There are a couple of possible causes for a burnt taste. The first is simply the amount of dark malts (chocolate & patent). You basically have a very dark porter. In fact, a little roast barley and you'd have a stout. If it's a "roasty-burnt" character, that's probably the reason. This character will tend to smooth with time, so hang on to it and see how it progresses. Maybe you should just find some stout drinkers to share it with!

On the other hand, if it has a very unpleasant burnt taste, and aroma, it may be due to phenolics, possibly from bad yeast, an infection, or even somewhat from oxidation. It's less likely in this case that the problem will go away, though you still may want to let it sit a few months and see what happens.

Peter Brauer asked about homebrew "namebrands". I'm sure there are quite a few. The "Organization:" header in my email (which unfortunately doesn't show up in the digest) says "Fat Wanda's Brewery and Recording". This occasionally results my receiving messages that ask "Just what in the heck is Fat Wanda's?". For the record, Wanda is my partner's golden retriever, who, while not exactly fat, is a little on the chunky side. Actually, the full title of the establishment is "Fat Wanda's Brewery, Recording, Photo, Custom Fly Rods, and Garden-Fresh Produce". Dance studio and Diesel Repair to be added soon.

- - -

Jeff Benjamin benji@hpfccla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Fri, 10 Dec 1993 12:01:20 -0500 (EST)
From: "Robert H. Reed" <rhreed@icdc.delcoelect.com>
Subject: EKU KULMINATOR

I just wanted to set the record strait on EKU Kulminator. Actually '28' refers to the number of pounds of malt that are used per 1 liter serving. This works out to be about 1.49 metric tons of malt per barrel. This explains the intense maltiness and the high alcohol level - 198 proof if memory serves me correctly. It is used as a gasoline substitute in many European communities.

It is recommended that you wear a wrist or ankle grounding strap while you are pouring or drinking this beer to minimize the chance of a spark induced fire. Just a data point...

Rob Reed

Date: Fri, 10 Dec 93 12:24:47 EST
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: evidence

>He also deleted messages I left there that he claimed contained
>"libellous statements" concerning Jim Koch's Boston Beer Company.
>In actual fact, all statements I made concerning the BBC were backed
>up by hard evidence from the Home Brew Digest, Boston Globe, and
>regional Brews Papers.

Although I'm not a lawyer (and I don't play one on TV :-), I'm very sure
that
statements in newspapers can in no way be considered hard evidence.

The alleged censorship, if true, is reprehensible (I guess I can sound
like a lawyer :-).

- --Tony Verhulst

Date: Fri, 10 Dec 93 12:43 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: ECU 28

In HBD #1294 Brian R. Seay wanted to know if anyone likes ECU 28.

I for one like it. I've had it 3 times, and then the restaurant I used to get it at closed down. It has a unique taste. It's as thick as maple syrup, really dark, and HEAVY, but had a flavor I could enjoy. I think everyone should try it at least once.

Andy Pastuszak

Date: Fri, 10 Dec 93 12:48 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: America OnLine: censorship

In HBD #1242 J. Andrew Patrick talks about America OnLine censoring his messages.

Well, I was on there last night, and they're still talking about you, or least about someone using profanity in messages. There is a guide you receive with your AOL kit, and profanity violates your membership rules. If they feel it's profanity, then they have a right to do something about it. You agreed to this when you signed up.

Nasty posting about the BBC were probably deleted for fear of a law suit. How man people has Jim Koch sued already?

AOL is in the business of making money. Hell, maybe the moderator likes Samuel Adams? Who know, who cares. What I saw I liked.

Date: 7 Dec 93 18:01:01
From: bwchar@mail.wm.edu (Brett Charbeneau)
Subject: FTP-ing from sierra.stanford.edu

Help!

I can't seem to be able to log onto the sierra machine. I can telnet to it get the login prompt, but no matter what I try I continually get an 'incorrect login' error. I have tried the following permutations:

```
userid: password:

anonymousanonymous
AnonymousAnonymous
Anonymousbwchar@mail.wm.edu
anonymous@mail.wm.edu
bwchar@mail.wm.edu anonymous
```

My home machine is an IBM - what William an Mary confusingly calls 'gopher'.
Any help would be greatly appreciated!!!

Brett Charbeneau P.O. Box 1776-MHW
Williamsburg Imprints ProgramWilliamsburg, VA 23187
Colonial Williamsburg Foundation Tel: (804) 229-1000
INTERNET: bwchar@mail.wm.edu FAX: (804) 221-8948
Why is it that the pioneers always have arrows in their backs?

Date: Fri, 10 Dec 93 14:24:06 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: afrika

* Date: Thu, 9 Dec 1993 12:01:43 +1000
* From: esonn1@cc.swarthmore.edu
* Subject: Ngoma

*
* Hi hombrewers,
* I recently tasted some African beer called Ngoma. The beer tastes
* great (also has quite a kick to it), but I have a few problems with it.
* First, it's very expensive (\$33 a case) and second, I think it must be
* pasteurized because it claims to be brewed and bottled in Africa.
Does
* anyone know what type of beer this is? Anyone tried to copy it? I
would
* be most interested in a recipe. I'm an extract brewer now, but I'm
looking
* forward to doing a partial mash as Norm described in the HBD, so all
* extract or partial extract recipes are in order.
*

Must be one of those African Pale Ales, made for those long distances to
"the
colonies."

Seriously, though, what kind of beer was it? From where in Africa does
it
come? How did it taste other than having quite a kick (did I ever tell
you
about my Uncle Manny who used to bathe once a month in EKU 28?), and did
you
really buy a case of it?

- - -
Mark Bunster |
Survey Research Lab| MORE COFFEE
|
mbunster@hibbs.vcu.edu |
367-8813 |

Date: Fri, 10 Dec 93 14:52:48 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: AB in Wmsbg

- * a nice Kent Golding hop aroma and flavor. However, although I
- * am a BJCP judge, I lost my confidence in distinguishing
- * taste subtleties after failing a self inflicted taste test
- * during a tour of the Anheiser-Busch brewery in Williamsburg VA
- * about a month ago. I could not distinguish between bud,
- * bud-dry, bud-lite and Michelob. Well, maybe bud and Michelob has

As a former resident of Williamsburg, and a former many-time visitor of AB's plant there, I thought I'd offer some insights.

-You get two freebies, which used to be four. You needn't schlep through the tour to do it, either--just walk a couple hundred feet from the entrance and yer there.

-you can get to the brewery from the amusement park next door. There's a monorail that takes you to it, and the walk is even shorter to the freebie area (no exhibits to pass by.) Rather than enjoy the hokey atmosphere and \$2.75 AB beers at the "hofbrauhuas", take the monorail, quaff some freebies (they will politely limit you after your 2nd only if they're paying attention--never have I been bugged about getting three) and head back to the park. Return later for more freebies if you desire, as the servers change shifts regularly, and in summer when it's crowded they're way busy. OK, OK, so I was a college student back then, and free beer, even AB, was a deal.

-If you're really mad at old August and Co., you may also gain free entrance into the park, which saves you \$25 a head. This depends on them still having a way for you to just shop in their boutique area without paying the whole tariff. You pay a deposit and must return in two hours to get your money back. Once in, go directly to the monorail and ride to the brewery. As you leave the park, your hand will be stamped so you may return to the park. (people just taking the brewery tour can't get on the monorail and go to the park.) Drink a beer if you like, then return to the park. Get your money back, then drive over to the brewery (drink more beer), get back on the monorail and head for a fun filled day on rides built from money made on all those suckers who think Bud dry is a taste achievement.

Sorry if this is not germane, but, y'know.

- - -
Mark Bunster |Exchange conversation if you dare--
Survey Research Lab--VCU|Share an empty thought or a laugh.
Richmond, VA 23220 |

mbunster@hibbs.vcu.edu | -edFROM
(804) 367-8813/353-1731

Date: Fri, 10 Dec 93 14:53:15 EST
From: Mark Stickler Internet Mail Name <mstickle@lvh.com>
Subject: Cranberry Lambic, Maple Syrup, Ngoma & Eku 28

In reference to Sam Adams Cranberry Lambic and the use of Maple Syrup in beer, I was at a Beer Tasting/Dinner last evening, ala Michael Jackson in Belgium on the Beer Hunter video, at a local restaurant (Allentown, Pa) where twelve Christmas beers were served throughout a six course meal. This included Anchor, Sierra Nevada, Stoudt's, Dolle Breweries (sp), Samiclaus, Schildes (Belgium Busch), Dock Street, St. Sylvester, Young's, several other Belgians, and the now infamous Cranberry Lambic. The host pointed out it wasn't a true lambic and said that it had maple syrup added to balance the tartness of the cranberries. To me it tasted like a Kriek I attempted last summer, namely not so good. But, for those looking for a use of maple syrup in homebrewing, this could be your chance.

In HBD1294 Eugene writes:

> I recently tasted some African beer called Ngoma. The beer tastes
> great (also has quite a kick to it), but I have a few problems with it.
> Does anyone have a recipe?

I have had this beer. It is obviously a lager in the Munich style, very malty and surprisingly good (well balanced). I would start by using a bock recipe. Sorry, can't get more specific than that, had just one bottle of it and that was more than year ago.

Also posted:

> First, the 28 in the title refers to the percent of
> alcohol in the beer. That's right folks, 28% = 56 proof.

My understanding is that the 28 stands for the OG in degrees Plato and, as was also posted in HBD1294, the abv is in 13% range.

And also posted:

> before my curiosity makes me waste eleven bucks, has ANYONE out there
> ENJOYED Eku-28? In HBD 580, it was referred to as "vile".

I like it, but there's no accounting for taste. My brother says he thinks it has the same aroma as the insect we call a "daddy-long-legger" after the legs have been pulled off! I guess that qualifies as vile. Please note, my brother and I haven't pulled the legs off a daddy-long-legger since the late '60's when I was about 8 years old. (25 years before Beavis and Butthead).

Date: Fri, 10 Dec 93 11:57:28 PST
From: hollen@megatek.com (Dion Hollenbeck)
Subject: Re: SS keg question

>>>> "Jim" == Jim Grady <grady@hpangrt.an.hp.com> writes:

Jim> Sorry if this has been addressed before and I wasn't paying
attention.
Jim> For those of you who have turned a SS keg into a brewpot, where did
you
Jim> get the keg? How much did it cost you? I've seen references to
Sanke
Jim> kegs for this. Are these the only type of kegs to turn into
brewpots?
Jim> What other kinds have people used?

Jim> Private e-mail is fine.

Jim> Many thanks in advance.

Jim> - --

Jim> Jim Grady | "Immediately after Orville Wright's historic 12 second
Jim> grady@an.hp.com | flight, his luggage could not be located."
Jim> | S. Harris

Legal Sankey (straight sided) kegs are available from BCI for about
\$42. Any of the old style rounded kegs are harder to make a stand
for. Also, the skirt around the bottom of the Sankey kegs makes a
good flame protector. Another source, but of higher cost is
Sabco-Save-A-Barrel. I do not have Sabco phone #, but they advertise
the "Brew Magic" RIMS system in Zymurgy.

BCI can be contacted at

Bev-Con International
6400 Highway 51 South
Post Office Box 396
Brighton, Te. 38011
(901)476-8000
(800)284-9410

Dion Hollenbeck (619)455-5590x2814 Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucscd!megatek!hollen

Date: Fri, 10 Dec 93 14:18 CST

From: korz@iepubj.att.com

Subject: EKU28/mlt_liqu/blwffVSnon-/idiots/dryhopVStea/BurntBeer/head/HppdXtract

There have been a number of incorrect interpretations of the "28" in EKU's Kulminator:

>Bavaria is that the 28 in EKU 28 is the PROOF of the beer. You got >it. 28 proof aka 14% alcohol. I have a bottle saved from when I last and

>his comments. First, the 28 in the title refers to the percent of >alcohol in the beer. That's right folks, 28% = 56 proof. The bier is

Actually, Darryl has it right:

>brewed from a wort that does achieve at least 28 degrees Plato >(about sg 1.112).

Andy writes:

>Correct me if I'm wrong(and I know you will), but isn't there a >federal law that says beer can only be a maximum of 6% alcohol? >Anything stronger than that has to be called a Malt Liquor.

The laws concerning the labeling of strong beers vary from state to state.

What you say may be true for some states, but I don't know which.

Bill writes:

>Every now and then people have been debating the use or not of >using a blow-off, so I thought I would add a data point to this >controversy. I brewed 6 1/2 gallons of IG 1.041 English Special >Bitter style which was siphoned into a 7 gallon carboy and >pitched about 3/4 quarts of yeast starter. After about 3-4 >hours I reracked the wort, filling one 5 gallon carboy to about >3 inches from the brim, and the other with the remainder. Both

<snip>

>but after 10 days the blow-off batch was still bubbling every >13 seconds, while the non-blow-off batch seemed finished. So, >after 11 days I reracked both batches and was shocked to find >the gravity of the blow-off batch to be 1.020, while the >non-blow-off batch was down to 1.011. The non-blow-off batch

Fermenter geometry is the difference. Note that some yeasts are more sensitive to fermenter geometry than others.

<snip>

>the BURP homebrew club meeting for a more unbiased comparison. >I did tell them that one was blow-off and one was not, but I >didn't identify which was which. >Some of the members correctly identified the blow-off batch >saying they thought it was slightly smoother, (one correctly >identified the blow-off batch but said she liked the >non-blow-off batch better). Some incorrectly identified the two >batches and some "punted" and said no difference. All agreed

>that if there was a difference it was minor. Therefore,

I suggest that perhaps the 3-4 hour pause to allow for hot and cold break settling and the subsequent transfer off the trub reduced the benefits of blowoff. I've done this experiment twice and each time the difference was stunning. I used a 1 gallon jug, filled 3/4 full and a 5 gallon carboy filled to the top. The geometry was not very close. I would like to try to retry this test with closer fermenter geometries. Perhaps a 5-gallon fermenter and a 6-gallon fermenter? Perhaps a 3-gallon and a 1-gallon jug? I'll have to work on it.

Tim writes:

>Subject: Is Tim McNerney an idiot?

I disagree.

>Sorry for wasting space with a stupid question (if you believe there are

I urge everyone to ask all questions they might have -- if we don't ask (or are afraid to ask) then we could all lose out on something useful.

Delano writes:

>Subject: Hop Teas and Dry Hopping

<snip>

>hop taste that Celebration has. I'm leaning towards dry hopping
>again, but noted a suggestion that you steep hops in a hot water
>and add this tea at bottling time for greater flavor and aroma.

A member of a B.O.S.S., Terry Murphree (I hope I got the spelling right)

did an experiment recently in which he split a batch into two 3-gallon batches. He dryhopped one half and added hop tea to the other. The results were very interesting. After two or three days in the kegs, the hop tea batch aroma was noticeably stronger. After an additional month, the hop tea version had lost all of its hop aroma and the dryhopped version beat it hands down. Both the 2-3 day tasting and 1-month tasting were unanimous decisions by our club members.

Jeff writes:

>6 lb pale
>3 lb klages
>1 lb dark crystal (caramunich)
>1 lb chocolate
>1 lb carapils
>1/4 lb black patent

>

>Near the end of the boil I also added 1 lb of dark brown sugar.

> OG 1072, FG 1021 (wyeast 1056).

>

>It has been in a soda keg after completing primary and secondary

> fermentation for at least 6 weeks.

>

>It has an overwhelming burnt taste to it! The initial flavor is
> strong malt and ETOH (and a lot of hops!) but the charcoal flavor
> that follows is enough to scare away my guests. My question is
> will this heavy roast flavor soften with age? I am tempted to

I got this once from an all-extract (no specialty grains) batch.

It turns out that I scorched the malt in the kettle. It never

went away. I had it in a keg, so I just used it up to flavor some under-flavored commercial brews.

Earle writes:

>characteristics. Is there something I can add or delete to my brews that
>would encourage more head?

Head retention is a function of small proteins and dextrans in your beer. Crystal malt will add some dextrans and thus some head retention. To have control of your small proteins, you need to mash (although some extracts may give you better head retention than others -- I don't know which). I've been speculating for about a year that the blowoff method may reduce head retention by blowing off some of these small proteins. Bill -- any data here? Protein rests at the lower end (112-122F, I believe) of the proteolytic range will turn your big proteins into amino acids, whereas protein rests at the higher end (122-140F) will make less amino acids, but more small proteins (better head).

Earle also writes:

>I was playing with the hop utilization numbers to try and quantify the >hoppiness of my last batch, and i realized that I had no clue as to the >amount of hops in the canned extract. Anyone have any general or specific

The Extract Special Issue of Zymurgy has a table that lists the hop rates on many of the hopped extracts at that time (1986?).

Al.

Date: Fri, 10 Dec 93 15:46:54 CST
From: nfarrell@ppco.com (Norman Farrell)
Subject: Good to the last drop.

With all the talk about getting extract out of the bag (in a box), I am prompted to write about a procedure invented(?) by a Just Brew It club member:

The "Chopstick Method"

1. Set the plastic bag-o-extract in a sinkful of hot water to soak.
2. Locate a set of chopsticks: nice or disposable, it matters not.
3. Cut/Slice open the top of the extract bag and pour into the kettle as usual.
4. Hold the bag by the top two corners and have a helper position the two chopsticks one on each side of the bag up near where you are holding onto the bag. Make sure the opening points toward the kettle.
5. Next, your helper will press the two chopsticks together and draw the pair of them down the length of the bag towards the kettle. Stop, of course when you get down to the open end of the bag.

If done properly, you will have neatly extruded almost every drop of extract and will not have it all over you, your helper, your kitchen and the dog (or cat).

Thanks to Rob Dahlgren, inventor of the chopstick method.

Hope this is helpful.

Norman (nfarrell@ppco.com)

Date: Fri, 10 Dec 93 14:56:25 PST
From: hollen@megatek.com (Dion Hollenbeck)
Subject: Re: Q: Kegging and Refrigeration

Sorry to post, but mail to Rich bounces:

>>>> "Rich" == Rich Miani <miani@ibml> writes:

Rich> thanks for the info re: the kegging faq

>> No, refrigeration is not necessary at all unless you do not like room
>> temperature beer. I had a cooler for a while, but sold it when I
>> found out I liked room temp better.

Rich> What kind of cooler (\$\$,setup,etc) ? Also, would a frosted mug
Rich> do the trick ? I don't like my beer ice cold, but I do like it
Rich> a little cooler than room temperature.

Rich> Thanks again,
Rich> Rich

I was able to pick up a *very* used commercial soda cooler for \$50.
The kind which has sliding doors and is in stores or taco shops. Not
anything one could normally get for \$50. A frosted mug might do the
trick, but again, I *like* my beer warm, so I have no data on that.

dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Senior Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucsc!megatek!hollen

End of HOMEBREW Digest #1295, 12/11/93

Date: Fri, 10 Dec 93 16:24:00 PST
From: Patrick Seymour <seymour@ucs.ubc.ca>
Subject: Reply to 12/8/aerlew@drc.usbm.gov

From: Earle M. Williams <earlew@drc.usbm.gov>
Subject: Head Retention, Beer Labels, and less...

I cracked the top on a bottle of Nut Brown Ale last night, aged two weeks, and i noticed that while the carbonation was good, there was very little head. I tried pouring the beer from about 4 inches (10 cm) and it foamed up nicely, but within about 10 seconds it had settled to a slim memory of a thick foamy head. I hadn't really tried for a thick head in this beer, but it got me to thinking about past brews that had similar characteristics. Is there something I can add or delete to my brews that would encourage more head? I would appreciate some comments, with or without puns. :>

Ahem, regarding your "lack of head" concern...
I have been adding an additional 150-200grams of wheat in the grain bag - and recent batches have produced great head.

Date: Fri, 10 Dec 93 15:10:00 est
From: "Blahnik, Vance T" <blahnv@uf9455p01.minneapolisnmn.NCR.COM>
Subject: Brew suplies around Chambersburg, PA

My brother is looking for suppy sorces near Chambersber, PA. Any help
is
gratly appreaciated

Please reply to vance.blahnik@minneapolisnmn.ncr.com.

Thanks

Date: Fri, 10 Dec 1993 17:15:19 -0800 (PST)
From: Peter Maxwell <peterm@aoraki.dtc.hp.com>
Subject: what makes dark extract dark?

Many recipes based on extracts stipulate dark extract (or amber, if it comes to that). Full-grain recipes, on the other hand, always use basic malted barley and add extra things to get dark beers. So I have two questions:

1. What is it in a dark or amber extract that differentiates it from a light extract?
2. If I start off with light extract can I simply add more of chocolate/black patent, in addition to what might be specified in a recipe calling for dark extract, to achieve the same effect?

Peter

Date: 10 Dec 93 22:43:42 EST
From: Richard Nantel <72704.3003@CompuServe.COM>
Subject: Kudos and carbonation

Kudos to all members of HBD. After three weeks on the net, I'm amazed by the quality of this digest. It has become my primary source of info on homebrewing.

One question. I'm having carbonation problems. The traditional 3/4 cup priming sugar per 5 gallons (for most beer styles) produces different amounts of carbonation in different batches of beer. My latest is an all-grain pale ale (a variation of Papazian's Amazeing Pale Ale) which, although delicious, is slightly overcarbonated for the style. Also, this batch reached carbonation in a mere 7 days.

Other recipes (using the same type yeast) produce beer with about the same final SG and level of alcohol and will, although primed with the same 3/4 cup per 5 gal ratio of priming sugar, take much longer to carbonate. In fact, some may never reach a high enough level of carbonation. Others have become greatly overcarbonated after 3 months in the bottle. The temperature here is a steady 73%. What's up? (I'm not interested in kegging.)

Richard Nantel
Montreal, Quebec
Canada

PS. Correction to my posting in HBD 1294. Molson produces XXX at 7.3% alcohol. Not Labatt. Also, due to public pressure, they've raised the price of this high-potency brew to discourage the cheap-fast-drunk crowd.

Date: Sat, 11 Dec 1993 00:09:58 -40975532 (CST)
From: "J. Andrew Patrick" <andnator@genesis.Mcs.Com>
Subject: Re: AOL: Censorship

Mr. Craig Goldwyn,

I dont think the readership of HBD is going to be very sympathetic to you telling them that they are not a reputable source of information about brewing. Which is what you just did, considering that much of the info about Jim Koch and the Boston Brewing Co that you considered "libellous" and deleted from the AOL Beer Forum was originally posted on the HBD!!

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+-----+-----+-----+
| Sysop      | Andrew Patrick | Founder |
| Home Brew Univ | AHA/HWBTA Recognized Beer Judge | Home Brew Univ |
| Midwest BBS   | SW Brewing News Correspondent   | Southwest BBS  |
| (708)705-7263 | Internet:andnator@genesis.mcs.com | (713)923-6418 |
+-----+-----+-----+
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Date: Fri, 10 Dec 1993 22:51:29 -0800
From: mfetzer@UCSD.EDU (The Rider) (Michael Fetzner)
Subject: re: EKV-28

People people people!!!

Eku 28: Erste Kulmbacher Unionsbrauerei, 28 degrees plato original gravity.

Not an icebock, at least they say it is not, and it is not billed as such.

Very strong, with a vinous characteristic that's present in some barley wines, but not to such a degree.

Not a beer to have with your burger at lunch... it's a 'desert beer', just like there are desert wines. Have it with some icecream?

Everything has a place and a time, and at the right time and in the right place EKV 28 is the perfect beer. If we're going to throw out EKV 28 as vile, we have to get rid of a whole slew of beverages that are not intended for mass consumption.

Beer, it's not just for breakfast any more! EKV 28, it's just not for breakfast.

:*)

Mike

--
Michael Fetznerpgp 2.2 key available on request
Internet: mfetzer@ucsd.edu uucp: ...!ucsd!mfetzer
Bitnet: FETZERM@SDSC
HEPnet/SPAN: SDSC::FETZERM or 27.1::FETZERM

Date: Fri, 10 Dec 93 22:00:16 CST
From: philb@pro-storm.metronet.com (Phil Brushaber)
Subject: HBD Reader

Like many of you, I get HBD sent to me in one huge file. Even when I used to get it through a PCBoard BBS, It would get broken down into three large files.

I'd like it to be easier to respond to individual notes within a given day's HBD. Anyone have any experience with a good reader for HBD? Since this is modestly on subject, private mail is welcome. TIA Phil

- -----

Internet: philb@pro-storm.metronet.com
UUCP: metronet.com!pro-storm!philb
Bitnet: philb%pro-storm.metronet.com@nosc.mil

Date: Sat, 11 Dec 93 09:11 CST
From: "Leslie G. Hunter" <KFLGH00%TAIMVS1.BITNET@TAIVM1.TAIU.EDU>
Subject: .

set Leslie Hunter nomail

Date: Sat, 11 Dec 1993 11:51:23 -0500 (EST)
From: "THE FOURWHEELIN' 'TALIAN WANNABE JOKEMEISTER." <AD75173%LTUVAX.
bitnet@CUNYVM.CUNY.EDU>
Subject: Re: Murphy's Irish Stout.

I, too just purchased a can of this beer. I was intrigued by the "pressure system". I saw the posting about it on the last HBD, and decided to take a closer look. Sure enough, I saw the plastic insert. I opened the can from the bottom with the tap of a pointed object (learned from my father to save cans for a beer can collection) and I can see some plastic apparatus near the bottom. That's all I know..

Might as well get insight on something I've been trying:

I got into winemaking before homebrewing, but it takes too long to make wine, so I'm into making beer now, too. Anyway, a recipe for sparkling wine says to prime it with corn sugar when it's done, and put it in 2-liter plastic bottles. When the yeast settles out, one can siphon the wine off it and into champagne bottles. But this would lose carbonation, right? Well, the recipe says to chill the wine till ice starts to form. In school I learned that cold liquids effervesce less, so this makes sense. QUESTION: has anyone tried this with beer? The first time I tried it, I didn't chill it enough, and lost quite a bit of carbonation.

Aaron Dionne
Lawrence Technological University
Southfield, Michigan

Date: Fri, 10 Dec 93 13:49:21 MST
From: npyle@n33.stortek.com
Subject: Dream Tun

My dream tun is beginning to take shape, with suggestions from various HBDers.

I'm currently thinking of a SS half-barrel keg, insulated somehow (cedar boards?). I would install a pipe fitting near the bottom with a manifold in the tun. The manifold will probably be a set of pipes with holes or slots in them, facing down. It will be a dual purpose manifold: 1) steam injection, and 2) liquor draining. The holes nearest the fitting will be smaller than the ones farther away; an attempt to create an even flow of steam from all holes (this could be more work than its worth, requiring lots of trial and error). The steam injection will be the only method for heating the tun, there will be no direct fire. This should serve quite well as a mash/lauter tun for simple infusion and step-mashes. I expect to have to stir the mash during temperature increases, but not during rests as it will be insulated.

The other dual purpose vessel I would need is a hot liquor / steam generator tank. This would be direct propane fired. It could be used to heat the strike water at the start of the mash. Then the temperature would be turned up for boiling and the steam piped over to the mash tun for step mashes. It would need to be able to be closed tightly and would need an outlet at the top for steam and another at the bottom for draining the hot water. I don't expect much pressure to build up, as the only back pressure would be the weight of the mash, but I would install a pressure relief valve in case of operator error. I would need a valve between the steam outlet and the manifold because during draining, it would draw air in as the wort passed by the "T". It would be nice if this thing was insulated as well for efficiency. I think this could be a quarter barrel keg, or a soda keg with the rubber removed.

Any ideas on where to purchase these kegs? Am I loony? I could do without all the standard warnings about steam, pressure, etc. I know how dangerous it is. I wouldn't build this thing if I thought it couldn't be done safely. I would appreciate any comments on the ease / difficulty I will have in doing something like this. BTW, this will all be gravity fed: hot liquor tank, mash/lauter tun, boiler, fermenter. One big drawback is that the hot liquor

tank will be a good 7 or 8 feet high (to the top of it). The other option is a pump which will push hot water up a few feet (the steam will take care of itself). Comments?

Cheers,
Norm

Date: Sat, 11 Dec 1993 16:43:09 -0500 (EST)

From: G1400067@nickel.laurentian.ca

Subject: Northern Lagering Methods

Hello,

I have a friend who has a cottage on the French River in Northern Ontario. He has been talking about brewing a lager for a long time now, but he does not have access to a fridge to accomodate the required lagering temperatures. Recently, he came up with a pretty unique idea for lagering, without the use of a fridge, but I'm not sure that it's going to work, so I need some advice. He is going to do a full mash and rack of the cold break into a glass carboy. The carboy is going to be sealed up in plastic and placed carefully into the river just before ice-over. The theory here is that once the river freezes, the water temperature below the ice will be at 4 deg. C. This sounds pretty good for cold fermentation. He intends to leave the carboy in the river until ice-out in the spring. He also seems pretty confident that the carboy will not break at any time during this process. There is little to no current which runs at his "brewing" location. I was skeptical to say the least, but for no good reason that I could think of. What am I missing?

Greg Pyle
g1400067@nickel.laurentian.ca

Date: Sat, 11 Dec 93 17:21:12 EST
From: CARBACIO@ROO.DNET.ICD.Teradyne.COM (Dave)
Subject: Looking for Commonwealth Brewery's Porter

ISO a great Porter recipe! I'd like to know if anyone can help me duplicate a Porter I experienced at the Commonwealth Brewery, in Boston. I attended a banquet there about three years ago and had this black beauty served. This was before I was into brewing my own, but recall it being light bodied, medium hopped, and well balanced. If anyone has this recipe I'd appreciate a copy. Happy brewing!

Date: Sat, 11 Dec 93 16:11:06 EST
From: chuck@synchro.com (Chuck Cox)
Subject: Starve a lawyer - boycott Sam Adams beer (long)

Since there is renewed interest in Jim Koch's legal shenanigans, I though some of our newer subscribers might be interested in reading about my encounter with Koch's rabid lawyers.

Last year I was subpoenaed in relation to his lawsuit against the Boston Beer Works. They claimed it was because I had offered to testify as an expert on behalf of the BBW (I wrote a letter to the BBW attorney stating my opinion but it was never used). However it became clear that they were upset about some unflattering (but factual) postings I had made about Koch to the net, most likely the HBD.

They subpoenaed me and all of my personal correspondence and written materials related to the litigants in Koch's various lawsuits. As it turns out, the subpoena was quietly dropped when I told their lawyers that while I would challenge the disclosure of personal correspondence, as a master beer judge and brewing instructor I would be glad to be deposed as to the facts of any of my public statements about any of the litigants.

Koch's habit of taking legal action against his critics is generally a successful strategy because most folks are too spineless to stand up to him. This time it backfired because not only did I fight, I exposed his tactics to thousands on the net and challenged him to let me testify.

For the record, here are some of the facts that Koch doesn't like folks to know:

Sam Adams Boston Lager was designed by brewing consultant Joseph Owades.

Joe even wrote a paper about it.

Koch is not the father of the microbrewery revolution. He is a contract brewer who got started years after the revolution had begun. Until he opened a small pilot brewery in Boston a few years ago, all of his beer was brewed under contract. Even today the vast majority of his product is contract brewed at distant regional breweries.

His antics caused the GABF to eliminate the popularity poll. Subsequent misbehaviour caused him to be kicked out of the festival. Koch only got back in by threatening to sue. In various ads he has misrepresented his GABF awards.

He is being sued by New York state for fraudulent advertising.

Here is a list of organizations that he has sued or threatened to sue (there may be more):

Boston Beer Works
Commonwealth Brewing Company
Boston Brewers Festival
Great American Beer Festival

By the way, I am told that he has lost his latest appeal in his lawsuit

against the BBW. The only remaining appeal would be to the supreme court who has never heard a trademark infringement case.

In my opinion, his lawsuits are frivolous. As numerous judges have made perfectly clear, he does not and cannot own the word "Boston". His continued litigation proves that he is abusing the legal system in order to intimidate his competition and critics.

In my opinion, Koch is behaving in an unacceptable manner. I continue to encourage beer lovers to avoid Sam Adams products because the profits are used to the detriment of the brewing renaissance. As I like to say, "Starve a lawyer - boycott Sam Adams beer".

Here is a copy of the message I posted at the time:

```
> From hbd Tue Dec 15 06:12:45 1992
> Date: Mon, 14 Dec 92 15:25:13 EST
> From: chuck@synchro.com (Chuck Cox)
> Subject: Subpoena
>
> Well, I was served an interesting document the other day...
>
> =====
==
>
> United States District Court
>DISTRICT OF MASSACHUSETTS
>
> BOSTON BEER COMPANY LIMITED PARTNERSHIP,
> d/b/a THE BOSTON BEER COMPANY
> V.
> SLESAR BROS. BREWING COMPANY, INC.
> d/b/a BOSTON BEER WORKS
>
> SUBPOENA IN A CIVIL CASE
> CASE NUMBER: 92-10865-K
>
> TO: Charles Cox
>Synchrosystems
>44 Western Ave (wrong address!!)
>Cambridge, MA 02139
>
> YOU ARE COMMANDED to appear ...
> at the taking of a deposition in the above case.
>
> YOU ARE COMMANDED to produce and permit inspection
> of the following documents ...
>
> Any written correspondence or other documents in your possession which
> refer, relate or allude to Boston Beer Company, Boston Beer Works, or
> Commonwealth Brewing Company and/or any persons connected with Boston
> Beer Company, Boston Beer Works or Commonwealth Brewing Company.
>
> (signed) Richard A. Savrann, Esq.
>
> =====
==
>
> As some of you may recall, I wrote a letter to the BBW attorneys this
> summer expressing my opinion about this trademark infringement
nonsense.
> While the letter was never used, the BBC attorneys found out about it
by
> reading my postings to the net, and now they want to see it.
```

>
> While issuing the above subpoena is perfectly legal, I think it is also
> indicative of how absurdly litigious Koch & Co have become.

>
> FYI: The above case is an appeal to the original trademark infringement
> case which BBC lost. They are also suing the CBC for using the word
> 'Boston' on their labels.

>
> Here is a copy of the letter that has them so worried...

> =====
==

>
>5 June 1992

>
> To whom it may concern,

>
> In my opinion, consumers will not be confused by any
> similarity between "Boston Beer Works" and "Boston Beer
> Company". "Boston Beer Company" is not widely known by
> consumers, since most identify their products as "Samuel
> Adams". In addition, "Boston Beer" is a generic phrase and
> is part of the name of a variety of businesses,
> organizations and events in the Boston area.

>
> Sincerely,

>
> Charles Cox

>
> BJCP Master Beer Judge

>
> Member - Boston Beer Society

> =====
==

>
- --
Chuck "Boston Beer" Cox <chuck@synchro.com>
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

Date: Sat, 11 Dec 93 17:35:08 EST
From: ulick@michaelangelo.helios.nd.edu (Ulick Stafford)
Subject: misc. answers

Brett Charbeneau wonders how to log into sierra.stanford.edu. When asked for a user name respond ftp, and when it asks you for a password as your complete email address respond r@ . The @ automatically appends your site address. If you are up to no good respond with the address of someone you don't like :-)

Dennis Lewis has loitering problems. Perhaps a procedural change would help.

Try laeuterer very slowly especially at the start. This allows the bed to settle nicely and filter better and not compact. I find that the most effective thing that I did to speed up my sparges was to slow them down!

Unfortunately it reads as if Matthew Bohne has a nasty contamination problem.

Ring around the neck and gushing has got to be a nice ... em .. ococcus infection or something.

Someone (oops can't read my own writing) asks about Murphy cans. If you cut open the can you will find that it contains a cylinder with a small hole. If you try popping open the cylinder it will go pop and part will go flying across the room. Unless you want your next phone call to be to an eye specialist or ambulance chasing attorney wear a pair of safety goggles while doing this. The container cotains nirogen under pressure that leaks out through the hole when the can is opened and stirs up the froth nicely. This device is patented by an English firm, I think, and is a cumbersome way of countering Guinness' more elegant device without a patent infringement.

I loved Mark Bunster's AB busting story. When I went to the park, I didn't even know that there was a brewery there. And I like Kulminator. Who was it told the great story a while back about being at a restaurant with a large group from work? When he saw that they had good old EKV 28 on the menu he ordered a bottle. The rest of the group knowing him to be a beer connoisseur followed suit. I believe the repsonse was what one would expect!!

'Heineken!?! ... F#% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

 Pabst Blue Ribbon!' | Notre Dame IN 46556
 | ulick@darwin.cc.nd.edu

Date: Sat, 11 Dec 93 13:57:33 PST
From: Bob <TATTERSH@WSUVM1.CSC.WSU.EDU>
Subject: Non-alcoholic beer

In response to the December 9, 1993 posting by GNT_TOX_%ALLOY.
BITNET@PUCC.PRINC
ETON.EDU regarding non-alcoholic beer:

In September I brewed my first batch of non-alcoholic beer. Essentially I copied a recipe from Papazian. With a few ingredient alterations to his Righteous Real Ale, the procedure is as follows:

On Day 1, boil the malt extract in 2 gallons of water, using Irish Moss as a settling agent for the final 15-20 minutes. Without adding any hops in this initial boiling, cool after a 30-45 minute boil using whatever cooling method you prefer. Pitch yeast in your usual fashion once you have added the necessary amount of water to equal 5 gallons.

On Day 12, or whenever you are certain fermentation is complete, siphon the fermented "beer" into a 8 gallon pot. Bring to a rolling boil. Add hops in the usual time frames. For my batch I added hops at the 5 and 55 minute marks. Irish Moss is added at the half hour mark. The alcohol boils off at 178 degrees F. Once the beer has reached a rolling boil stage, you can be certain that the alcohol is in the air in your house. Therefore keeping the windows open or your exhaust fan on high is essential or you will inhale some of the alcohol you are trying to avoid in the beer. Cool the beer, then siphon into a priming tank. I strain out the spent hops by personal choice.

On Day 13, after the beer has once again settled, add 1/4 cup yeast, 1 cup corn sugar, and a settling agent if desired. It should be noted that live yeast must be added at this point, since boiling from several days before kills the yeast from the fermentation process. 1/4 cup yeast might be a bit much and in a later batch I used just over 1/8 cup and achieved good results. I harvested yeast from the previous batch in this case, but yeast gathered in any fashion accomplishes the task. Then I bottled the beer.

About 2 weeks later I tried my concoction. It was very good. In this first batch I had not considered how much water I was also boiling off, so I only bottled

ed about 4 resulting gallons of beer. In a second batch of non-alcoholic beer I added a gallon of water after the second boil to make up for the water lost. Of course, I boiled the extra water first to rid it of oxygen before adding it to the now alcohol-free beer to avoid contamination.

I realize that the shelf life on my non-alcoholic beer should be shorter than one with alcohol since no alcohol remains to act as a preservative. However, the hops should assist in preservation at least to some degree.

The other beer I made was a porter, with Williams English Dark extract. The same good results occurred. A number of people have tried both non-alcoholic beers and pronounced them at least good. I made companion batches with the same ingredients, but with the alcohol remaining, just to see if there would be a difference in taste. The only difference seemed to be in the subtle taste of alcohol in one beer and not in the other. Other than this, my alcohol-free beers taste remarkably similar to the companion batches that have alcohol.

I am also quite certain that no alcohol remains since the porter with alcohol has as a 5% rating. One porter has an obvious kick while the other one has none at all. The most obvious compliment I have received (and by everyone who has had one of my non-alcoholic beers) is when they ask if I am sure that there is no alcohol. Except for the tiny amount generated by the yeast fermenting the corn sugar in the priming tank, the answer is yes. I have however, felt an interesting dullness around my temples after imbibing a non-alcoholic beer of mine which I attribute possible to the sedative nature of the remaining hops. Usually the effects of hops are hidden by the alcohol in one's beer. Not being a chemist, however, I have no idea if this last statement is correct.

While I am responding to the 12/9/93 request, I would welcome any thoughts on my process from members of the HBD. I have only been brewing beer for 3 years and as you can tell I am an extract brewer. The more advanced chemistry that occasionally appears within the HBD is somewhat beyond me, but I enjoy brewing nonetheless. My foray into non-alcoholic beers occurred at the time of my wife's pregnancy so that she could continue to have a "beer" on occasion. And I did want one myself from time to time and cannot stand the commercial attempts at this style.

Two other notes: I used liquid yeast originally in the batch from which I harvested yeast for the non-alcoholic beers and I have yet to try a lighter flavored and colored beer with this process.

Date: 11 Dec 93 19:19:54
From: bwchar@mail.wm.edu (Brett Charbeneau)
Subject: FTP-ing from sierra.stanford.edu

To all that sent messages aiding me in FINALLY being able to FTP some files from the HBD archives, a very big thank you! I am grateful for all the kind words and encouragement.

For the record: I was Telnet-ing when I should have been FTP-ing. Duh....

Brett Charbeneau P.O. Box 1776-MHW
Williamsburg Imprints Program Williamsburg, VA 23187
Colonial Williamsburg Foundation Tel: (804) 229-1000
INTERNET: bwchar@mail.wm.edu FAX: (804) 221-8948

Why is it that the pioneers always have arrows in their backs?

Date: Sat, 11 Dec 93 18:38:52 CST
From: jpierson@csinc.mn.org (Jim Pierson)
Subject: neon beer signs

Does anyone have neon beer signs or
other beer related "stuff" that they
are wanting to rid themselves of for
a reasonable price?

Date: Sat, 11 Dec 1993 17:18:31 -0800 (PST)

From: Jim Posey <dodger@quack.kfu.com>

Subject: Aluminum for boil only OK?

Will I impart off flavors, or worse, kill, my new brew if I use an aluminum pot to pre-boil and cool water to go into the carboy that will be mixed with the fresh wort?

Just thought I'd ask after I did it without a thought. (duh)

Hoping, Jim Posey

Date: 11 Dec 93 19:22:59
From: bwchar@mail.wm.edu (Brett Charbeneau)
Subject: Brewpots: kegs or REAL stock pots?

I have seen 24-quart stainless-steel stock pots for sale recently for as little as \$70 (sans lid, mind you). I *have* been considering converting a keg into a brew pot, but at this price I am sorely tempted to just take the plunge.

Does anybody have any thoughts about my keg vs. pot quandry?

Brett Charbeneau P.O. Box 1776-MHW
Williamsburg Imprints Program Williamsburg, VA 23187
Colonial Williamsburg Foundation Tel: (804) 229-1000
INTERNET: bwchar@mail.wm.edu FAX: (804) 221-8948

Why is it that the pioneers always have arrows in their backs?

Date: Sat, 11 Dec 93 22:18 CST
From: arf@mcs.com (Jack Schmidling)
Subject: Happy Customer

>From: STROUD%GAIA@leia.polaroid.com

>BTW, I am sure that you are right that a larger hopper hole would increase the throughput on a MaltMill, but we tested it as manufactured.... Does it really make any difference in the length of my brewday if I spend 2 vs 3 minutes crushing grain??

I certainly didn't intend to antagonize a happy customer and I appreciate your comments. I just thought it was useful to point out that the capacity for high volume milling is built into the MM whether it is needed or not. A substantial number of MM customers are brew pubs, small breweries and grain retailers who crush a great deal of malt and throughput is very important to them.

>From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>

>Anyone know of a good way to make non-alcoholic beer. I have a friend at work who doesn't drink, and I was wondering if any of the great beer styles of the world can be brewed without alcohol.

Here is my semi-annual posting of my thoughts on the subject....

NON-ALCOHOLIC BEER

Jack Schmidling

Everytime I mention NA beer, people give me funny looks and ask questions like, "why would anyone want to do that to homebrew?"

Having been a victim of my hobby some years ago, I drank nothing but Kingsbury for almost 10 years. The thought of going back to that is all the motivation I need. I have been limiting myself to one 16 oz glass of beer, per day for a couple of years and I no longer consider myself a recovering alcoholic.

However, making beer is so much fun and homebrew tastes so good that rather than cheat, I have been experimenting with making NA homebrew and have come with a process that works, is simple and most "experts" can't identify what is missing.

The basic process makes a one gallon batch for the skeptical but can be scaled up to any size.

When you have your next batch ready to bottle, syphon off

one gallon before priming. Put this in a kettle with (2) tablespoons of sugar and bring the temp up to 170 F with the lid off, hold it there for 15 min. Let it cool, uncovered until the temp gets below 150 F. Then cover it and cool it to room temp as quickly as possible. You can put it in a sink with running water.

When room temp, add 1/8 tsp yeast. I used EDME yeast but I presume that any yeast will do. However, all bets are off if you use Red Star. Let it sit for a while to dissolve and disperse, then stir well with a sanitized spoon.

Pour the brew into your favorite bottles and cap. It is a good idea to include at least one plastic bottle to monitor carbonation. When the plastic bottle is hard, refrigerate them all. This usually takes no more than a few days at room temp.

If you are set up for kegging, it is even easier. Just heat up 5 gallons as above, keg it when cool and force carbonate it.

You can also experiment with adding hops during the heating step. I don't particularly like the results but I am not a hops freak.

What does it taste like? You'll have to try it yourself to find out. However, I would say that it has a slight hint of a "cooked" taste. This taste can be totally masked by the addition of a pound of roasted barley in an all grain beer or whatever you do to make an extract beer taste like stout.

This beer improves dramatically with age. If you can refrigerate it for a month or two before drinking, all of the off flavors will go away and you will be hard pressed to believe it is what it is.

Jean Hunter at Cornell has tested a sample on a gas chromatograph and says it contains around 1.3% alcohol. This can not legally be called NA but it solves my problem completely. It is below the threshold that drives me to continue drinking.

More recently I have done some additional experimenting and think I learned the secret to very low alcohol. It is not some exotic yeast or process, it is simply diluting the beer with water.

After "cooking", I simply add an equal volume of water (previously boiled) and keg as usual. The result is an NA that is still amazingly good compared to the industrial stuff (NA or otherwise) and half the calories and alcohol compared to just de-alcoholizing the beer. Any off flavors from cooking will also be reduced in half. If you don't like 50:50, use what ever suits you.

js

Date: Sun, 12 Dec 93 07:18:57 EST
From: brewerbob@aol.com
Subject: HopTech Fruit Extracts

A question was asked about the fruit extracts from HopTech.

I have received the cherry and the raspberry extracts but I have not used the raspberry yet (the wheat beer is nearing completion as I type this note, another few days!).

I used the cherry flavor in a bock beer that is still in lagering but old enough that I was able to sample one the other day. I am very pleased with the flavor it imparts but I offer a suggestion that I should have known myself before I bottled.

I used the amount suggested by Mark Garetz (HopTech) for five gallons. The flavor is there but it is less than I was looking for. In a lighter beer, it would probably be fine but in a bock with a "higher than average" hopping rate, it is less than desired.

I suggest that you use your own judgement and put more than the called for amount in a darker beer and less, perhaps, in a lighter beer. The instructions advise testing first by using drops of extract in a glass of beer but I ignored that! (When all else fails, follow the directions!)

In any case, the stuff is great and it is easy to use. Try it, you'll like it!

BrewerBob in St. Augustine, FL; charter member of the Northeast Florida Society of Brewers (the SOB's)

Date: Sun, 12 Dec 1993 08:16:20 -0500 (EST)

From: Andy Kurtz <ak35+@andrew.cmu.edu>

Subject: Beer Archaeologists

Michael Jackson has a really nice piece in the newest Zymurgy (winter '93) on the Durden Park Beer Circle. This is the London-area group dedicated to the preservation of old beer recipes and brewing methods. Anyway, Jackson concludes the piece with a plug for a booklet the group puts out called "Old British Beers and How to Make Them." The address given, of course, is in England (Berkshire, to be exact). I was wondering if anyone knows if the booklet is available stateside?

Also, has anyone heard of people doing the same sort of work in the U.S.? I know there are several books on brewing history but has anyone done any archival research into actual recipes? It would probably be a difficult project to undertake, with prohibition putting so many breweries out of work (Pittsburgh had hundreds of neighborhood breweries before the crackdown). But, for that, it would be all the more interesting. I know that the tiny town I grew up in (2500 people in rural Ohio) had its own brewery until just about the turn of the century. I wonder what their swill tasted like?

ak

Date: Sun, 12 Dec 93 15:11:15 +0100
From: dejonge@tekserv.geof.ruu.nl (Marc de Jonge)
Subject: EKU

in HBD#1295 Rob Reed writes:

> I just wanted to set the record strait on EKU Kulminator. Actually
> '28' refers to the number of pounds of malt that are used per
> 1 liter serving. This works out to be about 1.49 metric tons of
> malt per barrel. This explains the intense maltiness and the high
> alcohol level - 198 proof if memory serves me correctly.

No this is not correct, it is over 200 proof, that's why you must
freeze it, to squeeze more alcohol molecules alongside in the bottle.

> It is used as a gasoline substitute in many European communities.
Come on man, everybody in europe knows that gasoline drinking is for
schoolgirls only.

> It is recommended that you wear a wrist or ankle grounding
> strap while you are pouring or drinking this beer to minimize
> the chance of a spark induced fire. Just a data point...

The new EEC regulation 314159265.359 (sub a) requires using a flexible
rubber tube attached firmly around both the drinkers neck and the
rim of the glass to prevent dangerous fumes escaping into the
environment.

ObBrewing: Just got a sample of 'de Koninck' brewing yeast, report will
follow in a few weeks...

Marc de Jonge dejonge@geof.ruu.nl
Utrecht University, Geophysics dept, Utrecht, the Netherlands

Date: Sun, 12 Dec 93 11:57:00 -0600
From: phil.brushaber@lunatic.com (Phil Brushaber)
Subject: Just The Yeast, Man.

I have been pitching yeast from the sediment collected from previous batches for some time. Right now I have a Pilsner (using Wyeast Pilsner 2007) fermenting. It seems to have a little more trub in it than usual.

I have been collecting the spent sediment from the bottom of the primary and pouring it into a sterilized Mason jar. After a short period of refrigeration the liquid kinda forms three layers: 1) Brown old beer, 2) White Yeast, 3) Tan Trub.

It's easy enough to pour off the old beer and keep the remaining sediment... HERE'S THE QUESTION. Assuming that you don't want to pitch all that old trub.

How do you syphon off/separate just the yeast?
Any thoughts, techniques?

- --> Phil Brushaber, Dallas

... (C) Footjoy Brewing: Home of Shoe Brew!
___ Blue Wave/QWK v2.11

- ----
=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*
=*=*=*
The Lunatic Fringe BBS * 214-235-5288 * 3 nodes * Richardson, TX* 24 hrs
UseNet, ILink, RIME, FIDO, Annex, Inteltec, LuciferNet, PlanoNet, and
more!
=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*=*
=*=*=*

Date: Sun, 12 Dec 93 14:56:59 EST

From: lanbrew@aol.com

Subject: Dealing With Plastic Extract Bags

As a teacher of brewing classes, I use a lot of Northwestern extract. It is inexpensive and quite good. The easiest method I have found for dealing with the bag is to heat the brewing water and use specialty grains, if applicable.

When the water is hot or the grains are removed, slit the bag (hold it over the brewpot) in several places with a sharp knife and drop it into the water.

Please be sure that you turn the heat off before you do this. Stir the bag, extract, and everything around for a few minutes, retrieve the bag with your spoon, and you are done. The water will have washed all but a tiny amount of extract out of the bag. This is quick, easy and effective.

Lanny

Date: Sun, 12 Dec 1993 14:18:00 -0500
From: carlo.fusco@canrem.com (Carlo Fusco)
Subject: Wanted: Canadian Brewers

MEMBERSHIP INFORMATION - THE CANADIAN AMATEUR BREWERS ASSOCIATION

WHAT IS CABA?

The Canadian Amateur Brewers Association (CABA) is a Federally Incorporated non-profit organization whose purpose is to promote homebrewing as an enjoyable hobby through educational publications, events, and other activities.

HOW CAN CABA HELP ME?

The Canadian Amateur Brewers Association is dedicated to improving the skills and knowledge of its members. Members are invited to participate in the special events organized including the annual conference, frequent competitions and special seminars.

For less than the savings from a single batch of homebrew, you can enroll in the only national club in Canada which will help you brew better beer.

THE BENEFITS OF JOINING CABA

Newsletter every two months
Annual Conference
Annual Spring Competition Fall Competition
Judge training/Tasting seminar Discounts at retailers
Members Forum

A greater variety of regional activities across Canada will be planned as CABA's membership increases.

For more information write or phone CABA at:

CABA
19 Cheshire Dr.
Islington, Ontario
M9B 2N7

Phone/Fax: 416-237-9130
Compuserve: 71601,3357
Internet: carlo.fusco@canrem.com
ligas@mcmail.cis.mcmaster.ca
Fidonet: Carlo Fusco at 1:229/15

- - - -
* Freddie 1.2.5 * email: carlo.fusco@canrem.com Sharon, Ontario, Canada

Date: Sun, 12 Dec 93 16:41:07 EST
From: abaucom@fester.swales.com
Subject: lagering...

Can someone explain true lagering??? Specifically, what part of the fermentation should be done at cold temperatures. Here is what I've done so far...

- 1) made ~3/4 quart starter from 4 month old Wyeast Calif Lager slurry that I saved from a previous batch in August.
- 2) The starter took about 36 hours to get cranking but It smelled and tasted fine so I went ahead and pitched into a cooled (~70F) batch.
- 3) Now, I let it stay in the house until the batch was cranking (~20 hours) and there was 1.5 inches of kreusen (using a 7gal carboy w/5 gal batch). The house is about 60F.
- 4) Next I moved the batch to the garage which was around 48F degrees.
- 5) Since then the temp in the garage has dropped to about 38F and the fermentation rate (airlock clicks) has slowed way down (30 sec). The batch is now 3 days old and there is still some kreusen on top. I have kept the carboy close to the wall of the house and have been monitoring the temp closely. I also have a form fitting styrofoam container that I'm keeping it in so any change in temp should be slow. (all appears normal, albeit slower)

(Of course I didn't research true lagering before I made this batch, that would make too much sense! ;^)

My question is this...

Should the primary fermentation be done at temps higher than those I am using and then keep the secondary cold for a few weeks/months?

(not that I have any real control over the temp! other than the sacrificial cold-beers I drink to appease the cold-weather God)

Any input on this subject would be greatly appreciated! :*)

Thanks,
Andrew

+-----
-+
| Andrew W. Baucom Phone: (301) 572-1327
| Swales & Associates, Inc. FAX: (301) 595-2871
| 5050 Powder Mill Road "Soon, the whole world will know the
| Beltsville, MD 20705 joy of my nipples!" - Stimpy
| abaucom@fester.swales.com
+-----
-+

Date: Sun, 12 Dec 1993 20:46:23 +0500 (EST)
From: "David M. Fresco" <fresco@gibbs.oit.unc.edu>
Subject: A Dock Street copy recipe?

Greetings,

I'm interested in making some homebrew that resembles Dock Street.
Preferably, this recipe would include malt extracts and speciality grains
(rather than all grain). Please send recipes to: fresco@unc.edu

Thanks in advance.

```
=====
= David M. Fresco =
= Department of Psychology =
= CB#3270, Davie Hall ___o =
= Chapel Hill, NC 27599/<, =
= Internet: fresco@unc.edu `,'(*) =
= fresco@med.unc.edu (*) . ./"" =
= Voice: (919) 962-5082"""" =
= Fax: (919) 962-2537=
=====
```

End of HOMEBREW Digest #1296, 12/13/93

Date: Sun, 12 Dec 93 20:04 CST
From: XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU
Subject: Mead questions

Dear Brewers,

My fiance asked me about three weeks ago whether I had any plans to brew a mead for our honeymoon, and I thought the idea was great. So I consulted with Papezian and chose his recipe for the Barckshack Ginger Mead, adding razberries (sp?) and refraining from additional spices, like lemongrass or cinnamon. I adjusted the measurements for a 2 gal batch, rather than the standard 5 gal.

I'd brewed a mead once before - it was a recipe I'd received from this forum called something like "quick mead" which was supposed to be ready within a month... It wasn't! At least as far as the taste went.. But then again, that was my first batch. I've been brewing beers for about four years with some really quite good results - and some dismal failures (some may remember my troubles with an atrocity I named for the flooding of Chicago: "Chicago Tunnel Water"). So anyway, here are my questions for mead enthusiasts:

The mead is now racked into 2 1gal. bottles (one is full to the neck, the other about only 1/2 full). OG: 1.055; SG @ racking: 1.010. The taste before pitching was exquisite, with an almost perfect balance between the honey, ginger and razberries (about a pound of those) However @ racking, the fermentation seemed to have hurt the flavor, with an off flavor best described as like A & D Ointment! The "bouquet" seemed to have soured as well, offering a smell more like ripe yeasties (like when we clean our carboys after bottling). Is this normal and/or will these flavors mellow and balance within a few months? That's question #1.

Question #2 is: After I racked to the secondary vessels and fixed them with fermentation locks, I brought these tanks to the basement storage area to ferment, settle and clarify for another month or so before I bottle. But there are hot water pipes that run through the storage room and do give off some heat (I'd estimate that it's a steady 80F though I've not yet monitored the temperature). I don't think it's too threatening to the brew, but just to be sure, what is an acceptable temperature range for meads in the secondary?

Thanks in advance for any and all responses, which can also be emailed to me at xlpsjgn@luccpua.it.luc.edu or to catfishjon@aol.com.

Whew! that's good brew!

John

Date: Mon, 13 Dec 1993 07:29:44 -0500
From: mgx@ornl.gov (Michael D. Galloway)
Subject: Yeast Farming/Ranching

I've got a quick question regarding yeast ranching. I've been ranching yeast for a year or so now using the kit from BrewTek but I'm still a little confused about one subject: what is the best (optimal) way to go from a yeast collected from a bottle to a plate (to isolate a single colony) to a slant? I've sort of got down the part going from the bottle to the plate, but what do you do with the single colony off the plate? I'd like to build up a decent slant to share with my friends. Thanks ...

michael

Date: Mon, 13 Dec 93 11:31:47 GMT
From: David French <david_f@s3dub.ie>
Subject: Murphys pressure device

As far as I can see the plastic insert in the Murphys can releases a stream of gas bubbles through the liquid when the can is opened and "dunked".

As an Irish person originally living a mile from the Murphy's Brewery the difference between the new pressurised can and the real thing from a pub tap is very slight.

David F

Date: Mon, 13 Dec 1993 08:19:36 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: Murphy's DraughtFlow System

Guinness also offers these in their Pub Draft cans; "like a keg, but easier to carry" say the ads.

I dunno how they work, but I regard it as the natives viewed the thermos ("How does it know if the drink is hot or cold?"), or as Arthur C. Clarke said, "any sufficiently advanced technology is indistinguishable from magic."

Paul Beard
AT&T Tridom, 840 Franklin Court, Marietta, GA 30067
404 514-3798 * FAX: 404 429-5419 * tridom!paul.beard/beardp@tridom.com

Date: Mon, 13 Dec 1993 08:34:41 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: boiling specialty grains

boiling specialty grains
Steve Tollefsrud steve_t@fleurie.compass.fr writes in #1295:

>3. When/How to Add Specialty Grains: I plan to make the following
extract based stout:

- 4 lbs. Muntons Dark Malt Extract Syrup
- 4 lbs. Muntons Light Malt Extract Syrup
- 1/2 lb. Crushed Crystal Malt
- 1/2 lb. Crushed Chocolate Malt
- 1/2 lb. Black Patent Malt
- (1 lb rolled oats ???)
- 1 oz. Northern Brewer Hops (30 min.)
- 1.5 oz Hallertauer loose Hops (dry, in the primary)

>None of my homebrew info sources explain when/how to properly
use specialty grains for an extract based brew.
In the past I've just tossed my grains in at the beginning of the
boil and boiled the hell outta them for an hour. Those batches
were VERRRY bitter, though I'm not sure if it wasn't the Northern
Brewer (2 oz, loose) which I was trying out at the same time.
Should I not let the grains get more than 150 degrees F, as in
mash conversion? Should I add them after the boil, below a certain
temperature, and let them steep. What temps? What times?
Thanks again,

steve, as a fellow extract brewer (2 batches so far) I can tell
you not to boil the hell outta the speciality grains, as you'll
suck the tannins from the husks, contributing to quite a bitter
tang. Much like overbrewing a dark tea, it's not something
you wanna do.

Hope this helps.

george

Date: Mon, 13 Dec 1993 08:51:33 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: chopstick method

chopstick method
> The "Chopstick Method"

...
>If done properly, you will have neatly extruded almost every drop of
extract and will not have it all over you, your helper, your kitchen
and the dog (or cat).

...
>Thanks to Rob Dahlgren, inventor of the chopstick method.
Hope this is helpful.
Norman (nfarrell@ppco.com)

sorry norm/rob...i've done it too! But we rather like
covering ourselves with malt extract (and the cats)!

george

Date: Mon, 13 Dec 93 05:44:00 -0600
From: phil.brushaber@lunatic.com (Phil Brushaber)
Subject: German Malt Types

For several months in my all-grain brewing I have been chasing that very malty character found in premium German Octoberfest, Bocks, etc. I have tried decoction but it still doesn't seem to be getting me there. I wonder if I should use different malts?

My local homebrew supply carries Ireks German Pilsner, Vienna and Munich. I have been using these in various combinations as called for in a given recipe. Are there more malty German malts available, perhaps by mail order? If so, I'd appreciate your dropping me a note to direct my "hunt". Thanks!

... My first brew? More for the crapper than the capper.
___ Blue Wave/QWK v2.11

- ----
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The Lunatic Fringe BBS * 214-235-5288 * 3 nodes * Richardson, TX* 24 hrs
UseNet, ILink, RIME, FIDO, Annex, Intelec, LuciferNet, PlanoNet, and
more!
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Date: Mon, 13 Dec 1993 09:16:09 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: hacker-pschorr weiss?

hacker-pschorr weiss?
Has anyone out there attempted to come close
to the Hacker-Pschorr Weiss? It's a pale yellow
weiss, with lots of body and sediment, and goes
great with a drop of raspberry and wedge of
lemon (that's how I was first introduced to
it back in college at the Brass Rail in Hoboken).

thanks in advance

george

Date: Mon, 13 Dec 1993 09:25:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: Trading Micros, Long Way Home, etc.

Hello All,

Is there anyone out there who would be willing to trade any type of micro-brewed beer that is available only in their area for anything I can get them up here in the Northeast (Boston & New England)? My boyfriend & I have a bottle collection that we'd like to expand, and aren't real fussy (we'll drink almost anything!) so if you'd like to try something from around this-a-way let me know, and we'll work out a deal.

Re: taking the long way home; This past weekend we found ourselves driving home from a couple of days skiing in Vermont and decided to make the trip a brewery/brewpub tour. 1st stop, Mountain Brewers in Bridgewater, Vt., the makers of Long Trail (Amber Ale, Stout, Kolsch, I.P.A.) self guided tour, small tap room, great beer! 2nd stop, Catamount in White River Junction, they have guided tours (we missed everything but the tasting) and tasting of current products. Both of these two sell bottled product and other stuff in the "tap room". 3rd stop, Latchis Hotel, (brewpub has a separate name I don't remember at the moment) Brattleboro Vt. This place was ok, the beer was tasty but it had a yuppie-fern bar type atmosphere that was a little stuffy. Last but certainly not least was McNeil's Brewery in Brattleboro. Great beer, good food (sandwiches, nachos, nothing fancy), I wish they'd had a place like this around when I was in college, it looked like it'd be a real fun place when it was busy. BTW, McNeils should get awards just for the names of their beers, i.e. Duck's Breath Bitter, Slopbucket Brown, Dead Horse IPA, to name a few.

I tried Molson Ice this weekend, \$3.00/bottle at some bar in Killington, (thankfully the bartender goofed and only charged us for one!) all I can say is YUCK! Absolutely no taste what so ever. I wouldn't spend the money to give it away to some poor unsuspecting fool.

Ah well, back to work,

Cheers,
Pam
Day@a1.tch.harvard.edu

Date: Mon, 13 Dec 93 10:06:33 EST
From: dweller@GVSU.EDU (RONALD DWELLE)
Subject: Northern lagering

Greg Pyle writes of dunking lager carboy in the French River
and asks if he's missing something.

Wouldn't the sucker blow up over the winter (assuming it's
fermenting)? Happy fish?

Ron Dwelle (dweller@gvsu.edu at Internet)
Have a Beery Beery Christmas!

Date: Mon, 13 Dec 93 09:04:00 -0500
From: "Jeff M. Michalski, MD" <michalski_jm@rophys.wustl.edu>
Subject: Burnt? not anymore!

HBDers,

Thank you for your comments about the burnt taste I had in my Xmas ale last week. I wanted to bring you up to date on a dramatic change that took place. I drew another pint out of the keg to better characterize the off taste last Thursday. The burnt after taste was GONE! After only one week! Now the beer has a wonderfully smooth character with a mild sweetness balanced by an appropriate hop bitterness. The hop aroma is powerful with a spicy note. (this is the batch I posted a dry-hop question on several months ago. I took the plunge and added 3.5 oz of Willamette pellets to the racked beer.)

I wouldn't believe the dramatic change in the beer character if I hadn't tasted it myself. Furthermore, my wife who is not a beer lover [not even my own 8-() tasted the burnt taste last week and now thinks the beer is drinkable. I believe that the long conditioning and "lagering" at 40F allowed some of the more bitter, off flavor components to precipitate to the bottom of the keg. My first 5 pints or so drew off this evil stuff and now I have a pretty tasty holiday brew.

Thank you all for your comments anyway.
JEFF M. MICHALSKI
michalski_jm@rophys.wustl.edu

Date: Mon, 13 Dec 1993 10:20 EDT
From: Alan_Marshall <AK200032@Sol.YorkU.CA>
Subject: Koch's Non-Alcoholic Beer?

In HBD 1296:

> Date: Sat, 11 Dec 93 13:57:33 PST
> From: Bob <TATTERSH@WSUVM1.CSC.WSU.EDU>
> Subject: Non-alcoholic beer

> In response to the December 9, 1993 posting by
> GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU regarding non-alcoholic beer:

> In September I brewed my first batch of non-alcoholic beer.
> Essentially I copied a recipe from Papazian. With a few ingredient
> alterations to his Righteous Real Ale, the procedure is as follows:
>
> On Day 1, boil the malt extract in 2 gallons of water, using Irish
> Moss as a settling agent for the final 15-20 minutes. Without adding
> any hops in this initial boiling, cool after a 30-45 minute boil suing
> ^^^^^
> whatever cooling method you prefer. Pitch yeast in your usual fashion
> once you have added the necessary amount of water to equal 5 gallons.

That would be Jim Koch's method :-)

Date: Mon, 13 Dec 93 09:25 CST
From: XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU
Subject: Another question re: aluminium pots

Dear brewers,

Over the years I've developed a boiling technique which, while seeming to ease the boiling process (actually the removal of steeped specialty grains from the boil), I've always suspected but never questioned whether it's harmful to the beer I make.

What I do is steep the grains in 1.5 gal. of cold water in my 3 gal stainless steel brew pot and bring that to a boil (a la Papezian). Then, once the water begins to boil, Papezian instructs to remove the grains from wort before adding the malt extract and hops (I'm not ready for the all-grain league yet). But this always was a long and tedious process, fishing around for all those little grains. So, I thought I'd shorten the process by placing a strainer over another brew pot of the same capacity, but made of aluminium. I'd sparge the collected grains, then return the wort to the original stainless steel pot, reheat to a boil then add the extract(s) and hops.

So the questions are: 1) Is the (temporary) use of the aluminium pot detrimental to my beer? even if it's in the pot for 15 minutes max? and 2) is my method of straining the grains - basically pouring the wort once through a strainer, and again back into the original pot - going to effect or hurt (bruise?) the wort... even if I haven't yet added the extracts and hops?

Thanks in advance for the responses, and thanks to all who responded earlier to my mead questions.

Cheers!

John

Date: Mon, 13 Dec 1993 09:57:55 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Brewpots: kegs or REAL stock pots?

Brett --

IMNSHO, the *minimum* useful size for brewing a five gallon batch is a 32 quart pot (8 gallons). You can get an enamel 8 gallon canning pot for about \$35 (with lid). This is what I'm using. The geometry is poor for doing a 2 hour boil -- too much surface area for the volume. I boil 75 minutes, and go from about 7 gallons to about 5-3/4. The lid is on (_on_ is too strong - its over the pot, but plenty of steam escapes) for the last 15 minutes while the chiller and the lid get sterilized. The 8 gallon pot covers two burners on my stove, and I use `em both during the boil.

I would like to get a ten gallon stainless stock pot, but they cost about \$175 new. So, I'm thinking about going the old keg route instead. Oh, if you get a stockpot, get one with a thick bottom. Some of `em have a copper disk sandwiched between layers of stainless, others use aluminum. That's what you really want. Otherwise, the thicker, the better.

Good Luck,

t

Date: Mon, 13 Dec 93 12:23:46 EST
From: carlsont@GVSU.EDU (TODD CARLSON)
Subject: re: northern brewing

Lagering under a frozen river/lake sounds like a great idea. In fact I was planning to do something simmilar over the holidays. I was going to lager my beer in a tank full of water in the garage. Since the freezing point of beer is lower than the freezing point of water, as long a the tank doesn't freeze, then the beer will stay unfrozen at 32 F (zero C) or higher. I figure that here (in Michigan) my garage should stay warm enough to keep the tank of water from freezing. The water will also act as a large heat sink to moderate temperature fluctuations. If we get a severe cold snap I can just bring the beer inside for a bit or rig up a heater in the garage. A friend of mine did this once - called it his garage lager. One concern about lagering under the ice would be that too much pressure would build up in a closed container from residual fermentation that takes place during lagering. I have not lagered before so I don't know how much fermentation to expect at this stage. I will probably use a fermentation lock.

Todd Carlson
carlsont@gvsu.edu

Date: Mon, 13 Dec 1993 09:24:00 -0800 (PST)
From: David Allison 225-5764 <ALLISON.DAVID@A1GW.GENE.COM>
Subject: Need Recepte for Belgian White Beer

I am looking for a all-grain receipe for a Belgian White Beer. I have the grains and the new Wyeast Belgian White Beer yeast (thanks to FF in Los Altos, CA <-- plug).

Does anyone have ideas/receipes/suggestions on mashing protocol, hops, hopping rates, spices, fermentation temperatures, maturation and bottle vs. keg conditioning.

I did look at the book "Belgian Ale" and Cats Meow, but didn't see much on this style. I am looking for something like Haargarden (sp?) or Celis, both of which are excellent IMHO.

E-mail me directly or post or both. TIA

- David
(allison2.gene.com)

Date: Mon, 13 Dec 1993 13:50:53 -0400

From: Ed Hitchcock <ECH@ac.dal.ca>

Subject: Trivia / Jade

Here's a question for those breweriana afficianados: Why, specifically, do bavarian beer mugs have a lid? IS there a story or tradition behind this?

/

A friend recently compared an experimental batch of mine to a beer called Jade (I think, though the spelling may be wrong). He seemed to think it was a pale Flanders style ale from the north of France. Anyone have any further info on this beer (ie style, ingredients, OG, aroma and flavour profiles, similar beers)?

Thanks.

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |

Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |

Dalhousie University, Halifax | _____ |

Date: Mon, 13 Dec 93 13:04:15 EST
From: dweller@GVSU.EDU (RONALD DWELLE)
Subject: Geysers

On Gushing Beer

The following quote is from the Encyclopedia of Chemical Technology:

"Wild or gushing beer is a defect observed as a rather violent over-foaming from the bottle immediately after opening; this defect, however, does not affect the taste of the beer. The fundamental cause of gushing is attributed to the formation of micro-bubbles. It has been demonstrated that the application of excess pressure sufficiently forces the micro-bubbles back into the solution, eliminating overfoaming entirely. Gushing beers have been identified with malt made from weathered barley, and trial brews have proved that the presence of mycelia (from the mold species Fusaria) in the steep will promote the trouble."

Ain't that the truth?

Ron (dweller@gvsu.edu at Internet)
"Five Gallons of Happiness Coming Soon..."

Date: Mon, 13 Dec 93 12:59:27 EST
From: Keith MacNeal 13-Dec-1993 1238 <macneal@pate.enet.dec.com>
Subject: Reusing yeast/adding grains to extract/carbonation

In HOMEBREW Digest #1295 steve_t@fleurie.inria.fr (Steven Tollefsrud) asks:

>1. Re-using Lager Yeast in Fermenter: I was wondering what risks
>or advantages there would be if I ferment a second batch on top
>of the yeast left in my primary after siphoning off the previous
>batch.

I haven't done it, but I've read several accounts of people doing this successfully. In #1296 someone mentions yeast washing which help avoiding any worries caused by the trub.

>3. When/How to Add Specialty Grains:

...
>None of my homebrew info sources explain when/how to properly
>use specialty grains for an extract based brew.
>In the past I've just tossed my grains in at the beginning of the
>boil and boiled the hell outta them for an hour. Those batches
>were VERRRY bitter, though I'm not sure if it wasn't the Northern
>Brewer (2 oz, loose) which I was trying out at the same time.

The bitterness you noted was not caused by the hops. It was caused by boiling the grains. Boiling extracts tannins which will lead to an astringent taste in your brew. I've been successful putting the specialty grains into a muslin bag and putting it into the brewpot along with the cold brewing water. I then heat the water and grain and remove the grain bag just before the water comes to a boil. Some claim this method may also extract tannin and advocate bringing the water to 150 deg.F and letting the grains steep.

>From: Jack Tavares <tavares@ctron.com>
>Subject: Fountaining Beer

>I opened a bottle of my Christmas Stout (after only 5 days .-)_
>And it made the most beautiful black, gingery smellig fountain
>that I have seen in a long time.

>Now, i am going to let it sit at least another week before I
>open up another bottle.

>If i have the same problem, is there anything I can do to correct
>it?

Letting it sit another week won't solve the problem -- in fact it might worsen. One thing you could try is to chill the beer down in the bottle before opening. This worked for me with a batch I overprimed by mistake.

>From: "Adrian L. Anderson (Andy)" <alanders@mwc.vak12ed.edu>

>Subject: New w/question

>Brewers,

> I am new to the list and to homebrewing. Have one batch of
>Continental Light, made from a kit, to my credit. My product
>came out fine body and colorwise w/ good carbonation. The only
>problem is a very (ultra - mega) yeasty aftertaste.

Were you careful not to pour the yeast sediment from the bottom of the
bottle
into your glass?

- - - - -

>From: "Dennis Lewis" <DLEWIS%jscdo6@jesnic.jsc.nasa.gov>

>Anyway, I get a lot of grain particles that bypass the screen,
>enough that I have to send the runnings thru a strainer to catch the
>big pieces. I have an adjustable MaltMill and have tried it set as
>wide as .055" to minimize husk shredding, but I still get
>granule-size particles passing the screen. Whaddaya think?

>

>I've considered

>* Crushing twice. Once set wide to remove husks, then set close to
>pulverize everything.

>* Getting a smaller screen size, like 1/16" holes

>* Having the screen welded into the keg or fitting some sort of
>gasket around the screen. There is a slight gap around the edges,
>but it appears to be of less width than the holes. Also, right as
>the last of the liquor drains out, I get a huge amount of grain
>coming out the tap.

>* Putting a small extension on the keg side of the outlet to raise
>it about the bottom of the tun floor, letting any crud sit on the
>bottom.

Have you considered recirculating your wort? The grain bed acts as a
filter
and should help clear the wort before it gets to the brewkettle.

- - - - -

>From: MATTHEW.BOHNE@sprint.sprint.com

>Subject: BREW PROBLEM..

>WHEN I MOVED EVERYTHING TO THE FERMENT TANK I DIDN'T GET A BUBBLE FOR
>THE 1ST
>DAY, HOWEVER 2 DAYS LATER IT WAS AT FULL CRANK. ON THE 6TH DAY IT BLEW
>BEER
>THROUGH THE VAPOR LOCK SOME 9 FEET INTO THE AIR(RATHER FUN TO WATCH BUT
>A MESS
>TO CLEAN..) THE HEAD PEEKED AND FELL BACK IN, I DRAINED IT TO THE SECOND
>FERMENT TANK AND WAITED.. IT BUBBLED SLIGHTLY ONCE AN HOUR, 2 DAYS
>LATER, I
>BOTTLED. IT HAS BEEN 2 WEEKS AND I WENT DOWN TO THE CELLAR AND I NOTICED
>A
>WHITE RING INSIDE OF ALL THE BOTTLES... WHAT IS THIS?? IT ALMOST LOOKS
>LIKE A
>MINI HEAD BECAUSE IT SEEMS TO BE THICKENED FROTH... WILL IT GO AWAY??
>SHOULD I
>JIGGLE THE BOTTLES AND GET IT TO DROP TO THE BOTTOM? I ALSO NOTICED A
>THICKER
>SEDIMENT IN THE BOTTOM OF MY BOTTLES THAN USUAL. SHOULD I BE CONCERNED?
>I

>OPENED ONE AND GOT THIS MAJOR GUSHER (I SEEM TO BE GETTING A LOT OF
THESE
>THESE DAYS BOTH WITH OLD AND NEW BEERS) -- SHOULD THEY BE CHILLED
LONGER? IS
>THERE ANYWAY TO COUNTERACT THIS?

You may have bottled too early. Did you monitor the specific gravity?
Another possible explanation is that you picked up an infection somewhere
in
your process. Revisit your sanitizing procedures.

According to Zymurgy's Beer Professor, aluminum is just fine for the
brewkettle in a homebrewery. He says the reason the big boys use
stainless
steel is because they use very aggressive cleaners which would chew
through
aluminum.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Mon, 13 Dec 1993 13:13:23 -0500 (EST)
From: gelinas@ekman.unh.edu (Russell Gelinias)
Subject: Pete's Winter, burnt flavor

Try Pete's Winter special beer for an excellent example of raspberry flavor/aroma in a beer. The recipe is from a winner in the 1993 AHA national homebrewing contest. IMO, it's a world class brew, at least.

Re. burnt taste: Most likely it's from the abundance of dark malt in the grain bill, but it could be that you scorched the brown sugar. You did remember to turn the heat off and stir well when you added the sugar, didn't you?

Russ Gelinias
EOS
UNH

Date: Mon, 13 Dec 93 10:00:26 EST
From: "Craig Hicks" <chicks@nas.edu>
Subject: Re: "Cat's Meow"

In the latest HBD, several people refer to the "Cat's Meow." In the header of each issue, there is a cryptic message that reads "For 'Cat's Meow' information, send mail to lutzen@novell.physics.umr.edu" For the benefit of newer subscribers such as myself, could someone please explain what it is? A recipe file? Something more?

Date: Mon, 13 Dec 93 12:39:26 EST
From: cc32859@vantage.fmrco.com (Donald Sharp)
Subject: RE: FTP-ing from sierra.stanford.edu

>From: bwchar@mail.wm.edu (Brett Charbeneau)

>

>Help!

>

> I can't seem to be able to log onto the sierra machine. I can
>telnet to it get the login prompt, but no matter what I try I
>continually get an ''incorrect login'' error.

I'm not 100% sure, but I think sierra is not set up to allow telnet
login access, only ftp. I haven't lately tried myself, but I have
been successful in the past. Instead of telnet, why not try ftp? I'd
use the combination anonymous/bwchar@mail.wm.edu if I were you. Give
it a go and see what happens, depending on the results maybe we can
troubleshoot further.

Don

Date: Mon, 13 Dec 93 13:15:41 EST
From: cc32859@vantage.fmrco.com (Donald Sharp)
Subject: RE: Answer these questions, three.... (3)

>Date: Fri, 10 Dec 93 11:42:55 +0100
>From: steve_t@fleurie.inria.fr (Steven Tollefsrud)
>
>3. When/How to Add Specialty Grains: I plan to make the following
>extract based stout:
> 4 lbs. Muntons Dark Malt Extract Syrup
> 4 lbs. Muntons Light Malt Extract Syrup
> 1/2 lb. Crushed Crystal Malt
> 1/2 lb. Crushed Chocolate Malt
> 1/2 lb. Black Patent Malt
> (1 lb rolled oats ???)
> 1 oz. Northern Brewer Hops (30 min.)
> 1.5 oz Hallertauer loose Hops (dry, in the primary)
>
>None of my homebrew info sources explain when/how to properly
>use specialty grains for an extract based brew.

I've been doing extract-based brewing for about 2 years now, and most of what I know comes from The Complete Joy of Homebrewing and HBD.

I generally add some small amount of specialty grain to my extract-based brews. I might add 1-2 pounds of crystal malt at the maximum, but less than half a pound combined of all other types. The thing to remember is that except for crystal, the specialty malts you're adding are contributing unfermentable starch to the brew. Crystal malt is different, in processing it mostly gets converted to fermentable sugar. Processing malt in other ways, e.g. roasting it to achieve darker colors, not only doesn't convert the starch, but in fact destroys the enzymes in the malt needed to do the conversion. When you start adding amounts on the order of 1 lb or more adjuncts, as your recipe suggests, you're going to get a lot of unconverted starch in the wort, which will eventually end up in the beer.

To avoid this, if you really want to use all these adjuncts (which you well might if you want to brew a nice stout) you might consider (as I do with almost every batch :-)) using a partial-mash process. You have to be sure that (at least some of) the extract you use has the ability to convert the starch to fermentable sugars. The only commercially available extract that I know of is that has the conversion capacity is Edme's DMS (Diastatic Malt Syrup.) (This info comes (I think) from TCJoH, I'd be pleased to hear about other alternatives.)

Anyway, without getting into partial-mashing, the way I treat my specialty grains is to add them to the cold water at the start of the process, and then when the water is about to boil, before adding malt extract or hops, remove as much as possible with a kitchen sieve. This technique comes directly from TCJoH. The justification is that the good stuff (color, flavoring, proteins, whatever you're adding the grains for) is easily soluble, and doesn't need a lot of boiling to extract, and that prolonged boiling will just extract some excessively bitter stuff, probably mostly tannin, from the husks.

Don

Date: 13 Dec 93 13:55:14 EST
From: Hubert Plummer <71601.3106@CompuServe.COM>
Subject: British Hop Substitutes

I hope some of the vast net knowledge can give me some assistance in finding these hops, or decent substitutes. In many recipies for british ales, one comes across hops that don't appear to be available over here in the US. So can anyone provide a source that carries these or perhaps some reasonable substitutes (yes I am checking the Hops FAQ as you read this). The hops in question are:
Challenger
Brambling
Target
Whitbread Goldings
Northdown
Progress

Thanks for any help

Hubert

Date: Mon, 13 Dec 1993 11:31:35 +0800
From: bjones@novax.llnl.gov (Bob Jones)
Subject: Oxygen for brewing

Is there an inexpensive source for pure oxygen to use in wort
oxygenation?
Anyone out there using pure oxygen for wort oxygenation?

Bob Jones
bjones@novax.llnl.gov

Date: Mon, 13 Dec 1993 12:13:53 +0800
From: bjones@novax.llnl.gov (Bob Jones)
Subject: Simulating an English beer engine

OK, I think it's about time I report on my latest gadget. Some of you may remember my recent trip to the UK. I fell in love with the beers there and have been fooling around with ideas to simulate the flavors and dispensing methods I experienced there. The cask conditioned ales have some characteristics that are easy to simulate. Hops, malt, low gas, warm, yeast but some that aren't. I got home and immediately brewed up a low gravity, english style ale. When I put it on my draft system, something was missing. I had kept the CO2 at 0 psi when kegging and brought the gas up to about 5psi to dispense. Tasted OK, but the head was gone of course. The creamy whipped head is caused by the sparklers on most beer engines in the UK. Ok, I thought what the beer engine REALLY does is lift or pull the beer from the keg and force the beer through a series of very small holes. This causes both foaming and whipping of air into the beer. I reasoned that I could do the same without a beer engine. What I built is a valve with a piece of copper tubing at the output of the valve. The end of the copper tubing has a cap on it. The cap has about 6 holes .020 in diameter in it. This assembly is placed at the end of about a four foot piece of 1/4" id PVC line. Now to use this gadget I raise the keg pressure up to about 10 psi, open the valve and point the output into a glass. As you can imagine, 6 streams of beer exit and foam and aerate the beer. The glass fills and when you set the glass down, the beer recombines in the glass from the bottom up, just like the beers in the UK do. Now it's usually necessary to top the glass off in a few seconds, they also do this in the UK. After I've dispensed the beer I reduce the keg pressure back to 0psi. Bingo, this gadget very closely simulates the flavors and effect of the English beer engines. The aeration and head creamy head are bang on to what I tasted in the UK. I now have to decide how to incorporate this gadget better into my draft system.

I am considering either one of two ideas to make using this concept a little easier to use. One would be to keep the keg at about 1psi and add a small pump to raise the pressure to push the beer through the sparkler. The other is to push the beer with nitrogen instead of CO2. This way I could leave the keg at 10psi and not pick up any carbonation. I have been threatening to go to a mixed gas system, this may be the push over the top. This post is getting long, I'll stop by saying, give it a try, you may like it. My apologies to all the people in the UK on butchering the tradition of cask condition ales, but I think I have come up with a pretty good simulation.

Fellow brewers, open your eyes, gased ales are not necessarily the best ales.
With no gas, one can make a lower gravity beer and experience the malt and hop flavors MUCH better. I not saying I'm going to make all my beers now without CO2, I am saying it really adds another demension to beer.

Cheers,

Bob Jones
bjones@novax.llnl.gov

Date: Mon, 13 Dec 93 15:01 CST
From: korz@iepubj.att.com
Subject: Re:HeadRetention/ChopstickMethod/InconsistentCarbonation/
NorthernLager

Goeff writes:

>What you need for good head retention are proteins. Proteins are what
>provides the surface tension which give the bubbles some strength.
However,
>proteins can also cause haze so you have to have a ballance. Hops are a
>good source of proteins for head retention but you have a Brown Ale so
you

You're right about the proteins, but they have to be small proteins.
Also,
I think you may be confusing something regarding the hops. I'm quite
certain
there are no proteins gained by the beer from the hops, however, there
have
been studies that have found a correlation between head retention and a
certain
component of the hops (cohumulone, I believe... sorry, don't have my
books
here). Perhaps this is what you've been experiencing.

Norman writes about the "Chopstick Method" for getting all the extract
out
of those bagged extracts. I have alternate method that I've invented and
subsequently am discarding after it's very first use. I'm posting it as
a
warning to potential users. I call it the "Spoon and Exhaust Hood
Method."
It involves pinning the bag between the Exhaust Hood and your Charismatic
Wooden Spoon and then pulling up on the bag. The problem with this
method
is that inevitably the spoon slips off (under) the hood and flings a
dollop
of extract against the backstop of the range. Yuck!

Rich writes about inconsistent carbonation despite always using 3/4 cup
of dextrose for priming.

There are two other factors besides the amount of priming sugar that can
cause overcarbonation. 1) unwelcome visitors and 2) bottling too early.
Unwelcome visitors include bacteria and wild yeasts. You may be
introducing
them at bottling time, during fermentation or even as early as at
pitching
time. Bacteria and wild yeasts (*S. diastaticus*, for example) often can
eat sugars that your primary fermentation yeast cannot. Thus, once the
primary fermentation is done, the wild yeasts slowly eat the left over
sugars and overcarbonate the beer. Alternatively, if you have bacteria
in
your beer (which often do not produce gasses and thus do not
overcarbonate
the beer directly), they can break the larger, unfermentable
carbohydrates
into smaller, fermentable sugars which your fermentation yeast can now
eat,

thereby overcarbonating. The second factor is much more easy to solve -
-
don't bottle too early. I usually wait till the airlock is bubbling less
than once per minute, often waiting till it's less than once per two
minutes.

Greg writes:

>need some advice. He is going to do a full mash and rack of the cold
break
>into a glass carboy. The carboy is going to be sealed up in plastic and
>placed carefully into the river just before ice-over. The theory here is
that
>once the river freezes, the water temperature below the ice will be at 4
deg.

The only potential problem as I see it is that perhaps the ice expansion
could compress the part of the carboy that's sticking through the ice and
break it. Would the whole thing be under water, or would the top of the
carboy be sticking through the ice? If the whole thing was under water,
then I'd worry about pressure building up from (very slow) yeast activity
and popping the top.

As an alternative, why not build an insulated box and put a
thermostatically
-controlled HEATER in it? This could be put outside and use nature to
keep
it cold. The thermostat could be set to 4C and would warm the fermenter
when
the temperature in the box gets too cold.

Al.

Date: Mon, 13 Dec 93 13:11:00 PST
From: "SIMPSON, Mark (x-4378)" <Simpson@po2.rb.unisys.com>
Subject: America's Finest City AHA Competition

This is it, Brew-Guys and Brew-Gals!!!

The First Annual "America's Finest City Homebrew Competition", an AHA Sanctioned Competition will be held on the 12th of March, 1994!!! All recognized AHA beverage styles will be judged. Refer to Zymurgy for style guidelines and contest details.

Contact either Skip Virgilio: (619) 566-7061 or Mark Simpson: (619) 578-2627. I can be e-mailed at: simpson@rb.unisys.com. All entries must be on site by March 9th. I will send a follow-up message when the mailing and judging site has been established. So, GET BREWING NOW!!
!

Cheers!

Mark Simpson; VP of QUAFF in San Diego

Date: Mon, 13 Dec 93 16:03:56 -0600
From: gjfix@utamat.uta.edu (George J Fix)
Subject: Sabco's RIMS Equipment

The following should be added to my review of the RIMS which appeared in the Winter issue of Zymurgy. This addition will appear in the next issue.

It has come to my attention that Sabco is marketing only a part of the Conrad Keys/Rodney Morris RIMS system. Missing from Sabco's product is the grain mill Conrad designed for this system.

This omission could possibly cause problems. Without the right sort of crush this system could lead to grain compactification and leeching of undesirables from husks, to cite but two examples. Thus anyone who is interested in the Sabco system should also give serious consideration to the purchase of an adjustable roller mill. Do not be afraid to experiment with roller spacing, for the requirements on grain milling are different for the RIMS setup as compared to a standard mashing system. The performance of the system is the best guide to deciding how the grains should be crushed. The goals are to get a smooth and homogeneous recirculation, yields in the 32-34 pts*gal/lb range, and absolutely no grain astringency in the finished beer.

George Fix

Date: Mon, 13 Dec 93 15:31:43 MST
From: "Mark B. Alston" <c-amb@math.utah.edu>
Subject: Re: misc. answers

Brett Charbeneau wonders how to log into sierra.stanford.edu. When asked for a user name respond ftp, and when it asks you for a password as your complete email address respond r@ . The @ automatically appends your site address. If you are up to no good respond with the address of someone you don't like :-)

Try again. You need to *use* ftp not login *as* ftp. Brett was trying to telnet to sierra rather than ftp there. Thus, the correct procedure is to ftp to sierra and login as anonymous with your e-mail address as your password. i.e.

- 1) 'ftp sierra.stanford.edu'
- 2) enter 'anonymous' as user
- 3) enter e-mail address as password

Mark

Date: Mon, 13 Dec 93 17:20 CST
From: akcs.wally@vpnet.chi.il.us (John Walaszek)
Subject: Oregon Nut Brown Ale

After looking at the Winter Zymurgy I am intrigued by the Oregon Nut Brown Ale. Can anyone who attended the Conference comment on it.

The recipe calls for 3.3 lbs on Danish Unhopped malt syrup. Does anyone know whether this is Light, Amber, Dark?

Since the recipe call for 3.3 lbs for a 10 gallon batch I would replace with 1.5 lbs DME probably Laaglander for a 5 gallon batch.

Does anyone know where to obtain the Hazelnut extract that was used? The manufacturer is Stearns and Lehman.

Thanks
- Wally

Date: Mon, 13 Dec 93 16:12:40 -0800

From: tims@ssl.Berkeley.EDU

Subject: scorching in mash tun

Dear Dion,

You sent mail a while ago in response to my pico-brewery question, and I have another question for you, if you know. How much do I need to worry about scorching at the bottom of the mash tun, if that is where I apply gentle heat. Is it better to have a screen, and keep the bottom with liquid and no grist against it (but no stirring of the liquid), or is it better to put the grist right down on the metal, and use some sort of slotted pipe (or Easymasher type) manifold/filter? The heat source is an electric burner attached to the bottom on the outside of the SS mash vessel.

Any thoughts?

Thanks,

Tim

Date: Mon, 13 Dec 93 17:16:43 MST
From: abirenbo@redwood.hac.com (Aaron Birenboim)
Subject: Abbey Ale recipe

would somebody out there be kind enough to send me a nice abbey ale recipe. I'm leary of those in rojette's book. (all grain and candi-sugar preferred.)

aaron

Date: Mon, 13 Dec 1993 19:57:22 -0400 (EDT)

From: HBUCKS@delphi.com

Subject: winter ale

Does anyone have a receipt for an ale similar to Young's Winter Ale. I have been told that it requires a yeast that is less attentive than usual for this type of ale. Can anyone shed any light on that? Thanks in advance for replys.

Date: Mon, 13 Dec 1993 20:01:44 -0400 (EDT)
From: HBUCKS@delphi.com
Subject: winter ale

Does anyone have a receipt for an ale similar to Young's Winter Ale. I have been told it requires a yeast that is less attentive than usual for this type of ale. Can anyone shed any light on that? Thanks in advance for replys.

End of HOMEBREW Digest #1297, 12/14/93

Date: Mon, 13 Dec 93 21:18 CST
From: arf@mcs.com (Jack Schmidling)
Subject: LAUTER TUN DESIGN

>From: "Dennis Lewis" <DLEWIS%jscdo6@jesnic.jsc.nasa.gov>
>Subject: perf sheet

>I have a keg that I fitted with a SS screen false bottom and have a tap coming out of the bottom of the keg as my sweet liquor outlet. The perf sheet

I have is 3/32" holes on 5/32" centers. (I got this size from the Brewer's Warehouse sheets. They claim it's the standard microbrewery size. Can anyone verify?)

We exchanged mail on this subject but you failed to mention the hole size of the lauter tun false bottom. It looks to me like another classic example of how scaling down commercial equipment to homebrew sized batches just does not work very well. 3/32" holes are probably too large for the geometry of a homebrew tun.

I hate to sound like a broken record, but all your problems will go away if you build an easymasher for it and throw away the false bottom. The first easy masher I made (long before it was called one) was simply back up for what got through the false bottom. The f/b caused so much grief that I took it out and never used it again. They simply are not necessary or useful in homebrew lauter tuns.

js

Date: 13 Dec 93 23:15:31 EST
From: Richard Nantel <72704.3003@CompuServe.COM>
Subject: River lagering

Regarding Greg Pyle's query about lagering under the ice of an Ontario river.

As an avid homebrewer and flyfisherman, the idea would seem to present two

problems:

1. CO2 would slowly build up within the sealed glass carboy (no airlock) and could explode;
2. The carboy could be swept away during spring runoff. (Even the most tranquil summer stream can become a raging torrent after a couple of warm afternoons.)

Nevertheless, I wish my fellow Canadian good luck with the idea and will keep an eye open this spring for either a carboy drifting past the island of Montreal or some not-too-sober trout migrating upstream towards free beer.

Richard Nantel
Montreal, Quebec
Canada

Date: Mon, 13 Dec 93 22:59:43
From: aaron.banerjee@his.com
Subject: WINE

The following is a recipe which I used as a college student. It doesn't always produce the best tasting wine (depending on how good a winemaker you are), but produces alcohol...

Banerjee's "Grocery Store" Wine

1. Buy a 1 gallon jug of apple juice or cider in a glass jar. Drink 3-4 cups of juice.
2. Bring 5-6 cups of the remaining juice to a boil with 3-4 cups sugar to produce a sweet solution.
3. Add said sweet solution back to the juice.
4. Add 1 tsp dry yeast (wine yeast is preferable, but any will do) Note that baker's yeast imparts a taste on the wine, and produces less alcohol, but it still works if you're desperate.
5. Seal the top with a stopper or puddy. the stopper or puddy (clay) should have a hole as to allow a 1/4" vinyl tube to stick through, but not allow any air to get into the juice except for through the tube. The end of the tube that sticks through the puddy should not extend all the way to the juice, but rather should end in the airspace between the puddy and the juice. The other end of the tube should be immersed in water.
6. If you have a bubbler lock, use it and ignore step 5.
7. Keeping the mixture between 75 and 90 degrees F, wait 2 weeks. Note: temperatures above about 100 F seems to kill most yeast. That is, don't add the yeast to a really hot mixture.
8. If you feel like bottling the wine to allow you to start another batch of wine, do so, otherwise, wait another 2 weeks.
9. Drink and be merry, for tomorrow the world may end.
10. The second time around, instead of buying another jug of apple juice, make grape juice in the same jug using 2 cans of frozen grape juice (preferably a brand that doesn't contain vitamin C).
11. Hint: get a hole bunch of jugs going at the same time to get a constant supply of wine.

Please direct any questions or comments to:

aaron.banerjee@his.com

- Aaron.

Date: Tue, 14 Dec 1993 04:33:47 -0500 (EST)
From: Wayde Nie <niew@mcmail.cis.mcmaster.ca>
Subject: Norm's Dream tun...

Hi Norm (and the HBD crowd!), I guess I'm a bit of a dreamer too...

I've been thinking of similar systems myself, have you considered a small gas fired hot water heater for your hot liquor tank?

It seems to me that you have a closed, well insulated system here which already has the plumbing to safely handle the gas, water and combustion fumes. With the addition of the appropriate ball valves, safety valve and an outlet on the top for your steam supply you have a dual purpose hot liquor tank/steam generator. You might even fashion some sort of door for water treatments (it would need to hold some modest pressure for your steam generator). An added bonus is that the water will be supplied under some pressure so there is no need to elevate your tank to 7-8 feet.

Does anyone know if a standard hot water tank thermostat is accurate enough or has the necessary range for this? Anyone think that we're crazy and are looking for trouble?

/| | | / | Wayde Nie |
<o.O> | Student Consultant | Real Programmers
(v) Aack! | Computing and Information Services | use:
--"---" | McMaster University | "COPY CON PROG.EXE"
Bill The Owl | NIEW@McMail.CIS.McMaster.CA |

Ifyoucanreadthis,youspendtoomuchtimefiguringouttaglines.

Date: Tue, 14 Dec 93 13:22:03 GMT
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : Simulating an English beer engine

Bob writes about adding a sparkler to the outlet of his keggling system to achieve a creamy head. I get the same effect by using one of those much-maligned plastic pressure barrels (Hambleton Bards's, FWIW). By trial and error, I have found that the presence of an internal float system makes no difference to performance, ie, the brew is still milky when served and clears from the bottom up. Therefore, the most likely source of agitation is the simple fact of opening the tap by a very small amount, combined with a top pressure of up to 20 psi. I would imagine that this would be easy to simulate in a keggling system without going to the trouble of building a sparkler?

Now here's one for the engineers: I would like to add a sparkler to my bottled beers. I have tried simply pouring these through a perforated valve, but the dispense pressure doesn't seem to be great enough to cause a milky brew. I am now thinking in terms of adding a foot pump device to force the beer out from a vertically standing bottle. Look out Guinness, your patented draught beer-in-a-can system is under threat!

Date: Tue, 14 Dec 93 08:46:22 EST
From: Mark A. Stevens <stevens@stsci.edu>
Subject: Re: Cats Meow

In Homebrew Digest #1297, Craig Hicks (chicks@nas.edu) asks what the Cats Meow is.

The Cats Meow 2 is a collection of beer recipes compiled from past issues of the Homebrew Digest. The current version contains more than 400 recipes in various styles, including mead and cider.

To get the Cats Meow, follow the instructions for accessing the archives at sierra.stanford.edu via anonymous FTP.

Prosit!
===Mark Stevens
 stevens@stsci.edu

Date: Tue, 14 Dec 1993 08:27:38 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: carta blanca?

carta blanca?
my wife very fondly remembers a brew called
carta blanca from a trip she took to mexico (before
we met). I have tried in vain to find it and cannot.

Does anyone know if it still exists, and if not, is
there a clone-recipe, for lack of a better term?

thanks in advance

george

Date: Tue, 14 Dec 1993 09:40:02 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: O2 & casks

> From: bjones@novax.llnl.gov (Bob Jones)
> Subject: Oxygen for brewing
>
> Is there an inexpensive source for pure oxygen to use in wort
oxygenation?
> Anyone out there using pure oxygen for wort oxygenation?

Sure! Despite reading that it is best to use FDA approved O2, I went out and bought a tank of welding O2 (new). My local Phd/lab friend assured me that nothing would "live" in the high pressure O2 environment, but since the cleanliness of the oxygen is an issue, I push the O2 through a .2 micron filter, then through a silica airstone. I just got a scintered SS stone, so that will be tested next brew. The O2 has improved my ferments, especially the latest barleywine. I use a 2 hour (approx) bubble period, then disconnect (I start the O2 as soon as wort is hitting the fermenter, and turn it off about 1.5-2 hours later).

> From: bjones@novax.llnl.gov (Bob Jones)
> Subject: Simulating an English beer engine
>
> I am considering either one of two ideas to make using this concept
alittle
> easier to use. One would be to keep the keg at about 1psi and add a
small
> pump to raise the pressure to push the beer through the sparkler. The
other
> is to push the beer with nitrogen instead of CO2. This way I could
leave the
> keg at 10psi and not pick up any carbonation. I have been threatening
to go
> to a mixed gas system, this may be the push over the top. This post is
> getting long, I'll stop by sayng, give it a try, you may like it. My
> appologies to all the people in the UK on butchering the tradition of
cask
> condition ales, but I think I have come up with a pretty good
simulation.

I have found that the use of a Guinness slow pour tap (with flow rate adjustment) can be effective in simulating the cask ale carbonation. It works in much the same way as an engine, but using gas to push it through the sparkler head. Unfortunately, I have heard that Rapids no longer sells the adjustable model. This technique has the same problem as Bob's, the pressure cannot be left on, or the beer will gain CO2. Its probably easiest to just keep it at the level desired, and turn it on to dispense, shutting off the carb after your done for the night.

>
> Fellow brewers, open your eyes, gased ales are not necessarily the best
ales.
> With no gas, one can make a lower gravity beer and experience the malt
and
> hop flavors MUCH better. I not saying I'm going to make all my beers
now
> without CO2, I am saying it really adds another demension to beer.

>
Exactly.

> From: korz@iepubj.att.com
I usually wait till the airlock is bubbling less
> than once per minute, often waiting till it's less than once per two
minutes.

If you have good experience with this method, fine. But if you are
tweaking
variables all of the time, like I often do, please take a hydrometer
reading
to determine when to keg/bottle. The 'ole bubbles per unit time can be
quite misleading. Now, anyone know where to buy a professional hydrometer
for under \$125?? The bummer is you need two, one for OG, and one for FG,
and yet another for "high OG".

Best,
Jim Busch

DE HOPPEDUIVEL DRINKT MET ZWIER 'T GEZONDE BLOND HOPPEBIER!

Date: Tue, 14 Dec 93 08:44 CST
From: akcs.chrisc@vpnet.chi.il.us (chris campanelli)
Subject: Why Bavarian beer mugs have lids

The REAL reason why bavarian beer mugs have lids (pick one):

It keeps insects out of your beer.

It keeps your friends from wedging a kartoffelpuffer into the opening of your mug while your not looking.

It pisses the French off.

People won't mistake your beer mug for a spittoon.

You can launch pretzels at the American tourists sitting at the next table over.

For the same reason women wear swimsuits.

There aren't any pretzels floating in your beer after the polizei break up the brawl.

Toilets have lids so what the heck.

Gives those gunsmiths something to do between wars.

Tourists will want to buy it.

Date: Tue, 14 Dec 1993 10:15:49 -0500
From: esonn1@cc.swarthmore.edu
Subject: Rnage hoods, chopsticks--too complicated

Hi,

A quick suggestion on how to get all the extracty out of poly bags (or cans for that matter). Ladle a bit of the hot (recently boiled) water into the bag and swish it around until the remaining extract has dissolved in the water. Dump the water into your brewpot. If you're worried about putting too hot water in the bag, you could even use a bit of hot tap water and still not risk any infection since it's done before the boil. The range hood and chopstick methods seem too complicated for me, but what do I know, I'm just a college student.

Eugene
esonnl@cc.swarthmore.edu

Date: Tue, 14 Dec 93 09:27:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: AHA judging form

All,
The AHA beer judging form starts off, after identification of the style and the judge, with the category "bottle inspection". There are no points awarded in this category, just comments. I have several questions, such as:

What is the purpose of this section? Recently I received comments in this section of "short fill" and "low fill line". I also received a "nice bottle" comment. I see that this inspection could be used to inspect for the ring that is supposed to be indicative of certain types of bacterial infection. I also understand that low fill *could* be indicative of potential oxidation, although oxygen absorbing bottle caps *may* negate potential oxidation risk from air in the bottle. However, if no points are awarded, what's it there for?

Do oxygen absorbing bottle caps negate the potential for in-bottle oxidation?

Does actual bottle condition, ie. scratched or sanded, have anything to do with judging the beer?

TIA,

E-mail comments welcome

Chuck Wettergreen
* RM 1.2 00946 *

Date: Tue, 14 Dec 93 11:16:33 EST
From: dweller@GVSU.EDU (RONALD DWELLE)
Subject:

Subject: RE: FTP-ing from sierra.stanford.edu

Don Said:

> I can't seem to be able to log onto the sierra machine.
I can>telnet to it get the login prompt, but no matter what
I try I>continually get an ''incorrect login'' error.<<<<<<<<
////////////////////////////////////---a break in de message, see?

I too had a bitch trying to ftp or telnet sierra. I suspect
they lockout the aliens during working hours. I finally got
all I wanted by sending the "Get" command to "listserv."

I first sent: "GET PUB/HOMEBREW INDEX" (or maybe it was
just "GET INDEX" to listserv@sierra.stanford.edu at
Internet).

Then with the Index, I ordered everything I wanted. I just
send a message via Internet, addressed to
"listserv@sierra.stanford.edu" with a one-line message,
like: "GET pub/homebrew yeast.faq" (pub/homebrew is the
directory and "yeast.faq" is the text file.). If you send
anything except the single line, the messages gets squashed
and bounced back.

RE other question-- "Cat's Meow" is a zillion receipes.
I expect to finish trying them in the year 2319, just after
my 19th liver transplant.

Ron D(dweller@gvsu.edu at Internet)
"Yeast me up, Scotty"

Date: Tue, 14 Dec 1993 10:37:38 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: party pig?

party pig?

Has anyone out there tried the Party Pig? There was a great review of it in the Winter issue of Zymurgy, and I'm thinking of picking one up.

How does it compare to small CO2 systems? It looks attractive in terms of size, capacity, and ease of use. I really don't want to go around finding kegs, and this might be a nice bottle minimizer/alternative.

Thanks in advance...

george

Date: Tue, 14 Dec 1993 09:39:56 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Answers to Mead Questions

>
>My fiance asked me about three weks ago whether I had any plans to brew
>a mead for our honeymoon, and I thought the idea was great.
>So anyway, here are my questions for mead enthusiasts:
>@ racking, the fermentation seemed to have hurt the
>flavor, with an off flavor best described as like A & D Ointment! The
>"bouquet" seemed to have soured as well, offering a smell more like
>ripe yeasties (like when we clean our carboys after bottling). Is
>this normal and/or will these flavors mellow and balance within a few
>months? That's question #1.
>
>Question #2 is: After I racked to the secondary vessels and fixed them
>with fermentation locks, I brought these tanks to the basement storage
>area to ferment, settle and clarify for another month or so before
>I bottle. But there are hot water pipes that run through the storage
>roomand do give off some heat (I'd estimate that it's a steady 80F
>though I've not yet monitored the temperature). I don't think its
>too threatening to the brew, but just to be sure, what is an accept-
>able temperature range for meads in the secondary?
>
>John

I think your two questions are related. The medicinal smell is most likely caused by phenols which are produced as a byproduct of fermentation. Higher temperatures tend to increase the level of phenol production. What is "too high a temperature" depends on your yeast. For most ale yeasts it is recommended that the fermentation temperature be below 70 deg. For higher gravity beers (and mead) my feeling is that you need to stay in the lower range of 55-60 deg because the large amount of alcohol produced increases the chance of having phenols above the flavor threshold. Sometimes these compounds do mellow and disappear with time but not usually in a month or two. Fortunately your mead will last much longer than that. The only thing I can suggest for a possible quick fix is to leave your mead in the secondary until you want to drink it (still mead is just as nice as sparkling) and agitate it frequently. Phenols are volitile so the levels may reduce some over the next few months.

Geoff

```
-----  
--+  
|   A brewery is like a toothbrush, everyone should have their own. |  
-----  
--+  
| Geoff Reeves:  NIS-2, Mail Stop D-436, Los Alamos National Laboratory |  
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |  
| Phone (505) 665-3877 |  
| Fax (505) 665-4414 |  
-----  
--+
```

Date: Tue, 14 Dec 1993 11:50:47 -0400 (EDT)
From: ENESTVED@bcvax1.bc.edu
Subject: Just what's hiding in those drafftflow cans...

Dear folks of the HBD:

A coupl eof frineds of mine and I got bored one day and decided to find out just what makes those "draft-flow" cans work. Mind you, this was in Reading, England a year ago, but I can't imagine that they've changed since then. Anyway, we hacked off the top of a can-O-Murphy's and discovered a two-piece setup of plastic. The top piece stretched from one side of the can to the other, with round-ended arms to keep it from up-ending and relaesing all the gas before the can is opened. The bottom section slipped up into the top, and wasa sort of plug or mushroom-shaped thing. We decided that openeing the can released the pressure sufficiently for the bottom piece to slide out (down, that is) of the larger top piece thereby shooting a dose of CO2 (or whatever they're using - could be anything, for all I know) through the beer overhead. This ensured that all the beer got gassed, and pretty thoroughly. I didn't like it quite as much as a regular draft pint, but our can wasn't quite as cold as they said it should be on the label. It sounds as if these are big hit - I may give it another chance soon. It looked something like this:

Top: _____ Side: _____
/ / / / | |
/ / / / | | | | | | | |
/ / / / | | | | | | | |

Date: Tue, 14 Dec 1993 12:00:32 -0400 (EDT)

From: ENESTVED@bcvax1.bc.edu

Subject: Pardon my line-interruption....

Um, sorry about the rather abrupt ending of that post I tried to send
(our
network tends to implode during finals week here at B.C.) Anyway, the
whole
plug looks like a poorly-machined capital letter "I" from the side, with
the top half fitting like a larger sleeve over the smaller, bottom half.
>From the top, the gas reservoir looks like a frisbee that's been chopped
off along its top and bottom edges. Anyway, I hope this might be of
interest to the engineering-minded out there. (And can you believe that
they outlawed homebrewing rigs on our campus as of last year? Boy, I
didn't
think that this whole thing about repressive administrations was more
than
a joke, but now I'm brewing in it....) Have fun.... Will

Date: Tue, 14 Dec 93 09:14:21 PST
From: Jack St Clair <Jack_St_Clair@ccm.hf.intel.com>
Subject: Bavarian Mug Lids

Text item: Text_1

In HBD#1297 Ed Hitchcock asked the question of: Why lids on Bavarian Beer Mugs?

The custom goes back to the renaissance days and the lids prevented your pal from putting a pellet of poison in your porter. Put that in your pipe and puff.

Jack St.Clair
Jack_St_Clair@ccm.hf.intel.com

Date: Tue, 14 Dec 93 11:55:21 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: specialty boiling hell out of

* >None of my homebrew info sources explain when/how to properly
* use specialty grains for an extract based brew.
* In the past I've just tossed my grains in at the beginning of the
* boil and boiled the hell outta them for an hour. Those batches
* were VERRRY bitter, though I'm not sure if it wasn't the Northern
* Brewer (2 oz, loose) which I was trying out at the same time.
* Should I not let the grains get more than 150 degrees F, as in
* mash conversion? Should I add them after the boil, below a certain
* temperature, and let them steep. What temps? What times?
* Thanks again,
*

>From personal experience, specialty grains give you all the flavor you
need
in about 15 minutes at low boil, not an hour at hell temps. Get out as
many
as you can (relax etc) and move on. The darker and more "roasty" your
grains,
the stronger your preliminary tea, so the fun part there is how roasty
you
want your beer--vary time by grains and pers pref.

- - -
Mark Bunster |Exchange conversation if you dare--
Survey Research Lab--VCU|Share an empty thought or a laugh.
Richmond, VA 23220 |
mbunster@hibbs.vcu.edu |
(804) 367-8813/353-1731 | -edFROM

Date: Tue, 14 Dec 93 13:00:38 EST
From: Bob Getty <bgetty01@prog.c4.gmeds.com>
Subject: RIMS and HSA

I am planning on building a RIMS over Xmas and want to be clear on the HSA danger(!?) involved with the system. Has HSA been a problem with you RIMS users? I have read descriptions of foaming and splashing at the output of the system, so it seems RIMS would have an HSA problem.

What methods or tricks do people use to get the wort into the mash tun from the RIMS output? Morris recommends laying a perforated 1/8'' plastic tray on the grain and piping the wort on top of it. Any better ideas? Does anybody keep the wort level above the grain bed and have the output pipe below the wort water line?

Thanks in advance,
Bob

Date: 14 Dec 93 13:19:26 EST
From: jennings@readmore.com (Todd Jennings)
Subject: Yeasty Taste, Gushers

Adrian Anderson recently posted the following:

>Brewers,

> I am new to the list and to homebrewing. Have one batch of
>Continental Light, made from a kit, to my credit. My product
>came out fine body and colorwise w/ good carbonation. The only
>problem is a very (ultra - mega) yeasty aftertaste.

One question I have is whether you racked to a secondary fermenter after the krausen fell, or did you ferment all in one vessel? You may find that racking to secondary will eliminate some of the yeasty taste to your beer.

Also, how long did you allow for conditioning? You should allow a couple of weeks in the bottle before drinking, at least. If you drank your beer sooner than that, there may not have been enough time for the yeast to settle out. Check the bottom of your bottles for the familiar white yeast ring.

Matthew Bohne writes:

>Subject: BREW PROBLEM..

>WHEN I MOVED EVERYTHING TO THE FERMENT TANK I DIDN'T GET A BUBBLE FOR THE 1ST
>DAY, HOWEVER 2 DAYS LATER IT WAS AT FULL CRANK. ON THE 6TH DAY IT BLEW BEER
>THROUGH THE VAPOR LOCK SOME 9 FEET INTO THE AIR(RATHER FUN TO WATCH BUT A MESS
>TO CLEAN..) THE HEAD PEEKED AND FELL BACK IN, I DRAINED IT TO THE SECOND
>FERMENT TANK AND WAITED.. IT BUBBLED SLIGHTLY ONCE AN HOUR, 2 DAYS LATER, I
>BOTTLED. IT HAS BEEN 2 WEEKS AND I WENT DOWN TO THE CELLAR AND I NOTICED A
>WHITE RING INSIDE OF ALL THE BOTTLES... WHAT IS THIS?? IT ALMOST LOOKS LIKE A
>MINI HEAD BECAUSE IT SEEMS TO BE THICKENED FROTH... WILL IT GO AWAY?? SHOULD I
>JIGGLE THE BOTTLES AND GET IT TO DROP TO THE BOTTOM? I ALSO NOTICED A THICKER
>SEDIMENT IN THE BOTTOM OF MY BOTTLES THAN USUAL. SHOULD I BE CONCERNED? I
>OPENED ONE AND GOT THIS MAJOR GUSHER (I SEEM TO BE GETTING A LOT OF THESE
>THESE DAYS BOTH WITH OLD AND NEW BEERS) -- SHOULD THEY BE CHILLED LONGER? IS
>THERE ANYWAY TO COUNTERACT THIS?

IMHO, you definitely bottled too early. There may have been other factors, but be sure your specific gravity has leveled off before bottling next time.

This will help alot. As far as your froth at the TOP of your bottled beer goes, it might be that heavy fermentation resumed after bottling, and the froth might be krausen. Again, bottling at the right time might do the trick.

Todd A. Jennings, A NYC apartment homebrewer 8^)
tjenning@readmore.com

Date: Tue, 14 Dec 93 13:50:50 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: stein lids revealed

* Date: Mon, 13 Dec 1993 13:50:53 -0400
* From: Ed Hitchcock <ECH@ac.dal.ca>
* Subject: Trivia / Jade
*

* Here's a question for those breweriana afficianados: Why, specifically, do
* bavarian beer mugs have a lid? IS there a story or tradition behind this?

Specifically, to keep out air and flies.
Air (and heat) makes for flat beer, flies affect the protein level when they fall in, destroying the careful balance of flavors. (ahem)
When you drink it a litre at a time, it can go warm on you quick. If you go to a beer garden in Bavaria (or elsewhere) you'll often see people with the drip mats over their glasses for the same reason.

I remember seeing a guy in a bar pour 9/10 of his beer, then roll the bottle sideways back and forth for 10 minutes to build a good head to pour on top.
Everybody has a system.

* was a pale Flanders style ale from the north of France. Anyone have any

I didn't know Flanders brewed his own beer! No wonder Homer hates him-- he just likes Duff.

- - -
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Survey Research Lab--VCU|Share an empty thought or a laugh.
Richmond, VA 23220 |
mbunster@hibbs.vcu.edu |
(804) 367-8813/353-1731 | -edFROM

Date: Tue, 14 Dec 93 14:01:46 EST
From: lanbrew@aol.com
Subject: AOL, HBD and Censorship

I would like to take this opportunity to voice my support of Andrew Patrick in his quest for a more open-minded approach toward "offensive behavior" on America Online's Beer and Brewing Forum. It seems like our civilization in general and computer forums specifically are getting more and more thin-skinned. Even in the HBD, which is probably one of the better self-controlled forums I've seen, people are waiting to bitch about signature lines, "offensive language", and almost anything Jack Schmidling writes. I *like* the fact that some people have the courage to express themselves in a genuine manner, even if (ESPECIALLY IF) it takes on a more earthy tone. Do all of you people who run screaming from the words "orgasm" or "pissed off" avoid such language in the outside world? Do you ever interact in a more casual manner with other people? A fair number of HBD regulars wish to hold the Digest up to some sort of "professional standard" which dictates that common language be banned and that we all speak with more rarified language. Don't you think that this is more than a little pretentious? This is, after all, not a professional or even an amateur publication, but a largely random forum in the format of a huge ongoing conversation. Perhaps I am far afield on this one, but when very few vocal or powerful people have the ability to suppress or censor or in any way affect my freedom to express myself as I see fit, that is clearly counter to the free exchange of ideas and just plain wrong! In the case of AOL vs. Andrew Patrick, we have a person arbitrarily discarding posts because of some perceived violation of the bylaws. I do not feel that it is appropriate to hide under the cover of "well, he signed up and agreed to the rules, so he got what he deserved" . These kinds of rules are infinitely more offensive to me than any language could ever be and I have a real problem with dim-witted do-gooders who see nothing wrong with what AOL is doing. All I ask is that some of you stop and think.
Lan

Date: Tue, 14 Dec 1993 13:16:42 EST
From: "Mark T. Berard" <mtberard@dow.com>
Subject: Gym Locker Mead

Smelly Mead question:

I have recently tried to make my first mead. I used 2.5 lb clover honey, small amount gypsum, yeast nutrient, irish moss. Boiled in approx 0.5 gal. water for 15 min and skimmed, ala TNCJHB. Topped off with water in 1 gallon jug, pitched rehydrated wine yeast, capped with air lock. Vigorous ferment by next evening, remained vigorous approx. 2 wks, now has slow ferment. Started Nov 21, so it's been 3 weeks total so far. When I racked to the secondary (@ 2 wks) it smelled awful. Kind of like dirty socks. I tasted a little, also awful. Will this get better with age??? Is this just a byproduct from the yeast ferment that will get scrubbed out by the CO2? What have I done wrong (if anything)???

I mentioned to a friend that I was making mead (foolishly, before I had racked to the secondary), and he got me a gallon of honey from his Dad's hives. Mainly from Orange trees and basil(?), i.e. mixed flower. Now I'm in a bind, because I'd like to make some mead for him to give to his Dad, but I don't want to make a foul brew, and I don't want to wait a year to see if the mead I have going will get better before I try another batch.

Help! Any suggestions, or recipes for Orange Blossom Honey based Meads would be greatly appreciated. Melomel or Methaglyn recipes would be fine, too. TIA.

Mark SCIENCE! mtberard@dow.com

Date: Mon, 13 Dec 1993 08:24:54 PST
From: scottm@hilbert.cypress (Scott Majdecki)
Subject: First Cider Attempt

This is my first attempt at Canadian style sparkling hard cider. My problem/question is that after ~2 weeks in the primary I racked to secondary and of course had to sample. It tasted like a nice, very dry cider, but had an alcohol aftertaste. I'm wondering what might be the problem, or if the aftertaste will mellow during secondary.

I started with a simple recipe posted in this digest several weeks ago:

4 gallons natural cider
add 4 crushed Campden tablets and let sit for 24 hrs
add 5 lbs clover honey diluted to 1 gallon w/ water (boiled 10 min)
add 2 pkgs dry Champagne yeast and yeast nutrient
ferment in primary at ~66F (Active for about 1 1/2 wks)
Rack to secondary.

I plan to leave it in the secondary for 1 week at about 58-60F, re-rack, secondary 1 more week, prime w/ 3/4cup corn sugar boiled in 1pt water and bottle.

Any explanation for the alcohol aftertaste.
Thanks ahead for any help.

- - -

Scott Majdecki Email: sdm@cypress.com
Cypress Semiconductor Phone: (503)526-1888
8196 SW Hall Blvd., Ste 100 FAX: (503)626-6688
Beaverton, OR. 97005

Date: Tue, 14 Dec 1993 12:32:54 -0600 (CST)

From: John Edens <johne@sa-htn.valmet.com>

Subject: Koch's address

Does anyone have an address for Koch so that people can tell him that it isn't nice to tell lies in his advertising or sue people who run businesses with names similar to his company name?

Date: Tue, 14 Dec 1993 12:08:43 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: maltiness, aluminium

Phil Brushaber wants to get more maltiness in his beer. Phil, the malts you're talking about are wonderful and you shouldn't have any trouble getting the desired results with them. If you aren't getting it: try lowering your hopping rate and, more importantly, start examining your water supply. The Munich water is directly responsible for bringing out that effect; you should make adjustments to get the same water for your brewing. Seems to me that Noonan had some relevant data on this in his Lager Beer book. There is more elsewhere (Miller?).

The importance of the right water cannot be overstated.

=====

On the question of aluminium pots, I will confess to having mashed in an aluminium pot now for nearly a year -- or maybe more, I forget...

Seriously, I don't know if I'm brain-damaged by this pot, but there have been absolutely no, zero, none, bad affects on the flavor. My beer, in fact, is better than ever.

Of course, the kettle isn't as beautiful as my stainless steel 15-gallon pot, nor my stainless steel keg/kettle, but the beer is fine.

Jeff Frane (I think... aren't I?)

Date: Tue, 14 Dec 93 13:40 CST
From: korz@iepubj.att.com
Subject: Specialty grain use/Oregon Nut Brown Ale

George and Steve write about using specialty grains:
Steve>>None of my homebrew info sources explain when/how to properly
Steve>use specialty grains for an extract based brew.
Steve>In the past I've just tossed my grains in at the beginning of the
Steve>boil and boiled the hell outta them for an hour. Those batches

George>you not to boil the hell outta the speciality grains, as you'll
George>suck the tannins from the husks, contributing to quite a bitter
George>tang. Much like overbrewing a dark tea, it's not something
George>you wanna do.

Indeed, George! pH is another important factor. If you have high-
carbonate
water, you may want to add a teaspoon of Gypsum to a gallon of water and
boil it for 5 minutes or so. Then pour off the water away from the
sediment
(Calcium Carbonate) and toss the sediment. If you have low-carbonate
water,
you don't have to do this, you can just warm the tapwater up to 160-
170F.

Now, cool the water down to about 160 to 170F, crush the grain, put it in
a grain bag (much easier than trying to remove the grain with a strainer
later), tie off the bag and steep the grains in the 160-170F water for 15
to 30 minutes. I used to heat the water from 50F with the grain bag in
the liquor, but last time I did this, the bag stuck to the bottom of the
kettle and I burnt a hole in it. Drat! I used to use the full 5 gallons
for steeping the grains, but that's not a good idea -- the pH will be way
too high (even with low-carbonate water) and thus you'll extract those
tannins even at 160F. Also, as Don mentioned, this method is useful for
crystal and the dark malts like Chocolate, Roasted Barley and Black Malt
(aka Roasted Malt). You would not want to do this with Pale, Pils,
Biscuit,
Aromatic, Munich, etc. or flaked barley/oats/etc. since these need to be
mashed to convert their starches.

Wally writes:

>After looking at the Winter Zymurgy I am intrigued by the
>Oregon Nut Brown Ale. Can anyone who attended the Conference
>comment on it.

Yes. I think it was the finest specialty beer I've tasted. Its flavor
was reminiscent of "Eat-it-all" cones! I plan to make some -- I've yet
to find a source for the Hazelnut extract. Wally -- I'll let you know
if I find it.

>The recipe calls for 3.3 lbs on Danish Unhopped malt syrup.
>Does anyone know whether this is Light, Amber, Dark?

I haven't looked at the recipe yet. The beer was perhaps 12-13 degrees
L,
so I'd suspect either light or amber.

>Since the recipe call for 3.3 lbs for a 10 gallon batch I would
>replace with 1.5 lbs DME probably Laaglander for a 5 gallon
>batch.

3.3 lbs of syrup is probably equivalent to about 2.65 lbs of DME.

Al.

Date: Tue, 14 Dec 93 12:24:20 PST
From: Scott Lord (CompuCom) <v-ccsl@microsoft.com>
Subject: XMAS STOUT

Made a Xmas beer last Sunday.
Here it is

Hop Along Xmas Stout

15 gallons

19 1/2 lbs Munton & Fison Dark extract
1/2 lb. Black Patent Malt
1/2 lb. Chocolate Malt
5 oz. Roasted Barley
5 oz. Dark Belgian Crystal 250L
2 - 1oz Sticks of Brewers Licorice
1 lb. Treacle black strap molasses
8 oz Cascade boil 90min
8oz Cascade finish 15min
8oz Cascade End 2min
3 packs of Windsor Dry Yeast made in to a starter.

This was a full boil with 15 gal.
Put all dark grains in cold water and raise to 180 F. then remove.
Put in Licorice when water boils 5 min. Then all dark extract goes in.
Boil for 10 min. then first hops goes in 8 oz. what a hop smell.
this was Boiled down to 12 1/2 gallons then the finish hops 8 oz. were
added.
Tasted. Not to overly bitter. Put the remainder of the Hops in 8 more
oz. turned
heat and pump wort through counterFlow wort chiller.

what a hop nose.

Will let all you know how turns out
this is the most hops I have ever used.

Scott Lord
"WSHBSC | Beer it's not just for Breakfast any more.
v-ccsl@microsoft

Date: Tue, 14 Dec 1993 13:15:55 -0800
From: goetze@cats.ucsc.edu (Tom Goetze)
Subject: Fruit Extracts

Matthew Evans asks about HopTech Fruit Extracts back on December 8, so I like to share some related information. I have not used HopTech's fruit extracts, but I have used a Blueberry Extract from the Beverage People (Byron Burch and Nancy Vineyard's place in Santa Rosa). I don't know where they get it (or if they make it themselves), but the person I talked to on the phone told me that it is exactly the same stuff that Marin Brewing Company uses in its Blueberry Ale (can you say '93 Gold Medal in Fruit Beer). So it is possible to make good beer with it.

To get good results I would recommend staying below 15 IBU's. The person from Beverage People told me that Marin Brewing Co. uses some wheat in their ale--but I ventured for the use of rice instead (to be precise I used 4 lbs Alexander's pale LME, 1.5 lbs dry rice extract and about 14 IBU's (can't remember the hops)--then add 4oz of fruit extract at bottling). I was very happy with this light, extremely drinkable, blueberry concoction. I will admit that the blueberry was not tremendously strong (i.e. could have been a little stronger). My best guess is that by adding the fruit extract directly to the hot priming liquid, I may have reduced the flavor and aroma of the blueberry extract. So I suggest adding the extract to cool beer before bottling/kegging. But in general, the beer was extremely well received--especially with my friends who like the lighter beers.

For heavier beers, I would guess that you might need substantially more than 4 oz. Good luck. tom

Date: Tue, 14 Dec 1993 15:19:43 -0600
From: ccamley@mmm.com (Chris Amley - 3M Telecommunications)
Subject: What's wrong with Fuggles?

In his book on Pale Ale, Terry Foster includes a table of hops varieties and suggested uses in Pale Ale. He recommends Fuggles hops for aroma/finishing only, and not for bittering. Aside from the modest AA content of Fuggles, is there any other reason why I shouldn't have used them last week?

Chris

Date: Tue, 14 Dec 1993 13:29:00 PST
From: Patrick_Waara.WBST129@xerox.com
Subject: Munton & Fison Address

Can someone send me the address of Munton & Fison? I have a problem with one of their products which needs to be brought to their attention.

~Pat

Date: Tue, 14 Dec 93 10:26:44 EST
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: SS Stock pot prices

>I would like to get a ten gallon stainless stock pot, but they cost about \$175 new.

Well, that may be the retail price but you can do much better. I bought my 10 gallon stock pot mail order from Rapids Restaurant & Bar Supply for \$125, including lid and shipping.

BTW, stainless steel is a poor conductor of heat and can develop hot spots that will scorch the wort. Better quality SS stock pots (Volrath) have aluminum clad bottoms to help distribute the heat.

I can't recommend Rapids highly enough. When they they sent me a Polarware stock pot (no aluminum clad) instead of the advertised Volrath, they sent me the proper item right away AND arranged and paid for the UPS pick up to return the incorrect pot. I have no connection with Rapids other than as a satisfied customer.

- --Tony Verhulst

Date: 14 Dec 93 17:35:22 EST
From: Richard Nantel <72704.3003@CompuServe.COM>
Subject: Hazelnut extract

Regarding John Walaszek's plans (HB1297) to use hazelnut extract in a nut brown ale:

I tried that last year. The extract was the type used to make liqueurs (Tia Maria, etc.) The resulting beer did taste nutty but had an awful `metallic' aftertaste. Perhaps a hazelnut extract used in baking might be more appropriate. Good luck. Keep us posted, John.

Richard Nantel
Montreal, Quebec
Canada

End of HOMEBREW Digest #1298, 12/15/93

Date: 15 Dec 93 01:16:13 MST (Wed)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: re: Mead questions

John (XLPSJGN%LUCCPUA.BITNET@UICVM.UIC.EDU, whatever that might mean!) writes about mead for his honeymoon:
[startup info deleted]

> The mead is now racked into 2 lgal. bottles (one is full to the neck,
> the other about only 1/2 full). OG: 1.055; SG @ racking: 1.010.

OK, with starting gravity only 1.055, this is intended to be light.

> The taste before pitching was exquisite, with an almost perfect
> balance between the honey, ginger and razberries (about a pound of
> those) However @ racking, the fermentation seemed to have hurt the
> flavor, with an off flavor best described as like A & D Ointment!...

Would you consider trading one brand name for another and describing the taste as "Listerine"? If so, "do not panic; this is perfectly normal"! It's the taste of a young mead. I've been able to avoid it with the right yeast, but if it happens it's nothing to worry about.

>...The "bouquet" seemed to have soured as well, offering a smell more like
> ripe yeasties (like when we clean our carboys after bottling). Is
> this normal and/or will these flavors mellow and balance within a few
> months? That's question #1.

It's hard to tell from the description, but it doesn't sound out of the ordinary. Meads *do* take longer to finish, and they get some pretty weird characters at early stages along the way. The best I can advise is that if you smell/taste something that is *obviously* wrong, you've got a concern, but if you only find something strange, that you can't characterize, don't worry.

> Question #2...[fermentation temp]
> ...roomand do give off some heat (I'd estimate that it's a steady 80F
> though I've not yet monitored the temperature)...

Meads tend to do OK with higher temps. (They ferment slower anyway; higher temps seems to move them along quicker, mostly without bad effect.) 80F does seem a bit high, not unreasonable but more than you might like.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Wed, 15 Dec 1993 3:34:20 -0600 (CST)
From: Cree-ee-py Boy <BIRMINGH@FNALV.FNAL.GOV>
Subject: Trappist, oatmeal stout, and red ale recipes

In HBD 1297, Aaron Birenboim asks:

> would somebody out there be kind enough to send me a nice abbey ale
>recipe. I'm leary of those in rojette's book. (all grain and
>candi-sugar preferred.)

Well, I don't have it with me, but the recipe in Dave Miller's
Complete Handbook of Homebrewing is one with which I have had good
results.

While we're on the topic of recipes, I've seen requests for
recipes for both oatmeal stout and red ale. I was brewing both at the
time, but I hadn't bottled yet so I decided to keep my mouth shut
until

I learned how they turned out. So, without further ado:

Barney's Flat Oatmeal Stout

6.0 lb DeWolf-Cosyns Pale Ale malt
1.0 lb (Briess?) roast barley
1.0 lb flaked barley (the stuff Kent sells)
1.0 lb Quaker oats (the 5-minute stuff)
2 oz Northern Brewer pellets (alpha=6.8, 60 min)
Yeast Labs American Ale yeast (3rd consecutive pitch)

Single infusion mash in 12 quarts water for 2 hours at 150 degrees

OG 1051 FG 1014

Don't be fooled by the name; this is not a Barney Flats clone. I
just thought it'd be a cool name. (Does anybody know where I can get
a

postscript file of a certain dinosaur covered with tire tracks?)

Two words for you: SET MASH. I normally do not mash out, and even
when I do I usually only do a cursory mashout. I strongly recommend
you

get the mash temperature to 170 degrees before running off, and do
not

let it cool. It was so much trouble that I swore at pitching that
unless this beer was heavenly, I'd never make another. I'm going to
try

to make one with cocoa and coffee this weekend.

This is an extremely smooth beer, with a goodly but not
overwhelming roast barley flavor. The only problem is that it is
still

flat after a couple or three weeks in the bottle because I left it in
the secondary long enough that there was very little yeast in
suspension. Pouring it from a 1-foot height doesn't generate any head
to speak of (can *your* beer do this?)

Butt Pimple Ale

9.0 lb DeWolf-Cosyns Pale Ale malt
.5 lb DeWolf-Cosyns Caravienne
.5 lb DeWolf-Cosyns Biscuit malt

.25 lb DeWolf-Cosyns Special B
.25 lb DeWolf-Cosyns caramel pils
.8 oz 50/50 mix Willamette/Cascade (alpha=6.0 avg, 60 min)
1.0 oz 50/50 mix Willamette/Cascade (alpha=6.0 avg, 30 min)
.25 tsp Irish Moss flakes (15 min)
1.0 oz 50/50 mix Willamette/Cascade (alpha=6.0 avg, 15 min steep)
Yeast Labs American Ale yeast (5th consecutive pitch!)

The respective alphas of the Cascade and Willamette are 7.4 and 4.6. The 50/50 mix is by weight, and whole hops were used for both.

Mash in 14 quarts water for 90 minutes at 153 degrees.

OG 1060 FG 1020

I call this "Butt Pimple Ale" because it's big, it's red, and it's been a pain in the ass.

This has turned out pretty well. I had some problems with it, namely that it stopped fermenting at around 1030, but I racked from the 7-gallon carboy into a 5-gallon jobber before I measured the SG. So, when I moved it closer to the water heater, I had to install a blowoff tube. When it stopped blowing off, I installed an airlock and moved it back to the normal fermentation area, at which point it began blowing off AGAIN.

This was the fifth re-pitching from this yeast purchase, and the yeast seemed to behave differently from previous pitchings. Previously a cake of yeast would form on top of the beer and remain there after fermentation was complete. Also, the yeast had not seemed to hate the lower (60 degrees or so) temperatures quite so much (although my roommate turned the heat off over Thanksgiving, so the beer may have gotten even colder than that.)

In any case, this beer has a medium-red color, pretty good body, and a slight bite in the finish which I don't think is from hops. It has some hop flavor, but I'd like more. It seems to have little hop aroma, but I don't trust my nose right now. I'll likely brew this again, but perhaps dry-hopped next time.

I only bottled this beer last night, so things could change. I'll tell more when I know it; e-mail me if you want to know more.

- - -

Phillip J. Birmingham birmingham@fnalv.fnal.gov
"Tampering in God's Domain since 1965!"

Date: Wed, 15 Dec 93 07:07:45 CST
From: Al Gaspar <gaspar@STL-17SIMA.ARMY.MIL>
Subject: RIMS?

This is a dumb question. I haven't seen the Zymurgy article that George Fix wrote. What does RIMS stand for? What is a RIMS? How many RIMS can stand on the head of a pin? Thanks.

Cheers--

Al

--

Al Gaspar <gaspar@stl-17sima.army.mil>
USAMC SIMA, ATTN: AMXSI-TTC, 1222 Spruce St., St. Louis, MO 63103-2834
COMMERCIAL: (314) 331-4354 AUTOVON: 555-4354
relay1.uu.net!stl-17sima.army.mil!gaspar

Date: Wed, 15 Dec 93 08:53:06 EST
From: mlobo@sentry.foxboro.com (Michael T. Lobo)
Subject: re: AOL Censorship

Greetings:

Before a flame war develops, I want to add my \$.02 RE: Lan's mail
in HBD 1298

IMHO we should continue to abide by what appears to be an unspoken but
followed forum etiquette.

I like the way things are run and the absence of expletives is welcome -
(you want that, check out alt-tasteless-jokes [:^))

There's no need to "..all speak with more rarified language."-(Lan)
,nor do I think anyone expects us to. This is a forum on homebrewing...
and in
the words of that _famous_ brewmeister, Charlie P. -

"relax, and have a homebrew"

If you have a problem with a forum/newsgroup/etc, you can unsubscribe or
give
the sysop grief and/or appeal to fellow forum readers. This is the HBD
forum-
maybe the AOL problems should be kept there.

Not a flame, just a small brain dump. If you have the need to flame,
mail me
directly.

Michael _I'm going to Munich tomorrow..oh Joy_ Lobo

Michael T. Lobo 508 549 2487
Foxboro Co.
mlobo@foxboro.com "I Love beer, beer loves me; when I drink too much,
my beer speaks for me" -Monty

Date: Wed, 15 Dec 93 9:11:18 EST
From: Mark A Fryling <mfryling@magnus.acs.ohio-state.edu>
Subject: lagering questions

Howdy,

We (my housemate/brewpartner and I) are about to embark on our first true lagers and I would like to pick the collective HBD brain. The plan is to make

first an amber fest-style lager and then a double bock. I have a very swollen

packet of wyeast bohemian lager yeast which will be made into a 1L starter

tonight so that we will brew thursday or friday. The fermentation and lagering

will be done in our back room which is now a relatively constant 52 F and will

probably get down into the 45-47 F range in Jan. and Feb. The questions are:

1) Should I start fermentation (ie primary) directly in the cold room or should I begin in the basement (about 62F) and then move to the cold room after

things get really perking? and 2) Does someone out there have some good extract

recipes for these styles? Something approximating Wurtzburger Hoffbrau's oktoberfest would be nice for the amber and something like Paulaner Salvator

would be great for the Dopplebock. I already have a mental approximation but

some experienced advice would be appreciated.

Send your replies directly unless you have something of general interest.

Thanx,

Mark Fryling

<mfryling@magnus.acs.ohio-state.edu>

"Patience is a virtue, have it if you can. Seldom had by woman, never had by man."

source unknown

Date: Wed, 15 Dec 93 8:53:29 CST
From: Will B. Blalock <willb@hp3.imed.com>
Subject: Kegs -vs- stock pots
Full-Name: Will B. Blalock

I have a few comments concerning an item in the last digest that questioned the use of kegs -vs- real stock pots.

No doubt that if you have deep enough pockets for real SS stock pots, it is the superior choice. Actual pots have extra metal on the bottom to aid in even heating. They have lids that fit, and are easier to clean. The problem I am having with pots is that if you try to find one any bigger

than 20 quarts or so, the price seems to escalate exponentially. I have been checking restaurant supply wearhouses and pots that range from 10 to 20 gallons price from \$100 to \$200. The formula seems to approximate \$10/gallon (actually a linear progression.)

My only problem with SS kegs is ... I can't find any!!! I have called almost every keg retailer in my area and South Houston and they are telling me the same thing, "Those went out about a year ago."

I called beer breweris and their distributors only to be turned down. In short, I may have to buy stock pots since I can't find any SS kegs. There are plenty with SS casing, but they all now have aluminum casks. My next and only step is to start putting ads in the local want ads. I may get lucky, yet I too am begining to wonder if kegs are worth all this trouble, especially when you consider the job of re-conditioning I have to go through after finding them.

Will Blalock
Houston Texas
willb@imed.com

Date: Wed, 15 Dec 1993 08:53:20 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Bottle Inspection

>The AHA beer judging form starts off, after identification of the
>style and the judge, with the category "bottle inspection". There
>are no points awarded in this category, just comments. I have
>several questions, such as:
>
>What is the purpose of this section? Recently I received comments in
>this section of "short fill" and "low fill line". e
>
>Chuck Wettergreen

This is one of my pet peeves with respect to judging. The bottle can actually tell you a lot about possible problems with the beer inside. A white ring around the neck can indicate bacterial infection. Lots of head space can sometimes cause oxidation. I've even judged bottles that are half (yes half) full of trub! Some judges feel they have to write something in the bottle inspection portion and the most common comment is something about the fill height. A few years ago as the AHA members generally became more aware of the problems of oxidation there developed an attitude that the bottle should ideally be filled exactly to the top with no air at the top. This idea is absurd! Yes, if the beer is oxidized then lots of air in the bottle neck could be the problem and it is worth noting on the judging form. If the beer is not oxidized then you can fill as short as you like and no one should comment on it. I counter-pressure bottle much of my bottled beer and the bottle can be only half full and still have no oxygen in it. I've actually commented on bottles being too full in the bottle inspection portion. When is a bottle too full? When you have to be careful opening it. My advice to other judges is that for 99% of the beers we judge should just have "OK" in the bottle inspection area. My advice to people having their beer judged is to ignore most bottle inspection comments unless they are related to the flavor of the beer. Of course no one asked my advice ;-) Chuck just hit that beer-judge-snobism nerve.

Geoff

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-----  
--+  
|   A brewery is like a toothbrush, everyone should have their own. |  
-----  
--+  
| Geoff Reeves:  NIS-2, Mail Stop D-436, Los Alamos National Laboratory |  
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |  
| Phone (505) 665-3877 |  
| Fax   (505) 665-4414 |  
-----  
--+
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Date: Wed, 15 Dec 1993 10:01:27 EST
From: "Mark T. Berard" <mtberard@dow.com>
Subject: Pure Oxygen Sources

Recently (HBD #1297) Bob Jones asked about adding pure O2 to his wort:

>From: bjones@novax.llnl.gov (Bob Jones)
>Is there an inexpensive source for pure oxygen to use in wort
oxygenation?
>Anyone out there using pure oxygen for wort oxygenation?

And Jim Busch responded (HBD #1298) that he was using a NEW welding O2 supply:

>From: Jim Busch <busch@daacdev1.stx.com>
>Sure! Despite reading that it is best to use FDA approved O2, I went
>out and bought a tank of welding O2 (new). My local Phd/lab friend
(snip)

Given the "tinkering" bent of most of the people here, I just wanted to comment that old equipment shouldn't be used with pure O2, especially the regulator. O2 requires a special regulator, and it shouldn't have been used for ANYTHING else. O2 is highly oxidating, and so any oil or grease in your lines, especially the regulator, could ignite and explode. If this happens in the regulator, you have a nice schrapnel bomb, plus a ready supply of O2 now feeding the flames in your ruined garage, making it hard for the rescue team to pull your body out and rush you to the ICU.

Serious bumner. With equipment designed for the job, no problem. With the wrong equipment, this would make a steam supply pressure cooker bomb that people have worried about here look like childs play.

Also, I agree that nothing will live in the pure O2 environment. Your only worry would be contaminant gases. So I doubt Jim needs to bother with the 0.2 micron filter. Anyway, relax. Don't worry. Have a homebrew. But don't hurt yourselves! Don't let Hazard Hog get you.

Safety Pup SCIENCE! mtberard@dow.com

Date: Wed, 15 Dec 93 11:14:10 EST
From: ulick@michaelangelo.helios.nd.edu (Ulick Stafford)
Subject: Oxygen and hydrometers

In hbd 1298 Jim Busch mentions oxygen use. I would warn him that levels over 14 ppm can be harmful. I read this figure in a chemical technology encyclopedia's section on beer (Kirk-Othmer, I think). From a practical point of view, this means that care must be exercised when O2 is used to oxygenate. The limit of oxygen solubility when air is used is around 8 ppm, which is related to the partial pressure of oxygen in air, 0.21. This means that aeration with air, while safe, is less than optimum. However, wort saturated with oxygen may have over 30 ppm of oxygen (the dissolved sugars may lessen the amount of oxygen that can dissolve in wort relative to water, but probably not by too much). Breweries, naturally, will have the money to pay for dissolved oxygen probes, but these are not within homebrewers budgets.

Hydrometers - I seem to remember that Cole-Palmer sent me a supplement to their catalogue that had many hydrometers listed and the ones I considered professional were \$30-40. However, I seem to have lost that supplement. In their regular catalogue all the hydrometers seem to cover a large range. Still, they might be worth a call 1-800-323-4340.

Someone wanted Jim Koch address to send poison pen letters. The letter I received from him today mailed without a stamp from Nashua, NH listed The Boston Beer Works, The Brewery, 30 Germania St., Boston MA 02130 as an address. Incidentally I also got a letter from the AHA going on about how great they are (is this all a sign of insecurity on the part of both organisations?) and inviting me to the AHA 15th Anniversary Homebrew Rave, to be held in Denver on December 4, 1993, with a RSVP date of Nov 22. Still efficient as ever!

P.S. How come Molson Ice bottles have alcohol content printed on them? Is the bureau of anus touchers and fondlers becoming a little less, anal?

'Heineken!?! ... F#\$% that s@&* ... | Ulick Stafford, Dept of Chem. Eng.

 Pabst Blue Ribbon!' | Notre Dame IN 46556
 | ulick@darwin.cc.nd.edu

Date: Wed, 15 Dec 1993 11:18:37 -0600 (CST)
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: SS pots and welding

I was wondering if the aluminum and/or copper cladding on the bottom of the better SS pots made it difficult of impossible to weld a spigot in place?

WAK

Date: Wed, 15 Dec 93 16:04:59 +0100
From: steve_t@fleurie.inria.fr (Steven Tollefsrud)
Subject: Munton & Fison address...

>From: Patrick_Waara.WBST129@xerox.com
>Can someone send me the address of Munton & Fison? I have a problem
with one
>of their products which needs to be brought to their attention.

Munton & Fison plc
Cedars Factory
Stowmarket, Suffolk
England

Date: Wed, 15 Dec 93 9:34:07 MST
From: Jeff Benjamin <benji@hpfclub.fc.hp.com>
Subject: Re: First Cider Attempt

Scott Majdecki (scottm@hilbert.cypress) wrote:

> It tasted like a nice, very dry cider, but had an alcohol aftertaste.
> I'm wondering what might be the problem...

Did you take any specific gravity readings? May I suggest that you simply made very strong cider. Let's look at the recipe:

> 4 gallons natural cider
> add 5 lbs clover honey diluted to 1 gallon w/ water

I don't have any of my references here, so I may be a little off on my numbers, but assume the natural gravity of the cider is ~1.050, and that 1 lb of honey (in 1 gal water) is ~1.032. Thus your recipe has $50 \times 4 + 32 \times 5 = 360$ "gravity points", divide by the final volume of 5 gallons to get 72. So your original gravity was ~1.072, which is somewhere in the neighborhood of 7% potential alcohol. Pretty potent stuff. If you don't want as much alcohol, cut back on or eliminate the honey entirely.

I have my first batch of cider fermenting myself, and it's original gravity was 1.070. It fermented further than any beer I've ever made, going all the way down to 0.995! This gives it an alcohol content of about 8%, and you definitely can taste it. I'm looking forward to enjoying it--a little bit at a time.

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com
Hewlett Packard Co.Fort Collins, Colorado
"Midnight shakes the memory as a madman shakes a dead geranium."
- T.S. Eliot

Date: Wed, 15 Dec 93 10:56:23 -0600
From: gjfix@utam.uta.edu (George J Fix)
Subject: New Book on Hops

The following reference has just come to my attention:

Chemistry and Analysis of Hop and Beer Bitter Acids
M. Verzele and D.DeKeukeleire, Eds.
Developments in Food Science
Vol. 27
Elisvier Sc. Publ., New York and Amsterdam
1991
418 pages

I have only had a chance to give this one a quick first reading, but from this perspective it really looks good. It is loaded with ideas relating to alpha measurement, some of whom seem elementary and potentially "homebrewable". The general discussion on hops is technical but quite good. They appear to take the cohumulone issue head on!

Dr. Verzele is at the prestigious brewing school at Univ. of Ghent in Belgium. He wrote the outstanding article (IMHO) on hops in the Brewing Science sequence edited by Pollock.

Given the publisher of this new book, it is likely to be found in many university libraries.

George Fix
George Fix

Date: Wed, 15 Dec 1993 12:08:24 EST
From: Jay Hersh <herhsh@x.org>
Subject: Re: Lauter Tun Design

from Jack S.... (I know I'm probably gonna regret this :-)

> We exchanged mail on this subject but you failed to mention the hole
size of
> the lauter tun false bottom. It looks to me like another classic
example of
> how scaling down commercial equipment to homebrew sized batches just
does not
> work very well. 3/32" holes are probably too large for the geometry of
a
> homebrew tun.

Jack, what would the scale of the brewery have to do with the sizing of
the
holes in the lauter bottom?? This is a function of the size of the grain
itself
as the purpose is to server as a seive allowing wort ot pass through but
grain
to remain behind?? Can you explain the basis of your comment linking the
size
to the scale of the brewery??

> I hate to sound like a broken record, but all your problems will go
away if

No, really you don't :-)

JaH

Date: Wed, 15 Dec 93 11:58:57 est
From: Bill Sadvary <SADVARY@DICKINSON.EDU>
Subject: RE: chopsticks / RE: Reusing yeast

>1. Re-using Lager Yeast in Fermenter: I was wondering what risks
>or advantages there would be if I ferment a second batch on top
>of the yeast left in my primary after siphoning off the previous
>batch.

I do this all the time, sorta. I brew one batch with the fresh yeast (using a yeast starter- fyi) and three days or so later, when I rack this batch to the carboy, I pitch this yeast into yet another starter. In a day this starter is real active and ready to be pitched into the second batch. I have skipped the creation of the second starter and just went ahead and pitched the sludge into the 2nd batches' wort. I've never had any problems with either method and it does allow you to get two uses out of one yeast pack. I did get an infection or wild yeast once when I tried to get a third use by using the sludge of the 2nd batch.

But, they may or may not have been the sludges fault. So to be safe, I only go for the dual use.

> A quick suggestion on how to get all the extracty out of poly bags
>(or cans for that matter). Ladle a bit of the hot (recently boiled)
water
>into the bag and swish it around until the remaining extract has
dissolved
>in the water. Dump the water into your brewpot. If you're worried
about
>putting too hot water in the bag, you could even use a bit of hot tap
water
>and still not risk any infection since it's done before the boil. The
>range hood and chopstick methods seem too complicated for me, but what
do I
>know, I'm just a college student.

This is similar to my method but requires rubber gloves (dish gloves, whatever). The very first thing I do when I start to brew is to take the bag of syrup malt extract out of the frig and soak it in the sink 1/2 full of hot tap water. Begin heating the brew pot water. When it reaches about 170 (or so) degrees turn off the heat. Cut open your bag of M.E. and slowly dump it into the soon-to-be wort while mixing. When you reach the point where not much more is flowing out, open the bag and dip it into the wort and allow it to fill as much as possible. Of course, you should have your gloves on before that step! Shake the hot liquid around in the bag and dump it into the wort. It may take another scoop to get all of the malt out of the bag. With this method I can get almost every drop of malt out of the bag. And, if you're careful, and once you get used to it, it's really not messy at all. ..and it only requires one person. ..but then what do I know, I used to be a college student. ;-)

-Bill Sadvary

Dickinson College
Carlisle, PA

Date: Wed, 15 Dec 93 09:04:33 PST
From: "Ray Siemens" <siemens@unixg.ubc.ca>
Subject: Suggestions for a dark beer?

I want to take a stab at brewing a dark, thick beer, much like a Guinness,
and was wondering if anyone out there might have some ideas on the
matter.
Recipe favorites would be gladly accepted.

Cheers,

Ray Siemens
University of British Columbia
siemens@unixg.ubc.ca

Date: Wed, 15 Dec 93 09:30:08 PST
From: bgros@sensitivity.berkeley.edu (Bryan L. Gros)
Subject: **Scotch Ale**

Anyone got a good Scotch Ale recipe to share? Any secrets for getting that maltiness? a wee heavy recipe?
Thanks.

- Bryan

Date: 15 Dec 1993 09:46:08 -0500
From: "Norman Dickenson" <norman.dickenson@Sonoma.EDU>
Subject: HWBTA Annual Competition

Subject: Time:9:10 AM
OFFICE MEMOHWBTA Annual CompetitionDate:12/15/93
I recently received entry materials for the annual Home Wine and Beer Trade Association's Homebrew Competition. I have entered this competition for a number of years as I had perceived it to be a well run and competitive competition on a national scale. I am feeling reluctant to enter this competition this year for several reasons. Entries are due by the end of January. The actual judging will be held at the end of March and the winners won't be announced until the Association's annual conference will be held in UK in June. Homebrew is a fragile product which when brewed to the *lighter* styles has the potential to change in character fairly rapidly. When one is not pasturizing or filtering, shelf life is short. I just have problems with any competition which incorporates exceptionally long lag periods between the entry date and the actual competition. Not announcing the competition results for another three months seems ridiculous. Competitions are for the competitors, not for organizational self aggrandizement. But perhaps I am missing a piece to this puzzle. Can anyone shed light on the rationale for this strange schedule?
-Norman-

Date: 15 Dec 1993 10:00:22 -0800
From: "Rad Equipment" <rad_equipment@rad-mac1.ucsf.edu>
Subject: O2, Bottle inspection Quest

Subject: O2, Bottle inspection Questions Time:8:46 AM Date:12/15/93
>> Anyone out there using pure oxygen for wort oxygenation?

>Sure! Despite reading that it is best to use FDA approved O2,
>I went out and bought a tank of welding O2 (new)

Two possible issues come to mind. FDA O2 as used for medical applications has been rumored to contain an anti-fungal agent. I have not been able to get this firmly confirmed nor denied by my contacts in the medical world. Industrial grade O2 may not contain any bugs but may contain oil or other contaminants which do not cause problems with normal applications.

>Does actual bottle condition, ie. scratched or sanded, have
>anything to do with judging the beer?

No, not really. However, there is a school of thought which believes that presentation is a factor. If you send in a beer which is in a shoddy container it may indicate a lack of appreciation for the stuff inside and a general sloppy attitude towards brewing. Mind you, I am not advocating this point of view just relaying it. I suspect the inspection bit is a hold over from the early days when many more beers arrived at competitions containing contaminants. I don't know that it has any value now especially since the AHA does not consider it point-worthy.

Perhaps a discussion of this on JudgeNet would get other explanations and/or support or get it removed from the sheets.

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmac1.ucsf.edu - CI\$: 72300, 61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / Home (707) 769-0425

Date: Wed, 15 Dec 93 13:14:51 EST
From: James Kendall <kendall@ltee.hydro.qc.ca>
Subject: Malt boil

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1295 (December 11, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1291 (December 07, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1292 (December 08, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1294 (December 10, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1293 (December 09, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1296 (December 13, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1297 (December 14, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:37:10 EST
From: jmunns <jmunns@ccmail.mis.semi.harris.com>
Subject: Rule: Re: Homebrew Digest #1289 (December 04, 1993)

Text item: Text_1

I will be in California from Dec 04 thru Dec 14. I can be reached by
email
account "JMUNS" or Voice mail - Work: (407) 724-7402 Home: (407) 543-
1323

Date: Wed, 15 Dec 93 13:50:42 EST
From: Keith MacNeal 15-Dec-1993 1338 <macneal@pate.enet.dec.com>
Subject: bottle "sparkler"/multiple hydrometers/hard cider/lagering

Regarding some stuff in HOMEBREW Digest #1298:

>From: Conn Copas <C.V.Copas@lut.ac.uk>
>Subject: Re : Simulating an English beer engine

>Now here's one for the engineers: I would like to add a sparkler to my
>_bottled_ beers.

Didn't Guinness do something about this before their Draughtflow system?
Thee
was a syringe packaged with each 4/6 pack of beer. Upon pouring the beer
into
the glass you stuck the syringe down into the glass of beer, sucked beer
into
the syringe and without removing the syringe squirted the beer back into
the
glass.

- -----
>From: Jim Busch <busch@daacdev1.stx.com>

>Now, anyone know where to buy a professional hydrometer
>for under \$125?? The bummer is you need two, one for OG, and one for
FG,
>and yet another for "high OG".

Why are 3 hydrometers necessary?

- -----
>From: scottm@hilbert.cypress (Scott Majdecki)
>Subject: First Cider Attempt

>This is my first attempt at Canadian style sparkling hard cider.
>My problem/question is that after ~2 weeks in the primary
>I racked to secondary and of course had to sample. It tasted like
>a nice, very dry cider, but had an alcohol aftertaste. I'm wondering
>what might be the problem, or if the aftertaste will mellow during
>secondary.

...

>Any explanation for the alcohol aftertaste.

I think it is because you made an apple mead and not hard cider. All of
that
honey you added is going to boost the alcohol content. It should mellow
with
age. From what I've read, this could take about a year.

- -----
And now for my own question:

What are the pros and cons of lagering in secondary vs. lagering in the

bottle?

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Wed, 15 Dec 1993 11:15:38 -0700 (PDT)
From: "Taylor Standlee" <standlee@humanitas.ucsb.edu>
Subject: Cloying Sweetness, Why?

I tested a bottle from our latest batch of Spiny Lobster Ale, a tried and true recipe, and was chagrined to find that it had no head retention, large bubbles that fizzled in the mouth and a cloying sweetness (I hesitate to say sherry like sweetness because I was very careful not to expose the hot wort or raw beer to air). The recipe I follow is:

7 # 2-Row
1 # Amber Crystal
1/2 # Wheat (for head)
1/2 # Dextine
1 oz Chocolate Malt
1/2 tbs Irish Moss
1 oz Hallertau 45 min
1 oz Hallertau 5 min
Wyeast American/Chico Yeast (made into a 1qt starter)

All grains mashed at 152 for 1.5 hours, sparged with 3 gallons of 165 H2O.
1.5 hour boil, hops added as scheduled. Wort was cooled with a copper wort chiller to 70 degrees in 35 minutes at which time the yeast was pitched. Vigorous fermentation began in 6 hours. Fermentation was conducted in the garage in at temps between 55-63 degrees. Bottled with 1 cup of DME. (Note: the bottling tank had been used to bottle a batch of root-beer, but was soaked, sterilized, and rinsed 2 times before reuse).

I was very careful in sterilizing EVERYTHING. It has been in the bottle for 2 weeks and this flatish sweet stuff is really depressing me. Any ideas as to what went wrong?

Taylor Standlee
standlee@humanitas.ucsb.edu
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Date: Wed, 15 Dec 93 14:36 CST
From: korz@iepubj.att.com
Subject: when to bottle/bottle inspection/Fuggles in the boil

Jim writes, quoting me:

>> From: korz@iepubj.att.com
>I usually wait till the airlock is bubbling less
>> than once per minute, often waiting till it's less than once per two
minutes.
>
>If you have good experience with this method, fine. But if you are
tweaking
>variables all of the time, like I often do, please take a hydrometer
reading
>to determine when to keg/bottle. The 'ole bubbles per unit time can be
>quite misleading.

I'd like to discuss this a bit. The cases where I could see the "bubbles
per unit time" method to be misleading are:

1. if there was a big temperature swing in the middle of the ferment
(which could cause your yeast to go dormant for a while),
2. if you are used to doing ales and then do a lager (which will have a
much
lower bubbling rate throughout the ferment -- I think I waited till 5min
between bubbles on the last Bock I did (at 45F)),
3. mixed yeasts (the Whitbread triple-strain (Wyeast #1098) has been
reported
to have a slowdown in the middle of the ferment, for example), and
4. high-alcohol (very high OG) brews (I know I should have tested the FG
on
a recent Imperial Stout -- I would have done something had I realized
that
my FG was 1050 (OG was 1120) *before* I had bottled).

Have I missed some?

I agree that hydrometer readings are a good idea, especially if a
particular
batch is extreme or did not behave normally.

Let's discuss this.

Chuck writes:

>The AHA beer judging form starts off, after identification of the
>style and the judge, with the category "bottle inspection". There
>are no points awarded in this category, just comments. I have
>several questions, such as:
>
>What is the purpose of this section? Recently I received comments in
>this section of "short fill" and "low fill line". I also received a
>"nice bottle" comment. I see that this inspection could be
>used to inspect for the ring that is supposed to be indicative of
>certain types of bacterial infection. I also understand that low
>fill *could* be indicative of potential oxidation, although oxygen
>absorbing bottle caps *may* negate potential oxidation risk from air
>in the bottle. However, if no points are awarded, what's it there

>for?

Partly for historical reasons, but I think it may be just to remind judges to look at the headspace and perhaps the sediment before pouring. This information can be used later if a problem in the beer is found and suggestions for improvement are in order. I use this area also in small, regional competitions to mention the AHA National rules to the brewer if they used a raised-design, oversized or swing-top bottle.

>Do oxygen absorbing bottle caps negate the potential for in-bottle
>oxidation?

I don't think they negate it, but I feel that the effects of oxygen on beer are much more detrimental when the wort is hot than when you are bottling. I'm in the midst of an experiment on this topic. Experiments have shown that these caps *do* increase hop aroma longevity.

>Does actual bottle condition, ie. scratched or sanded, have
>anything to do with judging the beer?

It should not, but let's be realistic... a scratched, scuffed, old bar-bottle may start the judges off (subconsciously) on the wrong foot. Consider two term papers, one typeset the other printed on an 9-pin printer with an old ribbon. I'll bet the typeset one has a measureable advantage.

Chris writes:

>In his book on Pale Ale, Terry Foster includes a table of
>hops varieties and suggested uses in Pale Ale. He
>recommends Fuggles hops for aroma/finishing only, and not
>for bittering. Aside from the modest AA content of
>Fuggles, is there any other reason why I shouldn't have
>used them last week?

Cost per AA content -- consider the cost of putting 180 IBU worth of 2.3%AA Saaz in an Imperial Stout! There has been some debate, here and elsewhere, about whether the type of hops used in the boil make a difference. I, personally, feel that it does make a difference and avoid using two hops which I have found to give a "rough" bitterness even if used only for a 60-minute boil: Chinook and Clusters. Everyone has different tastes, however... try them for yourself and see if you agree.

As for Fuggles in the boil -- I use them often.

Al.

Date: Wed, 15 Dec 1993 15:45:32 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: Uh Oh!

Chris Amley writes:

>In his book on Pale Ale, Terry Foster includes a table of
>hops varieties and suggested uses in Pale Ale. He
>recommends Fuggles hops for aroma/finishing only, and not
>for bittering. Aside from the modest AA content of
>Fuggles, is there any other reason why I shouldn't have
>used them last week?

Gee, Chris, I hope you've had all the children you wanted! You haven't
actually drunk any have you!!!!???

Urf.

Terry Foster was waxing a bit snobbish. Fuggles is, in fact, a fine hop
(so is its clone: Willamette), and makes a very nice late addition. Of
course the Classic (TM) finishing hop for English ales is East Kent
Golding -- but there are a lot of really good English hops that British
brewers use, including Fuggles.

Really, they're just fine.

- --Jeff

Date: 15 Dec 93 12:14:00 EST
From: "Anderso_A" <Anderso_A@hq.navsea.navy.mil>
Subject: Head Retention

Message Creation Date was at 15-DEC-1993 12:14:00

Greetings,

I've been having erratic head retention problems of late: i.e. some batches are fine & some are lousy (even though carbonation is fine). I've tried protein rests, addition of wheat malt, as well as other malts purported to increase head retention but with no concrete results. Now I have a new theory on which I'd like some feed-back. Polyclar. I don't use this on my darker beers & they generally have the good head retention. When I do use the Polyclar (2 tsp/5 gal) I do get a clearer beer, but in general these "clearer" beers don't keep a head. Am I barking up the wrong tree, or is there a common thread here? Basically, do I have a trade-off: clarity vs. head for my light colored beers?

TIA,
Andy A

Date: Wed, 15 Dec 93 19:11:20 EST

From: yeebot@aol.com

Subject: Re: First Cider Attempt

Scott,

My explanation for the alcoholic aftertaste: Alcohol! Probably lots of it.

My last batch made with 4gal cider, 2lbs honey, and Sherry Yeast produced a

batch around 10%. With all that honey in your batch, still producing a "very

dry" cider, my guess is that all that honey has been converted! I wouldn't

doubt your batch is 12%+ alcohol. Your batch will mellow with age, wait at

least a month after bottling for yummy results. I know some who wait at least

a year. A hypothesis: Cider that is made with honey (actually a "Cyser") may

take longer to mellow than ciders made with sugar adjuncts. Mead, made primarily from honey, has always seemed undrinkable under a year or so.

Anyone with comments/ideas?

Also: Good idea to rack often. Whenever 1/8" to 1/4" of sediment settles.

Question: What's the difference between Canadian, British, New England, etc.

styles of cider?

Letmeknowhowitgoes!

Michael Yee
Angst Brewing Co.
yeebot@aol.com

End of HOMEBREW Digest #1299, 12/16/93

Date: Wed, 15 Dec 1993 19:21:01 -0800
From: b_regent@holonet.net
Subject: RE:RIMS & HSA

In a recent HBD, Bob Getty asks about RIMS and HSA.

I've been using a RIMS for about 2 years now. While I can't definitely attribute it to some oxidation problems I had, I did take steps to reduce HSA.

Originally, I used a setup similar to the one described, where wort is returned to a plastic tray with holes in the bottom. The amount of foaming

that occurred was quite impressive. Obviously, a lot of air was being introduced to the hot wort.

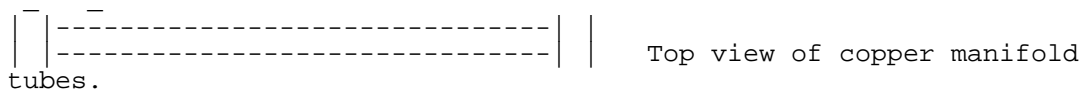
About a year ago, I decided to build a return manifold, to alleviate any HSA problems that I might have had. The manifold sits below the level of liquid in the tun, so no air can be introduced. There is now absolutely no

foaming that occurs. I have not brewed a beer with any detectable oxidation

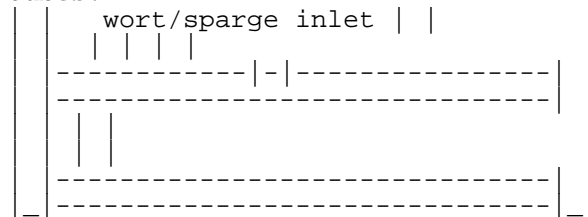
problems since installing the manifold. I don't know if I really had a problem

to begin with, but I definitely don't now.

I brew in a 54 quart igloo cooler. The manifold is made from 1/2" id. copper.



tubes.



After mashing is complete, the wort return line is run into the kettle, and the sparge liquor line is connected to the manifold inlet.

- --bob

b_regent@holonet.net

- - - -
~ KingQWK 1.05 ~

Date: Wed, 15 Dec 93 23:39 CST
From: arf@mcs.com (Jack Schmidling)
Subject: KETTLES

>From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)

>IMNSHO, the *minimum* useful size for brewing a five gallon batch is a
32
quart pot (8 gallons). You can get an enamel 8 gallon canning pot for
about
\$35 (with lid). This is what I'm using. The geometry is poor for doing
a 2
hour boil -- too much surface area for the volume.

The other side of the equation is that you can achieve a great deal of
evaporaton in a 2 hr boil, you just need to start with more sweet wort.
The
bottom line is you can increase the yield by extracting more sugar from
the
mash. You might also try using less heat if you have to keep the lid
on.

>I would like to get a ten gallon stainless stock pot, but they cost
about
\$175 new.....

Not sure how to kill this bit of bum information but they are available
from
several sources for around \$100. Call 800 553 7906 for a catalog from
one
such place.

js

Date: Wed, 15 Dec 1993 21:51:37 -0500
From: jeclark@ucdavis.edu (James Clark)
Subject: update

just thought i'd let everyone know how our beer brewing is going and then ask a quick question or two.

we made a second batch on saturday and it went a thousand times better than

our first. before brewing this time i measured off the capacity of our carboy one gallon at a time and marked it with fingernail polish. (thanks to whoever suggested this idea) in doing this i found that in our last batch we had added about 3/4 of a gallon too much water. (go ahead and laugh...i did)

the boil went almost perfectly and we cooled the wort to about 90F in less

than 15 minutes in an ice water bath.

the only problem we had was that we didn't have a scale to weigh out the hops, so we had to guess on the amounts.

the o.g. was 58, but that included all the particles from the crystal malt

that immediately settled to the bottom.

the fermentation went very quickly. on sunday afternoon we were getting about 3 bubbles a second out of a 1/4" i.d. tube, but on monday the kreusen

was almost gone and we were only getting about a bubble a minute out of the tube.

so here are the questions:

1) why are wort chillers recommended? isn't an ice water bath almost as effective?

2) do ales normally have that short of an optimal fermentation time (the kreusen had settled after only about 36 hours)?

3) because of the high gravity boil the beer is not as bitter as i want it,

so i was thinking about dry hopping in a secondary. is there a recommended

time to do this or can i do it any time after the kreusen settles? also, can someone give me a range for the amount of hops to use in the secondary

(i know i didn't say how bitter our beer is right now, but i just want to know if most people use 0.5 oz. or 8 oz when they dry hop)?

sorry, my NCJoHB is at my friend's house and he is gone for a few days, so

i couldn't just look up the answers to these.

thanks y'all.

- --james

p.s. not that anyone cares, but i'm with lan and andrew on this AOL thing.

F*%@ sensorship!

Date: Wed, 15 Dec 1993 21:26:32 -1000 (HST)
From: Sean Barrett <barrett@uhunix.uhcc.Hawaii.Edu>
Subject: signing on to the list

barrett@uhunix.uhcc.hawaii.edu

Date: Thu, 16 Dec 1993 07:51:45 -0400 (EDT)

From: GONTAREK@JHUVMS.HCF.JHU.EDU

Subject: Clip art for beer labels

Greetings brewfolk! I have a quick question that I was hoping someone could

answer for me: Where (on the net) can I get clip art files that I could incorporate into a graphics program that i use to make my beer labels?

I am using Canvas on the Mac for graphics, and would like to get my grubby

hands on some cool artwork (pictures, etc) to spice up my labels. I am a biologist/homebrewer, not a computer wizard, so bear this in mind when you respond. Any help would be greatly appreciated. Thanks in advance.

Rick Gontarek

Gontarek@jhuvms.hcf.jhu.edu

Dept. of Biology

The Johns Hopkins University

Date:Thu, 16 Dec 93 8:38:34 EST
From: "Darren L. Ward" (FSAC-FCD) <dward@PICA.ARMY.MIL>
Subject: Champagne Bottles

I'm almost ready to bottle my Mead, anyone know which Champagne bottles can be capped with a beer cap? I think this is the best way to go with a batch that takes a year or so to condition.

Date: Thu, 16 Dec 93 07:37:00 PST
From: Timothy Sixberry <tsixber@msrapid.kla.com>
Subject: Questions

Hi fellow homebrewers/ drinkers,
This is my first publication in the digest and I wish I were answering
some
questions, but instead I must ask a few this time. I have been brewing
for
about a year and a half and have done both all grain and extract brews. I
have had good luck with both and not to many problems. It seems to me
though, that every time I think I have it down, I read about some new
method or device that is supposed to make the beer come out better. It
seems to me that the basics of making good beer are very simple, things
such
as sterility, accurate temps, good ingredients, a set of routine steps,
and
patience. So my first question is. If the beer is coming out good, why
complicate matters? An example of what I mean is the use of of oxygen
and
a bubbler system to airate the wort prior to pitching. Is this really
nessasary? I just shake the hell out of my primary a few times after
pitching the yeast, and I don't seem to have any problems. Will my beer
actually taste better if I go through this extra hassle? I can't
immagine
how a well mashed, properly fermented and lagered beer could be improved
upon even more. If my beer gets any better than it already is I don't
think
I will be able to stop drinking it. Thats a scary thought. What if I
made
my beer so good that once I took a drink of it I just could'nt stop? Man,
I
think I'd better go get me a beer to settle my nerves.

He who laughs last, drinks first.

Date: Thu, 16 Dec 93 9:49:25 CST
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: Abita Turbo Dog

Hey folks - last night I had two Abita Turbo Dogs with a batch of K'Pauls Shrimp Creole and I was in heaven. I have the recipe for the shrimp, can anyone give me info/recipe on the Abita Turbo Dog? Extract recipe, brewery info, anything.....Bueller.....Bueller.....
Chris

|Chris Pencischips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |

Date: Thu, 16 Dec 93 10:48:33 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Stein Lids Revealed / New Book on Hops

Re: stein lids revealed
Mark Bunster <mbunster@hibbs.vcu.edu> wrote:

> I remember seeing a guy in a bar pour 9/10 of his beer, then roll the
bottle
> sideways back and forth for 10 minutes to build a good head to pour on
top.
> Everybody has a system.

Most likely hefeweissbier. Pour out all but an inch, then shake up the
sediment to get it all out of the bottle and into the glass!
A common technique in Bavaria.

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Re: New Book on Hops
gjfix@utam.uta.edu (George J Fix) wrote:

> The following reference has just come to my attention:
> Chemistry and Analysis of Hop and Beer Bitter Acids
> M. Verzele and D.DeKeukeleire, Eds.
> Developments in Food Science
> Vol. 27

Also in the same series, Volume 28 is:

TITLE: Off-flavors in foods and beverages / edited by George
Charalambous.
IMPRINT: Amsterdam ; New York : Elsevier, 1992.
PHYSICAL FEATURES: xiv, 749 p. : ill. ; 25 cm.
SERIES: Developments in food science ; 28

I haven't had time to look through this one yet, but it might be
interesting.

Tim

- - - - -

Timothy J. Dalton tjdalton@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab
--- Im Himmel ist kein Bier, darum trinken wir es hier. ---

Date: Thu, 16 Dec 93 10:51:03 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Bottle Inspection

When I (rarely) write a comment in the "bottle inspection" part, I do it before opening the bottle. It thus serves as a reminder to me about the state of the bottle, so that IF I find flaws that might be related, I can refer back to it. (Short term memory is the first thing to go.... What was the question, again?)

I've also commented things that are obviously unrelated to the beer quality, such as a totally grungy bottle. Someone who wants me to judge their beer should at least have enough pride in their product to present me with a clean bottle. But, as you note, it doesn't affect the score.

=S

Date: Thu, 16 Dec 1993 09:44:01 -0500
From: cole@nevism.nevis.columbia.edu
Subject: Hydrometers / Haze problems

> Somebody asked why Jim Busch needs three hydrometers:

The reason is that the length of the tube in the hydrometer below the surface of the liquid varies > INVERSELY < proportional to the density of the liquid being measured. Since you get your reading from this length, the reading also varies inversely proportional to the density, i.e.

$$L = c * 1/\text{Rho} = L_0 + (\# \text{ of marks}) * (\text{distance between marks})$$

Writing this in terms of Specific Gravity:

$$L = c * (1/\text{rho_water}) * (1/\text{SG})$$

This is a simplified version of the full expression but it makes the point. You can think of it this way: the more dense the liquid being measured, the higher the hydrometer rises and the smaller the length of tube below the surface. This expression can be linearized for small variations around a nominal density, that of water. Expressing this variation in terms of specific gravity:

$$\text{SG} = 1 + \text{delta_SG}$$

$$L = c * (1/\text{rho_water}) * (1 - \text{delta_SG} + \text{delta_SG}^2 + \dots)$$

This means that if a hydrometer has to cover a range of specific gravities from 1.000 to 1.100 using a linear scale, there will be a 10% error in the measurement from one end of the scale to the other (due to the delta_SG^2 term). Thus, high precision (scientific quality) hydrometers use much shorter scales to improve the accuracy of the measurement. There's also the issue of measurement precision. If you want precise measurements (better than 0.001 error) the hydrometer has to have a larger change in L for the same delta_SG than those we use. Thus to cover the same range, the hydrometer becomes longer. Conversely, if you want to keep the length within some reasonable range, you have to keep the range covered by the hydrometer shorter.

If you look in a scientific equipment catalog there will be hydrometers which have smaller ranges than those used by homebrewers and they will come in a wide variety of NOMINAL specific gravities.

I have a problem that I would like to consult HBD experts on. Since I have been brewing all-grain beers, I have had lots of trouble with haze.

I have now done 8 all-grain batches. Two batches suffered from chill haze, two batches were satisfactory, and the rest suffered from haze problems that had nothing to do with chill-haze. These beers are cloudy even when warm.

* At first I used a grain-bag in a bucket style lauter tun. After the first

three batches I felt that I was not getting sufficiently clear run-off and switched to a copper manifold lauter-tun. After doing so, my run-off cleared much more quickly.

* For the last three batches I have PH treated my sparge water to reduce tannin extraction and have noticed a significant drop in astringency of the runoff at the end of the sparge.

* For the last few batches I have been careful to limit the amount of aeration of the runoff during the sparging process. I no longer try to heat the runnings while I sparge as this requires too much pouring of the hot liquor, I simply sparge directly through a hose into my boiling kettle until I have finished.

* I have had problems using both German Pilsner Malt (with protein rest) and British ale malts so I doubt that I am having protein problems (except maybe for those suffering from chill haze).

* I suspect starch haze problems. For the two worst batches, I added the crystal malts at the very end of the mash. On my last batch I was careful to do an iodine test before and after adding the crystal and found to my surprise that after adding the crystal, the test showed presence of starch where the pre-test showed none. Has anyone else observed this problem ???

* I am using a Corona mill and have been setting it to optimize (i.e. reduce husk shredding at the expense of having larger malt fragments and more uncrushed kernels. I suspect I may be extracting starch during the sparge from some unconverted chunks of malt. I certainly have to mash much longer than Miller would suggest (last batch - 3 hours for 10 # malt, 6# pale, 3# mild, 1# crystal). I would like to hear from other users of the Corona mill re: problems with starch haze / long mashes etc..

* I am aware of the potential haze problems from infection by wild yeast etc. One of my bad batches was fermented at 40 deg. and lagered at 32 for a month. I don't know if bacteria or wild yeast could survive these temperatures long enough to give me troubles. Also I have not been able to detect any significant off-flavors in the two batches which suffered the worst haze problems. That doesn't mean that they weren't contaminated - I just may not be able to tell. I would be willing to send a couple of bottles to someone who thinks he/she can detect off-flavors produced by wild yeast fermentation.

Unfortunately, I have not been able to correlate the source of the haze with any of the above changes/variables. My best two batches can be between two bad batches. I would welcome advice from experienced all-grain brewers.

Cheers,

Brian Cole

Date: 16 Dec 93 09:29:59 MST (Thu)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: accurate hydrometers

A while back I got a "bottling hydrometer" to use along with the regular one. It helps a lot. The full-scale range is 0.980-1.020. (This compares to about .990-1.170 for a standard brewing hydrometer.) Cost: about \$15, from William's Brewing. This is a good middle step between the old standard full-range hydrometer and expensive lab-grade equipment.

I find it useful for two reasons. First, obviously the 4+ x expansion of the scale makes it much easier to read--the 0.001 units on the bottling hydrometer are more than twice the size of the 0.002 units on the regular hydrometer.

Second, meads often finish up down around 0.990; it's nice to have some extra range on the hydrometer below that. (I suspect the bottom .010 on a regular hydrometer isn't all that accurate, since there's only a tiny section of the tube left above the liquid.)

I don't find a real need for an expanded-range hydrometer at the higher gravities. Anything that's up there is generally fermenting quickly, hence changing gravity quickly, hence a precise reading doesn't tell you a lot. I use the regular hydrometer for the early stages, then switch to the bottling hydrometer when things stop changing much.

Note that if you use an expanded-range hydrometer, you need to pay more attention to the standard cautions about not having glop on the hydrometer (especially on the part above the fluid line) and about measuring at calibration temperature or applying temperature corrections. Otherwise you're just buying precision, not accuracy.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Thu, 16 Dec 1993 10:48:37 -0600 (CST)
From: Robert Jordan <JORDAN@ANLBEM.BIM.ANL.GOV>
Subject: Hops question

This is a little late, but what the hey.....

I've been reading the recent discussion about hops and utilization and also this information in the Hops FAQ and I admit to being a bit confused. I plan on brewing a beer more or less following Papazian's Righteous Real Ale.

Now, I understand the concepts of IBUs, HBUs, %utilization, etc., but I'm not sure that I'm using the formula's correctly. So I plan on boiling 6 lbs. of malt extract in 1.5 gallons water for 45 min. per the recipe. According to Papzian then, I should get ~19% utilization. On to the formulae (also from Papazian)-

$$\text{IBU} = \text{HBU} * \% \text{UTIL} / 6.7$$

I want a target HBU of 8 so:

$$\text{IBU} = 8 * 19 / 6.7 = 22.7$$

OK. Now it's this part that for some reason is bothering me (sorry, Charlie.)

$$\begin{aligned} & \text{Weight(in oz)} * \text{AA} * \% \text{Util} \\ \text{IBU} = & \text{-----} \\ & \text{Volume} * 1.34 \end{aligned}$$

Now I plan on using Cascade (AA=5.5) for bittering so...

$$\begin{aligned} & \text{Weight(in oz)} * 5.5 * 19 \\ 22.7 = & \text{-----} \\ & 5 \text{ gal} * 1.34 \end{aligned}$$

So Weight(in oz) = 1.46 oz --call it 1.5 oz

Have I got it right (assuming I've done the math correctly)? Sorry if this question has been answered in the recent discussion. I suspect that it has, but I didn't recognize the answer as such. Thanks in advance--

Rob

RJordan@anl.gov

P.S. Thank's to all who responded to my post a month or two ago about mail order suppliers. It turns out that the best AND cheapest shop around is 20 minutes from my apartment....

Date: 16 Dec 1993 08:50:25 U
From: "Palmer.John" <palmer@ssdgwy.mdc.com>
Subject: Stainless Steel Welding

In HBD1299, Bill Kitch wondered:
I was wondering if the aluminum and/or copper cladding on the
bottom of the better SS pots made it difficult of impossible
to weld a spigot in place?

The answer is Yes, Definitely Impossible - If the weldment has to involve
that
cladding. If it will not touch the weldment, then it is not an issue.
The stainless steel weld won't know the cladding is there.

John Palmer
MDA-SSD M&P

PS. Still have the How To Brew Your First Beer instructions. Its Rev.B
thanks
to all the great comments I have received. Email me at palmer@ssdgwy.
mdc.com
but please be circumspect in the subject line. Example: Document Rev.B
Our Mail Mgr is getting touchy about non work related use of company
resources.

Date: Thu, 16 Dec 93 12:09:28 EST
From: U-E68316-Scott Wisler <wisler_scott@ae.ge.com>
Subject: Bubbles/time and Threaded neck carboys

Al and Jim discuss hydrometer measurements vs bubbles per unit time.

The only time I have ever had false indications from the bubbles per unit time method is brewing ales at the low end of the temperature range. ie, fermenting in the basement during the winter.

I previoulsy used the bubbles to know when to bottle, and one hydrometer measurement at the begining of the bottling process make sure I wasn't mistaken. I didn't monitor the SG because I felt the risk of infection/aeration was too high. Since I switched over to the BrewCap (tm) system, I can monitor SG carefully, with much less chance of infection/aeration.

A while back I remember someone mention that their brew was bubbling `once per hour'. While I always waited for less activity than once per minute or two, I can't imagine being carefully transfixed on an airlock for more than an hour waiting for that second bubble (to get the time increment).

I have had difficulty siphoning out of my 6.6 gallon acid carboy because the orange cap (siphon starter) doesn't seal on the threaded neck. For those of you in a similiar situation, a solution is to use an O-ring to help seal the orange cap. A 2" OD, 3/16 thick O-ring should do the trick. It fits in the groove just below the top lip of the carboy. It doesn't work quite as well as having a standard neck carboy (the one the cap was designed for), but its inexpensive and passible. For those asking for carboys for Christmas, getting a standard neck will save a lot of grief, and they come in at least 5, 6, and 6.6 gal sizes.

For clarity, the orange carboy cap has nothing to do with the BrewCap system and should not be used upside down as it will impart bad flavors to your brew. The BrewCap doesn't fit on threaded neck carboys.

scott

Date: Thu, 16 Dec 93 12:35:38 EST
From: Matthew Causey <matthewc@hpwasb.wal.hp.com>
Subject: sign me up

Date: Thu, 16 Dec 1993 10:58 -0600 (MDT)
From: Marc Hugentobler <MARHUG@TELECOM.USU.EDU>
Subject: Flat Dinosaurs, BJCP,etc.

The creee-eeepy man writes he would like images of a certain flattened dinosaur. HBD might not be the proper forum to search for such an obscure document even though most of its patrons could probably appreciate such an image. However, being the storehouse of obscure information that I am, I thought it appropriate to oblige. There are several Borderline-cultish forums who would like to see the big purple menace meet with an untimely demise. Bear in mind I don't know that any of them contain the image you seek, but that is the thrill of the adventure. They are as follows:

Jet over to your Usenet gateway and peruse

Alt.tv.barney

Alt.tv.dinosaurs.die.die.die

Alt.barney.dinosaur.die.die.die

Alt.sex.bestiality.barney

For what its worth anyway

I personally have some questions of the forum many of who seem to be certified beer judges. Is there any more information about The BJCP exam available besides the outline available by anonymous ftp? More sample questions and sample answers would be very helpful. I desperately want of qualify but find myself confounded by the amount of information. Personal Insights would also prove valuable. Thanks in advance!

Marc Dee Hugentobler
Utah State University
Marhug@telecom.usu.edu

Date: Thu, 16 Dec 1993 13:15:32 -0500 (EST)
From: gelinas@ekman.unh.edu (Russell Gelinas)
Subject: bottle inspection

The "Bottle Inspection" comments in an AHA competition can also tell you how well your bottle did in transit. I had an entry panned, big time, with comments like "phenolic, astrigent" and the ultimate insult "keep on trying" :-). At the time it was the best beer I had ever brewed, and everyone who tasted it thought so too. It had no phenols. I thought it compared very favorably with the best of brewpub ales. So what happened? Well, one strong indication was the comment "low fill line" in the bottle inspection. I *knew* I had filled the bottles correctly. So *something* happened that "hurt" my beer. Maybe the cap was loose and it picked up some "flavor" from the surrounding plastic bag. Maybe the bottle somehow got switched with another. I'll never really know. But in this case, the "Bottle Inspection" comment was a valuable diagnostic for the *brewer*.

FWIW, since I still had 2 bottles of it, I immediately tried one. It was fine. I sent the other off to a certified beer judge, who confirmed it was a good beer, without any of the phenolic/astrigent defects noted in the competition report. He did say it was "out of style" though :-)

Russ Gelinas
eos
unh

Date: Thu, 16 Dec 1993 13:28:15 -0500 (EST)
From: gelinas@ekman.unh.edu (Russell Gelinas)
Subject: wyeast 1098/Whitbread

Was it ever settled if Wyeast 1098 has the 3 strains of Whitbread yeast or just 1 of the strains? As a data point, I've got a batch in secondary fermented with 1098 that went from 1.092 to 1.030 in 10 days. There was a slowdown at about 5 days, which picked up again within a day. It is now in the process of clearing. So it **acts** like 3 strains....

Russ Gelinas
eos
unh

Date: Thu, 16 Dec 93 13:50 EST
From: Tom Clifton <0002419419@mcimail.com>
Subject: Making separate messages out of HBD

'HBD.BAS 12/16/96 - For Quick Basic - makes individual files of HBD
messages

'=====

==

'At the risk of aggravating the Non-IBM PC readers of the Home Brew
Digest -
'here is a basic program that I use to break the HBD into separate files
'and adds Digest # to Subject: line. You can run this from Quick Basic
'which comes with DOS, or compile it as a stand alone, then import them
into
'your mail reader (I use LOTUS EXPRESS)

CLS

```
ON ERROR GOTO BadName 'If file name is invalid
PATH$ = "C:/MAILSYS/FLD.FLD/" 'Output directory for files
Seq = 0 'Sequence number for files
HBDfile$ = PATH$ + "HBD" + RIGHT$(STR$(Seq), LEN(STR$(Seq)) - 1) + ".
TXT"
OPEN HBDfile$ FOR OUTPUT AS #2
LOCATE 10, 10: INPUT "Enter file Name :", File$
OPEN File$ FOR INPUT AS #1
DO WHILE NOT EOF(1) 'Read input file
  LINE INPUT #1, Read$
  IF LEFT$(Read$, 30) = "-----" THEN GOSUB
NewFile
  IF LEFT$(Read$, 17) = "HOMEBREW Digest #" THEN
    Tag$ = " [HBD " + MID$(Read$, (INSTR(Read$, "#")), 5) + "]"
  END IF
  IF LEFT$(Read$, 8) = "Subject:" THEN
    Read$ = Read$ + Tag$
    LOCATE 12, 10: PRINT STRING$(70, 32)
    LOCATE 12, 10: PRINT Read$;
  END IF
  PRINT #2, Read$
LOOP
CLOSE
END
```

NewFile:

```
  LINE INPUT #1, Read$
  LINE INPUT #1, Read$
  Seq = Seq + 1
  CLOSE #2
  HBDfile$ = PATH$ + "HBD" + RIGHT$(STR$(Seq), LEN(STR$(Seq)) - 1) + ".
  TXT"
  LOCATE 11, 10: PRINT "HBD" + RIGHT$(STR$(Seq), LEN(STR$(Seq)) - 1) + ".
  TXT"
  OPEN HBDfile$ FOR OUTPUT AS #2
  RETURN
```

BadName:

```
BEEP: LOCATE 10, 10
LOCATE 10, 27
PRINT SPACE$(32);
LOCATE 10, 10
INPUT "Enter File Name :", File$
RESUME
```


Date: Thu, 16 Dec 1993 11:55:00 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: early racking question

Having read on HBD that early racking can minimize the reabsorption of diacetyl by the yeast (the point went unchallenged when it was made, I think -

is that right?) I decided to try that technique last night with a (hopefully) Scottish Ale I have fermenting. When I made the transfer, the gravity was down from a starting 1060 to about 1040, so it has plenty left to ferment out. My question is, since the beer is less than half-done, gravity wise, isn't there going to be a lot of yeast still to reabsorb that beloved diacetyl when the secondary is done?

Supplementary info about this brew for those inclined to consider my query, and some side questions. This was an extract/specialty grain recipe as follows:

1 lb. dark crystal malt
1/2 lb. chocolate malt Steep in grain bag while heating water & remove
2 tsp. gypsum
6 lb. William's English Light Syrup
2 lb. William's EL DME
4 oz. Maltodextrin pwdr.
2 oz. English Fuggles (4.7 A.A.) boil for 60 minutes
1/2 tbsp. Irish Moss last 15 minutes
Wyeast "Irish" from starter

Yes I know Wyeast has just come out with a "Scotch" Ale yeast but I haven't tried it.

A second reason I decided to rack early on was that the bottom of the primary has the most disgusting looking trub in it I have ever seen. Really, it looked like a brown version of what gets stuck like stalagmites in my kids' noses. Big CLUMPS of yuck. Why could this be? Is it something to do with maltodextrin powder (I've never used it before)? Or is it more likely that it has something to do with the fact that I didn't get a very good cold break (I attempted to "whirlpool" but I think I did it too late, after some of the cooling already had taken place, so I probably just re-suspended the break material. Duh.)?

Trying to save the yeast from the primary after racking this early was a real adventure too. I almost had to call the National Guard to keep it from taking over my house. "I'll just throw this stuff in a mason jar," I sez. Hah! After watching the foam escape the loosely-fitting (good thing!) lid

and try to crawl out of the sink, I diverted some of it to a starter
(give it
something to eat and it will go to sleep) in a 1L flask. Should have
used
the gallon jug - this morning the stopper & airlock had blown off the top
of
the flask and it was foaming away merrily. Having read all kinds of
things
about "open fermentation," though, I confidently re-plugged it and
cleaned
the outside of the flask. The rest of it, in the mason jar, I gave a
cold
shower. A brief ice-water bath and then transferred to the fridge, to
which
I returned every few minutes to "burp" the jar until the belches were no
longer quite so rowdy. This morning, thankfully, the jar was intact so
we
didn't have to have brown scum for breakfast.

How early did I rack? On the fourth day of fermentation, to be precise,
or
to be even more precise, about three and a half days after fermentation
began
(I had a 12-hour lag because I had let the starter sit around too long).
At
this time, the fermentation in the 5-gallon glass primary had subsided so
that the blowoff hose could be removed, the airlock was bubbling at about
1/
5 sec., and the krausen had subsided noticeably although it was far from
gone.

Did I rack too early? Normally, when I rack to secondary - usually for
dry
hopping or for extended settling of a light colored beer so it doesn't
sit on
the trub - I wait about a week, at which time the fermentation is mostly
over: bubbles at 2-4/min., krausen disappeared. Are there any proponents
of
"early" racking out there who would like to comment? Anybody think
"early"
racking is a waste of time? Come on now, let's take the gloves off and
have
a few rounds of good clean fun.

Jonathan Knight
Grinnell, Iowa

Beer. It's just NOT for breakfast.

Any more?

Date: Thu, 16 Dec 93 18:59:24 CDT
From: JEBURNS@ucs.indiana.edu
Subject: All-grain equipment & Kegging

I have been reading HBD for about two months now and have finally decided to post a few questions. I moved from Washington State to Indiana (my wife is going to grad school here), homebrewing is fairly popular in WA. There are also quite a few micro-breweries, my favorite is Red Hook from Seattle. I just started brewing again after the move (had to leave my carboys at home), I have found the HBD to be very helpful, its nice having a net connection. Anyway I would like to start ewing all-grain beers, up until this point I have been using extracts and specialty grains.

Question #1- It seems that there are a lot of people on the HBD who use the modified picnic cooler method. This method isn't really discussed by Miller. I would like comments on this system both positive and negative. Is it only used for single temp mashing?

#2- What are the advantages/disadvantages to using 2-row vs. 6-row malts? Is American Klages 2-row modified enough to use a single temp mash? Red Hook uses that type + you can get it pretty cheap (\$20 for #50 + shipping)

#3- I don't want to start a "my system is superior to your system" war but, I would like to hear about different methods that people use. Basically I'm looking for a method that I can use in my kitchen (no 3 billion btu cookers etc...) and is pretty simple. I understand the basic process that is involved but haven't decided on the equipment. Any suggestions or warnings about systems that I could build or buy would be appreciated. Commercial products too (Easymasher, RIMS etc..)

#4- I have two Cornelius kegs that I would like to use. I can't afford a CO2 tank and reg. So I would like to use them for parties (drink it all before any oxidation). I can order the connectors and a dispenser but I would have to rig up some sort of a pump to displace the beer. Would this work? Any suggestions for pumps? I was thinking about a foot operated bike pump. They also make a small CO2 bike pump, how many cartridges would it take for 5-gallons of brew?

Thats all. Next time I won't wait until there are so many.

Dave Burns e-mail to jeburns@ucs.indiana.edu
or
1207 Crescent Rd.
Bloomington, IN 47404

Thanks
Dave

Date: Thu, 16 Dec 93 18:11 CST
From: arf@mcs.com (Jack Schmidling)
Subject: TUN DESIGN

<From: Jay Hersh <hersh@x.org>

<from Jack S.... (I know I'm probably gonna regret this :-)

Just remember, if you do, it's self-inflicted. As Harry once said, if you can't stand the heat.....

> We exchanged mail on this subject but you failed to mention the hole size of
> the lauter tun false bottom. It looks to me like another classic example of
> how scaling down commercial equipment to homebrew sized batches just does not
> work very well. 3/32" holes are probably too large for the geometry of a
> homebrew tun.

<Jack, what would the scale of the brewery have to do with the sizing of the holes in the lauter bottom?? This is a function of the size of the grain itself as the purpose is to server as a seive allowing wort ot pass through but grain to remain behind?? Can you explain the basis of your comment linking the size to the scale of the brewery??

I probably couldn't before receiving another letter from the originator of the thread. My only argument was that if 3/32" holes work in large tuns but not in a small one, it must have something to do with geometry.

Turns out that grain for a 5 gallon batch "barely covers the bottom" so he is forced to make larger batches but apparently not large enough. So I was on the right track but probably for the wrong reason. The larger holes only work well with a large depth to diameter ratio but smaller holes would be more forgiving. I am not sure why one would want larger holes and thereby put such constraints on the aspect ratio but therein at least, seems to be the answer.

For the record, the screen I use on the EM has 32 mesh screen and taking the wire diameter into consideration, the hole size is roughly ten times smaller than the "professional" size.

> I hate to sound like a broken record, but all your problems will go away if

<No, really you don't :-)

Broken records tend to annoy people and my mission is to share what I
have
learned with others and learn what they have learned from them.

js

End of HOMEBREW Digest #1300, 12/17/93

Date: Fri, 17 Dec 1993 08:00:45 -0500
From: paul.beard@gatekeeper.mis.tridom.com (Paul Beard)
Subject: First batch success

Just a short note to say I tasted my first bottle from my first batch and found it drinkable (actually, pretty good).

I was attempting to emulate a Newcastle Brown style, so I used M+F Nutty Brown extract, and at the urging of the shop, added 2 Alexander's Malt Kickers. The yeast was what came with the extract.

Three weeks later, I have 50+ bottles of something that doesn't resemble Newkie so much as Theakston's OP (in color: almost black, with a gleam of ruby red when viewed against a light). It's quite malty and a lot stronger than I expected (I figured 3%, based on TNCJOHB calculations).

You guys are way over my head with a lot of your mashing and whole grain stuff; I'll likely be an extract man for a while. To get in at this level is so easy; if you can boil water and read, you're there!

If anyone else is lurking without brewing, get busy.

Paul Beard
AT&T Tridom, 840 Franklin Court, Marietta, GA 30067
404 514-3798 * FAX: 404 429-5419 * tridom!paul.beard/beardp@tridom.com

Date: Fri, 17 Dec 1993 09:02:20 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: beer clip art

beer clip art
Rick Gontarek asks about brew clip art:

I have assembled some brewing clip art (and now John
'Coyote' Wylie has some too!) for the Mac.

Send me email on what/how/where you want it; I too
use canvas, but also use streamline and color-it
to alter/convert the images if need be. Perhaps we
could swap a brew or two via private carrier?

george

Date: Fri, 17 Dec 1993 10:26:11 -0400

From: Ed Hitchcock <ECH@ac.dal.ca>

Subject: ...hydrometers

> This means that if a hydrometer has to cover a range of specific
> gravities from 1.000 to 1.100 using a linear scale, there will be
> a 10% error in the measurement from one end of the scale to
> the other (due to the ΔSG^2 term).

So, why don't they make homebrew hydrometers with a NON-LINEAR
scale? Would that make too much sense?

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |
Dalhousie University, Halifax | _____ |

Date: Fri, 17 Dec 1993 09:53:33 -0500 (EST)
From: LUKASIK_D@sunybroome.edu
Subject: New Brewer...HELP

New Brewer...HELP

Date: Fri, 17 Dec 1993 08:16:07 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Specific Gravity Notes

I've noticed some postings that make me believe some clarification of the measurement of specific gravity might be appreciated. One representative example is...

The SG was 1.0XX "but that included all the particles from the crystal malt that immediately settled to the bottom."

Undissolved particles (including colloids) do not affect the measurement of specific gravity. A easy to visualize example is to imagine a lake of pure water with a specific gravity of 1.000. What is the specific gravity of the water if a boat is floating on the surface? What is the specific gravity if the boat sinks? What is the specific gravity while the boat is sinking? It remains 1.000.

The caveat is that anything that sticks to the side of your hydrometer will affect the specific gravity measurement because it will change the wieght of the hydrometer. When you pull the hydrometer out if there is stuff sticking to the side you should let the junk settle and take the measurement again. The most common thing to stick to the side is bubbles which will add boyancy to the hydrometer and give you too high a specific gravity measurement. It may go against your expectations but if you have a lot of junk floating around that sticks to your hydrometer it actually gives you too low a SG reading because it will make the hydrometer sink a little further.

Of course for those that are inclined to excessive worry I should point out that I brewed for six years before even doing a temperature correction for SG!

Geoff

```
+-----+
--+
|   A brewery is like a toothbrush, everyone should have their own.   |
+-----+
--+
| Geoff Reeves:  NIS-2, Mail Stop D-436, Los Alamos National Laboratory   |
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax   (505) 665-4414 |
+-----+
--+
```

Date: Fri, 17 Dec 1993 10:30:35 -0500 (EST)
From: bobml@msd.measurex.com (Bob LaGesse)
Subject: Re: Making separate messages out of HBD

Here's my contribution for all the Unix "geeks" 8^). I wrote a 'nawk' script which splits up the e-mail message. Typically, I use 'elm' to read my mail and its "|" subcommand to split the messages into a separate mail file for later perusing. The script follows

```
#!/bin/sh
cd $HOME/Mail
rm -f /tmp/hbtemp$$ /tmp/msgcnt$$

if [ $# = 0 ] ; then
    echo2 "/07Usage: unpkmsg /"mail_file_name/"
    exit 1
fi
if [ $# -ge 2 -a "$1" = "-h" ] ; then # add mail header at beginning of
file
    cat <<-EOF > /tmp/hbtemp$$
    From Home_Brew `date`
    Received: by `hostname`
    Date: `date "+%a, %d %b %y %X %Z"`
    From: homebrew <homebrew@hpfcmi.fc.hp.com>
    Subject: Home Brew Daily Digest

    EOF
    shift
fi

cat >> /tmp/hbtemp$$ # read stdin and add to temp file
if [ -d $1 ] # create output mail file name
    then mail_filename=$1/`date "+%y%m"`
    else mail_filename=$1
fi

today=`date`
hostname=`hostname`

nawk "/
    BEGIN [
msgcnt = skipline = 0;
getline line1;
getline line2;
getline line3;
hostname = /"$hostname"/";
today = /"$today"/";
    ]
    /^--*$/ [ /$0 = /"-----/"; ]
    /^From:/ [
++msgcnt;
if (match(/$0, /<.*>/))
    useraddr = substr(/$0, RSTART + 1, RLENGTH - 2);
else
    useraddr = /$2;
gsub(/" /", /"_"/, useraddr);
if (skipcnt > 0)
    printf /"From %s %s/nReceived: by %s/n"/, /
```

```
    useraddr, today, hostname;
]
[
if (line1 == "/" && line2 == /"-----/" && line3 == "/" /
    && /$1 == /"Date:/")
    skipcnt = 3;
if (skipcnt > 0)
    --skipcnt;
else
    print line1;
line1 = line2; line2 = line3; line3 = /$0;
]
END [
print /"Split out/", msgcnt, /"mail messages to =$mail_filename/" /
> /" /tmp/msgcnt$$"/;
]
" < /tmp/hbtemp$$ >> $mail_filename

cat /tmp/msgcnt$$
rm -f /tmp/hbtemp$$ /tmp/msgcnt$$
```

Date: Fri, 17 Dec 93 11:03:21 EST
From: carlsont@GVSU.EDU (TODD CARLSON)
Subject: extract editorials / good enough

In Papazian's book he says that all malt extracts are not created equal and in the recipe section he recommends certain extracts for certain recipes because of their unique characteristics. But I have never seen much in the way of specific recommendations (for or against) various malt extracts. So here is your invitation to editorialize. When I go to the beer store and see oodles of different malts, which should I try first? Which should I avoid? I just started my garage lager last night with Bierkeller amber. What can I expect? (the label says "premium german malt", but with truth in advertising being what it is ...?). As always responses should use appropriate Internetiquette.

In response to Tim sixberry's comments/question of yesterday:

"...the basics of making good beer are very simple ... why complicate matters?"

I second the motion.

Of course "advanced" beer makers are free to make things as complicated as they want. But I agree that many people get forget that others have a different agenda. We read "relax, don't worry, have a homebrew" and then get pages and pages and kilobites and kilobites of things to worry about. I suspect that there is a lot of home brew equipment around gathering dust in the basements of people who were turned off by unnecessary complications. (IMHO).

Todd (chill in the sink / aerate by shaking) Carlson
carlsont@gvsu.edu

Date: Fri, 17 Dec 93 11:04:13 EST
From: Jim Grady <grady@hpangrt.an.hp.com>
Subject: Re: cloying sweetness

Taylor Standee asks about a cloying sweetness and flattish beer after 2 weeks in the bottle:

It sounds to me like the beer just needs more time. I have often had batches that were too sweet & flat after only two weeks. Some of the factors seem to be:

1. Temperature where the bottles are sitting &
2. How much the beer cleared before bottling. Usually, the more it has cleared, the longer it takes (and the less sediment in the bottle which means less sediment/more beer in my glass!).

I've never used DME but I hear that DME tends to take longer than corn sugar. So, give it a couple of more weeks and it should be fine.

- - -

Jim Grady | "Immediately after Orville Wright's historic 12 second
grady@an.hp.com | flight, his luggage could not be located."
| S. Harris

Date: Fri, 17 Dec 93 11:31:40 EST
From: Keith MacNeal 17-Dec-1993 1125 <macneal@pate.enet.dec.com>
Subject: RE: James Clark's Update

>From HOMEBREW Digest #1300:

>From: jeclark@ucdavis.edu (James Clark)
>Subject: update

>3) because of the high gravity boil the beer is not as bitter as i want
it,
>so i was thinking about dry hopping in a secondary. is there a
recomended
>time to do this or can i do it any time after the kreusen settles? also,
>can someone give me a range for the amount of hops to use in the
secondary
>(i know i didn't say how bitter our beer is right now, but i just want
to
>know if most people use 0.5 oz. or 8 oz when they dry hop)?

I don't think dry hopping will do much for you in terms of bitterness. It
will give you hop nose and flavor. I used 1 oz. of Cascade hop plugs to
dry
hop 5 gallons of an IPA recently. I liked it and so did my friends. The
flavor of the hops really came through. I've read recipes where more (as
much
as 5 oz. of a hop) or less (0.5 oz.) have been used.

Keith MacNeal
Digital Equipment Corp.
Hudson, MA

Date: Fri, 17 Dec 1993 11:45:55 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: O2 & stuff

> From: reeves@lanl.gov (Geoff Reeves)
> Subject: Bottle Inspection
>
> >The AHA beer judging form starts off, after identification of the
> >
> >What is the purpose of this section? Recently I received comments in
> >this section of "short fill" and "low fill line". e

THIS is one of my pet peeves too. I think the inspection is fine for rings, yeast cake/cloudiness, etc, but comments on "low fill levels" can be erroneous. The problem seems to stem from homebrewers who bottle condition being sensitive to fill levels, and thinking the "correct" fill level is within 1/2" of the crown. When I am competing, I usually fill from the keg, counterpressure, and achieve a fill level very close to what you find in a quality micro, 1.5 - 2" below the crown. This invariably begets a comment on "low fill". If the local micro fills bottles above this line, they can have legal action brought against them for selling more than 12 oz in a 12 oz bottle.

> -----
> From: ulick@michaelangelo.helios.nd.edu (Ulick Stafford)
> Subject: Oxygen and hydrometers
>
> In hbd 1298 Jim Busch mentions oxygen use. I would warn him that levels
> over 14 ppm can be harmful. I read this figure in a chemical technology
> encyclopedia's section on beer (Kirk-Othmer, I think). From a practical
> point of view, this means that care must be exercised when O2 is used to
> oxygenate. The limit of oxygen solubility when air is used is around
> 8 ppm, which is related to the partial pressure of oxygen in air, 0.21.
> This means that aeration with air, while safe, is less than optimum.
> However, wort saturated with oxygen may have over 30 ppm of oxygen (the
> dissolved sugars may lessen the amount of oxygen that can dissolve
> in wort relative to water, but probably not by too much). Breweries,
> naturally, will have the money to pay for dissolved oxygen probes, but these
> are not within homebrewers budgets.

This contradicts the data I have. Experiments have shown that the maximum
(absolute saturation levels) vary between a low of 4 mg/L (SG = 1.080, T=30 C) and a high of 7.5 mg/L (SG=1.030, T=15C). I believe Rajotte has quoted much higher numbers, but these are not supported by experimentation
using a Zahm and Nagel O2 inline injector. These data are supported by another author, Dr. Ingledew, who found levels of 8-9 mg/L as the maximum.

It is certainly well known that the saturation levels of O2 are a function
of temperature and sugar density (OG) so these are important factors in the equation, but practically speaking, levels above 8 mg/L are not seen in breweries, nor are they required as typical brewers strains require O2 levels between 2-8 mg/L. It is also interesting to note that yeast

will respire the O2 in a matter of hours if not less, at these levels. I can assure you that a 2 hour bubble of O2 has lead to quite healthy and successfull ferments (quicker, and cleaner, less esters/fusels).

> Someone wanted Jim Koch address to send poison pen letters. The letter I
> received from him today mailed without a stamp from Nashua, NH listed
> The Boston Beer Works, The Brewery, 30 Germania St., Boston MA 02130 as
an
^^^^^^^^^^

This is obviously a freudian slip, as the works are the ones Koch sues all the time. His is the Boston Beer Co.

> -----
> From: "Rad Equipment" <rad_equipment@rad-ma1.ucsf.edu>
> Subject: O2, Bottle inspection Quest
>
> Two possible issues come to mind. FDA O2 as used for medical applications has
> been rumored to contain an anti-fungal agent. I have not been able to get this
> firmly confirmed nor denied by my contacts in the medical world.
Industrial
> grade O2 may not contain any bugs but may contain oil or other contaminants
> which do not cause problems with normal applications.

I have recently been told that the brewers O2 goes by the name Therepy?? Anyone heard of this? BTW, the .2 micron filter shows no sign of contamination yet.

RE:fuggles

> Terry Foster was waxing a bit snobbish. Fuggles is, in fact, a fine hop
> (so is its clone: Willamette), and makes a very nice late addition. Of course the Classic (TM) finishing hop for English ales is East Kent
> Golding -- but there are a lot of really good English hops that British brewers use, including Fuggles.

I also have had good success recently using Willamette as a kettle hop.

Good brewing,
Jim Busch

Date: Fri, 17 Dec 1993 11:52:20 -0500 (EST)
From: LUKASIK_D@sunybroome.edu
Subject: New Brewer...HELP cont.

Sorry, little computer glitch on my end....So to start again.... I am new to the homebrew scene (two weeks, three batches, lots of fun) and have a few questions that I hope some more experienced brewers can answer. My first batch was a basic Yorkshire Bitter Kit with a lb of dry malt replacing some of the sugar. It all went smoothly and was bottled about a week ago. The second batch is my own Olde Ale recipe using all malt (11 lbs), some grain (crystal and choc.) and a lot of hops. This batch started with an SG of 1.062, was extremely active in about 8 hours, blew CO2 like crazy for the next 20 hours and had the krause (?) settle after 2 1/2 days. I then racked it into the secondary at which point it slowly bubbled away. Well, five days later it is still bubbling at a rate of about every 3 seconds which is completely different than batch 1 and batch 3 (an Australian Lager using Ale yeast). Is this normal activity or have I done something wrong? Is it due to using so much malt ext.? Is it safe to bottle while it is still fermenting like this? Is there any good way to get a second SG reading without the risk of contaminating the brew? I would really like to get this batch into the bottle so I can expedite the drinking (hopefully be able to have a few with friends on New Years!!!)

Other questions: Are Australian Light Malts supposed to produce a golden colored beer/ale/lager (this is the color of straw)? Could someone send me a recipe for Cider as I have seen this in my first reading of the digest and think it sounds great? How close will a dopplebock be to the real thing if I use ale/beer yeast (I am not yet sett up to do real Lagers)?

The list is great. I am sure already it will answer many of my questions and give me the insights I am looking for. Thanks for the help in advance!!
!

Doug
"SodBuster Suds"

Date: Fri, 17 Dec 93 12:01:59 EST
From: "Adrian L. Anderson (Andy)" <alanders@mwcvak12ed.edu>
Subject: Re: Bob's address

Brewers,

Not long ago I asked for some help in curing a yeast taste problem. One of the responses came to me directly from Bob Milstead. I attempted to send a note back with a thank you and some other information but it was returned. The address I used was rmilstead@zellar.vantage.gte.com. If anyone knows how to get in touch with Bob or if Bob is reading this, please let me know.

Thanks,

- - -

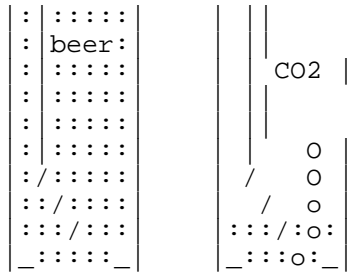
Andy Anderson Winchester, VA
alanders@mwcvak12ed.edu
"I'm a peripheral visionary... I see into the future
but way off to the side."

Date: Fri, 17 Dec 93 16:18:16 +0100
From: steve_t@fleurie.inria.fr (Steven Tollefsrud)
Subject: Cheap do-it-yourself kegging system (correction)

re: CO2 "resevoir"
No, this is NOT the French spelling, it should be "reseRvoir"
normally. Maybe it was the homebrew?!
Relax...

steve tollefsrud
valbonne, france

e-mail: steve_t@fleurie.compass.fr



beer kegCO2 resevoir

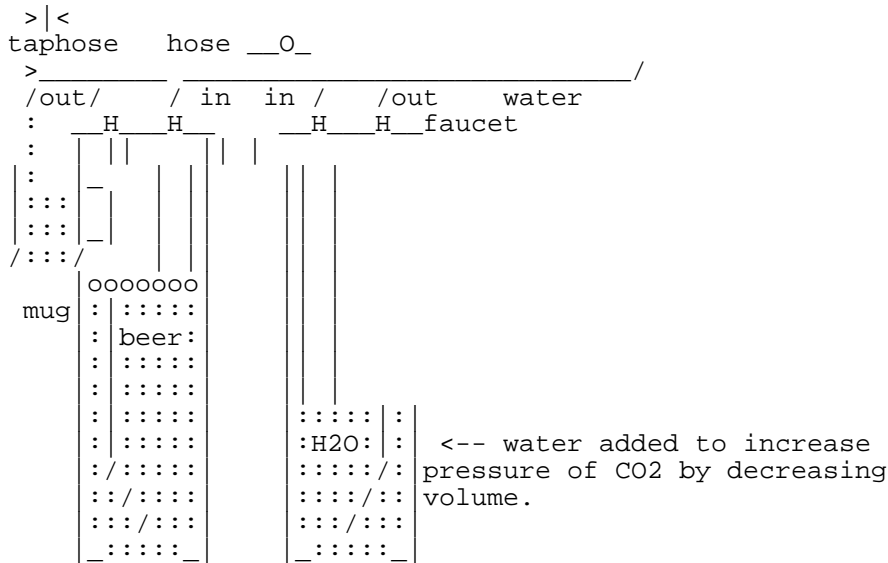
2. Leave the clamp of the CO2 resevoir loosely open for about 1/2 a day to allow CO2 from the beer keg to purge the CO2 resevoir keg of air.

3. Clamp shut the CO2 resevoir and allow 1-2 weeks for "conditioning".

4. After beer is conditioned and CO2 resevoir is pressurized, switch the "polarity" of the hose connection on the CO2 resevoir, so that the hose is connected to the "INPUT" side of the CO2 resevoir. Construct a beer dispenser hose out of 3'-5' of hose, one Cornelius connector and the beer dispensing valve. Connect this to the "OUTPUT" side of the beer keg and test by dispensing some beer into a glass. If necessary, release pressure slightly from the CO2 resevoir using the pressure bleeder valve on the top of the Cornelius keg.

5. To increase the CO2 pressure at any time, construct a second length of hose with a Cornelius connector at one end and a water faucet connector at the other. Connect the water faucet end first, then connect the other end to the "OUTPUT" side of the CO2 resevoir, and force a few pints of water into the CO2 resevoir (more than the volume of the beer that was consumed).

This should definitely be done when you want to store the beer after having tapped off a few pints, in order to maintain the carbonation in the beer.



beer kegCO2 resevoir

Advantages:

1. It's cheap!
2. Closed system: beer stays preserved indefinitely
3. Naturally conditioned in the traditional English manner

Disadvantages:

1. Finding the optimum dispensing pressure is a bit trial & error at first with pressure bleeder.
2. Ties up two Cornelius kegs for one 5 gallon batch.

It isn't elegant, but hey, it's cheap and it works!

Comments?

Steve Tollefsrud
VALBONNE, France

e-mail: steve_t@fleurie.compass.fr

Date: 17 Dec 1993 09:27:44 U
From: "Palmer.John" <palmer@ssdgwy.mdc.com>
Subject: Comments on Several Items

Hey Group, Happy Holidays!

I have been trying lots of different commercial beers, lots of Winter Warmer types, to gain experience with different styles. I have discovered that I don't care for Pumpkin Ale; I can't finish a Spiced Christmas Ale (tho I did find out that the Christmas Ale I brewed turned out true to style) its just too weird; but I did like the Samuel Smiths and Young's Winter Warmers very much. So, I think this style and IPA will be my styles for the new years brewing.

Okay, More James Questions (why do I like ribbing this guy? I dunno:)
Why Wort Chillers? Because when you start doing full boils, 5->10 gallons, that is too much wort to carry to the bathtub.
Short Ale Fermentations? When you use Extract with lots of active yeast, then you can have quick fermentations because of the simple sugars present; compared to All Grain where more complex sugars are present.
How much to Dry Hop? A good rule of thumb for ANY hop addition is 1 ounce.
YMMV. Also, Cascade hops has a Vibrant nose.

Capping Champagne bottles - All of the domestic champagne bottles can be recapped with standard bottle caps. There are some French ones that have bigger openings.

I want a copy of that Shrimp Creole recipe!

A few days ago, someone mentioned that their Bottles had a Milky Layer around the top of the bottle and thought it might be more foam. From what I have been told this is Micro Derm, a bad bacterial infection. It is ground dwelling but can be stirred up into the air by kicking up dust, etc. It is dangerous but easily detected due to the milky layer at the top and horrid smell when opening.

And on Jordans Hops Addition based on Papazian's formulas:
Well I assumed you are making five gallons. Starting with 6 lbs of Pale Malt Extract (Syrup? DME? =>Syrup), yielding an approximate OG of 1.032.
Boiled in 1.5 gallons of water gives an Adjusted Gravity of 1.28. Putting this in my spreadsheet ala Rager, using 1.5 ounces for 45 minutes gives 21.95 or 22 IBU.
Which seems to be what you wanted. HBU equaling %AA x Wt. = 1.5x5.5 = 8.25

And finally, my opinion on HBD diction and grammar.
I prefer to read concise questions and answers. I can appreciate certain regular personalities on the Digest who write like they probably speak; it

does add a certain amount of color to the digest and makes it more of a gathering of friends to discuss a shared hobby. However, writing like you speak is regarded as poor practice when trying to effectively communicate. Imagine if I started writing in Surfer speak, or my semi-native West Virginian drawl, it would be very tiresome for many of you to read. The same can be said of expletives and colloquialisms. This is an open forum for the communication of ideas on homebrewing. Effective communication would seem to be in order.

John Palmer
Space Station M&P

Merry Christmas, a Happy Brew Year and Visualize Whirled Peas.

Date: Fri, 17 Dec 93 09:59:12 -0800
From: mclagan@sfu.ca (scott mclagan)
Subject: Sierra Nevada Nirvana

Last weekend I got my long-awaited chance to try Sierra-Nevada Pale Ale (We took a trip into Washington). Needless to say, I was NOT disappointed. Wow! Hops with an attitude. Can a brew get any better than this? My only mistake was to promise to save a bottle for my wife :)

Does anyone have a recipe to emulate this wonderful brew? If not, what is the variety and method of hopping? I suspect it is dry-hopped, which is something I've been meaning to try.

If numerous recipes are mailed, I will summarize for the digest.

Thanks in advance,

Scott McLagan <mclagan@fraser.sfu.ca>

Date: Fri, 17 Dec 1993 10:17:03 -0800 (PST)
From: Domenick Venezia <venezia@ZGI.COM>
Subject: Rager's polynomial

The recent thread about hop utilization and Rager's utilization numbers from Zymurgy past, and Ed Hitchcock's request for a polynomial got me thinking. Although this is not what Ed was requesting, I ran a least squares fit on the center points of Rager's utilization ranges and derived the coefficients of a cubic polynomial. When plotted against Rager's ranges this polynomial is everywhere "between the lines" except for less than about 3 minutes (where it's fairly flat at about 5.5%) and at greater than 55 minutes (where it tops out at about 30.3%). So, keeping in mind the standard disclaimers and the fact that your results may vary, here it is:

$$u(t) = 5.738336 - (2.032614e-01)*t + (2.905735e-02)*t^2 - (3.140576e-04)*t^3$$

or with less than anal precision:

$$u(t) = 5.738336 - 0.203261*t + 0.029057*t^2 - 0.000314*t^3$$

Note that this yields percent values, for fractional quantities divide by 100.0.

For those for who Rager's numbers do not come trippingly off the tongue, they are:

| Minutes | % Util |
|---------|--------|
| 0-5 | 5.0 |
| 6-10 | 6.0 |
| 11-15 | 8.0 |
| 16-20 | 10.1 |
| 21-25 | 12.1 |
| 26-30 | 15.3 |
| 31-35 | 18.8 |
| 36-40 | 22.8 |
| 41-45 | 26.9 |
| 46-50 | 28.1 |
| 51-60 | 30.0 |

Note the double size bin

If one examines a plot of Rager's ranges there appears to be a discontinuity at 41-45 minutes in an otherwise smooth curve. My esthetic sense from the plot is that utilization tops out at about 33-34% at 60 minutes.

One observation is that at time=0 I would expect a 0% utilization. Plotting the center points of Rager's numbers and extrapolating gives something around 4%. By "playing" with Rager's numbers I generated a more "esthetically pleasing" curve. I threw out Rager's numbers for 0-20 minutes and substituted 0% at 0 minutes. I also tossed out his numbers above 45 minutes and added 3 of my own at 48, 53, and 58 minutes. The curve so generated agrees extremely well with Rager over the range, 23-43 minutes, but yields higher utilization values at times over 46 minutes, and lower utilization values at times under 22 minutes.

| Min
Poly | Rager
Poly | Rager's Pleasing |
|-------------|----------------------|------------------|
| 0 | NA5.7383360.000000 | |
| 5 | 5.05.4092061.206269 | |
| 10 | 6.06.2974003.290587 | |
| 15 | 8.08.1673756.102309 | |
| 20 | 10.110.783599.451752 | |
| 25 | 12.113.9104913.14923 | |
| 30 | 15.317.3125517.00507 | |
| 35 | 18.820.7542220.82957 | |
| 40 | 22.823.9999524.43305 | |
| 45 | 26.926.8142127.62584 | |
| 50 | 28.128.9614430.21824 | |
| 55 | NA30.2061132.02058 | |
| 60 | 30.030.3126732.84317 | |

The more "pleasing" poly (read fantasy) is:

$$u(t) = 3.903961e-02 + (1.290914e-01)*t + (2.213545e-02)*t^2 - (2.529119e-04)*t^3$$

After all this, a question springs to even my mind, "So what?" Are there any other hop utilization numbers besides Rager's out there? How about in Malting and Brewing Science? Help! I need a reality check.

You know, I can get carried away on the weirdest things.

Domenick Venezia
 ZymoGenetics, Inc.
 venezia@zgi.com

Date: Fri, 17 Dec 1993 12:41:46 -0600 (CST)
From: Robert Jordan <JORDAN@ANLBEM.BIM.ANL.GOV>
Subject: hops question revisited

Thanks to Spencer Thomas for pointing out my misuse of the formulas I asked about in HBD 1300. Obviously (now, at least) by using my method it doesn't matter what the %utilization is, the formulas will always give you the same weight of hops to use. This must be why I went into Biology and not Mathematics. Anyway, my questions still remains.

Given that I know the ~%utilization, the final volume of my batch, and the approximate HBUs I want for my beer, how can I calculate the amount of hops to use?

Again, I apologize if this has been answered recently, but from what I've read the formula I'm looking for just isn't jumping out at me.

Thanks,

Rob

RJordan@anl.gov

Date: Fri, 17 Dec 93 13:43:36 EST
From: U-E68316-Scott Wisler <wisler_scott@ae.ge.com>
Subject: Tun Design

js:
> It looks to me like another classic example of
> how scaling down commercial equipment to homebrew sized batches just
does not
> work very well.

I disagree, as outlined below. A more appropriate statement would be
'inappropriately scaling down commercial equipment to homebrew sized
batches, without understanding the function of the dimensions, sometimes
does not work very well'.

js:
> 3/32" holes are probably too large for the geometry of a homebrew tun.

Hersh:
> Can you explain the basis of your comment linking the size
> to the scale of the brewery??

js:
> I probably couldn't before receiving another letter from the
originator of
> the thread.

If the example was truly 'classic', would you have difficulty
explaining why?

js:
>My only argument was that if 3/32" holes work in large tuns but
>not in a small one, it must have something to do with geometry.

The switch from the plural to the singular is at odds with the
generality you made two days ago, and therefore cannot be 'your only
argument'.

js:
>The larger holes only
>work well with a large depth to diameter ratio but smaller holes would
be
>more forgiving. I am not sure why one would want larger holes and
thereby
>put such constraints on the aspect ratio but therein at least, seems to
be
>the answer.

It seems to me that the 'answer' depends on whether the sieve or the
grain husks do the filtering. If the husks do the filtering, as you
have advocated in the past, then with an appropriate grain depth, the
size of the holes, within limits, is not too important. I would say that
in a false bottom tun, a grain bed depth which is appropriate for a given
size hole/porosity is a better geometry characteristic than aspect ratio.

js:
>For the record, the screen I use on the EM has 32 mesh screen and
taking the
>wire diameter into consideration, the hole size is roughly ten times
smaller

>than the "professional" size.

TNCJOHB advocates 1/8" holes on the ZapPap tun, which is 25% bigger than "professoinal" size. It works just fine for a large number of people.

For Dennis Lewis - the original poster:

I realize that the Brewer's Warehouse sheets are expensive! I wouldn't want to throw it out (If you do, or you have unused scraps, write me).

The

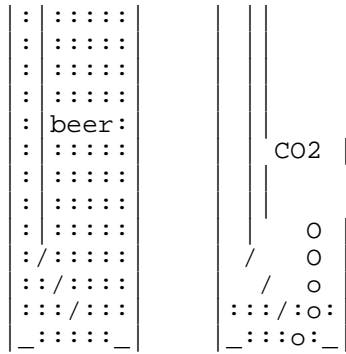
keg is probably too big to lauter in because the bed depth is small. You could cut down the screen and make a better false bottom tun, or convert to the em. There is a way to use the screen you cut in a converted keg boiler, so it won't be wasted.

>Broken records tend to annoy people and my mission is to share what I have

>learned with others and learn what they have learned from them.

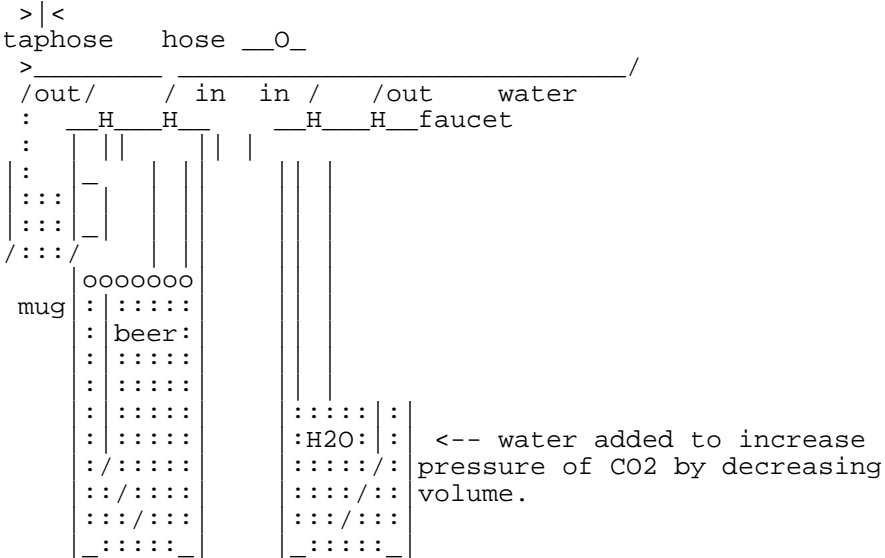
I advocate neither false bottoms or ems, and have yet to design a dream tun. (hope you share the final result and thought processes, Norm). If there is anything I've learned from this digest, its that there are many equally effective ways of doing all the process in brewing. To say that "[false bottoms] are simply not ... useful in homebrew lauter tuns" is irresponsible, and simply false.

scott
swisler@c0431.ae.ge.com



beer keg CO2 reservoir

2. Leave the clamp of the CO2 reservoir loosely open for about 1/2 a day to allow CO2 from the beer keg to purge the CO2 reservoir keg of air.
3. Clamp shut the CO2 reservoir and allow 1-2 weeks for "conditioning".
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Comments?

Steve Tollefsrud
VALBONNE, France

e-mail: steve_t@fleurie.compass.fr

Date: Fri, 17 Dec 93 11:22:13 PST
From: "Doug Olson, BPDA West, Palo Alto CA" <olson@sx4gto.enet.dec.com>
Subject: re: appearance and "pride"

> I've also commented things that are obviously unrelated to the beer
> quality, such as a totally grungy bottle. Someone who wants me to
> judge their beer should at least have enough pride in their product to
> present me with a clean bottle. But, as you note, it doesn't affect
> the score.

Spencer Thomas imagines that I'm presenting him my beer to judge out of "pride". Actually, I'm presenting it for feedback about the contents of the bottle. I already know if I had to scramble to scrape labels off the bottles because of the available beers the cleaner bottles happen to have already been consumed. I already know how flippin' painful it was to scrape my fingers as well as the label because I'm cleaning three bottles for each of the eight beers I'm entering. I already know, fer chrissake, that the clean bottle rules exist to prevent unfair identifying marks from biasing the judges, and not to soothe their aesthetic sensibilities. What I DON'T know is how true my beer is to style, and that's what I paid the entry fee to find out.

There's nothing that pisses me off more than getting more comments on a judging sheet about the state of the bottles than the state of the beer.

DougO

Date: Fri, 17 Dec 1993 11:55:17 -0800 (PST)
From: scott@nit.PacTel.COM (Scott Robertson)
Subject: First batch question...not much carbonation?

Yes...it's another novice first batch question...

Here's the story: Brewed, fermented, and siphoned into bottling bucket. Before siphoning I boiled a pint of water with the bottling sugar and put that in the bottom of the bucket. The instructions didn't say anything about stirring...so I didn't. After bottling all of the beer from the spigot at the bottom of the bucket.. I noticed that there appeared to be a separation in the last little beer in the bottom...beer on top, sugar mixture on the bottom.

So, it's been 5 days, and I tried a bottle that came from near the end of the bucket. There was a little pssst when I opened the bottle, but very little carbonation. I understand it is a little early to expect a lot, but is it possible that I screwed up by not mixing the sugar mix in the bottle bucket? Is there anyway to test the potential outcome without waiting? any insight would be great..

reply to scott@nit.pactel.com

End of HOMEBREW Digest #1301, 12/18/93

Date: Fri, 17 Dec 93 12:44:55 PST
From: barry@odf.UCSD.EDU (Barry Nisly)
Subject: Al again?

Regarding the recent (eternal?) discussion of aluminum stock pots,
I found this while leafing through the William's Brewing Catalog:

Stainless steel is neutral to acidity, which means it
will not react with the relatively acid wort. Aluminum,
on the other hand, will react with any acid food, be it
wort or tomato sauce, possibly contributing to off-
flavor development, particularly in lighter flavored
beers. Though aluminum is economical and usable in a
pinch, it should not be purchased for use in brewing.

FWIW. No affiliation - just a satisfied customer.
Now if I only had \$160 for that 38 qt Vollrath...

Barry
bnisly@ucsd.edu

Date: Fri, 17 Dec 93 15:34:01 -0500
From: "Daniel K. Yee" <yee@al.relay.upenn.edu>
Subject: yards & 1/2 yards

Hi all,

I've been thinking of getting a yard or 1/2 yard beer glass (with stand) for my brother as a birthday gift. What are the best deals out there? Thanks in advance.

Dan "Sven" Yee

Date: Fri, 17 Dec 93 15:25:55 EST
From: chuck@synchro.com (Chuck Cox)
Subject: Re: Flat Dinosaurs, BJCP, etc.

Marc Hugentobler sez...

>

> I personally have some questions of the forum many of who seem to be
> certified beer judges. Is there any more information about The BJCP
exam
> available besides the outline available by anonymous ftp? More sample
> questions and sample answers would be very helpful. I desperately want
> of qualify but find myself confounded by the amount of information.
> Personal Insights would also prove valuable. Thanks in advance!
>

Sounds like a perfect opportunity to plug JudgeNet...

- ----- JudgeNet info -----

JudgeNet - the Beer Judge Digest is an Internet mailing list dedicated to the discussion of issues of interest to beer judges and competition organizers. Anyone with an interest in judging or organizing beer competitions is welcome to join.

submissions: judge@synchro.com

administrative requests: judge-request@synchro.com

Please send subscription and unsubscription requests to the administrative address.

- -----

- --

Chuck Cox <chuck@synchro.com> List Administrator
SynchroSystems / Riverside Garage & Brewery - Cambridge, Mass.

Date: Fri, 17 Dec 93 14:18:42 PST
From: danforth@trinity.llnl.gov (Bill A. Danforth)
Subject: Samual Smith's quest

Hello all,

I am looking for recipes to make clones of two of Sam. Smith's brews.
I would like to brew a Winter Welcome clone and an _Old Brewery Pale Ale_
clone.

As I am currently on Paternity leave (a new boy), email to me would be
the
most preferred way to send me the recipes (cc to HBD would also be cool I
think).

Thank you very much in advance,
Bill Danforth

Date: Friday, 17 December 93 16:05:25 CST
From: LLAPV@utxdp.dp.utexas.edu
Subject: raspberry flavoring

Howdy,

About a week ago I said that I had some hesitations about the fruit flavorings available on the market for homebrews. Well, the raspberry wheat beer that used the flavoring available from St. Patrick's of Texas was entered in the Hill Country Brew-Ha-Ha last month, & I recieved my results yesterday. It actually had very good scores & comments, with positive notes about the raspberry note of the beer. I guess my expectations were a little too high.

So I take back what I said.

Happy brewin',

Alan, Austin

Date: Fri, 17 Dec 93 16:17:56 EST

From: "when the cold winds blow, it'll ease your mind 17-Dec-1993 1611 - 0500" <ferguson@zendia.enet.dec.com>

Subject: Pike Place cask-conditioned ale

For those of you who get *Brewing Techniques*, there was an article in the last issue that featured cask-conditioned ales made by Pike Place Brewing in Seattle.

I just happened to be out there on business this week. I called 'em up and asked where they were served. I went down to the 74th Street Ale House and sure enough, it was there - served much like the english style: hand pump at about 50F or so. I enjoyed a few pints of this stuff - great brew, but not quite as nice as the pub cask-conditioned ales served in England. So far, it is the best I've had in the US that approximates the English style c-c ale - perhaps more pubs will ask for this stuff!

In addition to that, they had 17 others on tap - this is something us East coasters (at least me!) are not used to! Lots and lots of winter ales, some very nice wheat brews by Hale Brewing (?), etc.

Great brews in the Seattle area - local brew was served all over the place, even in the Red Lion hotel bar I stayed at.

JC ferguson

Date: Fri, 17 Dec 93 23:13:16 EST
From: pblshr@aol.com
Subject: Re: #1(2) Homebrew Digest #12...

Re: The request for a GIF or PCX of Barney with tire tracks for your "Barney's Flat Oatmeal Stout," America On Line has the file in its graphics library, if you have access to that source.

If not, E-mail me, and I'll arrange for some kind of transfer.

Tom Finan (member, St. Louis Brews)

Date: Sat, 18 Dec 1993 12:13:07 -0800
From: Nick Cuccia <Nick_Cuccia@Talamasca.Berkeley.CA.US>
Subject: a holiday cider recipe...

No, not a recipe for cider, but a recipe that uses cider...

Nick's White Sauce

2 cups chicken stock
2 Tbsp flour
1 lb butter
1/4 cup minced mushrooms
2 cups hard cider
1/2 lb minced shallots
1.5 Tb minced tarragon
Nutmeg

In a double boiler, melt 2 Tbsp of the butter. gradually mixing in flour until well-blended. Gradually add chicken stock, stirring constantly, and place mixture directly on burner on low heat. Stirring constantly, bring to a boil, and continue stirring until sauce starts to thicken. Remove from burner, add mushrooms, and simmer for about an hour, stirring occasionally.

While the first mixture is simmering, cut the remaining butter into 1T chunks. Mix cider and shallots in a saucepan, bring to a boil, and reduce to a glaze. Remove this pan from heat, and slowly add butter, one piece at a time. The butter should not melt completely; the resulting mix should have the consistency of a Bearnease. Add tarragon and set aside.

Take the original mixture and strain through a fine sieve into a bowl. Add the shallot/butter mixture and a pinch of nutmeg, and season to taste.

This sauce is good on chicken, warm or cold veggies, or as a dipping sauce for bread.

Enjoy!
- --Nick

Date: 19 Dec 93 00:46:36 MST (Sun)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: crown-capping champagne bottles

Regarding the question (sorry, lost the actual reference) on using sparkling-wine bottles for beer: You can cap American bottles with standard beer-bottle crown caps. American bottles are one size; European bottles are a slightly larger size and won't work. If you're scrounging bottles, you don't usually run across stray Champagne (*real*, as in the particular region of France) bottles, but you're likely to find Spanish bottles from inexpensive stuff like Freixenet or Cordoniu.

Specifically, you can *sometimes* manage to cap the European bottles. It depends on the particular capper and caps you're using...you might succeed

99 times out of 100, or you might fail every other bottle. The failure modes I've seen or heard of with European bottles are:

- Cap doesn't seat properly, bottle leaks.
- Capping breaks off a piece of the crown. The probability of the broken-off piece of glass going into the bottle is equal to the probability that the bread lands on the floor jelly-side-down.
- During capping, bottle and cap jam inside capper--leading to dilemma of trying to free bottle without cracking it.

(Digression: Sparkling wine bottles are interesting to brewers because they're about twice the capacity of a regular beer bottle, and because they're designed to withstand a lot of pressure.)

Empirically, an American sparkling wine, and a beer bottle, seem to have a

27 mm crown. A European sparkling wine bottle seems to be 29 mm at the maximum diameter. This is less than 10% difference, but with some practice

you can spot the wrong bottles quickly even if the labels are missing. If the labels are still on, you should be able to get it right away...I've never seen an American bottle of the "wrong" size nor a European bottle of

the "right" size. (I'd be glad to know of any counterexamples!) It appears

to be strictly national--the American arms of French Champagne houses use American-gauge bottles. (Somebody can probably get a term paper out of that fact!)

If you're scrounging lots of bottles, you can easily cut a notch in a block

of wood, plastic, etc, to slip over the crown and check the size... getting

2 mm precision isn't hard. Or if you've got a dial caliper (even a cheap one) that will work.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Sun, 19 Dec 93 14:00:50 GMT
From: Conn Copas <C.V.Copas@lut.ac.uk>
Subject: Re : Cheap do-it-yourself kegging system...

Steven writes about using 2 Cornelius kegs, and no CO2 bottle, as a low-tech means of kegging. My reaction? great to see such innovation. Dave Line actually proposed storing the pressure from the primary fermentation for later use, which would overcome the need to prime with triple the normal quantity. I presume that some commercial brewers must be salvaging their CO2. The idea of using 2 kegs in harness illustrates a more general point: that of the importance of having a relatively large headspace when attempting to dispense using natural conditioning alone. So, in theory, if we had a suitably large keg (say 15 galls), then we could probably dispense 5 galls of brew without ever needing to re-pressurise. Even better if the keg was collapsible, so that atmospheric pressure could maintain a near constant serving pressure.

Date: Sun, 19 Dec 93 11:51:03 EST
From: John Eustace <3JCE1@QUCDN.QUEENSU.CA>
Subject: Brewery Geo/High Grav Brewing/Topping Up the 2ndary

Hi All,
Thanks to all who responded to my question about pitching to 180 gals.

However, I didn't get any response to my query about brewery geometry. Again, I'm interested in any information you might have of the effects kettle geometry and fermenter geometry have on the brewing process, from hop utilization to rate of fermentation. Even a list of sources to explore would be helpful.

I'd also be interested in more information on High Gravity Brewing. Dr. Fix's article on Diacetyl production in BREWING TECHNIQUES sparked my interest. The idea is to keep FAN levels up by brewing at optimal gravities (1.048) and then diluting the result at bottling. I believe he mentioned this practice in reference to the British Brewing industry. My questions then, have to do with when and how one does such a dilution. For instance, do I do this just before bottling, or when I rack to the secondary? Will the dilution raise the pH of the beer? And if so what effect will that rise have?

My final question has to do with topping up the secondary. I've been trying to manage my boils and fermentations such that I have enough beer to fill the secondary, leaving less than an inch between the fermentation lock and the beer. However, sometimes this doesn't quite work out, and I have to make a choice as to whether or not I should add brewing water at this stage to top up the carboy or leave the space in the carboy and hope the beer is still producing enough CO2 to protect it from oxygen. What is the consensus on this? Is topping up detrimental to the beer or is it at least less harmful than oxygen?

TIA and Cheers
JE

Date: Sun, 19 Dec 93 15:40:40 EST

From: yeebot@aol.com

Subject: Recepte for Belgian White Beer (Celis White Clone)

NOTE: PLEASE IGNORE IF ALREADY RECEIVED!!!

Good to see a fellow Hoegaarden lover out there!

I have a full mash recipe I copied off of AOL that was uploaded by Dr Who2959

(We miss you on AOL; how's GENie?) who in turn captured it off of the SW Campus of the Homebrew U. BBS Network. It was a conversation between Tony Storz and Steve Daniel (who seems to know Pierre Celis!) that occurred at the end of September. I hope I didn't forget anyone/thing. Now for the recipe:

Steve writes:

I have talked to Pierre and came up with this recipe:

2.25# 2 row
2.25# 6 row
4# unmalted wheat (hard red)
4 grams orange peel
4 grams corriander
1 ounce Hallertau leaf hops

As you can see, there is a lot of unmalted wheat to convert, therefore a full mash is needed to make something similar to the real thing. If you are unable to do full mashes, try substituting 5 pounds of plain light extract, and make a mash with 2 pounds each wheat and 6-row. This will not be nearly as wheaty as the real thing, but that's life. Add the crushed spices and all of the hops only 15 minutes before the end of the boil. Stay away from honey and sugar! They are cheap, but not worth tainting the flavor of your beer to save a few pennies.

What yeasts to use?

Slants of the Celis/Hoegaarden yeast are floating around the homebrewer's community. I think there may be some in the Foam Ranger's Yeast Library. I've heard that Wyeast has a sample of that strain, but they haven't put it into production. If you can't find a white beer yeast or are not ready to make a yeast starter from a slant, you might try the Wyeast Bavarian Wheat Ale yeast. This may be one of my crazier ideas, but I think it might get you closer to Celis than using a regular ale yeast. The Wyeast Wheat Ale yeast has some Lactobacillus Delbrukii in it which would simulate the secondary lactic fermentation that Pierre and company do. What do the rest of you out there think?

P.S. I tried making a white beer yeast starter from some Steendonk dregs, once. It didn't work.

He continues:

The secret is in the yeast, though. I'm guessing they said to use amylase

enzyme in the mash as a supplement. It's not needed in the full mash recipe, but any more than 50% unmalted wheat will need it.

Now my caveats:

I haven't tried it yet, as I cannot do full mashes right now. I'm starting small/cheap and currently have Papazian's Hoegaarden "clone" (with a few minor variations) bubbling happily away in primary. I have also heard rumors that a lactobacillus bacteria is needed to actually generate something that can called a "clone". As I am VERY interested in someday brewing a true Hoegaarden clone, I would like anybody else thoughts/ideas. Good luck. Keep me informed, I'll tell you how the Pap Wit turns out!

Michael Yee/yeebot@aol.com
Angst Brewing Co.

"Just a glass of wine with dinner, ossifer."

Date: Sun, 19 Dec 93 17:01:44 CST
From: philb@pro-storm.metronet.com (Phil Brushaber)
Subject: Secondary in Stainless Probs

I've had this problem before and I'm afraid like they used to say in Poldegeist.... It's baaaaack!

I know that many of your secondary in stainless steel cornelius kegs. I like to do this as it takes up less space in my lagering refrigerator. This summer I encountered this off-taste problem with a couple of American Lager's I brewed, did the primary in glass and then the secondary in stainless. The off-taste is hard to describe. At first I thought it was astringency, but it is more like a yeasty, metallic taste. The taste persists even after filtering through a .5 micron filter. It has happened when I've secondaryed in stainless (about 5 total batches) but never when I've secondaryed in glass (about 2 batches).

Has anyone else had problems developing off-tastes in secondary? Or, I suppose it might be the hops. Has anyone experienced these kind of tastes when using 100% Cascade hops? I really would appreciate your insight. I would rather not be crossing by fingers with each batch.

Finally, In case I don't get another chance... A Merry Christmas to all the brewers on HBD. Or as some homebrew wag once suggested. "A Beery Christmas to all, and a Happy New Beer!"

- -----
Internet: philb@pro-storm.metronet.com
UUCP: metronet.com!pro-storm!philb
Bitnet: philb%pro-storm.metronet.com@nosc.mil

Date: Sun, 19 Dec 93 20:29:40 EST
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: RE: Hydrometers and SG

Brian Cole writes

>> This means that if a hydrometer has to cover a range of specific
>> gravities from 1.000 to 1.100 using a linear scale, there will be
>> a 10% error in the measurement from one end of the scale to
>> the other (due to the ΔSG^2 term).

and Ed Hitchcock responded:

>So, why don't they make homebrew hydrometers with a NON-LINEAR
>scale? Would that make too much sense?

I thought the same thing as Ed, and so I checked my hydrometer
and sure enough, the markings are non-linear, with shorter
distances between higher gravity levels. And this is the
no-frills hydrometer that came with my homebrew starter kit 2
1/2 years ago.

Bill Szymczak

Date: Sun, 19 Dec 93 23:17:34 -0800
From: bcyr%spc.dnet@gpo.nsc.com
Subject: White Plastic Homebrew Keg?

Fellow Homebrewers,

I'm thinking of buying a white plastic 5 gallon keg, that I saw in a local beverage store. The keg is designed for homebrewing and has a small replacable CO2 cartridge that goes inside it. Has anyone tried a homebrew keg similar to this with good (or bad) luck?

Thanks in advance, Bryan
Lisbon, Maine

End of HOMEBREW Digest #1302, 12/20/93

Date: Mon, 20 Dec 1993 04:44:29 -40975532 (CST)
From: "J. Andrew Patrick" <andnator@genesis.Mcs.Com>
Subject: Free Speech Vs. "Professional Language"

Much to my surprise, since posting my 1st message about the blatant censorship that I encountered at the AOL Beer Forum, several HBD readers have expressed opinions that I "got what I deserved" for using such terrible language. Al Korzonas, Michael T. Lobo, and, GNT_TOX%ALLOY.BITNET@PUCC.PRINECTON.EDU (whoever that is!) have written (either publicly or privately) to indicate their opinions that:

- 1) AOL was justified in censoring me for using "profane" language, and/or
- 2) The HBD is "demeaned" by those who frequently use "profane" language, so we should all use "professional language" here, and/or
- 3) This is an AOL issue that has no business being discussed in the HBD.

All I did was say that I was "pissed off". That's the worst of my alleged "profanity". Allow me to quote verbatim from Webster's New Collegiate Dictionary, (c)1974 by G.&C. Merriam Webster Co:

"pissed off - adj. slang: ANGRY, DISAPPOINTED, DISGUSTED <a lot of guys are pissed off at me 'cause I came in after them and made corporal -Norman Mailer>"

Note that even as far back as 1974, Webster's did not feel that the term deserved being labelled as vulgar or profane. It would not surprise me if even the "slang" label has been dropped in more recent editions.

Those of us who live and work on the Net value our electronic freedom of speech very passionately. People who know me in the real world know that I am a very honest and opinionated person, who always says exactly what is on his mind. My close friends place high value on this trait.

I believe that I have an inalienable right to express myself in cyberspace in the same manner as I do in real space. This is just your basic First Amendment principle applied to the on-line world. If I am forced to drastically alter my on-line persona because of a few prudes who don't like seeing words like "orgasm" or "pissed off" in the HBD or AOL Beer Forums, then I am being forced to live a lie, to pretend to be somebody that I am not.

Is this REALLY what we want??

And if you still feel this discussion does not belong here, then please keep your flames PRIVATE!! I can be flamed DIRECTLY at "andnator@genesis.

mcs.com", or on either of my Home Brew U. BBS systems (listed below). Public flames only serve to waste bandwidth and make the issue you are trying to get rid off reappear that much faster.

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+-----+
| Sysop      | Andrew Patrick | Founder |
| Home Brew Univ | AHA/HWBTA Recognized Beer Judge | Home Brew Univ |
| Midwest BBS  | SW Brewing News Correspondent | Southwest BBS |
| (708)705-7263 | Internet:andnator@genesis.mcs.com | (713)923-6418 |
+-----+
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Date: Sun, 19 Dec 93 22:35 CST
From: akcs.wally@vpnet.chi.il.us (John Walaszek)
Subject: Problems with Dark ales

Hello everyone, I am looking for some help in determining why I am having problems with Dark Ales. I have brewed about 25 all-grain ales and every attempt at a dark one (3 stouts and 1 porter) I have ended up very disappointed. I brew alot of pale ales and brown ales and these have all been very consistent.

I think my problem may have to do with water chemistry, Lately I have used pre-boiled Chicago City water. I usually do not check ph and don't really add any mineral salts.

The problem is all 4 of these beers have had a distinctly musky-like aroma and flavor. None have really tasted as roasty as I have intended. The beers seem thin tasting as well and maybe even faintly sour. My usual procedure is add add crushed grain to 3 gallons 175F water. Rest at 153-155F for 90 minutes. Sparge for about 45 minutes. Boil 90 minutes. Chill using chiller.

These are my last two that I have tried and I felt the recipes should have produced a very full-bodied creamy roasty delicious porter and stout. Instead I find them flawed but drinkable.

Porter 5.5 gallons OG: 1.052 FG: 1.012

10.00 lbs Belgian 2-row Pale Ale Malt
10.00 oz Belgian Black Patent Malt
8.00 oz Belgian Cara-Vienna Malt
8.00 oz English Dextrin
8.00 oz Belgian Cara-Munich Malt
7.00 oz Belgian Special-B Malt

1.50 oz Kent Goldings Pellets (60) 5.4%
1.00 oz Kent Goldings Pellets (30) 5.4%
0.50 oz Kent Goldings Pellets (15) 5.4%
Wyeast #1084 Irish Ale

Oatmeal Stout 5.5 gallons OG: 1.052 FG: 1.014

8.50 lb Belgian 2-row Pale Ale Malt
16.00 oz Flaked Oats
16.00 oz Belgian Roasted Barley
6.00 oz Belgian Chocolate Malt
6.00 oz Belgian Cara-Vienna Malt
4.00 oz Belgian Black Malt

1.00 oz Bullion Pellets (60) 9.2%
Wyeast #1084 Irish Ale

Any comments would be helpful, thanks!

Wally

Date: Mon, 20 Dec 93 07:31:47 CST
From: palme@aml.icgmfg.mke.ab.com (Palme)
Subject: Reusable 5l kegs ...

Hi All!

I saw a pretty nifty little gadget on the shelf of my local homebrew shop/microbrewery. (Ok, ok, so Dan shares floorspace with Lakefront. Sip and buy. Sip and browse. What a racket!) It's a reusable 5l stainless keg, similar to the "party kegs" one can purchase at the liquor store. A set of 4 comes with a reusable tapper/dispenser. (I won't mention the price, just yet) So, any thoughts? Ideas? Anyone out there *have* one of these? It sure would be nice to get away from bottling 2 cases every time. I would see putting up two of these kegs per batch and then one case of bottles for "dispersal."

Comments *always* appreciated ...

D.

- - - -

Diane Palme, EIT You really think that A-B would
Design Engineer, Special Machines accept my opinions as their own?
Allen-Bradley Co. (414) 382-2617<sheesh!>
dspalme@mke.ab.com
palme@aml.icgmfg.mke.ab.com

Every now and then my hair color takes over and I cannot
be held accountable for my actions.

Date: Mon, 20 Dec 1993 09:14:37 -0400 (EDT)
From: Fred Bucalos <BUCALOFJ@SNYONEVA.CC.ONEONTA.EDU>
Subject: Corona Recipe?

My brother has an affinity for "Corona" Mexican beer. Does anyone have a recipe for "Corona" or know of a recipe reference? Many thanks in advance.

Happy Holidays to all. :-)

Fred Bucalos
e-mail: bucalofj@snystoneva.cc.oneonta.edu

Date: Mon, 20 Dec 93 09:05:52 EST
From: John DeCarlo<jdecarlo@homebrew.mitre.org>
Subject: Re: AI Again?

Interestingly enough, I just saw a cooking show discussing pots and pans. The most highly recommended was copper with a stainless steel coating on the inside. But the point being emphasized is that copper conducts heat best, then aluminum, then stainless steel (of the materials on hand for cooking). Specifically mentioned was that an all-stainless-steel pot will scorch food easily as the heat will come straight through from the bottom rather than spread out evenly. So, there were lots of second-best alternatives, including stainless with aluminum or copper bottom layers to spread heat evenly and aluminum pots that were either anodized or had non-stick surfaces applied.

In conclusion, plain aluminum pots are subject to staining or pitting with acidic foods; plain stainless steel can scorch/burn easily because of poor heat conductivity; some combination is probably best but properly treated aluminum shouldn't have the same problems as cheap/plain aluminum.

John DeCarlo, MITRE Corporation, McLean, VA--My views are my own
Fidonet: 1:109/131 Internet: jdecarlo@mitre.org
When a cow laughs, does milk come out its nose?

Date: Mon, 20 Dec 93 09:27:09 EST

From: gorman@aol.com

Subject: Brewpub info desired

I'd appreciate any comments via private email on brewpubs you've got personal experience with:

1. Inside the San Francisco city limits
2. Anywhere in the Seattle metro area.

Thanks,

Bill Gorman
gorman@aol.com

Date: Mon, 20 Dec 93 07:14:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: temp step mash scorching

When doing temp step mashes with my Cajun Cooker (160,000 btu's!) I've noticed that I frequently get mash sticking to the bottom of the kettle and charring. This happens even at the lowest levels of heat and the kettle suspended above the flame on bricks. Now I've found the solution to this problem.

I purchased a "pizza stone". This is a ceramic disk about 18" in diameter and about an inch thick (they come square too) that you place in your oven to heat up and duplicate a pizza oven like found at your favorite pizza shop. I put this on top of the Cajun Cooker and turned on the heat. The stone heats up and evenly distributes the heat. No scorch, no burn, just nice even heat applied uniformly to the bottom of the pan.

I purchased a "second" in the Chicago burbs at the Piano Factory outlet mall (Housewares Outlet) in St. Charles for \$10. This store is just down the hall from the Corning Outlet that sells yards of ale and carboys inexpensively. Obviously, a first would cost more. They also have giant wooden spoons which are perfect for stirring stiff mashes...

Chuck
* RM 1.2 00946 * Therapy helps but screaming obscenities is cheaper.

Date: Mon, 20 Dec 1993 10:02:55 -0500 (EST)
From: LUKASIK_D@sunybroome.edu
Subject: New Brewer...Saga Continues

Thanks to all of you who responded directly to my first inquiry! Just thought I would give you an update: The third batch, an Australian Ale (which by the way has changed color and looks much better now) developed a small amount of white colored mold in the neck of the 6 1/2 gal carboy. I have no idea what caused this or if in fact it was mold (?) but since the krausen had settled I deemed it prudent to rack to a secondary as soon as possible. Since at this time I only have one 6 1/2 gal primary and one 5 gal secondary (which had the Olde Ale in it) we ended up bottling the Olde Ale on Saturday (8 day ferment). It had an ending SG of 1.022 and alcohol of 5.25% (a lot lower than I was hoping for), was still quite sweet but still drinkable. So far (48 hours) none of the bottles have blown and I am keeping my fingers crossed as I am planning on keeping it at room temp for a week before transferring to storage in the basement. I am hoping that the alcohol increases and the sweetness mellows with some ageing in the bottle. Any thoughts on this?

What could have caused the mold in the neck of the carboy? I had given it a 2 day sanitation water soak with 2 tbs. of chlorine, several good hot rinses with the bottle washer, and immediately filled it again. Is it possible that it wasn't mold in the first place? Any other possibilities? The beer by the way tastes fine (in fact it seems to have more of the bitterness that I am looking for) and doesn't appear to have any mold in it. It has dropped to 1.015 SG in 4 days and currently has about 4% alcohol. It is clearing nicely in the secondary and is obtaining a nice light amber color. I must admit that the tryp was some of the ugliest stuff I have ever seen (reminiscent of things I have seen in my 2 year olds diapers when he has been sick...UCK!!!)

I am remedying the 2 carboy problem by adding additional 5 gals. to I can also

try making some lagers.

About to try the 4th batch...an IPA.

I think I'm hooked!!!! Need to learn more patience...as my friend said "the

name of this game is waiting"...I wanted to drink the first batch.

Doug

"SodBuster Suds"

Date: Mon, 20 Dec 1993 09:19:23 -0600
From: trl@photos.wustl.edu (Tom Leith MIR/ERL 362-6965)
Subject: Power Sparger

Yesterday I experienced my first-ever set mash. I was making an Oatmeal Stout, with 15% oatmeal. It was the five-minute Quaker Oats oatmeal. I lauter in a bottling bucket with a false-bottom plus a grainbag. The first couple of gallons of runnings didn't take too long, but after that, it slowed to an imperceptible trickle. Rats!! I need a

P o w e r S p a r g e r !!

Rrrright, power sparger, oh yeahhh, arrgh..... (doing best Tim Allen impression I can muster).

I remembered reading that some large breweries can apply a partial vacuum underneath their grain bed to hurry things along, and I was thinking about how I could accomplish this before the sparge completed on its own. I decided I couldn't. Then I thought maybe I could push the sparge water through from the top.

I went and got a lid for the bucket, and drilled a 3/8" hole in the top. Fetched my CO2 tank from the dispensing system (I keg), and stuffed a hose into the hole. I fastened the lid onto the bucket well-enough to hold a little pressure, and SLOWLY cracked the low-pressure side valve open. The lid bulged up some, and I waited. Sure enough, the imperceptible trickle became perceptible, respectable even, and the sparge finished in about 40 minutes.

I suspect this could be adapted for use with picnic cooler mash-tuns too. Anyway, FWIW, it worked once...

t

Date: Mon, 20 Dec 1993 10:43:57 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Geometry/high gravity

> From: John Eustace <3JCE1@QUCDN.QUEENSU.CA>
> Subject: Brewery Geo/High Grav Brewing/Topping Up the 2ndary
>
However, I didn't get any response to my query about brewery geometry.
Again,
> I'm interested in any information you might have of the effects kettle
geo-
metry and fermenter geometry have on the brewing process, from hop
utilization

Mine are of equal height to width (mash tun/kettle, lauter tun/
fermenter).
As systems are scaled up, they tend to become more shallow, 2-3 times the
width to height. I have seen many variations on geometry used in many
good breweries, so I feel there is a lot of leeway for the designer.
Pikes Place uses a fairly tall and narrow 3/4 BBl kettle. Sierra
uses a classic copper onion dome kettle, these tend to be shallow.
Fermenter geometry can have a impact on the system. The biggest issue
is where to place the chilling jackets, based on what type of fermenter
you are are using (unitanks should be jacketed differently than open
fermenters). Even the style of beer and production techniques become
important when scaling up breweries. Jacketing placement is significant
in terms of convection currents that develop inside the fermenter, and
this is also dependent on geometry.
>
>I'd also be interested in more information on High Gravity Brewing.

I have been diluting 10% in the kettle, boil the last 20 min, and
whirlpool/counter flow. I have also on occasion, added more water
into the fermenter via my counter flow chiller. I suggest adding water
to the wort, prior to fermentation. The pH can change when using much
greater amounts of water, and this might be cause to acidulate the
water.

>re:topping up secondary

I am not a fan of this, but I know many others do so with success.
Top up with boiled water, or save additional wort to add. I would
advise a CO2 balst into the secondary prior to racking if this is a
concern.

> From: philb@pro-storm.metronet.com (Phil Brushaber)
> Subject: Secondary in Stainless Probs
>
> I know that many of your secondary in stainless steel cornelius kegs.
> I like to do this as it takes up less space in my lagering refrigerator.
> This summer I encountered this off-taste problem with a couple of
> American Lager's I brewed, did the primary in glass and then the
> secondary in stainless. The off-taste is hard to describe. At first
> I thought it was astringency, but it is more like a yeasty, metallic
> taste. The taste persists even after filtering through a .5 micron
> filter. It has happened when I've secondaryed in stainless (about
> 5 total batches) but never when I've secondaryed in glass (about
> 2 batches).

I have had some scale build up problems with my kegs, that required a

good caustic/acid wash schedule. Not sure if this is the cause of the taste, check for problem weld areas.

Good brewing,
Jim Busch

Date: Mon, 20 Dec 93 10:21:59 CST
From: chips@coleslaw.me.utexas.edu (Chris Pencis)
Subject: Thanks/Creole/Stouts

Ok Folks, here we go...

1. Happy Holidays...for those of you interested in the creole recipe, email me and I will reply with it when I get back in Jan.

2. I got my results back from my first competition (Austin Brew Ha Ha - my 6th batch, an extract/specialty grain brown ale) and I'm happy. My brew came out with a 25, and I think that I would have been scored higher if I had subclassified the brown ale category (english american etc) but it was between styles and I felt like I would have been guessing as to style anyway...(I cant try all these micros to help me define my styles in Texas - relatively few are sold here). Point being that I got nice beer reviews, no off flavors or infections. This makes me feel that I've got the essentials down - I have the HBD community to thank for this one - THANKS!

3. Semi-related literature: *A Natural History of the Senses* by Diane Ackerman. An excellent book which goes into the nuances of sensation - particularly relevant to we brewers who are dabbling with the alchemy of hops, malt etc to produce our magic are the chapters on smell and taste. Well worth an afternoon perusal in the library or bookstore - ISBN 0-679-73566-6. Standard disclaimers apply here - just a happy reader.

4. Advice on Stout recipes tried from the Cat's Meow or anywhere else would be appreciated as I am looking at trying to brew my 1st. I have a hankering to make something similar to Sam Smiths (is this dry or sweet? honest - I need to know....) extract recipes and private e-mail preferred.

Thanks all Chris

|Chris Pencischips@coleslaw.me.utexas.edu |
|University of Texas at Austin Robotics Research Group |

Date: Mon, 20 Dec 1993 11:32:56 -0600 (CST)
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Aluminum pots

There's some interesting information on the use of aluminum ware in Dave Miller's column in the latest _Brewing Techniques_ and in Papazian's Doctor whater-it-is column in the latest _Zymurgy_. The summary of both articles is that there is no evidence that using aluminum kettles will adversely affect beer flavor. Commercial brewery's don't use aluminum because it is attacked by the caustic cleaners that they use. Certainly stainless steel is more durable an more inert. So it sound like this may be just another myth propagated about the homebrew community. (FWIW I'm saving up for a SS pot.)

By the way: be very careful about what you read in supplier's catalogues. They often suffer from the same lack of knowledge that the rest of do.

Sante' WAK

Date: Mon, 20 Dec 1993 11:32:53 -0600 (CST)
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Specific Gravity Measurement

In HBD #1301 reeves@lanl.gov (Geoff Reeves) writes

[snip]
>Undissolved particles (including colloids) do not affect the measurement
of
>specific gravity. A easy to visualize example is to imagine a lake of
pure
[snip]

This is not correct. Both suspended (undissolved) solids and dissolved
solids
will affect the specific gravity measurements. That is so long as they
remain suspended in solution. In fact this phenomenon is used to measure
the size of colloidal soil particles. If you have any doubts about this
try the following. Take a trub laden sample off of the bottom on you
boiler shake it well to suspend all the solids and quickly measure the
specific gravity (before the junk settles out). Then leave the sample
sit
until the junk has all settled to the bottom of the sample tube. Now
measure the specific gravity again. You will find that the second
reading
gives a lower Sg than the first. The difference may or may not be large
enough to be of concern but suspended solid definitely do affect the
measured Sg.

Also on the subject of temperature corrections. If one is measuring Sg
at
ale fermentation temps then the correction is small (.001 or .002) if,
however, one is measuring the the Sg of sparge runnings or boiling wort
the
corrections can be quite large (like .015 or more). So don't blow off
the
correction if you're trying to boil wort down to right OG! By the way,
sierra.stanford.edu has a file with a table of Sg corrections and a
polynomial fit. The file is /pub/homebrew/docs/sg_vs_temp.

Sante' WAK

Date: Mon, 20 Dec 1993 10:47:02 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: early racking, ice-bath cooling, Barney Bashing

DQpNYXliZSBjIHNob3VsZG4ndCB0YXZlIGdvbmUgb24gYXQgc3VjaCBsZw5ndGgg
dGhlIG90aGVyIGRheSBhYm9ldCBteSB1YXJseS0NCnJhY2tpbmcgZXhwZXJpZW5j
ZTsgZWl0aGVyIHRoZXJlIGlzIHNvIG11Y2ggaW50ZXJlc3RpbmcgZGlzY3Vzc2lv
biBvbiBIQkQgDQp0aGVzZSBkYXlzIHRoYXQgbXkgcXVlc3Rpb24gaXMgbGVzcyBp
bnRlcmVzdGluZyB0byB0aGUGU2FnZXMgb2YgQnJld2luZyB0aGFuIA0Kb3RoZXJz
LCBvciBteSBxdWVzdGlvbiBnb3QgYnVyaWVvIGJlbnVhdGggXkkgb3duIHZlcmJv
c2l0eS4NCg0KSGVYzSB3ZSBnbyBhZ2FpbjogIGFueW9uZSB3YW50IHRvIHZlbnRl
cmUGYw4gb3BpbmlvbiBvbiB3aGV0aGVyIGVhcmxpZXIgdQpyYWNraW5nIERPRVMg
aW4gZmFjdCBlbmhbmNlIHRoZSBwcmVzZW5jZSBvZiBkaWFjZXR5bD8NCg0KTM9y
bWFSbHkgd2h1biBjIHRoY2sgdG8gc2Vjb25kYXJ5L0CBjIHRhaXQgdW50aWwgdGhl
IGZlcm11bnRhdGlvbiBpcyBhbG1vc3QgdQpvdmVyLiAgVGhpcyB0aW11IEkgZGlk
IGl0IGFmdGVyIGp1c3QgMy00IGRheXMgd2h1biB0aGUGz3Jhdml0eSB0YWQgZHJv
cHBlZCANcmZyb20gYwJvdXQgMTA2MmCB0byBhYm9ldCAxMDQwLiAgRG1kIEkgZG8g
dGhqZSBYaWdodCB0aGluZz8NCg0KKgkqCS0JKgkqCS0JKgkqCS0JKg0KDQpKYW11
czogSSd2ZSBnb3R0ZW4gYwXvbmcgd2VsbCB3aXR0b3V0IGegd29ydC1jaGlsbGVy
IGZlcm11bnRhdGlvbiBpcyBhbm9ldGhhdCdzIGJlY2F1c2UgSSd2ZSBz
dHVjayB3aXR0IGV4dHJhY3QgYnJld2luZyBhbmQgcGFydG1hbCBib2lscy4gIA0K
Q29udmVudGlvbmFsIHdpc2RvbSB0YXMGaXQgdGhhdCBvbmNlIHlvdSBnbyB0byBh
bGwtZ3JhaW4gYw5kIEZVTEwgYm9pbHMsIHlvdSANcm5lZWQgdGhlIGNoaWxsZXIu
DQoNCKhlcmUncyBteSBtZXRob2QuICBjIGhhdUmYSA1IGdhbC4gU1MgcG90LCBp
biB3aG1jaCBjIGJvaWwgcwNCBnYwxs25zIG9mIHdvcnQuIA0KQWJvdXQgb25lIGdh
dGxvbiBlc2NhcGVzIGR1cm1uZyB0aGUGb25lLWwhvdXIGYm9pbCwgbGVhdmluZyBt
ZSB3aXR0IHRocmVLIiAgQSANcmNvdXBzZSBkYXlzIGJlZm9yZSBicmV3aW5nLCBj
IGJvaWwgdHdvIGdhbGxvbnMgb2Ygd2F0ZXIsIGxldCBpdCBjb29sLCBhbmQgcHV0
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ZXAgZnJlZXplLiAgQgSBjb3VwbGUgaG91cnMgdQpiZWZvcuUgSSBjZWdpciBicmV3
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LiAgQWZ0ZXIgdQp0aGUGYm9pbCwgcwSSBwdXQgdGh1IHBvdCBpbiB0aGUGc2luayw
ZmlsbGVkIHRpdGggaWNlICYgd2F0ZXIsIGFuZCBkdWlwIHRoZSANcmN3byBwYXJ0
aWFSbHktGhhd2VkIGdhbGxvbiBibG9ja3Mgb2YgaWNlIGludG8gdGh1IHBvdC4g
IEkgY292ZXIgaXQgYw5kIGxldCANcm10IHNpdCBmb3IgySB0YwXmIGhvdXIgb3Igy
c28sIGFuZCB2b2l54TogZml2ZSBnYwxs25zIG9mIHdvcnQgYXQgYwJvdXQgNzUg
DQpkZWcuRi4sIHBlcmZlY3QgZm9yIHBpdGNoaW5nIQ0KDQoqCS0JKgkqCS0JKgkq
CS0JKgkqDQoNCKkgd2l5bCBvZyVvIHRoXMGbm9uLWJlZlZlcmVzYXRlZCBwb3N0
IGFzIHNob3J0IGFzIHBvc3NpYmXlLg0KDQo+RkxvBTUUGT048DQoNCKkkgbXVzdCBv
YmplY3QgdG8gdGh1IGVUy3JvYWNobWVudCBvZiB0aGUGU2F0YW5pYywgQW50aS1N
b20nbkFwcGxlUG11LCBvbi0NCKftdXJyaWNhbiBCQVJORVkgQkFTSEVSUyBpbnRv
IHRoZSBvdGhlcndpc2UgY2l2aWxpemVkiGFuZCBnZW50ZWVsIHdvcmxkIG9mIA0K
SG9tZWJyZXdpbmcuDQoNCKZvcib0aGUGcmVjb3JkLCBteSBraWRzIEExpVUgQmFy
bmV5IGFuZCBvdVYyIG15IGRlYwQgYm9keSB3aWxsIHRoZXkgZXZlciBzZWUgDQpl
dmV5IGegc291bmQgYml0ZSBvZiB0ZWF2aXMgYw5kIEJldHROZWFkLiAgDQoNCj5G
TEFNRSBPRkY8DQoNCihXaGF0IGFyZSB0aGVzZSBwZW9wbGUgZG9pbmcgc2l0dGlu
ZyBhcm91bmQgV0FUQ0hJTkcgQmFybV5IGFueXdheT8gIA0KU2hvdWxkbid0IHRo
ZXkgYmUGYXQgd29yaz8gIE1heWJlIHRoZXkgYXJlIG5vdCB0YXZpbmcgZW5vdWdo
IGhvbWV5icmV3LiAgTWF5YmUGDQp0b28gbXVjaCkgIEZvcib0aGUGaHVtb3ItaW1w
YwlyZWQ6ICA6LSkgISEhdQoNCKpvbmF0aGFuIETuaWdoda0KQS5aLkkuRC4NCihB
bGxpYW5jZSBvZiBaeW11cmdpc3RzICYgSW5ub2N1b3VzIERpbm9zYXVycykNCg0K

Date: Mon, 20 Dec 93 9:43:41 MST
From: Earle M. Williams <earlew@drc.usbm.gov>
Subject: Sparkling Wine bottles

To continue the thread on domestic vs European "Champagne" bottles,
another fine candidate is the Martinelli's Sparkling Cider bottle.
They even come with a crown cap rather than cork and bracket.

FWIW
Earle
- - -

Earle M. Williams
U.S. Bureau of Mines
Denver, Colorado USA
(Internet) earlew@drc.usbm.gov

Date: Mon, 20 Dec 1993 09:58:40 -0500 (EST)
From: okra@genesis.nred.ma.us (dean goulding)
Subject: no subject (file transmission)

NO TEAM. NO BUD.

FYI, a boycott of Anheuser Bush products is being organized in New England to protest New England Patriots owner James Busch Orthwein's attempts to sell the Patriots to Stan Kroenke and move the team to St Louis. As reported by Will McDonough in the Boston Globe 12/18/93 p. 67, player agent Randy Vataha asks to start the boycott Sunday @ 1 and continue until the team is sold to an ownership that will keep it here. Drop off points will be announced where fans can drop off any Anheuser-Bush products that will be trucked to a spot near the stadium and dumped to demonstrate to Orthwein our opposition. Orthwein who is the 3rd largest stockholder of AB, lost a bid for a new NFL franchise last month and seems willing to risk a number of lawsuits(TM), including breaking his lease in Foxboro, to move the team.

"Tell you friendly bartender to serve something else. Tell the guy who owns your neighborhood pub or local package store not to order Busch products..." Amen! Besides, the local breweries and brewpubs can always use the business!

Date: Mon, 20 Dec 93 10:54:14 PST
From: Bob W Surratt <Bob_W_Surratt@ccm.hf.intel.com>
Subject: Raw Honey vs Processed

Text item: Text_1

Season's Greetings all!

Can anyone tell me the difference in raw honey vs. the processed variety? Is the raw lower in sugar content since it hasn't been boiled, driving off some of the water?

Thanks for your help,

Bob Surratt Orangevale, CA

Date: Mon, 20 Dec 93 14:32 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: magazines

Two basic questions for you guys:

- 1- Is it possible to buy Zymurgy, without having to join the AHA.
- 2- What do you people think of Brewing_Techniques magazine?

Date: Mon, 20 Dec 1993 12:39:29 -0600
From: dmorey@iastate.edu
Subject: Potential Extract of Dark Malts

Greetings fellow homebrewers and beer lovers,

This is my first posting on HBD. I have been doing all grain brewing for about a year and a half and have a question about expected extract from dark grains. I have compiled a list which was created by averaging values from multiple sources. Most sources i have found don't cover potential extract of dark malts very much. So I would like to hear the wisdom of the brewers out there. Here is the list I have compiled up to this date:

| Ingredient: | pt. gallons / lb |
|------------------|----------------------------|
| Malt extract | 35 |
| Dry spray malt | 42 |
| Corn sugar | 37 |
| Cane sugar (yuk) | 44 |
| Brown sugar | 41 |
| Rice syrup | 36 |
| Dextrin powder | 42 |
| Pale malt | 31 |
| Lager malt | 31 |
| Munich malt | 26 |
| Mild ale malt | 27 |
| Crystal malt | 22 |
| Wheat malt | 34 (this seems high) |
| Cara pils malt | 23 |
| Roast barley | 27 (isn't this high also?) |
| Chocolate malt | 27 " |
| Black patent | 27 " |
| Honey | 38 |
| Molasses | 45 |

I would like to thank all of in advance. I hope other people in our group will find this information useful.

Dan A. Morey Reminding you to drink 2 to 3 beers a day.
dmorey@iastate.edu According to a recent study this will reduce
your chance of a heart attack by 50%!
CHEERS!!!!!!!!!!

Date: Mon, 20 Dec 1993 15:38:26 -0500
From: lovelace@pop.nih.gov (Chris Lovelace)
Subject: yard o' beer

>Date: Fri, 17 Dec 93 15:34:01 -0500
>From: "Daniel K. Yee" <yee@al.relay.upenn.edu
>Subject: yards & 1/2 yards

>Hi all,

>I've been thinking of getting a yard or 1/2 yard beer glass (with stand)
>for my brother as a birthday gift. What are the best deals out there?
>Thanks in advance.

> Dan "Sven" Yee

You can get yard, 1/2 yard, and foot glasses with the wooden stand for a pretty good price at a Corning/Revere outlet (for those of you near DC, I think one of these just opened up at Potomac Mills, but I haven't been by yet). They have good prices on glass carboys, too. I'm not sure exactly what the prices for these items are, but I do remember they are quite a bit lower than those at the local homebrew shop.

Chris

Date: Mon, 20 Dec 1993 20:59:18 -0600
From: ccamley@mmm.com (Chris Amley - 3M Telecommunications)
Subject: Extract experience

In HBD1301 Todd Carlson asked for comments re different commercial malt extracts. I'm interested in this topic, too, especially regarding Northwestern-brand extracts. What are they made from? Two-row or six-row barley. If two-row, what is the variety and origin? What is the yield (degrees OG/pound/gallon)? Are they consistent from batch to batch and year to year? For context, I'm brewing pale ale (using Edme DMS) and porter (using Munton & Fison Light). The owner of my homebrew store has been trying to get answers to these questions, but without luck, and has gently steered me away from Northwestern.

And, yes, I know I wouldn't be asking this question if I were brewing all-grain...

Date: Mon, 20 Dec 1993 19:27:25 -0800
From: royh@netcom.com (Roy Harvey)
Subject: New Amsterdam - New York Amber - Ideas?

I just tried a very tasty new microbrew that I bought at my local grocery store, It's called "New Amsterdam - New York Amber Beer". Very nice!

Has

anyone else tried it? I'd love to take a crack at making an extract clone

of it. The neck label reads "New Amsterdam contains only the finest ingredients: two-row roasted barley malt and Cascade and Hallertauer hops."

I guess that's a start!

The label continues, "New Amsterdam has been consistently judges to be among

the finest beers in the world." Yes, it is very good...

Cheers!

(and Happy Holidays!)

Roy Harvey

Mountain View, CA

Date: Mon, 20 Dec 1993 19:29:13 -0800
From: royh@netcom.com (Roy Harvey)
Subject: Seltzer Carbonators

Anyone have experience using the soda water/CO2 bottles to quick carbonate beer? Just a thought... Anyone know a good source for these little setups?

Cheers!
(and Happy Holidays!)
Roy Harvey
Mountain View, CA

End of HOMEBREW Digest #1303, 12/21/93

Date: Tue, 21 Dec 1993 03:08:16 -0600
From: bliss@pixel.convex.com (Brian Bliss)
Subject: Sg/particulate

"Bill Kitch" <kitchwa@bongo.cc.utexas.edu> writes:

>[snip]

>>Undissolved particles (including colloids) do not affect the measurement of

>>specific gravity. A easy to visualize example is to imagine a lake of pure

>[snip]

>

>This is not correct. Both suspended (undissolved) solids and dissolved solids

>will affect the specific gravity measurements. That is so long as they remain suspended in solution. In fact this phenomenon is used to measure

>the size of colloidal soil particles. If you have any doubts about this

>try the following. Take a trub laden sample off of the bottom on you boiler shake it well to suspend all the solids and quickly measure the

>specific gravity (before the junk settles out). Then leave the sample sit

>until the junk has all settled to the bottom of the sample tube. Now

>measure the specific gravity again. You will find that the second reading

>gives a lower Sg than the first. The difference may or may not be large

>enough to be of concern but suspended solid definitely do affect the

>measured Sg.

The "junk" in question is protein coagulate. When mixed into a solution, it does not raise the SG as would sugar. This would seem to imply that it

has a lower SG than wort. Yet it falls to the bottom. Why?

>From an observational standpoint, I have noticed that the SG measurements

increase after the trub falls out (i.e. the wort mixed with trub has a lower SG than does the clarified wort). One would think it would decrease. **

i.e. why does it sink?

** One cannot discount the possibility that this is due to temperature correction error or other measurement errors on my part. I have never, however, observed a SG decrease after clarification, and have observed increases several times.

bb

Date: Tue, 21 Dec 1993 08:47:14 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: clip art requests

clip art requests
Thanks for all of the requests for mac/brew clip art.

I cannot possibly reply to all of you in any semblance of promptness, so here's what I'll do.

I am going to create a clip art package and post it to sierra.stanford.edu for the world as a shareware package of my artwork. The fee for use of such will be quite liberal: send me a bottle of homebrew AND give me a mention regarding your label artwork. Sounds reasonable.

I'll post the clip art after christmas.

george

Date: Tue, 21 Dec 1993 10:08:22 -0500
From: ambroser@apollo.dml.georgetown.edu (Samuel Adam's)
Subject: Trying to boycott the Mega-brews

Good Luck trying to boycott A.B. (BUD) products! I think you would have a more easier time trying to boycott water! :)

Since "nearly one out of two beers is an A.B. product" (a direct quote from the St. Louis beer tour, since they sold 86 million [more or less] barrels in a year) a "strong" boycott would probably "hurt" their sales by .001%.

Just had to add my \$.02 since I feel you are wasting your time. Sorta like when teenagers were supposed to "boycott" the Beatles and destroy any kind of "things" they had relating to the Beatles. It was silly. (If you aren't in your 30's or later you probably don't remember)

Date: Tue, 21 Dec 93 8:25:22 MST
From: npyle@n33.stortek.com
Subject: Re: Problems with Dark ales

John Walaszek writes:

>Hello everyone, I am looking for some help in determining why
>I am having problems with Dark Ales. I have brewed about
>25 all-grain ales and every attempt at a dark one (3 stouts
>and 1 porter) I have ended up very disappointed. I brew alot of
>pale ales and brown ales and these have all been very consistent.
>
>I think my problem may have to do with water chemistry, Lately
>I have used pre-boiled Chicago City water. I usually do not
>check ph and don't really add any mineral salts.
>
>The problem is all 4 of these beers have had a distinctly
>musky-like aroma and flavor. None have really tasted as
>roasty as I have intended. The beers seem thin tasting
>as well and maybe even faintly sour. My usual procedure is
>add add crushed grain to 3 gallons 175F water. Rest at
>153-155F for 90 minutes. Sparge for about 45 minutes.
>Boil 90 minutes. Chill using chiller.

John, I have the very same problems (great pale/amber beers, lousy dark
beers),
although I haven't brewed as many batches as you. I suspect your guess
about
water chemistry is correct, and I am in process of investigating my water
chemistry (request sent out yesterday to the city utilities). It looks
like
I'm going to have to quit ignoring the ingredient which makes up 99.9% of
the
beer - the water! Time to crack the books, but in the meantime, any HBD
gems
would be appreciated. Oh, I would describe my dark beer attempts as
astringent, murky, thin, not malty at all.

Norm

Date: Tue, 21 Dec 93 10:40:40 -0500
From: jld3@po.CWRU.Edu (Jeffrey L. Duerk)
Subject: Weissbeir

Recently I had a chance to try a Weissbeir at Berghoff's in Chicago, and loved it! Since then, I've had every other variety that I can get my hands on. Now I'd like to try to make one. From what I can tell, one of the critical components is the specific strain of yeast, yet I have not been able to locate one that would be appropriate (or at least good), nor have I found a reliable recipe. If anyone has any experience in this area, a recipe to share, and yeast info, I'd appreciate either a posting here, or directly to me at jld3@po.cwru.edu

Second, those of us fortunate enough to live near Great Lakes Brewery here in Cleveland have been thrilled once again at their Porter, IPA, and Christmas Ale. I bought a twelve of the Christmas Ale for my brother (who regularly attends the Portland Ore. beer festivals): he's going to have to settle for a six.

Jeff Duerk- Case Western Reserve University

Date: Tue, 21 Dec 93 10:52:27 EST
From: Gary S. Kuyat <gsk@sagan.bellcore.com>
Subject: Hoptech and "handeling" charges
Full-Name: Gary S. Kuyat

I had read some comments on fruit extracts and was interested in trying a raspberry and blueberry for myself. I called Hoptech and placed an order for 1 each. Total weight for this order < 1lb. Being somewhat familiar with shipping costs, I asked for UPS BLUE (second day). When I received the package I was billed \$9.75 in shipping and handling on a \$12 product order! I called the company and was told that a \$4 "handling" fee was charged to me since my order was < \$30. This is something that folks should know! The extracts taste fine, but Hoptech's rediculous S&H fees left a bitter taste in my mouth...

- --

-Gary Kuyat
gsk@sagan.bellcore.com
(908)699-8422

Date: Tue, 21 Dec 93 10:37:07 EST
From: Aaron Morris <SYSAM@ALBANY.ALBANY.EDU>
Subject: Raw honey vs processed

Bob Surratt queries about the difference between raw and processed honey. The main difference is that processed honey has been heated, and filtered. Heating makes the honey less viscous/more fluid so it will pump through hoses and pass through filters easier. The filters (usually fine cheese cloth) remove the foreign material (dust, pollen, bee's wax, spare bee parts) from the honey. Heating also drives off volatile enzymes from the honey, which may change the flavor. Commercial honey may also be a blended of different varieties of honey.

Raw honey is simply honey that has not been processed. When I extract and bottle my honey, I use cheese cloth to filter out foreign matter, but no heat is involved (preserving the volatile enzymes) and I make attempts to keep clover honey separate from aster honey, etc. For true Raw Honey, find a local beekeeper.

Disclaimer: Answers provided by a hobby beekeeper ;-)

Date: Tue, 21 Dec 1993 11:58:01 -0400
From: Ed Hitchcock <ECH@ac.dal.ca>
Subject: Re: malt extraction efficiencies

dmorey@iastate.edu gives the following list of extract efficiencies. Some of the values don't seem right, so I've appended the values I have that differ from those listed

>Ingredient: pt. gallons / lbI have:
>Malt extract 35
>Dry spray malt 42 43
>Corn sugar 37 45
>Cane sugar (yuk) 44 45
>Brown sugar 41 44
>Rice syrup 36
>Dextrin powder 42
>Pale malt 31 36
>Lager malt 31 35
>Munich malt 26 30-33
>Mild ale malt 27 29-34
>Crystal malt 22 29-31
>Wheat malt 34 (this seems high) 39
>Cara pils malt 23 29
>Roast barley 27 (isn't this high also?) 29
>Chocolate malt 27 " 29
>Black patent 27 " 29
>Honey 38
>Molasses 45 42

Note that the extraction rate for mash ingredients are a theoretical maximum, not the expected rate. Thus, a good homebrew setup typically gets 80% of theoretical maximum, or about 30 pts/lb/gal using pale ale or lager malt. The extract efficiency of 6 row is about 20% less than 2 row.

With that I bid ye all a happy Holiday season, I'm unsubscribing for the duration of 1993...

Ed Hitchcock ech@ac.dal.ca | Oxymoron: Draft beer in bottles. |
Anatomy & Neurobiology | Pleonasm: Draft beer on tap. |
Dalhousie University, Halifax | _____ |

Date: Tue, 21 Dec 1993 11:00:20 -0500 (EST)
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
Subject: Rager's hop utilization curve

I must preface this by saying this is not a flame %)! I was quite amused by a recent post trying to fit Rager's hop utilization rates to a second or third order polynomial expression. I enjoy seeing you techies spin the numbers almost as much as reading posts from Jack Schmidling!! But be real!! The hop utilization rates are ranges over 5 min intervals. If you plot the midpoint of the ranges versus utilization and even add 0 for 0 time, you get just as good a plot with a linear fit $r^2=0.99$ for $y=0.576x$ (where y is the % util., and x is time) then you do with second a third order polynomials ($r^2=0.98$). We cannot be very accurate with hop utiliz. rates to several decimal places since the alpha acid levels are only approximate. It might be fun but it is only an exercise in curve fitting. (By the way you can't just drop data points because they don't give the correct esthetic look! So for all practical purposes $y=0.6x$ would be accurate enough. Sorry for rambling on, by I'm in the government and here to help you!
Andy Kligerman

Date: Tue, 21 Dec 93 11:43:01 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: storing lagers in bottles

A rather obvious question, but one seemingly not answered by Papazian:

once you've bottled a lager (eg, a nice dark single bock), how you should store the bottles? Is it useful to keep them at temps below 60F? Is it better to keep them colder but constant (eg in a fridge), or not quite as cold but varying with the weather (eg on a porch)? And as long as I've got you all here, what is the possible off flavor damage to a lager sitting primary and secondary for about 4 1/2 weeks total? (Discounting contamination; I'm just wondering about the thick layer of trub at the bottom, which may or may not be bad, seeing as how it's naturally a bottom fermenter).

Don't try honey in an IPA. Well, you can, but the sweetness confuses a little bit with all those hops. I think it will mellow with time, but I think there are better recipes to include honey in than an IPA.

Happy beeridays,
M

- --
Mark Bunster |Exchange conversation if you dare--
Survey Research Lab--VCU|Share an empty thought or a laugh.
Richmond, VA 23220 |
mbunster@hibbs.vcu.edu |
(804) 367-8813/353-1731 | -edFROM

Date: Tue, 21 Dec 93 11:59:39 -0500
From: edo@marcam.com (Ed Oriordan)
Subject: Questions on: Hop storage and Step Infusion

Hello,

Question 1) I store my hops (pellets) in the freezer. They are not in oxygen barrier bags, but in little heat sealed plastic bags. Would it help preserve them if I put them (still in the bags) into a glass jar and filled the jar with CO2, and then closed the jar and put it in the fridge.

Obviously it's not much work to do it, but will it be worth it? I know pellets are pretty stable already.

Question 2) In reading Miller's, Lines, and Papazians books the only one who addresses step infusion mashing by using a picnic cooler is Papazian. Does anybody out there use a step infusion in a cooler?

Papazian gives the following numbers (working from memory here)
For 1 step infusion - Add 1 qt 165 H2O per 1lb grain (Target 155F)
For step infusion - Add 1 qt 128 H2O per 1lb grain (Target 122F)
Add .5 qt 212 H2O per 1lb grain (Target 155F)

I have also found that the .5 qt he purposes does not get me to 155, but more like 145 I was afraid to add more boiling H2O(making it even thinner) so I did a partial decoction(more work than I wanted).

What are the consequences of the mash being so much thinner (than his 1 step infussion, it's 50% thinner) during the final step????
Should I use less H2O in the first step and use it in the second?
Should I just add as much boiling water as needed to get to 155?
Does anybody do a step in a cooler, if so what numbers do you do(temps and volumes per lb)?

I am to lazy to stove top mash, and I don't want to build an insulated box, so please limit answers to what I should do for cooler mashing.

The reason I am doing a protein rest is I was under the impression I needed to with 2 Row Breiss (Klages that is Harrington) to prevent chill haze and to get some needed yeast nutrients. Is that the case.

Thanks for the replies

Ed O'

edo@marcam.com

Date: Tue, 21 Dec 93 12:06:56 EST
From: Mark Bunster <mbunster@hibbs.vcu.edu>
Subject: raw honey

I think the diff betwene raw and processed honey is mostly filtration.
Raw
honey has lots of bee parts in it (legs, stingers, other private bee
substances we're not to mention on HBD), and filtration takes some of
that
out. I don't suppose it will make a serious diff since you should be
heating
the honey before you add it, but why have more bits of stuff in your
beer?
Papazian suggests filtered clover honey works best.

- - -
Mark Bunster |Exchange conversation if you dare--
Survey Research Lab--VCU|Share an empty thought or a laugh.
Richmond, VA 23220 |
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(804) 367-8813/353-1731 | -edFROM

Date: Tue, 21 Dec 93 11:15 EST
From: Tom Clifton <0002419419@mcimail.com>
Subject: Copper bottom Stainless Steel brewpots

I was out doing some Christmas shopping yesterday, and just happen to have looked at some nice heavy Revere stainless stockpots that had copper bottoms... Too bad they didn't have any 32 quart size. The 20 quart were \$60 without lids.

In any event, has anybody tried electroplating the bottom of a stainless pot to apply a copper cladding? Are the metals compatible etc??? I do know that that a bath of copper sulphate, a copper anode and a battery charger will let you plate steel (nails etc) but when you get into stainless (chrome/nickel?) will it will it still work?

Date: Tue, 21 Dec 93 12:57:33 CST
From: philb@pro-storm.metronet.com (Phil Brushaber)
Subject: Keg Infection?

A couple of days ago I left a message about getting a medicinal/metallic off-taste in my brew after stainless steel keggung. A number of people were kind enough to reply and I now concede to a potential other problem. I'd appreciate hearing from you if you think I am on the right track, or if you have experienced/solved a similar problem.

Since I did not experience the problem with every keggung/brewed batch, I wanted to blame something in an individual batch process or ingredient. But it could also be that some of my kegs have a bacterial/contamination problem while others do not.

Let me say that I clean every keg before reuse and that I sanitize them by filling them with an Idophor solution for about 20 minutes before re-keggung. I even push in the little stopper at the top of the fill tube to release air and get solution up the tube.

But I'll admit I have never ripped these kegs appart and pulled the little liquid and gas knobs appart. I was thinking of cleaning them in either an idophor or bleach solution. I know that bleach does bad things to stainless, but I would only soak them for about 20 minutes and then rinse.

If I am on the right track, I'd appreciate hearing if someone else might have solved this problem and what kind of off-tastes they were getting. The off taste is hard to describe, but it is definately not like Coke or Sprite. I did change the large O ring, but obviously not the little ones inside the liquid/gas connectors.

Gotta get a handle on this problem. I refuse to drink/serve bad beer. I hate to go back to bottling (where I have had no problems with off tastes on any batches and essentially used similar ingredients/process).

Thanks in advance for your insight.

- - - - -
Internet: philb@pro-storm.metronet.com
UUCP: metronet.com!pro-storm!philb
Bitnet: philb%pro-storm.metronet.com@nosc.mil

Date: Tue, 21 Dec 93 12:53:36 EST
From: cmryglot@disney.CV.COM (Chuck Mryglot X6024)
Subject: Carastan malt

Can someone please tell me what carastan malt. I have not seen it in the HBshop I frequent but have seen it mentioned here and in recipies. Also, some recipies call out light and dark crystal. What is the color guideline for 'light' and 'dark'.

Many thanks....

Date: Tue, 21 Dec 1993 14:24:05 -0500
From: kovacml1@post01.alb.alcoa.com (Michael L. Kovacs)
Subject: yeast washing, Briess malt extract

I am a novice extract brewer (2 batches so far) and would like any input on the following items:

1. Yeast washing - I have read the yeast FAQ and the section on yeast washing seems pretty self-explanatory, but I would like some clarification from anyone out there who is using this technique. I just racked a 5 gal. batch from my primary fermenter and had a pretty good layer of yeast (I think...) on the bottom. It was the same whitish layer that settles to the bottom of my bottles. The Yeast FAQ says to add sterile water to the fermenter, and swirl it around to loosen everything. Then to dump this into the first sterile 1 qt. mason jar. After this step it says to agitate the mason jar and wait for the mixture to separate into layers. After racking, my fermenter did not seem to have much more there other than the yeast (not much hops or sediment from the malt)

I guess my exact question is... "Will it be pretty obvious which is yeast and which is sediment?" Also, assuming reasonable precautions are taken in sterilizing the mason jars and water, how high is the risk of infecting the yeast in the process.

The process of yeast washing appeals to me not just for the savings, but also for the idea of having a ready supply of yeast handy that I am happy with. I am also interested in eventually culturing yeast. Any opinions on this? Is it worth the effort? It seems like it is considerably more involved.

2. Briess malt extracts - I recently went in on a 60 lb. pail of Briess malt extract. The price was a significant savings over buying it 6 or 7 lbs. at a time. An issue of Zymurgy had an article on extract brewing and it favorably mentioned Briess. Does any one have any experience using this extract in bulk. I'm not sure exactly how I'll deal with measuring it out considering how gooey malt extract is in general. Any advice in this area will be appreciated.

(I do intend to make the leap to all-grain when I can afford the equipment

and I feel I am ready for the process. Is there anything like an all-
grain
FAQ out there on the internet?)

thanks,

Mike Kovacs

If replying directly, please mail to:
kovacs01@ssw.alcoa.com

Date: 21 Dec 93 14:28:34

From: Ritchie Kolnos <Ritchie_Kolnos@notes.worldcom.com>

Subject: Re: Raw Honey vs Processed

> Can anyone tell me the difference in raw honey vs. the processed
> variety? Is the raw lower in sugar content since it hasn't been
> boiled, driving off some of the water?

As a beekeeper who uses his own honey in various homebrews, I can tell you that there is little difference between raw and processed honey.

Any raw honey that I bottle and sell has to be between 15-18% water (or else it could spoil and ferment). Processed honey (the kind you might buy in a large grocery store), has been pasturized, filtered, and blended to appeal to the tastes of the American consumer. For your information, most of the processed honey sold in the United States is now imported from South America.

Since raw honey has not been pasturized, it is possible that you could introduce some bacterial "nasties" to the wort, but I'm sure these would be eliminated during the boiling process. As far as sugar content, it is variable in raw honey, but I don't think it makes much difference.

When using honey in any recipe I am more concerned with the flavor of the honey (lightness vs. darkness) than with the water content. I have found that the source/flavor of the honey does sometimes affect the taste of the brew.

Date: Tue, 21 Dec 1993 13:02:46 -0800 (PST)

From: waltman@netcom.com (Fred Waltman)

Subject: 5 Liter Mini Kegs

In HBD #1303 Diane Palme writes about 5 Liter Mini-kegs.

These sound like the same ones that Brew Ha Ha in PA has been selling. I got a set two weeks ago and my first beer is conditioning. Other people have told me they have had great luck with them and I hope to add further data after New Years.

BTW, has anyone had any luck taking these as carry on luggage on a plane? I am not so much worried about the trip, but rather what security would say as they went thru the X-ray machine.

Fred Waltman
Marina del Rey, CA
waltman@netcom.com

Date: Tue, 21 Dec 93 15:21 CST

From: korz@iepubj.att.com

Subject: chillers/aletimes/dryhop/complications/haze/bottlefill/when2bottle/
doppelbock

James writes:

>1) why are wort chillers recommended? isn't an ice water bath almost as
>effective?

If it works for you, then great. I used to use an ice bath, but it did
not cool fast enough and my icemaker didn't make enough ice -- I had to
buy
some.

>2) do ales normally have that short of an optimal fermentation time (the
>kreusen had settled after only about 36 hours)?

"Optimal" is an odd word selection. The yeast will decide what's optimal
for them. This time is dependent on strain, temperature, oxygen, starter
size and original gravity. You can minimize the time by aerating well
and using a big starter. Higher temps will increase ester production
(fruity
flavors/aromas) in addition to decreasing fermentation time and
increasing
the hospitability for bacterial infections.

>3) because of the high gravity boil the beer is not as bitter as i want
it,
>so i was thinking about dry hopping in a secondary. is there a
recommended
>time to do this or can i do it any time after the kreusen settles? also,

Dryhopping will not add bitterness. Ideally you want to add dryhops when
the beer is almost done because evolving CO2 will scrub out some of the
hop aromatics. If you are sure you need more bitterness, you can make up
a hop tea by boiling just hops in water and then straining the liquid
into
your beer. If you boil 45-60 minutes, you will add only bitterness (no
flavor or aroma).

>can someone give me a range for the amount of hops to use in the
secondary
>(i know i didn't say how bitter our beer is right now, but i just want
to
>know if most people use 0.5 oz. or 8 oz when they dry hop)?

I use between 0.5 and 2 ounces.

>p.s. not that anyone cares, but i'm with lan and andrew on this AOL
thing.
>F*%@ censorship!

I'd like to point out that you "censored" yourself, which is what I
advocate. For what it's worth, Lanny and I have reached common ground
off-line on this topic and knowing Andrew, I'm certain that his IDEAS and
not his WORDS were the reason for him being censored -- for this, I too,
am
outraged.

Timothy writes:

>patience. So my first question is. If the beer is coming out good, why
>complicate matters? An example of what I mean is the use of oxygen and
>a bubbler system to aerate the wort prior to pitching. Is this really
>necessary? I just shake the hell out of my primary a few times after

It's not, but I read the HBD for new ideas for my own brewing and to help out with questions. Much of the discussion is strictly academic, but some has practical applications if you add it to other information you have read or experienced earlier. To use your example, for a 1048 ale, you don't really need anything but shaking your carboy, but for a 1120 lager, you will need to do more than that to get enough O2 in solution.

Brian writes:

> chill haze, two batches were satisfactory, and the rest suffered from
> haze problems that had nothing to do with chill-haze. These beers are
> cloudy even when warm.

Could it be too hot a sparge? Too hot a sparge water (above 170F or so) can liberate unconverted starch. Your Corona setting (*larger* malt fragments) would simply increase this effect.

Jim writes:

>This is one of my pet peeves too. I think the inspection is fine for
>rings, yeast cake/cloudiness, etc, but comments on "low fill levels"
>can be erroneous. The problem seems to stem from homebrewers who bottle

I'm with Spencer on this one. The inspection line is more of a note to myself. If I don't find a problem with the beer, I don't even mention it in the scored section of the form. By the way, I try to remember to check for sediment, so I know if this is a bottle-conditioned or CP-filled bottle.

Doug writes:

>into the secondary at which point it slowly bubbled away. Well, five days
>later it is still bubbling at a rate of about every 3 seconds which is
>completely different than batch 1 and batch 3 (an Australian Lager using
>Ale yeast). Is this normal activity or have I done something wrong? Is it

See my comments above on what affects fermentation time. Apart from sanitation there's little anyone can do to make an undrinkable batch -- I'm sure you did nothing wrong.

>Is it safe to bottle while it is still fermenting like this?

NO! Wait for the fermentation to go down to about 1 bubble every 1 to 2 minutes.

> Is there any good way to get a second SG reading
>without the risk of contaminating the brew?

Yes. Using good sanitation techniques, take a sample, measure SG and drink the sample (don't put it back into the brew).

>I would really like to get this

>batch into the bottle so I can expedite the drinking (hopefully be able to
>have a few with friends on New Years!!!)

Don't rush the brew. It's better to drink some quality microbrew for New Years than to spoil (overcarbonate) a batch by rushing it.

>Other questions: Are Australian Light Malts supposed to produce a golden
>colored beer/ale/lager (this is the color of straw)?

Being Australian has nothing to do with golden-ness. "Light" or "Gold" extracts from the US, UK, Belgium, Germany, etc. all will make a golden colored beer -- some darker than others. If you cannot get a golden beer from any extract, I suspect you are aerating your wort when it is hot, which will darken it considerably.

>How close will a dopplebock be to the real thing if I
>use ale/beer yeast (I am not yet set up to do real Lagers)?

It's not so much the yeast as the temperature. You will get a much fruitier beer than a Doppelbock -- more like a Strong Scotch Ale.

Al.

Date: Tue, 21 Dec 93 15:25 CST

From: korz@iepubj.att.com

Subject: quickFerments/"champagne"bottles/CO2-storing/WitYeast/metallic flavor

John writes:

>Short Ale Fermentations? When you use Extract with lots of active yeast,
>then you can have quick fermentations because of the simple sugars present;
>compared to All Grain where more complex sugars are present.

This is not really correct -- a quality extract wort made from all-malt extract will have a similar sugar profile to an all-grain wort. Crummy, dextrose-stretched extracts could make for a different sugar profile, but that would make for a longer, less-vigorous ferment due to the shortage of FAN (amino acids, for yeast nutrition).

>Capping Champagne bottles - All of the domestic champagne bottles can be >recapped with standard bottle caps. There are some French ones that have >bigger openings.

I believe Cook's bottles (if it's not Cook's then it's some other US sparkling wine) don't take standard US crown caps. But I agree that most US sparkling wine bottles do take the standard US crowns. Most european sparkling wines have the larger opening, but there are a few that do take the standard US crown cap (I believe Dom Perignon is one, so buy a lot when you find it on sale).

Conn writes:

>means of kegging. My reaction? great to see such innovation. Dave Line actually
>proposed storing the pressure from the primary fermentation for later use,
>which would overcome the need to prime with triple the normal

My fears would be: 1) that the pressure from the *complete* primary fermentation could get very high, even to the point of affecting the yeast and the possibility of explosion, and 2) primary fermentation often releases or produces undesirable gasses (DMS and some sulfur compounds, for example) and you would not want to use these. I believe that the commercial brewers "srub" their CO2 before reuse.

John writes:

>However, sometimes this doesn't quite work out, and I have to make a choice
>as to whether or not I should add brewing water at this stage to top up the
>carboy or leave the space in the carboy and hope the beer is still producing
>enough CO2 to protect it from oxygen. What is the consensus on this? Is
>topping up detrimental to the beer or is it at least less harmful than oxygen?

When you rack fermenting or fermented beer, you will inevitably release some dissolved CO2 (thanks to the partial pressure at the top of the siphon hose) so this will serve as a CO2 blanket as long as you use an airlock on your secondary. 1" is certainly not worth worrying about, but even if it was

more, I'd say the topping up is unnecessary. If you do top-up, use boiled water so you don't introduce dissolved O2.

Michael writes:

>they haven't put it into production. If you can't find a white beer yeast or
>are not ready to make a yeast starter from a slant, you might try the Wyeast
>Bavarian Wheat Ale yeast.

Wyeast *has* released their "Belgian White" yeast. On the other hand, a customer of mine has brewed some excellent Witbiers using Wyeast Bavarian Weizen yeast.

>This may be one of my crazier ideas, but I think it might get you closer
>to Celis than using a regular ale yeast. The Wyeast Wheat Ale yeast haso
>some Lactobacillus Delbrukii in it which would simulate the secondary
>lactic fermentation that Pierre and company do. What do the rest of you
>out there think?

Woah! That's Saccharomyces Delbruckii, not Lactobacillus Delbruckii, that is in Wyeast Bavarian Weizen (#3056 -- #3068 is all S. Delbruckii, BTW).

Phil writes:

>I know that many of your secondary in stainless steel cornelius kegs.
>I like to do this as it takes up less space in my lagering refrigerator.
>This summer I encountered this off-taste problem with a couple of
>American Lager's I brewed, did the primary in glass and then the
>secondary in stainless. The off-taste is hard to describe. At first
>I thought it was astringency, but it is more like a yeasty, metallic
>taste. The taste persists even after filtering through a .5 micron
>filter. It has happened when I've secondaried in stainless (about
>5 total batches) but never when I've secondaried in glass (about
>2 batches).

I don't think your problem is from the Stainless. Check your water chemistry (check for high Calcium or Magnesium levels) and then check your malt freshness. Stale malt has been known to give metallic flavors (see the Troubleshooting issue of Zymurgy).

Al.

Date: Tue, 21 Dec 93 14:23:18 PST
From: garyrich@angel.qdeck.com
Subject: various musings

>-----

>
>Date: Sun, 19 Dec 93 22:35 CST
>From: akcs.wally@vpnet.chi.il.us (John Walaszek)
>Subject: Problems with Dark ales

>
>Hello everyone, I am looking for some help in determining why
>I am having problems with Dark Ales. I have brewed about
>25 all-grain ales and every attempt at a dark one (3 stouts
>and 1 porter) I have ended up very disappointed. I brew alot of
>pale ales and brown ales and these have all been very consistent.
>
>I think my problem may have to do with water chemistry, Lately
>I have used pre-boiled Chicago City water. I usually do not
>check ph and don't really add any mineral salts.

I think you may have indeed diagnosed your own problem. From what I recall, most Chicago water is very soft. The dark grains that you are using will make the mash more acidic, in fact that why they were used historically. Most dark ale districts were those that had hard water and the acidity of the more highly roasted grains was used to counteract the high alkalynity of the water. What may be happening in your case is that

the acidic dark grains are dropping the mash ph below the ideal for conversion. you could try to get a ph reading from the mash, but I've never been able to read my cheap litmus papers in a dark mash. I would just add a teaspoon or so of calcium carbonate to it when you mash in and see what happens. Since the carbonate levels in my town often get as high as 300ppm, I've never needed to do this myself.

>

>-----

>From: palme@am1.icgmfg.mke.ab.com (Palme)
>Subject: Reusable 5l kegs ...

>
>Hi All!

>

>I saw a pretty nifty little gadget on the shelf of my local homebrew
>shop/microbrewery. (Ok, ok, so Dan shares floorspace with Lakefront.
Sip

>and buy. Sip and browse. What a racket!) It's a reusable 5l stainless
>keg, similar to the "party kegs" one can purchase at the liquor store. A
>set of 4 comes with a reusable tapper/dispenser. (I won't mention the
>price, just yet) So, any thoughts? Ideas? Anyone out there *have* one
>of these? It sure would be nice to get away from bottling 2 cases every
>time. I would see putting up two of these kegs per batch and then one
>case of bottles for "dispersal."

>

>Comments *always* appreciated ...

>

>D.

>

>- ---

>Diane Palme, EIT

I have a set of these from Brew-Ha-Ha. I liked them a lot at first. They are a lot easier than bottling. They are also quite convenient and they fit

in the fridge in the kitchen.

Like everyone else that's used them at first I had problems with overpriming. You have to use a very light touch (<1/2 cup corn suger in 5 gallons) or they just produce foam. Too much pressure can even damage the can. Even after I mastered this I still had major foaming problems. I think that the dispenser could really use a hose type spigot so that the keg pressure could be brought down before the beer hits your glass at 90 miles an hour. Since my main experiments with the cans were with last summer's wheat beers, you can imagine the mess this made.

Now a few months later it seems that the tapper/dispenser (aka the expensive part) is damaged. I can't put in a co2 cartridge without most of the gas just blowing out the back and being wasted. Once I lose ~half the gas this way it still seems to have some sort of slow leak that means the beer will be flat by the next day. I don't recall doing anything savage enough to the tapper that should have broken it this way, but I do have 2 small children, so all bets are off...

I was dissapointed enough with them that I kept saving those nickels and dimes and got a fridge for the garage and and a real kegging setup. If I lived in a small apartment I think I would have stuck with the cans longer, just because they are so much more space efficient. As it is I think I will donate them to a freind that does live in an apt.

>
>From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
>Subject: magazines

>
>Two basic questions for you guys:

>
>1- Is it possible to buy Zymurgy, without having to join the AHA.

Every home brew store that I've ever been in has individual copies for sale.

>
>2- What do you people think of Brewing_Techniques magazine?

I love it, though it hasn't yet had an issue that's really lived up to the standard set by the first issue. It's still good enough that I will re subscribe without a qualm when the time comes.

Gary Rich | Quarterdeck Office Systems, Santa Monica CA
garyrich@qdeck.com

Nobody listens to my opinions, so why I should bother disclaiming them?

Date: Tue, 21 Dec 1993 15:11:36 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: Re: Words of Wisdom

> From: "J. Andrew Patrick" <andnator@genesis.Mcs.Com>
> Subject: Free Speech Vs. "Professional Language"
>
> Much to my surprise, since posting my 1st message about the blatant
> censorship that I encountered at the AOL Beer Forum, several HBD
> readers have expressed opinions that I "got what I deserved" for
> using such terrible language. Al Korzonas, Michael T. Lobo, and,
> GNT_TOX%ALLOY.BITNET@PUCC.PRINECTON.EDU (whoever that is!) have
> written (either publicly or privately) to indicate their opinions that:
>
> 1) AOL was justified in censoring me for using "profane" language, and/
or

I'm not much in agreement with the three you mention above, but isn't AOL a commercial venture? I mean, didn't you pay for that service? I would say that, if so, you are strongly misusing the word "censoring". If they owns the turf, they get to make the rules. If they think "pissed off" is naughty, then they certainly have the right to refuse to post it.

If I publish a magazine, and chose not to publish an article of yours, either because it's badly-written or because I don't like your language, I'm entitled to leave it out. You're entitled, of course, to publish your own damn magazine.

> I believe that I have an inalienable right to express myself in
cyberspace
> in the same manner as I do in real space. This is just your basic
First
> Amendment principle applied to the on-line world. If I am forced to
> drastically alter my on-line persona because of a few prudes who don't
> like seeing words like "orgasm" or "pissed off" in the HBD or AOL Beer
> Forums, then I am being forced to live a lie, to pretend to be somebody
> that I am not.
>
> Is this REALLY what we want??
>

No. What we really want is for people to be reasonably polite. If this means that people occasionally need to temper their language, I don't see this as trampling on your rights. You *do*, of course, have the right to shoot off your mouth any way you like -- you shouldn't, however, expect that other people should either like it or necessarily tolerate it. I would suggest it would be a good rule that no one say "on-line" something they wouldn't be willing to say to another person's face -- and risk getting popped one in the snoot.

> From: dmorey@iastate.edu
> Subject: Potential Extract of Dark Malts
>
>
> Greetings fellow homebrewers and beer lovers,
>
> This is my first posting on HBD. I have been doing all grain
> brewing for about a year and a half and have a question about expected
> extract from dark grains. I have compiled a list which was created
> by averaging values from multiple sources. Most sources i have found

> don't cover potential extract of dark malts very much. So I would
> like to hear the wisdom of the brewers out there. Here is the list I
> have compiled up to this date:
>
> Cane sugar (yuk) 44

Hey! Save the criticism. Sugar is much-maligned, but many who do so do not know whereof they speak.

> Roast barley 27 (isn't this high also?)
> Chocolate malt 27 "
> Black patent 27 "

I would be most curious to know where you got these figures. As far as I know, the actually amount of extract you can expect from these sources is: zero, zip, nada.

- --Jeff

End of HOMEBREW Digest #1304, 12/22/93

Date: Tue, 21 Dec 93 23:50:23
From: aaron.banerjee@his.com
Subject: SPARKLING WINE

Is anyone out there making champagne for New Years?

I have been making beer in champagne bottles for a few years, and have yet to have a single explosion. Somehow, my champagne, on the other hand, seems to either be flat or explosive. The method of pressurizing I use is to bottle early, or add a small amount of sugar (as opposed to CO2 cartridges--that's cheating). My Christmas ale turned out fine, but I'll bet it doesn't compare to some of the others...

If anyone's making sparkling wine, and bottles without CO2, contact me directly at:

INTERNET: aaron.banerjee@his.com

FidoNet:Aaron Banerjee
1:109/421

Thanks.

Date: Tue, 21 Dec 93 11:24
From: CCASTELL.UNIX11@mailsrv2.eldec.com (CCASTELL)
Subject: Re: Whitbread yeast (1098)

I tried to mail this out on 12/17. Unfortunately, our mailer is down about 50% of the time, so access to the outside world is limited. If this posting appears twice (probably on different days), I apologize. You never know when a mailing actually makes it to the outside world.

Al writes (HOMEBREW Digest #1299):
> 3. mixed yeasts (the Whitbread triple-strain (Wyeast #1098) has been reported
> to have a slowdown in the middle of the ferment, for example), and ...

Russ responds (HOMEBREW Digest #1300):

> Was it ever settled if Wyeast 1098 has the 3 strains of Whitbread yeast
> or just 1 of the strains? ...

Looking at my notes from Dave Logsdon's talk, "Matching Yeasts to Beer Styles" at this summer's convention, Dave stated that 1098 was a single strain. He said that they were working on multiple strain yeasts that would be out soon. (Are any of the new varieties multiple strains?)

He also had a couple of other interesting points that I'll throw out here.

He claimed that numerous studies have shown that dry yeast does not give you a faster start than liquid. The foaming and gas production is a byproduct of the rehydration and is not actual growth. Neither form of yeast reaches exponential growth for about 12 hours.

Someone asked about repitching yeast from the secondary. Dave said that yeast should be taken from both the primary and the secondary, or you'll risk ending up with a yeast with different characteristics. His point was that a certain component of the yeast may "do its thing" early and drop out of suspension early and not make it to the secondary. Without this component, the yeast repitched from the secondary may have different characteristics.

Charlie
//---//---//---//---//---//---//---//---//---//---//---//
// ccastell@eldec.com // Charles Castellow //
//---//---//---//---//---//---//---//---//---//---//---//

Date: Wed, 22 Dec 93 04:21:14 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: pride & clean bottles

I was recently accused of submitting beer to contests because I'm proud of it. (I know I'm paraphrasing to make a point, so don't flame too hard, ok?) Well, certainly, there's some of that. I don't generally submit swill. (I inflict that on local brewclub members, instead. :-)

But what I was getting at was this: any beer I send to a competition is SOMETHING I MADE. It's therefore a LITTLE PART OF ME, and the presentation REFLECTS ON ME. If I send a grungy bottle, that's as good as saying I'M A GRUNGY PERSON. (Sure, sometimes, but not usually in public.) Not to mention the implicit message it sends to the judges: "I didn't have the 5 minutes it would take to clean up this bottle, but I expect you to give the beer in it a thorough evaluation anyway."

Someone else complained about how hard it is to clean bottles just to send in beer to a competition. My heart bleeds. Plan ahead. Soak the bottle for a day or two. I have yet to find a label that doesn't fall off of its own accord if you soak it long enough.

The last competition I judged, 5 judges decided for one reason or another not to show up. The rest of us spent 6 hours, judging 2 flights (typically >10 beers) each (and then the 6 of us who had any stamina left mass-judged the 8 beers in the barleywine category). And you can't spend 5 minutes cleaning your bottle. Foo.

So, if it's such a painful experience, why do I judge? Foremost, probably because it helps me improve my own brewing and my appreciation of good beer. Also, I'm giving something back to the brewing community. And, when you hit that one perfect beer of the competition, it's worth all the infected ones. And, it's fun (at least for the first 10 or so:-).

=Spencer

P.S. Does any of this relate to the discussion about "language" in the HBD?

PPS I'll be on vacation, reading HBD only sporadically, until the new year. If I don't respond to your counter-flames, that's probably why. (And cows can fly:-)

Date:Wed, 22 Dec 93 07:53 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: Pots for Brewing

To continue on with the brewpot thread....

Can anyone see any problems with using a teflon coated brewpot, if they exists in sizes as big as 8 gallons?

Andy Pastuszak

Date: Wed, 22 Dec 1993 07:54:32 -0500
From: franco@astro.ge.com (Mark Francisco 3811)
Subject: clarification, priming

Two questions from an amateur homebrewer.
I have made a amber ale and it is wonderful, though cloudy. What is
a recommended clarification process?
I am no longer using corn sugar but malt in the brewing process but
still am when priming. I notice the brew still has a cider flavor. Is
there an alternative to corn sugar for priming and/or am I using too
much?

Date: Wed, 22 Dec 93 08:20:10 -0500
From: Timothy J. Dalton <dalton@mtl.mit.edu>
Subject: Re: Carastan

cmryglot@disney.CV.COM (Chuck Mryglot X6024) writes:

> Can someone please tell me what carastan malt. I have not
> seen it in the HBshop I frequent but have seen it
> mentioned here and in recipies. Also, some recipies call
> out light and dark crystal. What is the color guideline
> for 'light' and 'dark'.

Here's a section of an article that I wrote for "The Brewprint" -
the Newsletter of the Boston Wort Processors.

Wort Processor and brewmaster at the Ould Newbury Brewing
Co., Joe Rolfe, has donated a 25 Kg sack of carastan malt from
maltsters
Hugh Baird in England to the club.

What is carastan malt ??? An essay by George Fix in the January
1993 Brewprint provides some clues. Here's a brief synopsis.

Carastan malt is produced by roasting "green malt." It is
enzymatically inactive. The roasted "green malts" produced by HB are
subdivided into four categories:

light carastan 13-17 L
carastan 30-40 L
crystal 70-80 L
dark crystal 100-160L

For this particular malt, Joe has supplied some specific information.
First, he says that it is dextrinous. The color is 32.8 L, it has a
fermentable extract of 71.1% and a moisture content of 8.8%.

Hope that helps,

Tim

- ----

Timothy J. Dalton tjdalton@mit.edu
MIT, Dept. of Chemical Engineering, Materials Etching Technology Lab
***** Searchlight Casting for Faults in the Clouds of Delusion *****

Date: Wed, 22 Dec 1993 09:44:45 -0500 (EST)
From: Robert H. Reed <rhreed@icdc.delcoelect.com>
Subject: Handling Charges / Keg Cleaning

Gary writes regarding Hoptech's handling fees:

>
>
> Total weight for this order < 1lb. Being somewhat familiar
> with shipping costs, I asked for UPS BLUE (second day). When I
received
> the package I was billed \$9.75 in shipping and handling on a \$12
product
> order! I called the company and was told that a \$4 "handling" fee was
> charged to me since my order was < \$30. This is something that folks
> should know! The extracts taste fine, but Hoptech's ridiculous S&H
fees
> left a bitter taste in my mouth...

I agree that adding handling fees to orders is not appropriate: I think many suppliers do this so that their prices seem lower than they actually are. I believe a customer should pay for the cost of the product and actual shipping fees and any SPECIAL packing or shipping e.g., special packing for glass or overnight air shipment. IMO, filling an order, packing a box, and getting it to UPS/RPS or the Post Office is *part of the cost of doing business*.

Most suppliers list these costs in their catalog or other literature and I agree with Gary: let the buyer beware. The reality of shipping is that there is a minimum charge for a package and the shipping cost increases nonlinearly with increased weight. I think a more ethical practice is to charge only for shipping. If small orders are a hassle, then offer an incentive for larger orders i.e., free shipping rather than penalize the customer for small orders.

With regard to Phil's problem with keg infection:

> Let me say that I clean every keg before reuse and that
> I sanitize them by filling them with an Iodophor solution for about
> 20 minutes before re-kegging. I even push in the little stopper at
> the top of the fill tube to release air and get solution up the
> tube.
> But I'll admit I have never ripped these kegs apart and
> pulled the little liquid and gas knobs apart. I was thinking of
cleaning
> them in either an iodophor or bleach solution. I know that bleach does
> bad things to stainless, but I would only soak them for about 20
minutes
> and then rinse.

I believe that Iodophor is more of a sterilant than a keg cleaning solution. I recommend using TSP to clean soda kegs or kegs that have had beer sitting in them w/o a CO2 cover. I use 1/4C per gallon in *very hot* water and let them soak for several hours, then rinse well. If your keg is visually clean and still has a soda or unpleasant odor, there is a non-vanishing probability that your beer will pick up this odor/flavor.

Without initiating a veritable plethora of net traffic regarding the socio-economic implications of o-ring/poppet valve replacement, I

suggest replacing the large o-ring, the diptube o-rings, the ball or pin valve o-rings, and the poppet valves. IMHO, rebuilding your kegs is a good investment(\$5 to \$6) and will increase your chances of making consistently great homebrew. Isn't this what it's all about?

Rob Reed

Date: Wed, 22 Dec 1993 09:53:25 -0500 (EST)
From: gelinas@ekman.unh.edu (Russell Gelinas)
Subject: cleaning kegs

Before I keged a recent batch, I happened to take a look inside the long pick-up tube. It looked less than clean. So I took the ol' ubiquitous Q-tip and put it in the tube, and forced it through with hot water. The Q-tip came out dirty, and the tube was noticeably cleaner.

If you sanitize your kegs with boiling water, a dirty pickup tube may not be a problem; the heat should kill most anything. But if you use a sanitizing solution, it may be more important to ensure that all parts of the keg are clean before sanitizing. Either way, it's small work to clean the tube.

Re. sanitizing solutions: I've got a 5-gallon plastic bucket that I keep filled with a strong, almost saturated, solution of B-Brite. As long as I remember to tightly seal the cover, it remains active (ie. it is still very "slippery") for a long time (months). I even store things such as rubber stoppers and plastic fermentation locks right in the bucket.

Russ Gelinas
eos
unh

Date: Wed, 22 Dec 93 09:09 CST
From: othon@ial7.jsc.nasa.gov (Bill Othon.LinCom)
Subject: Brewpubs, and other pipe dreams...

Several friends and I have been musing about what it would take to start a brewpub, now that they are legal in Texas. My main interest in this is to bring good beer to Texas, and to learn to brew on a bigger scale. I've brewed about 20, mainly partial-mash brews, and certainly dont feel like I (by myself) have the expertise to brew on a big scale.

Do you need a Masterbrewer to start, and if so where do you find one? Should you start with extract brewing, or bite the bullet and do it right the first time; what are the cost trade-offs with either method? Have any of you micro owners tried these "rent a brewmeister" folks who come out and show you the ropes for several weeks?

This is a bit tangential to most digest requests, so private E-mail is suggested and welcome. Any insights, anecdotes, or war stories would be appreciated.

Thanks, and Merry Christmas.

-Bill
// |__| //
===== / / | | / /
Bill Othon <othon@ial7.jsc.nasa.gov> / --- | |--- / /
Orbital Mechanic / /
LinCom Corporation - Houston Division / //// //// /
(713) 483-1858// / / //
//

Date: Wed, 22 Dec 93 07:48:42 PST
From: mri10@mfg.amdahl.com (Michael Inglis)
Subject: Carapils

I posted this to r.c.b with no response so I'm trying it here...

When should Carapils be added in the mashing process to obtain the residual sweetness associated with the grain? In the past I have added it at mashout along with my Crystal but I'm not sure how effective this is. I have heard two versions. The first being that there is no need to mash Carapils and the sweetness will show up if the grain is treated as a specialty grain. The second version is that the grain needs to be mashed to get anything but starch out of the grain. Does anyone have the true story?

Mike Inglis
mri10@mfg.amdahl.com

Date: 22 Dec 1993 07:58:42 -0800
From: "Rad Equipment" <rad_equipment@rad-macl.ucsf.edu>
Subject: Propane/Natural Gas convers

Subject: Propane/Natural Gas conversions Time:7:51 AMDate:12/22/93
Happy Holidays All!

Would anyone with a good understanding of the dynamics of gas burners please contact me via private e-mail. I'm working on converting burners from one gas to another and would like to get a little education on how the orifice size, regulator pressure, etc are determined. This may expand into an article, but for now it is just research. Thanks in advance.

RW...

Russ Wigglesworth (INTERNET: Rad_Equipment@radmacl.ucsf.edu - CI\$: 72300, 61)
UCSF Dept. of Radiology, San Francisco, CA (415) 476-3668 / Home (707) 769-0425

Date: Wed, 22 Dec 93 9:25:21 MST
From: Earle M. Williams <earlew@drc.usbm.gov>
Subject: Summary of responses to Insufficient head problem

I posted an accounting of a recent problem where I noticed my Nut Brown Ale (nicknamed Moonbeam after a famous California governor) would lose its head immediately after being poured into the mug (from a bottle... I haven't kegged in a while, but more on that later.) I received several responses, some in HBD and some private email. Several suggestions were given, and I'll list a few.

Cause/Solution #1 - Soap residue in mug

=====

>From: jim@n5ial.mythical.com (Jim Graham)
>Btw, just thought of something---this may be a bit on the obvious side,
>but then, I wouldn't have known it if someone here hadn't told me, so..
...
>You're not using soap to wash your beer mugs, brewing equipment, etc.,
>are you? If so, that's an instant head-killer. Apparently, there's a
>residue left by the soap that's nearly impossible to get rid of. I
rinse
>my mugs out with a mild bleach/water solution every so often (I'm
normally
>the only one using them---if anyone else is going to use them, they get
>bleached before and after no matter what).

Others had similar suggestions, and I'm sorry for not giving appropriate credit.

Cause/Solution #2 - Insufficient Carbonation

=====

>From ryptyde!mikel Mon Dec 13 14:40 MST 1993
>Head Problems:
>Two things you could try. First, add more sugar at bottling time. I've
>found 3/4 cup of corn sugar to be insufficient unless I pack down the
>sugar with my thumb and add more to make 3/4 cup. (Pretty dumb
>measurement method. I need to get some decent scales and measure by
>weight.)

This could be the culprit. Since I'm pretty sloppy at measuring to 5 gallons, I may not have enough carbonation, even though it does seem to foam up some when pouring.

Cause/Solution #3 - Not enough small proteins

=====

>From ryptyde!mikel Mon Dec 13 14:40 MST 1993
>Second, increase your head retention by adding 1 lb. of dried wheat malt
>extract. This may cause a chill haze, but will make the head last much
>longer.

Some postings in HBD also suggested I either add some wheat malt or more hops
TO get sufficient proteins in my wort. Thanks for the suggestions!

One final suggestion from someone who shall remain anonymous - try a dozen red roses! ;->

Thanks again for all the help!

- -----

Earle M. Williams
U.S. Bureau of Mines
Denver, Colorado USA
(Internet) earlew@drc.usbm.gov

Date: 22 Dec 1993 08:26:14 U
From: "Palmer.John" <palmer@ssdgwy.mdc.com>
Subject: Copper Electroplating

Tom Clifton wrote:

In any event, has anybody tried electroplating the bottom of a stainless pot to apply a copper cladding? Are the metals compatible etc??? I do know that that a bath of copper sulphate, a copper anode and a battery charger will let you plate steel (nails etc) but when you get into stainless (chrome/nickel?) will it still work?

What I can tell you about this is that it is best done in a lab. Electroplating is usually done in cyanide baths or in the case of sulfate baths, at high current densities 40 amps/ft-squared. Not easy to do at home in the sink. Also the stainless needs to be pickled in strong acid beforehand to remove all of the surface oxides that make stainless stain-less. Aluminum cladding is done under pressure by rolling two sheets together. It is cheaper than copper electroplating and provides nearly identical results in terms of heat transfer characteristics.

John Palmer
Space Station M&P

Date: Wed, 22 Dec 1993 09:28:14 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Off flavors in Kegs

>From: philb@pro-storm.metronet.com (Phil Brushaber)
>Subject: Keg Infection?

>
> A couple of days ago I left a message about getting a
>medicinal/metallic off-taste in my brew after stainless steel
>kegging.
> Since I did not experience the problem with every
>kegged/brewed batch, I wanted to blame something in an
>individual batch process or ingredient. But it could also
>be that some of my kegs have a bacterial/contamination problem
>while others do not.
> Let me say that I clean every keg before reuse and that
>I sanitize them by filling them with an Idophor solution for about
>20 minutes before re-kegging. I even push in the little stopper at
>the top of the fill tube to release air and get solution up the
>tube.
> But I'll admit I have never ripped these kegs appart and
>pulled the little liquid and gas knobs appart. I was thinking of
cleaning
>them in either an idophor or bleach solution. I know that bleach does
>bad things to stainless, but I would only soak them for about 20 minutes
>and then rinse.

Bacterial infection is not the only possibility. This problem is
beginning
to sound a lot like a problem that I had with funny tastes in kegged
beer.
I was using the exact same procedure - sanitize with idophor, push down
the
poppets to get full coverage, force idophor through all parts with CO2. I
had no problems with my bottled beer but the kegged beer came out with
what
I suppose you could call a medicinal/metallic taste. It wasn't a
bacterial
infection taste though it was an IODINE taste. To this day I can't serve
porter to my homebrew club without at least a few snickers. My experience
with idophor is that not only does it have to be rinsed but that the
rubber
parts of kegs like O-rings and gaskets can pick up a long-term iodine
flavor.

I started tearing my kegs apart, boiling all rubber parts, sanitizing the
metal parts with chlorine or idophor, and then rinsing all metal parts.
with boiled water. The cornelius kegs aren't that hard to take apart.
Just
unscrew the intake and output valves. You can use an adjustable wrench
but
having the right extra-deep socket wrenches (~\$5.00) makes the job a lot
easier. I think 3/4" or 7/8" sockets fit most keg valves. With the valves
unscrewed the two tubes (short air tube, long liquid tube) pull right
out.

Geoff

--+
| A brewery is like a toothbrush, everyone should have their own. |

--+
| Geoff Reeves: NIS-2, Mail Stop D-436, Los Alamos National Laboratory |
| reeves@lanl.gov (internet) or essdp2::reeves (span) |
| Phone (505) 665-3877 |
| Fax (505) 665-4414 |

--+

Date: Wed, 22 Dec 1993 09:29:26 -0700
From: reeves@lanl.gov (Geoff Reeves)
Subject: Bottle Inspection Comments

>
>>This is one of my pet peeves too. I think the inspection is fine for
>>rings, yeast cake/cloudiness, etc, but comments on "low fill levels"
>>can be erroneous.
>

Al Korz replies

>I'm with Spencer on this one. The inspection line is more of a note to
>myself. If I don't find a problem with the beer, I don't even mention
>it in the scored section of the form. By the way, I try to remember to
>check for sediment, so I know if this is a bottle-conditioned or CP-
filled
>bottle.
>

Checking for sediment is not a good test. It is easy to get lots of
sediment in a CP-filled bottle. For example the first few glasses (or
bottles) out of a keg pick up some of the yeast sediment from the bottom.
The same can happen for a whole batch if you CP-bottle before all the
yeast
has settled out or if you shake up the keg accidentally but have to ship
your
beer to the contest that day. Conversely, I know microbreweries that
filter
their beer before priming and then prime and add just enough yeast to get
carbonation. They are bottle conditioned but have virtually no visible
sediment.

My main point is that non-judges can take bottle inspection comments
seriously. They don't know that they are just notes to yourself. The
comments should be to provide constructive feedback to the brewer and I
feel that any comments that don't directly relate to the quality of the
beer are inappropriate especially when they can be perceived as negative.

Geoff

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+-----+
--+
| Can you tell I'd rather read HBD than work?      |
+-----+
--+
| Geoff Reeves:  NIS-2, Mail Stop D-436, Los Alamos National Laboratory |
| reeves@lanl.gov (internet) or  essdp2::reeves (span) |
| Phone (505) 665-3877      |
| Fax   (505) 665-4414      |
+-----+
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Date: Wed, 22 Dec 93 10:31:42 EST
From: Lee=A.=Menegoni@nectech.com
Subject: HopTech shipping

The shipping cost are clearly stated in the catalog as are the costs for upgrading the type of shipping from standard UPS. My experience with mail order is that one can not assume what shipping and handling costs are, you need to ask. Small orders are just as much work to pack and ship as larger ones if the cost of handling exceeds the profit on the items purchased why sell them.
Let the buyer beware.

PS: I have had no problems ordering from HopTech, the phone staff is helpful and you can call the "Hot line" Wednesday nites from 6-9PM PST.

Date: Wed, 22 Dec 1993 12:15:52 -40975532 (CST)
From: "J. Andrew Patrick" <andnator@genesis.Mcs.Com>
Subject: Making a Belgian White Ale...

Some minor clarifications and updates to Micheal Yee's posting on the "HBU-BBS/Steve Daniel- Celis White" recipe in HBD #1302:

- The portions about the proper yeast selection were in fact written by Steve Moore, the HBU-SW Campus Sysop, and not by Steve Daniel. All other sections are properly attributed to Steve Daniel and Tony Storz.
- Pierre Celis was present at all major events at the Dixie Cup in Houston last October. He was very open and gracious with information about his brewing process, giving us added confirmation that we were on the right track with this recipe.
- Dave Noonan's brewpub in Burlington, Vermont is now making a commercial Wit based directly upon the HBU/Steve Daniel recipe. Unfortunately, I have not had a chance to try it yet, but have heard good reports.

I just brewed an all-grain batch of it with some friends, and can confirm that the yeast selection is indeed crucial. We started with some growing dregs from a Steendonk bottle. This plodded along for a few days, and then we ended up pitching some Bavarian Wheat Wyeast to get the thing going. We're still waiting on final product while we "dry-BOQ" on the Bitter Orange Quarters that Pierre recommends, but the beer was quite close to Celis in terms of color and aroma at the time of racking. If we can just get the gravity down to an acceptable range and pick up the proper flavors from the Bitter Orange Quarters, we should have a really close imitation of Celis White. We're also considering adding some lactic acid before final kegging in an attempt to simulate the results of the secondary lactic fermentation that Pierre does. I'd be interested in any HBDwisdom on how do achieve this last step.

P.S. My heartfelt thanks to ALL who replied directly to me regarding my recent posting on AOL and censorship. Even those of you who called me names that made my poor naive ears turn red!! "I may not agree with what you say, but I will gladly fight to the death for your right to say it!"
- Thomas Jefferson

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+-----+
| Sysop      | Andrew Patrick | Founder |
| Home Brew Univ | AHA/HWBTA Recognized Beer Judge | Home Brew Univ |
| Midwest BBS   | SW Brewing News Correspondent | Southwest BBS |
| (708)705-7263 | Internet:andnator@genesis.mcs.com | (713)923-6418 |
+-----+
```

Date: Wed, 22 Dec 93 10:08:07 MST
From: npyle@n33.stortek.com
Subject: Slotted Copper/Step Mash/Miscellany

John Wheaton writes about installing a slotted copper tube to the bottom of his mash tun to make it a mash/lauter tun. This will work, John, as it is similar to my cooler setup. With only one pipe, I would probably try to put it directly on the bottom of the tun though. This will leave less liquor behind and probably prevent more of the grain from finding its way into the slots. Very little of the grain would be trapped under the pipe, I would think not enough to worry about in terms of temperature extremes. I'm sure Jack will note your reason for not using SS screen: it is less durable than the pipe. He claims that the SS screen he buys is very rugged and that durability is not an issue. I have not found SS readily available in my area.

**

Andy Kligerman raises some good points about accuracy of curves fitted to approximate data points, then says "Sorry for rambling on, by I'm in the government and here to help you!". Now I thought it was coming up to Christmas, not April Fools Day! Ha!

**

Ed Oriordan writes:

>Papazian gives the following numbers (working from memory here)
> For 1 step infusion - Add 1 qt 165 H2O per 1lb grain (Target 155F)
> For step infusion - Add 1 qt 128 H2O per 1lb grain (Target 122F)
> Add .5 qt 212 H2O per 1lb grain (Target 155F)
>
>I have also found that the .5 qt he purposes does not get me
>to 155, but more like 145 I was afraid to add more boiling H2O(making it
even
>thinner) so I did a partial decoction(more work than I wanted).

These numbers are just a guide. Every mash tun is different (absorbs different amounts of heat, etc.). You need to adjust these numbers (keep good records) to own setup. I would recommend using something like .75 quart of 145F water per 1 lb grain to hit your protein rest temp. Then use up to .5 qt 212F water per 1 lb grain to hit your saccharification temp.

>What are the consequences of the mash being so much thinner (than his >1 step infussion, it's 50% thinner) during the final step????

A thicker mash encourages one of the main saccharification enzymes and a thinner mash encourages the other (alpha amylase likes it thick??? I can't

remember). Anyway, it is in at least one of the common books. Look it up and you can then adjust your temperature to aid the enzyme that's getting the short end of the stiffness stick. Of course, this may end up making a poor environment for both enzymes! Comments?

>Should I use less H2O in the first step and use it in the second?
>Should I just add as much boiling water as needed to get to 155?

See above.

>Does anybody do a step in a cooler, if so what numbers do you do (temps and volumes per lb)?

Now you've got me. I haven't ever really tried this (sheepish grin...) Remember that this advice is worth exactly what you paid for it.

>I am too lazy to stove top mash, and I don't want to build an insulated box,
>so please limit answers to what I should do for cooler mashing.

>

>The reason I am doing a protein rest is I was under the impression I needed

>to with 2 Row Breiss (Klages that is Harrington) to prevent chill haze and

>to get some needed yeast nutrients. Is that the case.

You'll probably get lots of reponse about how you are wasting your time doing a protein rest in the first place (well-modified malts like Breiss 2-row don't need it, etc.). I am interested in the subject for future brews which may require it. Also, it would be interesting to be able to do multiple saccharification steps (say, 145F, 150F, 155F, mashout) to see the effect it has on the brew. I'm not sure this is possible though without really diluting the mash.

**

Phil Brushaber, I think you are on the right track in reworking the poppets and O-rings in your kegs. I have learned this lesson the hard way as well.

**

Jeff Frane writes:

> I would suggest it would be a good rule that no one say
>"on-line" something they wouldn't be willing to say to another person's
>face -- and risk getting popped one in the snoot.

This has been my attitude all along. If it is not appropriate to say to someone's face, it is not appropriate.

Norm

Date: Wed, 22 Dec 93 14:18:10 EST
From: Peter Ferrara <FERRARA@URIACC.URI.EDU>
Subject: test

test

Date: Wed, 22 Dec 1993 14:26:35 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: mosaic site for hbd?

 mosaic site for hbd?
I've been searching for a Mosaic (WWW, WAIS, gopher, etc) site
specification for the homebrew digest and mead lover's digest.

The reference I have is:
<http://www.ncsa.uiuc.edu:8001/quake.think.com:210/homebrew>

but is broken.

Is there another?

george

Date: Wed, 22 Dec 1993 14:50:38 -0500 (EST)
From: Josh Stillerman <JAS@HARPO.PFC.MIT.EDU>
Subject: Re: 5 Liter Mini Kegs

In HBD #1303 Diane Palme writes about 5 Liter Mini-kegs.

I got one of these as a gift this fall. I put up a batch this fall with quite mixed results.

- 1 - The beer was mostly foam when I first tapped it.
 - 2 - I may have over primed it - the pressure bulged out the keg quite a bit.
 - 3 - It was Ok over the next 2 days.
 - 4 - With the tap on it is taller than a standard fridge shelf
 - 5 - This beer was good, and reasonably carbonated in bottles
 - 6 - 5L is actually quite a bit of beer. This meant that I ran out of bottles all the quicker and had to wait for an occasion to open the keg.
 - 7 - I tapped one of the comercial 5L mini kegs using the same tap and it had similar problems.
 - 8 - If you add too much Co2 the kegs leak around the bottom (or top) crimp.
 - 9 - Anyone want to buy mine? :(
- Josh Stillerman
-

Date: Wed, 22 Dec 93 15:05 CDT
From: David P. Atkins <ATKINS@macc.wisc.edu>
Subject: A-B Boycott/Budweiser

While A-B may be a multi-gillion dollar juggernaut don't suppose that they will not take notice of the Patriots call for an A-B boycott.

>From Advertising Age, Dec. 13, 1993 front page story: "California Budslide Hits Anheuser-Busch".

The article details A-B's move to cut California Budweiser prices to stop the brand's decline in market share....

"Budweiser's rate of decline has increased this year, say knowledgeable observers. Partial-year figures gathered by BEER MARKETER'S INSIGHTS show that in a flat industry, A-B sales drops are concentrated in New England and the West." Go Pats!

also....

"Normally, the beer industry points to California as a trendsetting state. In San Francisco, some observers say Budweiser taps at bars are being replaced with local or specialty brews."

Hurrah...but...

"A-B and distributors, however, argue there were some unique circumstances in California this year.

'We had horrendous weather.....economic woes....taxes....other brands selling at \$4.99 a case...."

And the plot thickens...

"A-B also announced plans to introduce another new brew next year, possibly a flavored beer." Wow, Bud with a taste!

"Some distributors last week said they had heard of negotiations with Boston Beer Co. under which A-B which(sic) would bring Samuel Adams specialty

beer to its stable. Boston Beer officials could not be reached for comment."

Busy day in court, perhaps? Old rumors that refuse to die? Nothing like some quality hearsay.

And what of the new Bud commercials...targetting twentysomethings who can do

nothing but rattle of topical lists and drink Bud? Geez. I want to drink with those guys.

Happy Holidays,
David Atkins

Date: Wed, 22 Dec 93 16:25:58 EST
From: Mark Stickler Internet Mail Name <mstickle@lvh.com>
Subject: Evaluating Beer w/ Jim Koch

I recently received a new book from the AHA entitled Evaluating Beer.
What
I read so far seems pretty informative but I noticed one the final
chapters
was written by Jim Koch (the book is a collection of previously published
articles by various authors). His was a fairly short article which
basically
says that hops and malt are THE most important factors in beer taste. The
word yeast is not mentioned even once in the entire article. He does
mention
water but says that is not important because it can be treated to suit
whatever the brewers needs are. As an example he points out the Bud
tastes
the same whether iuts made in Tampa, Newark or St.Louis. I suppose this
means AB could produce Pilsner Urquell or Bass Ale if they had the right
hops and Malt. Other than this chapter the book appears to be worth the
price.

Date: Wed, 22 Dec 93 15:38 CDT
From: David P. Atkins <ATKINS@macc.wisc.edu>
Subject: Heileman Brew. Co Beerwatch

Hello again,

Just as I posted the Ad. Age piece on Budweiser, I found the following information concerning Heileman; brewers of Colt 45, Mickey's bigmouths, Special Export Light (GABF medal winner, I think) Old Style, Rainier & Lonestar.

Advertising Age, Dec. 13, 1993, "Heileman Buyer Eyes New Markets"

"The new owners of G. Heileman Brewing Co. plan to aggressively expand into new markets, including buying competitors, while maintaining a regional approach to selling beer.

Richard F. Gaccione said he and his new bosses are of one mind on the company's strategic plan: aim for growth by tapping new markets or buying smaller competitors, and by focusing market resources on new brands."

Being a resident of Wisconsin and also being surrounded by some fine microbreweries and regional operations, I express some concern of a hungry fish entering the pond. Berghoff of Monroe Wisconsin and of Berghoff Hotel, Chicago fame is the property of Strohs. Leinenkugel's (sp?) is the property of Miller.

What of Sprecher, Capital, Point, Schell? Have any list members heard any business rumblings concerning regional breweries?

Will the quality and character of regional brewing be adversely effected by takeovers or will just the name on the letterhead be changed? For instance, Berghoff no longer brews beer for the Berghoff Hotel and anecdotal accounts tell of the brand's loss of appeal in light of an expanding local beer market. All points of view and information are encouraged.

Thanks and more Happy Holidays
David Atkins

Date: Wed, 22 Dec 93 11:36:48 PST
From: Alec Saunders <alecs@microsoft.com>
Subject: High malt glucose syrup, etc.

Hi all --

I have three questions for you:

(1) I recently started brewing again, after a prolonged hiatus (7 years!). When I went to the local home brew store I asked for some dried malt extract instead of corn sugar to go with an english bitter kit I had. The proprietor of the store sold me stuff called "high malt glucose syrup" instead. I made up the kit with this syrup, and then put it downstairs to ferment about a week ago. I just tested the gravity yesterday to see if it was ready for bottling, and had a sip of the beer that was in the graduate cylinder. It was FABULOUS --> no cidery overtones, lots of body, and an incredible malt flavour. What **is** this stuff? I assumed, from the name, that it was just glucose syrup. It sure doesn't leave a taste like glucose, though!

(2) The proprietor of same store tells me to bottle as soon as the gravity falls below 1.010. Says that if I let the beer ferment further I'm "losing alcohol". This doesn't make sense to me. Can anyone explain?

(3) There seems to have been a lot of discussion about starter gravities in HBD. I've just gone and made up a pile of starters (boiled up 2 gallons of wort, then canned it in mason jars). The starters turned out to have a higher SG than I was expecting -- about 1.050 vs. the 1.040 that I was trying for. I suspect that the 1 Kg bag of dried malt extract I purchased was a little overfull. In any case, my question is simply this -- does anyone have a good feel for what the optimal SG for a starter is? Is my 1.050 going to cause a problem?

Thanks for all of your help.

Alec.

Date: Wed, 22 Dec 1993 16:37:31 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: hoppy whatever

hoppy whatever
i'll waste some bandwidth here to wish
everyone, and their special others, a safe
and hoppy holiday season.

i'll be racking to a secondary tomorrow on my
honey wheat ale.

george

Date: Wed, 22 Dec 93 16:56:02 EST
From: asteinm@pipeline.com (Art Steinmetz)
Subject: Seltzer Carbonators

I use them to carbonate water every day. They work great. I don't have a need to use them with beer but they work fine here too. Note that long term storage in PET bottles is not recommended cuz of oxygen permeability.

Date: Wed, 22 Dec 93 16:56:07 EST
From: asteinm@pipeline.com (Art Steinmetz)
Subject: Weissbier

Jeffrey L. Duerk writes:

>If anyone has any experience in this area, a recipe to share,
>and yeast info, I'd appreciate
> either a posting here, or directly to me at jld3@po.cwru.edu

I took second place in the national Weiss is Nice competition
with a totally simple recipe.

For 5 gal:

6 lbs Yellow Dog Extract
1/2 lb. cracked crystal malt
1/2 oz. Hallertau hops

YeastLabs Weizen yeast in 1 qt. starter

Steep crystal in water as water is brought to boil.
Add hops and extract.
Boil for 90 min. (longer boil is better for wheat beers)
No finising hops.
Force chill and pitch yeast at 68 deg. F.
Ferment till done.
Rack to secondary and lager at 40 deg. for one month.

The YeastLabs Weizen strain deserves all the credit. The true
Weizen cloviness really comes through.

Date: Wed, 22 Dec 93 16:59:21 CST
From: Will B. Blalock <willb@hp3.imed.com>
Subject: Fixed Kettle Thermometers
Full-Name: Will B. Blalock

I have seen pictures of SS kettles and hot liquid tanks that have thermometers attached on the sides midway between bottom and top. Is this easily done? Does it take a special thermometer which has to be welded to the side or can it be attached in an easier way? Where do you find these flat thermometers (or do you cut the stem off a typical style thermometer? Is it worth it?

--

```
*-----*
| Will Blalock : willb@imed.com | No one ever called Picasso |
| 409-798-0201   Angleton Texas | an assho. |
*-----*
```

Date: Wed, 22 Dec 1993 19:07:49 -0400 (EDT)
From: WESTEMEIER@delphi.com
Subject: Bulk hop purchasing

I hope this doesn't get interpreted as a commercial, but I would really like to share a good experience and recommend it to everyone:

Our homebrew club (the Bloatarian Brewing League) has always bought grain in bulk quantities (like a ton or two at a time). This method has been so efficient and economical that we decided it would be worthwhile to try buying hops the same way.

We gathered everyone's list of what hops they expected to be using between now and next harvest, and consolidated them into one big list.

Then we checked some suppliers and settled on The Hop Source in Oregon (Glenn Tinseth, 503-873-2879). Since it was a bulk order (over 25 pounds), Glenn gave us 50% off his normal prices for the 92 crop, and 25% off his 93 crop prices. We wound up buying 72 pounds of hops, and Glenn's only restriction was that we order in units of pounds.

When the hops arrived, they were packed in one-pound, oxygen-barrier vacuum-sealed bags, and the 92 crop looked as good as the 93 crop. Bright green and beautiful.

I'm sure that other hop merchants will offer similar deals, so this isn't really a "plug" for The Hop Source, and I certainly don't have any connection of any kind other than as very satisfied customer.

If anyone is looking for hops to carry them through the winter brewing season, I strongly encourage you to get your club together and put a bulk order in now.

One final note: I have found that once the oxygen-barrier bag is opened, an excellent way of keeping the hops pretty fresh is to wrap them in aluminum foil and crimp the edges tightly. Zip-lock plastic bags are useful, but they don't keep the oxygen out, while aluminum foil gives you as close to an airtight container as you're likely to find. Obviously, you want to keep them in the freezer or at least the refrigerator (or even outside if you're in a cold climate), since the vapor pressure will be reduced by the lower temperature, also contributing to freshness.

- -- Ed Westemeier
- -- Cincinnati, Ohio
- -- westemeier@delphi.com

End of HOMEBREW Digest #1305, 12/23/93

Date: Wed, 22 Dec 93 16:12:51 PST
From: danforth@trinity.llnl.gov (Bill A. Danforth)
Subject: Samuel Smith's quest - Pt. 2

Hello all (again),

About my quest for clones of Winter welcome and Pale Ale (SS's),
can anyone give me ideas on the hops (and other possible flavorings) used
in these two brews (Winter Welcome and Old Brewery Pale Ale)?

many, many thanks!!

Happy Holidays to all!!
Bill Danforth
danforth2@llnl.gov

Date: Wed, 22 Dec 93 16:16:13 PST
From: Mark Garetz <mgaretz@hopstech.com>
Subject: Hops Storage Question

Ed Oriordan writes:

>Question 1) I store my hops (pellets) in the freezer. They are not in oxygen barrier bags, but in little heat sealed plastic bags. Would it help preserve them if I put them (still in the bags) into a glass jar and filled the jar with CO2, and then closed the jar and put it in the fridge.

Yes. This will approximately double the storage life, or another way of looking at it is this will cut the rate of deterioration in half. Whether this makes any practical difference or not depends on how cold the hops are,

(you've got them in the freezer, so that's good) and how fast you use them.

If you use the hops within a month, it isn't going to matter much (assuming you keep them in the freezer). But if you store them longer, then it's worth the effort to CO2 flush them. I would suggest you fill the jar first, then put the hops in, then top up the jar.

A more important question, though, is how have the hops been stored before you bought them? If they were stored in "little heat-sealed plastic bags" then they may have gone through a significant amount of deterioration already, again highly dependent on the temperature of the storage. I *am* assuming

that these bags are polyethelene and not a barrier bag. Polyetheylene bags

are the same as zip-lock or sandwich bags, and aren't an O2 barrier. * BUT*

the homebrew industry is waking up and some of the major wholesalers are distributing their hops in O2 barrier material in small bags. So if these

are the bags you have, then further putting them in the glass with CO2 is unnecessary. How can you tell the difference? Get a sandwich bag and compare the look and feel of the material. If it looks and feels substantially the same, then these bags provide virtually no protection. OTOH, barrier material is "shiny and polished" looking and is usually considerably stiffer than polyethelene. The ones I have seen from a major

distributor also have little bumps molded into them (helps the vacuum sealer

out). Your homebrew store may also have done their own packaging in barrier

material (I don't mean to imply that only distributors provide hops in barrier packaging, some of the better homebrew stores and hop suppliers also

take great care in their packaging and storage.) Probably the best test is

leave the hops at room temp for a few hours and then smell the bag. If you

can smell hops, then the bag is not barrier material.

Mark

Date: Thu, 23 Dec 93 08:52:21 EST
From: dweller@GVSU.EDU (RONALD DWELLE)
Subject: capping/hoptea/etcetera

A couple things:

(These may already have been dealt with & I missed them--work has been interfering with my life...)

On capping champagne bottles--normal caps will work on american bottles BUT the capper I have (it's the jerk-and-squeeze-em type, not a bench top) will not work because the champagne bottles below the bulge are bigger in diameter than beer bottles below the bulge. You need to have a bench-type capper (with the bottle free-standing) in order to cap em.

Someone talked about making a hop tea (instead of turning the hops loose in your wort). Could someone with experience describe the process of making hop tea--how to do, when to add, etc. Or does someone have a good method of dealing with loose hops, so they don't muck up the straining? TIA

A big thanks to the wylie one for talking me into fresh hops. Just did my first batch, and MAN the difference! No more pellets, hopped extract, etc for this brewminor!

Time to celebrate the ancient tradition of Beermas! Cheers to all!

Ron D (dweller@gvsu.edu at Internet)

"And what to my wondering eyes should appear...
"But a jolly fat brewer, holding a Pilsner Urquell...

Date: Thu, 23 Dec 93 08:54:56 EST
From: sims@pdesds1.scra.org (Jim Sims)
Subject: re: mosaic beer page

>>Date: Wed, 22 Dec 1993 14:26:35 +0000 (U)
>>From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
>>Subject: mosaic site for hbd?
>>
>> mosaic site for hbd?
>>I've been searching for a Mosaic (WWW, WAIS, gopher, etc) site
>>specification for the homebrew digest and mead lover's digest.
>>
>>The reference I have is:
>>but is broken.
>>
>>Is there another?
>>

This isnt exactly for the HBD, but it is a pointer to the "Beer PAge"
- realted stuff (i think it includes the HBD and archives, but the
net is seideways for me right now so I cant check and make sure...)

URL <http://guraldi.itn.med.umich.edu/Beer>

enjoy,
jim

Date: 23 Dec 93 14:48:40 GMT
From: sail!woodie@pc0278.attmail.com
Subject: 5 Liter Kegs

There has been a recent chorus in the HBD about 5 Liter Mini-Kegs so I'll take this opportunity to chime in ...

I've been using the 5 Liter keg and Beer King CO2 tap for about 6 months now, or about 4 batches. Four of my kegs were purchased from a local Homebrewing Supply Store the other is a salvaged keg that had a commercial brew in it. So far I'm satisfied with their performance. They fit, snugly, on the top shelf of my refrigerator and I can enjoy a cool glass of Homebrew each night with my dinner. I don't use the CO2 until the natural pressure is too weak to dispense beer and then I only use enough to keep the brew flowing. Still, I usually go through 2 or 3 cartridges using them this way. The first half glass is all foam and yeast but after that all seems well.

The kegs seem to transport well. During the summer months I started taking one to the lake for the sailing club to consume after the races.

The kegs are just the right size to sit in a bucket of ice and provide brew for everyone. When used like this one CO2 cartridge is all that's needed.

Longevity is my remaining concern. Some of my quart bottles are 25 years old, I don't think these kegs will make it that long. I haven't had leaking seams or bulging kegs (I always leave at least 1 to 1.5 inches of space at the top) but, they are showing signs of use. The kegs are plastic coated steel and mine are beginning to show some signs of rust on the outside where they have been bumped or scraped.

- - -

Woody Woodie
Byram Township, New Jersey
pc0278!sail!woodie@attmail.com

Date: Thu, 23 Dec 1993 09:54:20 -0500 (EST)
From: /R=HERLVX/R=AM/U=KLIGERMAN/FFN=KLIGERMAN/@mr.rtpnc.epa.gov
Subject: malt addition

While reading the moast recent HBD, I raree thought came to me! When I do an all grain breew, I add the crystal malts and carapils in with the rest of the grain at the start of the mash. Since the other grains are enzyme rich, am I defeating the purpose of these malts when trying to achieve I high malt, full bodied beer? Should I add these at the mash out?

Andy Kligerman

p.s.- I can't believe all those things they say about Michael Jackson -- He's too busy sampling beers to entertain children %<)!

Date: Thu, 23 Dec 93 09:21:55 -0500 [EST]
From: greg.demkowicz@circellar.com
Subject: RE:MASH/LAUTER TUN

Mashing in a SS keg with a screen false bottom. If your doing this in a RIMS setup, it will work fairly well. However, if your applying direct heat to the bottom of the keg, as you mention, yes, you will scorch/burn your mash. The next logical step is to remove the false bottom and add the slotted tube. If you plan to use just a short piece of slotted tube, rest assured that it will promptly clog. Consider enclosing the tube with a simple lint filter (used on washing machine drains), EasyMasher, Chore boy, or even the screen removed from a kithchen pasta strainer. All will work well if clamped over the slotted tube with a small hose clamp.

Greg

Date: Thu, 23 Dec 1993 09:30:59 -0600 (CST)

From: John Mare <cjohnm@ccit.arizona.edu>

Subject: RE: Cider flavour; priming

Mark asks about the use of sugar for priming and the cidery flavour he is experiencing. In my opinion, the cidery edge to your beer is not the result

of the priming sugar, but if you want to test this use light dry malt extract as I always do. For me, bottling 5 gallon batches, the following gives very consistent results: For ales, 1.25 cups DME in 2 pints of water,

boil for 15 minutes, cool in closed kettle, pour into sanitized bottling bucket (a 5 gal plastic bucket with spigot), siphon beer from carboy without

aerating, stand for 15 mins while preparing bottles, bottle! For lager I use

1.33 cups DME to give a little more prime. For ales I find I have adequate

prime in 7 days at 68!F, full prime by 14 days. For lagers at 50!F or lower,

the prime takes much longer (2-3 weeks).

John M.

Date: Thu, 23 Dec 1993 09:17:58 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: A-B and Jim <shudder> Koch

> From: Mark Stickler Internet Mail Name <mstickle@lvh.com>
> Subject: Evaluating Beer w/ Jim Koch
>
> I recently received a new book from the AHA entitled Evaluating Beer.
What
> I read so far seems pretty informative but I noticed one the final
chapters
> was written by Jim Koch (the book is a collection of previously
published
> articles by various authors). His was a fairly short article which
basically
> says that hops and malt are THE most important factors in beer taste.
The
> word yeast is not mentioned even once in the entire article. He does
mention
> water but says that is not important because it can be treated to suit
> whatever the brewers needs are. As an example he points out the Bud
tastes
> the same whether iuts made in Tampa, Newark or St.Louis. I suppose this
> means AB could produce Pilsner Urquell or Bass Ale if they had the
right
> hops and Malt. Other than this chapter the book appears to be worth the
> price.
>

I have been told by people who work for A-B that, in fact, their brewers
can tell the difference between Budweisers from different sites, and
can even tell *which* site the beer originated from. This is obviously
a highly-specialized skill, which personally I can do without. But...
Make no mistake, though, A-B is technically capable of producing
extraordinary beer if they chose to. They may even have some brewers
who would *love* to do so. But if you'll talk to any of these people
they'll tell you who controls the beer: the marketing guys (gee! Jim
Koch!).

What's Koch doing telling anyone how to actually brew beer, anyway? And
please, Jim, no more crap about your granddaddy's recipe. Unless, of
course, Owades was grandma's milk man?

- --Jeff

Date: Thu, 23 Dec 93 10:27:24 EST
From: btalk@aol.com
Subject: judgenet

I sent a subscription request to judge-request@synchro.com including the words subscribe and request. Will this do it? It has been a couple days and haven't heard anything yet.
Bob Talkiewicz, Binghamton, NY

Date: Thu, 23 Dec 93 12:28 CDT
From: David P. Atkins <ATKINS@macc.wisc.edu>
Subject: Water Hard/Soft Info.

Hello readers,

Whilst browsing a book in my library's reference collection, I found an item that may be of interest to homebrewers and beer hunters alike.

To determine a city or town's water hardness, you can use the EDITOR & PUBLISHER MARKET GUIDE: An annual publication providing data on daily newspaper markets in the US and Canada. If you know of a town or city with a daily newspaper, this publication will provide the data.

Why does a Market Guide care about water hardness? Lots of reasons.... but I won't blather here.

Instead, to the chase. Each market is highlighted with various types of data, including "Tap Water". This directory does not provide Ph readings but it does inform the reader if a town's water is hard, soft, medium, neutral, alkaline, acid, city, county, or fluoridated.

For example:

Madison, Wisconsin
Tap Water: Alkaline, hard; fluoridated

or Chico, California
Tap Water: Alkaline, soft; not fluoridated

While not the most informative source, it could be handy to curious brewers prospective movers, beer hunters, triv buffs, etc. The directory does not provide any explanation to the above descriptions, so it ain't science.

Feel free to email with any reference request AFTER JAN. 4TH 1994. I will not be in my little library till then. Most academic and urban public libraries carry the title.

Pleasant, Secular Greetings and Celebratory Thoughts,

David Atkins
atkins@macc.wisc.edu

Date: Thu, 23 Dec 93 14:52:14 CST
From: "kim.paffenroth.1" <kim.paffenroth.1@nd.edu>
Subject: (simple)beer/wine suggestions

Season's Greetings! I have been homebrewing for ca. 3 months. I would appreciate any (reasonably) simple suggestions for jazzing up brew kits. Also, I have very much enjoyed some fruit wines I have made, even though they should be aged more. Cranberry was exceptionally strong and sweet, with a slightly bitter but enjoyable aftertaste. Apple has been a tad weak, but the apple flavor is noticeable and pleasant. It's way too early to tell on the banana, parsley, or rhubarb. I'll be starting five gallons of mead in two weeks or so. Any other suggestions for fruit wines, or comments about these, would be greatly appreciated. (I'm trying to do these without a press, by the way.)

Many Thanks!!! --- K. P.

kim.paffenroth.1@nd.edu

Date: Thu, 23 Dec 93 13:07:05 MST
From: birkelan@adtaz.sps.mot.com (Joel Birkeland)
Subject: copper manifold/cleaning brass/mashing corn meal/grain source

copper manifolds:

John wrote (in HBD #1304):

>The reason for not using a rolled up screen is the durability of it when
I am
>mixing the grain during mashing.

I can't imagine how you could dislodge the rolled up SS screen, provided
it
is attached with a SS hose clamp. I have not had a problem in my
admittedly
very limited experience (6 mashes).

The only reason I can imagine using slotted Cu pipe instead of SS screen
is
the limited availability of the latter. I bought my 1st easymasher from
Jack,
and then made two more myself. I was lucky enough to find a large piece
of
SS screen in a dumpster behind a machine shop. (I am not too proud to
look
into dumpsters.)

Just for the record, I would like to say that I am really happy with my
easymashers. I seriously doubt if I would have gone to all-grain if I
had
had to use a picnic cooler/Cu manifold or a Zapap approach. To me, the
easymash approach is much simpler and cheaper. I have never had a slow
sparge, and extractions are generally 30 pts/(lb/gal) or better.

This is not intended to be a plug for Jack's business. I think you
should
make your own easymasher. Just stay away from my dumpster ;)

cleaning brass:

On a related note, I have come across a large number of brass fittings
that
may be useful in brewing, but I don't know what they were used in before.
I was wondering how I could clean them up so that I could be sure no
toxins were left adsorbed on them. I have thought about boiling them in
some kind of acidic solution, perhaps vinegar. Does anyone have any
ideas
about this?

mashing corn meal:

I have seen flaked corn used as an adjunct. I would like to know if I
could
substitute corn meal. For that matter, could regular wheat flour be used
as an adjunct?

grain source:

Does anyone know where I can get big sacks of quality 2-row malted
barley mail order?

Thanks,

Joel Birkeland
Motorola SPS

Date: Thursday, 23 December 93 14:00:24 CST
From: LLDSC@utxdp.dp.utexas.edu
Subject: Re: Ad. Age Dec. 13

David Atkins talks about some of the new beers in an issue of Ad. Age.

At my library, we justgot in the new issue of Beverage World's
Periscope (Nov. 30)-we're a little behind. On the cover is an article
about the Heileman brewing company and some of their new brews. [

One of these is the Cool Colt, the mint flavored malt liquor.

Anybody tried this? How would it taste with a pack of Kools?

I'm waiting for the Schlitz Malt Liquor Draft myself.

Scott LLDSC@utxdp.dp.utexas.edu

Date: Thu, 23 Dec 1993 15:26:41 -0600 (CST)
From: "T.J. Ramsey" <tjram@ccwf.cc.utexas.edu>
Subject: Another Purple Dinosaur

Since the subject of purple dinosaurs with tire tracks etc. has come up lately, I figured some of you may be interested in a recent (and subsequent forthcoming) mini-comic called "Smarmy the Sexually Repressed Dinosaur." The first issue came out recently, and the second should be out soon. There are as yet no GIFs available, but the creators have considered making GIFs of future Smarmys available, so if you are interested E-mail them at the address that follows (REQUESTS SENT TO ME WILL BE DELETED WITHOUT A THOUGHT)
Send requests for Barney info to GLAA305@utxsvs.cc.utexas.edu or okeefe@wixer.bga.com

BTW, I can recommend the new Ko"lsch Wyeast very highly. At least my untrained palate found it quite pleasant. I made the first batch for someone else, but ive got my second batch of ko"lsch going and I can't wait to drink it.

DISCLAIMER: I am only passing on info, I don't stand to benefit and so on and so on. Also I assume traffic will be light around the holidays, otherwise I wouldn't even think of wasting bandwidth in this way.
Thanks for your attention
Prettig Kerst en een gelukkig nieuw jaar,
T.J.

Date: Thu, 23 Dec 1993 13:59:31 -0700 (MST)
From: Ken Sager <Ken.Sager@m.cc.utah.edu>
Subject: Where did it go?

Greetings from Zion (where homebrew is not only delicious but a misdemeanor too)

I have one question for other brewers using Cornelius kegs.

How do you refrain from draining your keg everytime you tap it? Last weekend I popped for a keg system and force carbonated 5 gal. of oatmeal stout. I decided to share it with some friends and we emptied it in what seemed like mere minutes. It was fantastic. WAS fantastic. It's gone.

Homebrew seems to last much longer when you share it in 16 oz portions, rather than 5 gal. at a time! Oh well. Following this experience I feel obligated to caution prospective keggers.

Beware! Kegging requires super-human restraint. I guess I'll bottle every other batch just to keep beer on hand for guests.

Enjoy yourselves.

Date: Thu, 23 Dec 1993 17:05 EST
From: MARTE@vms.cis.pitt.edu
Subject: sign me up, please

Please send me information on signing up on this list (or sign me up if this is all you need).

Thanks,

Dale Brubaker (via Marte Fallshore)

Date: Thu, 23 Dec 93 17:05:38 EST

From: yeebot@aol.com

Subject: Hoegaardse Wit vs. Celis White, a survey.

I had the most incredible (mis)fortune of drinking Hoegaarden on tap in Amsterdam last summer. I was transformed! Upon returning to the US, I learned from the barkeep that Hoegaarden was no longer available here and was turned on to Celis White, which I'm sure you all know, is brewed by Pierre Celis who revived Hoegaarden in the 60's. Well, I'm not quite sure what it is: maybe it's the Tap vs. the Bottle (Celis), the water (Hoegaarden vs. Austin) or maybe even the "double" Westmalle trippel I had before I tried the Hoegaardse. But even the fine new brew of Celis, IMHO is no substitute for the Hoegaardse Wit.

Michael Jackson writes that Celis White is fruitier and more full-bodied than Hoegaardse Wit. My memory tends to disagree. But always reserving the Final judgement until I have both in front of me, I ask for help: Can I get Hoegaardse Wit and/or Celis White on tap anywhere in the NYC area? Anywhere in the US? (I hope to do some trekking this summer)

Also, What's your opinion?

Just rambling, (happy holidays!)

Mike Yee

Angst Brewing Co. "It's MY day in the barrel"

Date: Thu, 23 Dec 93 21:43:05 EST
From: ivan@mutt.cs.jmu.edu (Ivan Shantz)
Subject: stainless/copperbottom brewpots

I have been listening in with great fascination for the last little while and have enjoyed it a lot. As a consumer of homebrew rather than a producer, I have had nothing to contribute. However the discussion of stainless brew pots has me intrigued. I think it began with a question as to the feasibility of installing a petcock or some such device in a copper bottomed one and proceeded to the question as to copper plating. As to copper plating I know nothing but am a bit curious as to why one would attempt such a thing. As I understand, the goal of the clad bottom is to add mass to the bottom of the pot and thereby reduce the probability of scalding. Copper and aluminum are used because they transfer heat so well and therefore the entire bottom of the pot is of a temperature rather than having hot spots again reducing the danger of scalding/scorching. It would seem to me that a lot of copper would have to be electroplated to achieve this effect and while it appears that homebrewers are exceptionally patient folks and figure things on a bit different equation than the general populace (praise be to the deity of the hops) I question the practicality of such a venture.

As to installing spouts etc. The fellow who said that it makes no difference so long as you are not trying to go through the bimetal section could be right. However as a machinist and sometime welder I would proceed with caution. I suspect that it varies from pot to pot how the bimetal portion is adhered together. If it is electroplated then he is indeed correct. However there are a number of other ways to stick two metals together and it may have been done on the assumption that the temperature of the pot will not exceed 100c/212F (boiling point H2O). Having gotten into some dicey spots with various projects at the machine shop and also having separated the aluminum portion from the bottom of one of my wife's cooking pots by boiling dry I would be inclined to immerse as much of the pot, particularly the bimetal portion, in water as possible while I was welding it. The same holds for silver soldering. If you don't know how to do this without electrocuting yourself please find someone who does. (These folks are professionals, please do not attempt this on your own, if you're a little kid and can't read your folks can't sue us because we wrote this in little letters on your screen and they were negligent to let you up this late).

Happy Brewing
Ivan Shantz

Date: Thu, 23 Dec 93 11:32:35 MST
From: npyle@n33.stortek.com
Subject: HB shop loons/Spray Malt/Extract Tang/Keg Prices

Alec Saunders writes:

>(2) The proprietor of same store tells me to bottle as soon as the
>gravity falls below 1.010. Says that if I let the beer ferment further
>I'm "losing alcohol". This doesn't make sense to me. Can anyone
explain?

This is one in a long line of ridiculous drivel coming out of homebrew
shops
these days. Are the people opening these stores a bunch of marketing
majors
who heard that homebrewing was the latest rage or are they old-timers
with the
experience of brewing bathtub brew for 20 years? I've heard all kinds of
silly advice in the past couple of years, reported to be coming from
homebrew
supply stores. This really gets my goat, as you can probably tell. They
should at least bother reading some of the books and magazines they sell.
The
funny part about it is that they spout this dogma as if they really know
what
they're talking about (they should but they don't!). Well, I feel better
now.

BTW, all three of the people who run my local HB shop seem to quite
knowledgable, which means they usually agree with me ;-).

**

I was wondering the other day about this term "spray malt", which I
believe
refers to dry malt extract. I making some assumptions here, but bear
with me.
If it is made by spraying wort for the drying process, it seems that HSA
would
be a very big problem. Actually, any drying method used would have to
take
special precautions to avoid HSA. Has this been discussed here before?

**

Virtually every extract brew I've made, including some partial mash
brews, have
a flavor that I would term "extract tang". It is a difficult taste to
describe,
but my friend used to call it "green tasting". He brews extract brews
and
claims it mellows with age, but I haven't noticed this (maybe my beer
doesn't
last long enough!). I've noticed this flavor from the very first brew I
made
(partial volume boil, no specialty grains, lots of HSA) to a very recent
partial mash brew (full volume boil, mashed 2-row, specialty grains at
mash-out, standard HSA precautions). Anyway, this is not a swipe against
extract brewers because I've tasted extract brews which were
undistinguishable

from all-grain brews; its just that my extract brews are quite different from my all-grain brews. I typically use Munton & Fison canned malt syrup when I use it (rare these days) if that matters. Have others noticed this occurrence, especially over a long period of time? Just curious.

**

Recent HBD reports indicate that the used 1/2 barrel straight-sided sankey kegs from BCI cost \$43.50. This is in error (I just received a price sheet). The actual cost is \$61.50. The barrel shaped sankey's in that size are indeed \$43.50. Is it worth it to pay more for the straight sides if you are going to use these things as tuns and tanks? Is it that much more trouble to install fitting on the barrel shaped kegs? FYI, sankey is the style of tap on the keg. BTW, I thought I might buy the sankey valve removal tool and possibly avoid having to cut a keg. They want \$225 for it! Yikes! I'll find another way...

**

Remember: Deck the Halls with Hops and Barley! Fa la la la la, la la la la...

Norm

End of HOMEBREW Digest #1306, 12/24/93

Date: Fri, 24 Dec 93 08:39:49 CST
From: philb@pro-storm.metronet.com (Phil Brushaber)
Subject: Yeasty/Sulphury

I've got a new angle on these off-tastes I have been getting when kegging in stainless steel. I got another opinion. My wife is the head of new products/recipes at Tony Roma's restaurants. She has been the head of R&D of a number of national chains. I mention this not because I like to brag on my wife (although I do) but because she has a much more "educated pallet" than I do. (Advertising guys have no "taste" as we all know).

Alison suggests that the taste I have been trying to get rid of is not metallic or iodine-like, but yeasty/sulphury.

You know she may be right. I stuck my head in the fermenting refrigerator where I currently have a couple of batches perking away... Discounting the CO2 smell (I know CO2 has no smell), the smell generated in the fridge overnight is VERY much like the taste I have been getting.

Because of space needs I have been secondarying in cornelius kegs which I keep in the lagering refrigerator. Is it possible that doing secondary in closed kegs is not allowing the yeasty/sulphur compounds to escape, but in fact is dissolving the taste in the beer? Does this sound possible or am I heading down another blind alley on my Beer Detective investigation?

- - - - -

Internet: philb@pro-storm.metronet.com
UUCP: metronet.com!pro-storm!philb
Bitnet: philb%pro-storm.metronet.com@nosc.mil

Date: Fri, 24 Dec 93 08:22:57 PST
From: hollen@megatek.com (Dion Hollenbeck)
Subject: Re: Fixed Kettle Thermometers

>>>> "Will" == Will B Blalock <willb@hp3.imed.com> writes:

Will> I have seen pictures of SS kettles and hot liquid tanks that
Will> have thermometers attached on the sides midway between bottom
Will> and top. Is this easily done? Does it take a special thermometer
Will> which has to be welded to the side or can it be attached in an
Will> easier way? Where do you find these flat thermometers (or do you
Will> cut the stem off a typical style thermometer? Is it worth it?
Will> --

```
Will> *-----*
Will> | Will Blalock : willb@imed.com | No one ever called Picasso |
Will> | 409-798-0201 Angleton Texas | an assho. |
Will> *-----*
```

I have two of these. I used Sankey kegs. It is *very* easily done if you can weld stainless steel. The thermometers come with 1/2" Male NPT fittings. Just weld a 3/4" x 1/2" SS bushing into the keg, put lots of teflon pipe tape on the thermo threads and screw it in.

****Do Not Forget The Teflon Tape****

You can obtain these thermos from most any good industrial hardware supply. One is McMaster-Carr. (310)695-2449. They will ship to anybody COD, but a catalog is nearly impossible for an individual to obtain since they are HUGE and costly to produce. Here is the thermo I bought, there are several other styles available:

Part # 3946K176 3" Back Connection Dry BiMetal Thermometer
6" stem, 20 to 240F in 2F increments. \$31.02 plus
shipping.

dion

Dion Hollenbeck (619)455-5590x2814Email: hollen@megatek.com
Staff Software Engineer megatek!hollen@uunet.uu.net
Megatek Corporation, San Diego, California ucsc!megatek!hollen

Date: Fri, 24 Dec 1993 17:56:18 -0700 (MST)
From: MARK CASTLEMAN <mwcastle@ouray.Denver.Colorado.EDU>
Subject: Breweriana

While this is tangentially related to homebrewing I thought I would share it here at the holidays. Anyone passing through eastern Colorado in the summer should stop in Burlington to see the Kit Carson County Carousel. Of interest to brewers is the goat. He looks like he stepped out of a bock label and on the back of the saddle he is decorated with barley and hops.

Beery Christmas! Hoppy New Year! Visualize Whirled Peas!

Mark W Castleman
Big Dog Brewing Cooperative - West
Wouldn't it be terrible if I quoted some reliable statistics which prove that more people are driven insane through religious hysteria than by drinking.
--W.C. Fields

Date: Fri, 24 Dec 93 19:57:01 -0800
From: mclagan@sfu.ca (scott mclagan)
Subject: Hops Storage and rate of deterioration

In Homebrew Digest #1306 (December 24, 1993), Mark Garetz writes:

"Yes. This will approximately double the storage life, or another way of looking at it is this will cut the rate of deterioration in half."

Thanks for information Mark. I am interested in the 'rate of deterioration' versus bittering/aroma ability. The statement 'this will cut the rate of deterioration in half' makes me wonder if I should scrutinize how my local vendor (and their suppliers) handle their hops . As I venture into the more exotic varieties of hops, (which are less commonly used), should I assume that I will need more quantity to achieve the same quality because of aging?

Has anyone developed a scale to indicate rate of deterioration of aroma/alpha over time?

Thanks,

Scott McLagan <mclagan@fraser.sfu.ca>
Coordinator for Computers, School District #43 (Coquitlam), B. C., Canada

End of HOMEBREW Digest #1307, 12/25/93

Date: Sat, 25 Dec 1993 14:18:59 -0800
From: pascal@netcom.com (Conan)
Subject: Kirschenbier

(Catching up on old Home Brew Digests ...)

"Date: 01 Dec 1993 00:35:24 -0700 (MST)
From: "Steven W. Smith" <SMITH_S@gc.maricopa.edu>
Subject: Kirschenbier and stream of consciousness

"Whenever I can find cherries again, I plan to try adding them to my standard
bock. It seems reasonable (to me) to wash the whole fruit in a mild
bleach solution, rinse, dry, smash (how?), force into a carboy (how?), then
siphon from the primary onto them. I'm thinking about 10 pounds of cherries to
a 5 gallon batch. Maybe freezing/thawing before smashing? Do the pits
matter?
Any comments appreciated, I'm flying blind."

I was brewing a cherry-lemon-orange mead recently, and, lacking the
cherries,
I wandered down to the local corner store and browsed through their
freezer.

I found a wide variety of reasonably-priced two-pound packages of frozen
and
pitted fruit. I read the label carefully, and could find no preservatives
on
the package mentioned anywhere. I bought a couple of pounds of black
bing
cherries, took them home, and pulped them with a metal meat tenderizer
that
I had at hand (like a hammer, but square, its working surface(s) covered
by
variously sized small pyramid-shaped teeth, so that one may tenderize to
the
degree of pulpiness desired :-), then added them to the hot protomead I
had
near a boil, in the pot at hand.

So, cherries do not seem to be hard to find, if one looks creatively. I
don't see much difference between picking them myself, pitting them
myself,
freezing them myself ... and buying them in that last state ... except
for
a few hundred thousand calories of energy and a lot of time.

The idea of rinsing fruit in a bleach solution, no matter how weak,
sounds
unwise. I've heard other solutions suggested, um, copper permanganate,
maybe ?
(Don't take this, alone, as sufficient authority for using it.)
Hydrogen
peroxide, I understand, is used by food processors (according to this
list,
at least), for sanitation.

Generally, freezing and thawing is regarded as effective at killing a lot of infective organisms, or at least putting them into a quiet state. Freezing and thawing also breaks cell walls and allows flavoring elements to flow out more easily. And, of course, dropping tenderized fruit into a boiling liquid solution is regarded as suitable for any serious sanitation, or at least, a solution over 170 Fahrenheit.

- -- richard

"Think of it as evolution in action."

richard childers pascal@netcom.com

Date: Sat, 25 Dec 93 21:29:14 MST
From: seiferth@cs.unm.edu
Subject: Carboys in Texas

I once had the address of a place in San Antonio which offer
7 gal carboys at very reasonable prices. I'm going there shortly
and would like to pick a few up. Could someone send me the tele.
number or address?

Thanks...
Justin
seiferrh@bandelier.cs.unm.edu

Date: 26 Dec 93 00:19:26 EST
From: "Timothy R. Peters" <76307.3666@CompuServe.COM>
Subject: Addition of water at time of bottling

I recently brewed a partial mash porter. For various undetermined reasons I ended up with a volume that appeared to be under 4 gallons.

I waited until fermentation was complete, primed with 3/4 cup corn sugar in 1/2 gallon of water, added it to the beer and bottled. I now have a feeling I should have done something earlier to correct the low volume, or done nothing at all.

Was this OK? Since I brewed with enough grain (9 lbs of grain and 3.3 lbs of extract) to make 5 gallons and ended up with what was essentially a concentrated wort, did the the addition of extra water this late do anything to affect the beer aside from lowering the terminal gravity?

Thanks for your help and
Season's Greetings,

Timothy Peters

Date: Sat, 25 Dec 93 22:08:52 PST
From: dbell@cup.portal.com
Subject: Re: A-B Boycott?

Seeing the note on the boycott proposal reminded me of the billboard I saw on a business trip to Milwaukee a week ago. I believe it was a Pabst ad, but that hardly matters:

Why is Budweiser so expensive?
Why ask why??

Lucky for Pabst that W-A-W? wasn't a Jim Koch slogan!

Dave
dbell@cup.portal.com

Date: Sun, 26 Dec 93 12:27:37 PST
From: Mark Garetz <mgaretz@hoptech.com>
Subject: Hop Storage

Scott McLagan writes:

>I am interested in the 'rate of
>deterioration' versus bittering/aroma ability. The
>statement 'this will cut the rate of deterioration in half'
>makes me wonder if I should scrutinize how my local vendor
>(and their suppliers) handle their hops . As I venture into
>the more exotic varieties of hops, (which are less commonly
>used), should I assume that I will need more quantity to
>achieve the same quality because of aging?

>Has anyone developed a scale to indicate rate of deterioration
>of aroma/alpha over time?

I have just finished an article on this exact topic which will
appear in the January/February issue of Brewing Techniques. It
has a formula for predicting alpha acid losses vs. time, temp,
storage conditions and the hop variety.

Mark

Date: 27 Dec 1993 00:57:40 -0700 (MST)
From: "Steven W. Smith" <SMITH_S@gc.maricopa.edu>
Subject: Kirschenbier results

Since it's been so quiet, it seems time to share the fate of my first kirschenbier (cherry beer). Good news: it's pretty tasty (I'm enjoying one now).

Ingredients:

2 "small ziplocks" German crystal malt
2 "big ziplocks" Briess dark malt powder
3 Oz Hallertau hops, loose
2 1lb cans Oregon brand sour cherries in water (Tip-thanks to John Wyllie!)
1 envelope "Munich dark strong" dry yeast

I simmered the crystal malt and 1/2 handful of hops in 1 gallon for about 1 hour, sparged, and added the wort to 2 1/2 more gallons of water I had heating. Mixed in the dry extract (Gawd, I hate that part) and brought it to a low boil, then added the rest of the hops - boiled for about 1 1/2 hours. Chilled, brought it up to 5 gallons and pitched.

I did the primary fermentation in my refrigerator. After about 6 weeks (when I got the unholy urge to add cherries) I bottled half of it to prevent ruining an entire batch. I pulverized the cherries (and water they were in) in a blender and added the resulting goo to a clean carboy, then racked the remaining 2 1/2 gallons onto them.

It really looked disgusting for a long time. Eventually most of the cherry pulp settled to the bottom and I racked again (now it was slightly less pulpy than OJ). Another 2 weeks and I racked yet again, finally getting rid of most all of the cherry pulp.

I bottled it 3 days before Xmas, that I might inflict it on my relatives. Surprisingly, it had a pretty good cherry flavor, although it was, um, less than well carbonated. I plan to do it again next year, but rather than run the cherries through the blender, I'll just freeze/thaw them first and use more. I'm sure I lost nearly 1/2 gallon trying to get rid of the pulp.

"Some day" I plan to buy a scale, record accurate dates, etc. and I may be able to share more accurate recipes.

My sister showed up with a few bottles of spruce beer that someone in her office had made. IMHO, 1/2 bottle was a good sized serving. Now I've tried it - it was "good", but I won't ever make 5 gallons of it... It was quite the ego-boosting experience; since my beer tasted like cherries instead of pine trees, it was the clear favorite ;-)

I wish you all a happy new year!

-,_/|

/o.O; Steven W. Smith, Programmer/Analyst
=(____)= Glendale Community College, Glendale Az. USA
USMITH_S@GC.BITNET
smith_s@gc.maricopa.edu
"They can't fix your brakes. You ask them 'where's my motor?', 'Well, it
was
eaten by snakes'... _Flakes_, Frank Zappa

End of HOMEBREW Digest #1308, 12/27/93

Date: Mon, 27 Dec 93 08:05:32 EST
From: "Paul Austin (8-293-5810 or (914))" <huckfinn@vnet.IBM.COM>
Subject: Newman's Albany Amber

Amber fans who took interest in Roy Harvey's note on New Amsterdam Amber beer may also want to look out for Newman's Albany Amber. I am not really sure if either is microbrewed, however - I think New Amsterdam comes from Utica, NY, where FX Matt's is. Both are fine beers, regardless.

Paul Austin

Date: Mon, 27 Dec 1993 09:52:49 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Koch/etc

> From: Mark Stickler Internet Mail Name <mstickle@lvh.com>
> Subject: Evaluating Beer w/ Jim Koch
>
> I recently received a new book from the AHA entitled Evaluating Beer.
What
> I read so far seems pretty informative but I noticed one the final
chapters
> was written by Jim Koch (the book is a collection of previously
published
> articles by various authors). His was a fairly short article which
basically
> says that hops and malt are THE most important factors in beer taste.
The
> word yeast is not mentioned even once in the entire article. He does
mention
> water but says that is not important because it can be treated to suit
> whatever the brewers needs are. As an example he points out the Bud
tastes
> the same whether iuts made in Tampa, Newark or St.Louis. I suppose this
> means AB could produce Pilsner Urquell or Bass Ale if they had the
right
> hops and Malt. Other than this chapter the book appears to be worth the
> price.

As a matter of "fact", he could! I would even venture that the malt can
be
substituted, with modest success. The points Jim make are quite valid
wrt
his lagers. He uses (I assume) Weihenstephan 34/70, a very clean
reliable
performer. Not sure if AB yeast would be as good, but Jim's decoction
sytem
from Pub Brewing is certainly capable of making a killer Pils. As Jeff
Frane
pointed out, many AB brewers are quite good, and would like to make more
flavorful beers. Where do you think all those Weihenstephan Diplom
Braumeisters work?? AB also employs a tasting panel that continually
evaluates each of the AB breweries products, and reports the perceived
differences between them, what a skill! If the big boys ever wake up, it
could be tough for some of the Koch's out there.

- - - - -

RE: hop storage

I was reading the comments on oxygen barrier packaging for hops. I
realize that there is some loss when using non barrier bags, but if
they are frozen, how much does it matter over a year, and dont some
quality noble hops *improve* with a degree of oxidation? I completley
agree that it is better to buy in barrier bags, but it certainly ups
the cost considerably, and if you buy direct at harvest time, and
repackage them/freeze them, how bad are the losses? I think the
biggest problem is with retailers who dont repack, dont chill, and
dont store in a dark place.

Best,
Jim Busch

Date: Mon, 27 Dec 93 10:24:34 EST
From: perkins@zippy.ho.att.com
Subject: Question about bottles

My question is about what bottles to use. The only definitive statement I've seen is to use "returnable" bottles. Since virtually all bottles in New York State (where I live) are returnable by law, I need a little help making the distinction. I gather that

- * Grolsch swing-tops are good
- * refillable bar/restaurant bottles are good
- * champagne bottles are good

What about lighter (weight) bottles? I've been saving Brooklyn Lager bottles (similar to Sam Adams bottles) for a while. Will they be OK or should I hit the local establishments for something else? How many times can I expect to reuse these bottles (or any of those noted above)?

Thanks for the help.
Mark

- - -

Mark E. Perkins Internet: perkins@zippy.ho.att.com
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Holmdel, NJ 0733-3030

Date: Mon, 27 Dec 93 09:09:00 -0600
From: chuck.wettergreen@aquila.com (Chuck Wettergreen)
Subject: Cherry handling

SS> Steven W. Smith <SMITH_S@gc.maricopa.edu> wrote:

SS> "Whenever I can find cherries again, I plan to try adding them to my
> standard bock. It seems reasonable (to me) to wash the whole fruit
> in a mild bleach solution, rinse, dry, smash (how?), force into a
> carboy (how?), then siphon from the primary onto them. I'm thinking
> about 10 pounds of cherries to a 5 gallon batch. Maybe
> freezing/thawing before smashing? Do the pits matter? Any comments
> appreciated, I'm flying blind."

And Richard Childers replied:

RC> The idea of rinsing fruit in a bleach solution, no matter how weak,
> sounds unwise. I've heard other solutions suggested, um, copper
> permanganate, maybe ? (Don't take this, alone, as sufficient

I think I'd use some Campden tablets, one or two per gallon of water
that the fruit is washed in. Soak one or two hours then rinse. The H2S
produced by the tablets should take care of anything lurking on the
fruit.

RC> more easily. And, of course, dropping tenderized fruit into a
> boiling liquid solution is regarded as suitable for any serious
> sanitation, or at least, a solution over 170 Fahrenheit.

I don't think I'd do that. I have done in the past, and most of the
cherry aroma and taste seemed to disappear into that hot wort, never to
be seen again.

If you have a food processor, the steel blade, lightly pulsed, will
macerate the fruit better than you could do with a meat tenderizing
hammer (without the splash too).

Chuck

* RM 1.2 00946 * The heat of the moment can burn you for a lifetime.

Date: Mon, 27 Dec 93 11:47:31 EST
From: bszymcz%ulysses@relay.nswc.navy.mil (Bill Szymczak)
Subject: Counterflow chiller model

A few weeks ago, Tim McNerney asked if Stoelting was making a magic chiller which claimed it could chill 5 gallons of wort from 210F to 56F using only 5 gallons of tap water. At that time I'm sure I bored most of you with my model of an immersion chiller which predicted a minimum of 11.87 gallons of 40F tap water was required to chill 5 gallons of boiling wort to 56F (while 48.75 gallons would be required if the wort was mixed with the water). Therefore, the conclusion was that either Stoelting was exaggerating or counterflow chillers are much more efficient than immersion chillers. Based on my following model of counterflow chillers, I think the latter is true (for a properly designed counterflow chiller).

This model assumes only one spatial dimension x , $0 \leq x \leq L$, measuring distance along the length of the tubing. In other words the cross-sectional temperature is assumed to be constant (no thermal boundary layers). The copper fins covering the wort line of the Stoelting should help in making this assumption reasonable. It also is probably reasonable if the flows are turbulent. Diffusion in the direction of the tubing is ignored.

Let $T(x,t)$ = the water temperature at point x and time t .
 $T_w(x,t)$ = the wort temperature at point x and time t .
 T_i = $T(0,t)$ the inlet water temperature (tap).
 T_b = $T_w(L,t)$ the temperature of the hot wort in the kettle.
 k = heat conduction coefficient (radial)
 A = average cross-sectional area of water.
 A_w = average cross-sectional area of wort.
 V = velocity of water.
 V_w = speed of wort (V_w and V are both taken to be positive although the flow is in opposite directions).
 $R = A \cdot V$ = flow rate of water
 $R_w = A_w \cdot V_w$ = flow rate of wort.
 $a = R_w / R$ = flow rate ratio.

The equations for the temperatures are:

$$(1) \quad A \frac{dT}{dt} = k (T_w - T) - R \frac{dT}{dx}$$

$$(2) \quad A_w \frac{dT_w}{dt} = k (T - T_w) + R_w \frac{dT_w}{dx}$$

With boundary conditions

$$\begin{aligned} T_w(L,t) &= T_b \\ T(0,t) &= T_i, \end{aligned}$$

where d/dx and d/dt are partial derivatives. We are interested in the steady-state solution (d/dt terms=0), in particular we need $T_w(0)$, the temperature of the wort as it exits the chiller. If $R=R_w$ the solution is

$$(3) \quad Tw(0) = Tb * \frac{R}{R+kL} + Ti * \frac{k}{R+kL}$$

and if $R \neq R_w$, $R_w = aR$, $a > 0$, $a \neq 1$, then

$$(4) \quad Tw(0) = \frac{Tb*(1-a)*\exp((a-1)kL/aR) + Ti*(1-\exp((a-1)kL/aR))}{1 - a * \exp((a-1)kL/aR)}$$

It is easiest to consider the case when $R=R_w$, equation (3). This equation says that the wort temperature can be cooled to nearly that of the inlet temp T_i , if either the rate is sufficiently low (R is small), or, for a fixed value of k , the length L is large. Equation (4) also reflects the obvious fact that if the water flow is large with respect to the wort flow (a is small but positive) then $T_w(0)$ will also be close to the inlet temp for fixed values of k , and L .

It is also interesting to note that if the boundary conditions are changed so that the flow of the wort and water are in the same direction ($T_w(0,t)=T_b$, $T(0,t)=T_i$ and now $a < 0$) then the solution is

$$Tw(L) = \frac{Ti - a*Tb}{1 - a} + \frac{Ti + Tb}{1 - a} \exp((k*(1-a)/a)*L) .$$

If for example, $a = -1$ (same flow rate of wort and water in the same direction) then $T_w(L) \rightarrow 0.5*(T_i + T_b)$ as L gets large. For this "un-counterflow" chiller the same amount of water would be required as if you mixed the water and wort. This is what you would expect and serves as a "sanity" check for the model.

It may be better to send any technical comments on the model or errors anyone finds to me directly and I'll repost a summary.

Bill Szymczak
 bszymcz@ulysses.nswc.navy.mil

Date: Mon, 27 Dec 1993 11:57:33 -0600 (CST)
From: "Bill Kitch" <kitchwa@bongo.cc.utexas.edu>
Subject: Finings for Shipping

I recently received some homebrew via UPS. As I'm waiting for the beers to clarify again I was wondering about the use of finings. I don't normally use any finings but recall reading that one of the attributes of isinglass is that helps cask conditioned ale to resediment quickly after delivery to the pub. That makes me reconsider its use, especially for beer that will be shipped. Who out there is using finings? Do you find it really helps in resedimenting beer that has been disturbed? Does polyclar have the same effect of must one use isinglass?

Sante' WAK

Date: Mon, 27 Dec 1993 12:38:57 -0500

From: y2046@hrpi16.DNET.hcc.com

Subject: Dishwasher Bottles

Hello,

I have been wondering if it would be acceptable to use my dishwasher to setrilize my bottles. I have been bringing them into work, and using the autoclave in the laboratory to do this. I know the dishwasher is not nearly as good as the autoclave, but I need to know if it is good enough. If anyone has any positive or negitive experiences about using

a dishwasher to sterilize their bottles please reply to:

Y2046@hrpi16.dnet.hcc.com

Thanks,
Bruce

Date: 27 Dec 1993 10:54:12 -0700 (MST)
From: "Steven W. Smith" <SMITH_S@gc.maricopa.edu>
Subject: Water question

Since the tap water here in the Phoenix area is so "interesting" - PH about 8.0, very hard, Ca, Fe, Mg, Benzene, TCE (thanks, guys) I've traditionally brewed using Crystal bottled water. I'm planning to get off my butt soon and contact them for an exact analysis, since they take great pride in their water's consistant flavor. They supposedly use reverse osmosis, then introduce flavoring minerals. Anyone recommend a good practical reference for the water chemistry desirable for different beers - for a non-chemist, that is. The only books I've got are Papazian's 2 releases (little and big). I also wonder if digital PH meters are out there somewhere?

The black beers I brewed suffered from the recently discussed sourness (due to low PH?). The dark ambers I've been brewing seem to do very well with stock Crystal water, but I'd like to try brewing a black lager before summer hits again. TIA

_/o.O; Steven W. Smith, Programmer/Analyst
=()= Glendale Community College, Glendale Az. USA
USMITH_S@GC.BITNET
smith_s@gc.maricopa.edu

"They can't fix your brakes. You ask them 'where's my motor?', 'Well, it was eaten by snakes'... _Flakes_, Frank Zappa

Date: Mon, 27 Dec 93 12:46:53 -0600
From: dmorey@iastate.edu
Subject: Potential Extract <> Fermentable Products

Hello once again,

Thank you for the responses to my questions about the extract potential of dark grains. Since my posting there are been a few questions about my sources, so here they are:

BREWING QUALITY BEERS, Byron burch, Joby Books, 1991

THE NEW COMPLETE JOY OF HOME BREWING, Charlie Papazian, Avon Books, 1991

BETTER BEER & HOW TO BREW IT, M. R. Reese, Garden Way Publishing, 1978

THE COMPLETE HANDBOOK OF HOME BREWING, David Miller, Garden Way Publishing book, 1988 (I have heard this is now out of print, is this true)?

THE BIG BOOK OF BREWING, David Line, Amateur Winemaker Publications, 1985

* I also did repeated SG measurements for the various sugars.

For my final point, I want to clear up what I ment about potential extract. Yes, it is true that the black malts produce no fermentable products during the mash, but, they DO contain soluable matter. This soluable matter does change the specific gravity. Just as adding large amounts of salt to water (and salt being non fermentable) the specific gravity of the solution will rise. As homebrewers, we are interested in SG readings because they are an indication of our sugar content, but not an absolute measurement. Also it provides feedback on how efficient our process is and how close we have come to duplicating a recipe. Well, that is enough of my spouting off.

Thank you for your time and happy fermentations,

Dan A. Morey

P.S. Tis the season to have a homebrew, but then again when isn't?

Dan A. Morey If pleasure and the pursuit of happiness
dmorey@iastate.edu (hoppiness) is the most vile crime in this PC
world, let it be known, "I shall be the
greatest villain that ever lived!" Hope this
doesn't offend anyone!???????

Date: Mon, 27 Dec 93 15:11:21 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: hop storage

Ed's note about keeping hops reminds me of a trick I recently figured out for easily "vacuum sealing" stuff in ziplocs (at least). I take a straw and stick it into the bag, then zip the bag as far shut as I can, and hold it tightly around the straw. Then I suck on the straw until no more air comes and quickly draw out the straw, sealing the bag behind it. Not as good as a commercial vacuum pack, but better than doing nothing. And easy & cheap.

=S

End of HOMEBREW Digest #1309, 12/28/93

Date: Tue, 28 Dec 1993 09:15:01 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: dishwashers

dishwashers
>Date: Mon, 27 Dec 1993 12:38:57 -0500
>From: y2046@hrpi16.DNET.hcc.com
>Subject: Dishwasher Bottles
>
> Hello,
> I have been wondering if it would be acceptable to use my dishwasher
>to setrilize my bottles. I have been bringing them into work, and using
>the autoclave in the laboratory to do this. I know the dishwasher
>is not nearly as good as the autoclave, but I need to know if it is
>good enough. If anyone has any positive or negative experiences about
using
>a dishwasher to sterilize their bottles please reply to:
>Y2046@hrpi16.dnet.hcc.com
>
> Thanks,
> Bruce

I have been using our dishwasher at home now for several batches.
I usually set it for PotScrubber setting (double duty), and
heated drying, with NO rinse agent.

Rinse agents do leave stuff on the glass that will kill the head
of your beer. Also, make sure the labels are off before loading
into the dishwasher because they may clog the screen at the
bottom. We had a label sneak past us and, although it came off
the bottle just fine (no residue), it wrapped itself over the
heating element in the dishwasher and started to smoulder.

hope this helps

george

Date: Tue, 28 Dec 93 09:24:54 -0600
From: "LT Brian McKinnon" <code266@amd2.med.navy.mil>
Subject: requestinfo%hpcmr@hplabs.hp.com

Date: Tue, 28 Dec 93 09:46 CST
From: arf@mcs.com (Jack Schmidling)
Subject: SS Screen

>From: birkelan@adtaz.sps.mot.com (Joel Birkeland)

>The only reason I can imagine using slotted Cu pipe instead of SS
screen is
the limited availability of the latter. I bought my 1st easymasher from
Jack, and then made two more myself. I was lucky enough to find a large
piece of SS screen in a dumpster behind a machine shop. (I am not too
proud
to look zinto dumpsters.)

I wish I could credit the source of this idea but a universally
available
source of ss screen is almost as handy as a dumpster.

Most kitchen strainers are made of stainless and contain more than
enough
mesh for several easymashers.

js

Date: Tue, 28 Dec 93 10:33:51 EST
From: cmryglot@disney.CV.COM (Chuck Mryglot X6024)
Subject: sparge and extraction rate

I have some questions about sparging and extraction rates on which I appreciate your wisdom.

First, I mash in a picnic cooler with a manifold pipe arrangement on the bottom. I single or double step mash. I achieve a step mash by adding boiling water to increase temperature. I finally add all of the sparge water to the cooler (I guess that this is called batch sparging), stir and let everything settle. Finally, I open the drain plug and start filling the boiler (I usually recirc the first bit for clarity). This takes 15 - 20 mins.

Now, - I usually get 20 - 25 pts/lb/gal.

- Is there a relationship between sparge rate and extraction?
- Is my process all screwed up?
- Does any one else use a similar setup and get similar or better extraction?
- Does any one get 30 - 35 pts/lb/gal?

Thanks in advance.

Date: Tue, 28 Dec 1993 07:47:55 -0800 (PST)

From: Domenick Venezia <venezia@ZGI.COM>

Subject: Maui brewpubs?

Unfortunately I am headed to Maui for 16 days soon, ;-), and remember from previous trips a paltry lack of microbrews and brewpubs. Have things changed in the last few years? I'd appreciate hearing of establishments with microbrews and brewpubs anywhere on the island. Also, there is a chance I'll end my stay on the Big Island (Hawaii) so the same info would be appreciated there.

Lastly, if you are attending HICCS let me know and we'll get together.

Aloha, hang loose,

Domenick Venezia
ZymoGenetics, Inc.
venezia@zgi.com

Date: 28 Dec 93 09:38:08 MST (Tue)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: re: Cherry handling

chuck.wettergreen@aquila.com (Chuck Wettergreen) writes:
> And Richard Childers replied:
> RC> The idea of rinsing fruit in a bleach solution, no matter how weak,
> > sounds unwise...

...
> I think I'd use some Campden tablets, one or two per gallon of water
> that the fruit is washed in. Soak one or two hours then rinse...

Yes, bleach is a bad idea; a solution weak enough not to cause problems later (either killing the good yeast or creating an off-character) isn't going to be strong enough to do much good. The problem is that it's going to be hard to get rid of the bleach once you get it in with the fruit.

Campden tablets will work, but one per gallon is plenty.

> RC> ...And, of course, dropping tenderized fruit into a
> > boiling liquid solution is regarded as suitable for any serious
> > sanitation, or at least, a solution over 170 Fahrenheit.

Yes, this is enough to kill wild yeast, and the acid in the fruit will keep the other critters that annoy us (the common bacteria) at bay.

> I don't think I'd do that. I have done in the past, and most of the
> cherry aroma and taste seemed to disappear into that hot wort, never to
> be seen again.

Hmmm...I've done it and I haven't had problems with losing the cherry character. It's hard to argue with experience on either side, I guess. I've just poured the hot wort over the cherries and immediately cooled the whole mess.

I do chop the cherries a bit; I don't just use whole pitted cherries. Could that be why my heat treatment works and yours doesn't? I dunno...

A good test of how well you're extracting fruit flavor into the beer seems to be that you see the fruit floating in the fermenter getting very pale.

> If you have a food processor, the steel blade, lightly pulsed, will
> macerate the fruit better than you could do with a meat tenderizing
> hammer (without the splash too).

"macerate" surely isn't what you mean...perhaps "chop"? ;-)

My experience says you want it chopped fairly coarse--as you say, lightly pulsed, and only a few pulses per load through the food processor.

Chopping too finely doesn't improve the extraction of fruit character, but it definitely exacerbates problems at racking...the more pulp you create, the more it clogs everything.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Tue, 28 Dec 93 12:15:08 EST
From: Spencer.W.Thomas@med.umich.edu
Subject: Re: Koch/etc

Jim Busch writes:

> If the big boys ever wake up, it could be tough for some of the
> Koch's out there.

I was thinking about this late last night as I was wondering the aisles of the supermarket (love those 24-hour stores!) I stopped in front of the beer display -- the standard imports, Frankenmuth (local, more or less), mostly BudMillCoors. Hmm... Michael O'Shea's Amber... Not bad, certainly more flavor than the standard American swill, produced by Genesee, one of the few surviving regional breweries. Also, the Miller's "reserve" line. Hmm... thinks I, if the big guys decide to go into the "micro" market, they've already got the distribution channels, and the capacity... Could do it pretty quickly... The bean-counters have to be convinced there's a market, that's all.

Look at Coors. Winterfest is a reasonable Continental Dark (we scored it high 30s in a blind tasting, as I recall). They're supposedly coming out with a Stout real soon, now, too. Miller's got their Reserve line (not to mention "Leinies"). It's happening, and it's happening because of us (homebrewers)!

=S

Date: Mon, 27 Dec 93 17:01:56 MST
From: npyle@n33.stortek.com
Subject: Specialty Malts at Mashout / Smooth Operator

Andy Kligerman writes:

>While reading the moast recent HBD, I raree thought came to me! When I do an all grain breew, I add the crystal malts and carapils in with the rest of the grain at the start of the mash. Since the other grains are enzyme rich, am I defeating the purpose of these malts when trying to achieve I high malt, full bodied beer? Should I add these at the mash out?

You've hit one of the highly debatable areas of homebrewing. I put crystal malt in at mashout (I don't know about carapils, haven't used it). I do this because I figure I don't want the enzymes to do any work on the sugars in it, and because it has already undergone a mash within the husk. I also save off dark grains (choco and black) for mashout because I feel I get smoother flavors from them this way. Of course, as I said in an earlier post, my dark beers need some help, so I'm no authority on this one. I posted a few weeks ago on an article in Zymurgy (by Micah Millspaw and Bob Jones) I read on this subject. Well, the article was on beer stability, but it had some references to this. It was in the same issue as Dr. Fix's HSA article. Check it out.

**

I've just now finished making a batch of brown ale based on my best pale ale recipe. I substituted 1 lb. of Belgian Special B 200L Crystal malt for the light crystal I usually use in the recipe. That Special B is special stuff, wonderful taste and aroma. I'll never use American chocolate malt again as long as I can buy the SB. It adds sweetness and maltiness that plain old choco malt can't touch. This beer really worked out well for hitting temperatures without adjusting anything, and I had no problems at all with my newly-built hop back. Whirlpooling helped keep the hops (pellets in the boil) from getting sucked out the drain. This was the smoothest (in terms of the procedure) all-grain beer I've made. I'll report later on how the beer comes out.

Norm

Date: Tue, 28 Dec 93 12:47:53 EST
From: Stephen P Klump <sklump@magnus.acs.ohio-state.edu>
Subject: "Returnable" Bottles

Hello Fellow Homebrewers!

Mark Perkins asked about bottles to be used with homebrewing:

This subject causes undue stress and controversy with many homebrewers....with good reason. No one, I repeat, NO ONE wants to fill a bottle of their finest, only to have it crack or chip on capping, or explode due to thin walls of glass.

Let me tell you of my experiences:

Bar bottles are excellent for homebrewing. They have thicker glass than the "no refill" types of bottles (Sam Adams etc). One drawback, is that the labels are tough to remove compared to the "no refill" variety.

Grolsch bottles are easier to use (and bigger) with the rubber gasket for "capping"

I have used "no refill" bottles with smooth lipped top with no problems. (knock on an oak keg for luck) They do have thinner walls of glass, but so far, no cracks, explosions, chips etc.... (there was one batch which exploded a returnable and a "no refill" due to overcarbonation- but since it was very overcarbonated, and a returnable blew as well, I am not going to give up on them...)

No refill bottles used: Anchor, Sam Adams, FX Matt, Heinekin, Grolsch (12oz), etc.

There are several types of "screw cap" bottles which I have recapped and have had no cracks, chips, leakage, etc.. Sierra Nevada bottles have a very thick rim..for your own refernce, compare one to a Pete's Wicked Ale bottle top. Pete's is noticeably thinner... Types of "screw cap" used: Sierra Nevada, Rolling Rock, Molson.

I did not come across the use of screw cap bottles by accident, I used to go to Canada to buy a case or two of Molson Golden. These bottles were returnable, and screw-cap as well. After some tests with diet-Choke left over from a party, it was determined that recapped bottles would hold carbonation, and the use of these in homebrewing began....

I hate to sound like JS or JdeC when I say that I have had no problems with recapping returnable, no refill, or some screw-cap...maybe it is the spirit or St Gambrinus smiling on my efforts.. :) But with the exception of the two bottles from a very overcarbonated batch, I have had great luck.

I hope my 2 cents helps.
Cheers!
Stephen

Chemist for Hire | Decadence requires application!
Will Recrystallize for Food! | -R J Green
***** | The average dog is nicer than
Klump.2@osu.edu | the average person. -A Rooney

Date: Tue, 28 Dec 93 13:01:58 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: Corning Phone Number

Some time in the last few months, someone posted a 1-800 number for Corning/Revere Ware. If that was anyone reading this, could you please send me that number, and/or post it again to the digest?

Thanks. Jimmy

Date: 28 Dec 93 17:58:18 UT
From: "Freeman William "
Subject: In search of Microbreweries

I live in New England and I'm looking into setting up some trips for friends to a few microbreweries in the North East. Please e-mail me any helpful information...names, locations, phone (if known), and beer rating on a scale of 1-10 of local micorbreweries. If anyone knows of a listing of microbreweries in the US, I would greatly appriate any information to help me find it.

Thank You
Bill Freeman

Date: Tue, 28 Dec 1993 15:24:12 +0000 (U)
From: George Tempel <tempel@MONMOUTH-ETDL1.ARMY.MIL>
Subject: full volume boils?

full volume boils?

I have been making extract/grain batches, including one with a rather rough mini-mash, and am looking into moving to a full volume boil in preparation for all grain recipes.

My question is this: how does one get all that water boiling in a single lifetime? I haven't had much trouble getting 2 or 2.5 gals boiling on my stove (it's electric...old house w/no gas), and can keep a nice steady temperature too.

I understand that one shouldn't use the cajun cooker things indoors for lack of oxygen, but I'd like to hear from the 'net experiences.

thanks in advance

george

Date: Tue, 28 Dec 93 14:39:27 -0700
From: ezimmerm@master.uwyo.edu (Eugene Zimmerman)
Subject: SS Keg to boiling pot QUESTION

Salutations!

I had to unsubscribe to the HBD for the last semester as I took 18 credits and had to work 30 hrs a week. I also only managed one brew in the last few months. Well that's all done with and now I'm back (this has digest has gotten so large no missed me I'm sure). Anyway, I'm tring to catch up on back issues and am looking specifically for some help.

I was lucky enough to come across an 8 gal. SS keg! I got the thing and

now need some expert advice on how to convert it to a brew pot. I'm going to cut the top off and then put a valve twards the bottom on the side.

This thing has a 3 inch bung hole in the side and I obviously want it plugged. I remember people talking about being careful not to use the wrong kind of welding what ever so as not to poison one's self with heavy metals. Where are the specifics on this? I can't seem to find anything now...

Thanks for any advice or pointers anyone might give me!

Gene in Laramie

Date: Tue, 28 Dec 1993 11:48:22 -0600 (CST)
From: John Edens <johne@sa-htn.valmet.com>
Subject: chiller efficiencies ad nauseum

Perhaps because I live in wet, humid, Houston, I am missing the significance of the immersion chiller. counterflow chiller debate.

I see a lot of equations and design theory being tossed around and my gut reaction is: So what? I probably use more water taking a shower than I do chilling my beer. And I only use water out of the cold water tap for the beer, which means there is no heating costs involved. If the purpose is to get a quicker chill, then I can understand that, but one should be able to acheive that by pushing water as quickly as possible through a coil that as much surface area as possible in contact with the hot wort.

Or is this a case of overdesign for the sake of overdesign?

<flame suit on>
John

Date: Thu, 23 Dec 93 11:16:45 MDT
From: exabyte!smtplink!guym@uunet.UU.NET
Subject: Finally back again!

Hello all,

I got my first hot-off-the-presses HBD (#1305) in 10 months today (thanks Jeff Herring) and boy did I need the fix! I saw a number of familiar names and a lot of new ones as well. To keep this brewing related, I am finding a considerably better selection of micros and imported beers in Orlando that we had in Huntsville, AL. I travel quite a bit now too and have the opportunity to sample the local beer scene in a number of areas. Anyway, its great to be back (I just sent Rob a request to re-subscribe me) and here's to you all.

Hoppy Holidays!

Guy McConnell -- guym@exabyte.com -- Exabyte Corporation -- Orlando, FL

Date: Tue, 28 Dec 1993 16:05:33 -0500 (cdt)
From: Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU>
Subject: terminal gravity

I seem to have chronically high terminal gravities, usually around the low-to-mid teens. I am pondering in which order to address possible deficiencies in my process. Currently, I am an extract & specialty grain brewer (1 partial-mash to date) using Wyeast liquid cultures via starter solutions.

1) Yeast population/health. Possible courses of action include increasing the amount of pitchable yeast by either feeding them MORE malt, or using a two-step starter; being very careful about brewing when the yeast is really ready (RIGHT after the starter has fermented out?); trying "yeast nutrient" in the starter.

2) Aeration. Probably the easiest thing for me to try would be to make one of those "carburetors" that has been mentioned here by drilling little teeny holes in a piece of rigid plastic tubing to squirt into the carboy.

3) Water chemistry. I have no idea what is or is not in my water; can water chemistry affect the "endurance" of the yeast?

A related issue might be raised wrt specialty grains. I'm used to getting starting gravities around 1040-1042 from six pounds of extract syrup. If I steep .75-1 lb. of crystal, patent, or whatever, and end up with an O.G. of 1048 (yes, this happened recently), then can I safely assume that the extra gravity points are "unfermentables" and will also show up in the final gravity (1016 or so instead of 1010)? The recent thread on extract potentials of grains got me wondering about this.

The collective wisdom of the digest is eagerly anticipated.

Jonathan Knight
Grinnell, Iowa

Date: Tue, 28 Dec 93 18:23:41 EST
From: asteinm@pipeline.com (Art Steinmetz)
Subject: (Fwd) re: Question about bottles

Mark Perkins writes:

My question is about what bottles to use. The only definitive statement I've seen is to use "returnable" bottles. Since virtually all bottles in New York State (where I live) are returnable by law, I need a little help making the distinction.

- ----

Use "refillable" bottles. These are thick-walled brown longnecks. Bud still makes 'em I believe. There is a 5 cent deposit on the bottles and a <\$1.00 deposit on the heavy not-corrugated cardboard flip-top case. Go to a bar that sells Bud longnecks and ask to buy the empties.

Date: Tue, 28 Dec 93 15:40:00 PST
From: Timothy Sixberry <tsixber@msrapid.kla.com>
Subject: RE:Dishwasher Bottles

Hi Bruce,

The use of a dishwasher to sterilize bottles probably depends on a few things.

- How hot is your hot water heater set for?
- Does your dishwasher have a heat dry system?(most do)
- How dirty are the bottles?
- How clean is it?

I have used my dishwasher to sterilize bottles many times with no problems,

and I'm pretty sure yours will work to. What I do with my bottles is to make sure they are rinsed well right after use, then let them drain and dry

out completely. I prepare the dishwasher by running it through one rinse cycle with a little bleach or idopher to stearlize and get rid of any food

particles. Also check the drain screen for food too. Then just put as many

bottles in as you can. Mouth down of coarse. Put a little idopher (not bleach) in and let er go. Make sure the heater is on, I havn't tried it with just hot water.

ps- I have kegs now, and let me just say.

Its the only way to fly! Good luck man!

Date: Tue, 28 Dec 93 22:03:00 +0200
From: ari.jarmala@mpoli.fi (Ari Jarmala)
Subject: Diluting beer

Subject: Addition of water at time of bottling

Timothy R. Peters wrote about adding water to already fermented beer to dilute it and to increase the volume at the time of bottling.

I have done this frequently with my all-grain batches. It's usual that I brew a 40 l batch of say 4,5 % alcohol by weight beer and bottle 72 bottles of it (=24 l). The remaining 16 l I dilute with 8 l of cold tap water (the water is excellent here) to make 24 l (=72 bottles) of 3,0 % abw beer. Of course, this diluted beer has less body, alcohol, maltiness, bitterness and hop aroma than the original brew. But it's supposed to be so, I want it that way.

I haven't encountered any problems with this procedure so far and I've been doing it for more than 10 years now. However there are a couple of crucial topics:

a) Be sure that the water you dilute the beer with is suitable. It must not be contaminated with nasty microbes and it's chemical composition should be good enough. It may be wise to boil the water for 30 minutes and cool it down before you add it to your beer.

b) Carefully calculate the amount of priming sugar.

-Ari J[rm[l[

Date: Tue, 28 Dec 93 23:43 EST
From: Tom Clifton <0002419419@mcimail.com>
Subject: PH Meters and Water

Tried to email a reply directly but got the following message:

Your message 92931229014129/0002419419NA4EM of Tue Dec 28, 1993 8:41 pm
EST
could not be delivered to:

TO: Steven Smith
EMS: INTERNET
MBX: SMITH_S@gc.maricopa.edu>

as the receiving mail system rejected the delivery for the following
reason:

Unable to parse address

- -----
Forwarded Message 1

Date: Tue Dec 28, 1993 7:41 pm CST
From: Tom Clifton / MCI ID: 241-9419
Subject: PH Meters and Water
TO: Steven Smith
EMS: INTERNET / MCI ID: 376-5414
MBX: SMITH_S@gc.maricopa.edu>
Subject: Water question [HBD #1309]
Message-Id: 92931229014129/0002419419NA4EM

Since the tap water here in the Phoenix area is so "interesting" - PH about

8.0, very hard, Ca, Fe, Mg, Benzene, TCE

^^^^^^^ ^^^

ACK! Phoe!

You can get rid of the PH problem by boiling your water with gypsum. I think this may also reduce the magnesium (Mg) some which can help with the bitterness in your Black beers. If you are doing all grain, the high PH is definantly a problem as it causes excessive extraction of tannins from the grain husks.

Digital PH meters are reasonably inexpensive. Brewers Resource in Woodland Hills, CA (1-800-827-3983 for orders, 1-818-887-3282 for info) has one for \$35 that isn't temperature compensated. My local supply shop (St. Louis Wine & Beermaking) has that one and also has one that is temp compensated for \$80. You can reach Roy or Koelle Parris at 1-314-230-8277 next week as they are closed between Christmas and New Years day to be with family.

- - - - -
End forwarded message

- - - - -

Date: Tue, 28 Dec 93 17:07:00 -0600
From: tony.storz@cld9.com (Tony Storz)
Subject: Celis White Clone Recipe

Date: 12-28-93 (17:47)
To: homebrew@hpfcmi.fc.hp.com
Subject: Celis White Clone Recipe
Subj: Celis White Clone Recipe
Read: (N/A)Status: RECEIVER ONLY (Echo)
Conf: InterNet_Mail (1)Read Type: GENERAL (+)

Recently there was a request for a Celis White Clone recipe. Here is a recipe that I came up with and uploaded to Compuserve in early November. Thanks to Steve Daniel and Steve Moore from the Home Brew University BBS (713-923-6418) and my electronic friends on Compuserve who helped steer me in the right direction by giving me a starting point.

Pugsley's Pseudo Celis White #5

malt: 4.5 lbs. 6 row (or 2 row)
specialty: 4.0 lbs. Unmalted Wheat (Bulgar from Health Food Store)
4 grams dried orange peel
4 grams crushed corriander seeds
1 tsp. Alpha-Amalase enzyme
lactic acid
hops: 1 oz. Hallertauer
yeast: 1 pack Wyeast #3056 Bavarian Wheat
optional: 1 tsp. gypsum

OG 1.041 FG 1.011

Bring 2 gallons water to boil. Add unmalted wheat and hold at 185-195 degrees for 20 minutes. Add cold water and 6 row malt to bring down to 130 degrees. Add 1 tsp. amalase and gypsum (pH 5.3). Allow protein rest for 25 minutes. Raise temperature to 150 degrees and hold 20 minutes. Complete conversion by raising temperature to 158 degrees and holding for 20 minutes. Mashout at 168 degrees for 5 minutes. Acidify sparge water to pH 5.7 with lactic acid. Sparge with 4-5 gallons of 170-180 degree water. Boil wort for 90 minutes. Add hops and crushed spices 15 minutes before end of boil. Cool wort and pitch yeast.

While this will not fool everyone into thinking that this is the real Celis White, I was very happy with the outcome. The spices are "up front" without being overpowering. However, some people like a wallop from the spices and you will need to experiment with the spice amounts.

After a couple months the spices have faded a bit, so next time I will double the spices and probably try Wyeast White beer yeast.

This recipe should give you a good starting point with which to experiment. If anyone else has a recipe for a Celis White clone, or have any comments or questions on my recipe, please feel free to E-mail me or post.

Tony Storz (Houston)
<<<>>>

End of HOMEBREW Digest #1310, 12/29/93

Date: Wed, 29 Dec 1993 04:51:27 -0500 (EST)
From: Darin Bennett <dbennett@mailstorm.dot.gov>
Subject: A dream of 'cream'

Greetings fellow homebrewers,
I am an almost virgin (1 batch) homebrewer on a very tight budget (and in a small apartment no less) which has for now constrained me to extract brewing. My first batch, a 'Dutch Light Lager', was racked about 2 weeks ago and my sample at that time showed a good bit of potential. My true love (besides beer in general) is heavy stout beers and in particular, Watneys' Cream Stout. I was told that the 'creaminess' can be created by using particularly large amounts of malt. My question is, is this really true, if so, can I add malt (powder, other?) to an extract kit or is there another simple and inexpensive way to pull this off?

If you are willing, reply to HBD or mail me at dbennett@mailstorm.dot.gov either is fine.

TIA,
darin

)-|-----
-----|-(
Darin Bennett<|> "I don't pretend to comprehend
Residing in Cyberspace at: <|> the universe. It is much
dbennett@mailstorm.dot.gov <|> bigger than I." - A. Einstein
)-|-----
-----|-(

Date: Wed, 29 Dec 1993 07:26:00 EST
From: "Pamela J. Day 7560" <DAY@A1.TCH.HARVARD.EDU>
Subject: New England Brewpubs etc (attn: Bill Freeman!)

Hello All & especially Bill F.,

I also live in New England, and am currently working in Boston. As a result, I've tried to hit every brewpub/microbrewery in the area that I can. If I haven't been to the establishment itself, I most likely know someone who has. If you want/need details, e-mail me direct (DAY@a1.tch.harvard.edu) & I'll try to give you any info I can. BTW there are guides on Breweries & Brewpubs, I don't remember the name off hand, but there's one for east of the Mississippi, & one for west.

PS, I won't be around `til next week, so be patient about a reply.

Merry (hic) New Year!

Pam

Date: Wed, 29 Dec 93 09:08:04 EST
From: Allan Janus <NASARC07@SIVM.SI.EDU>
Subject: Major into micro (was re Koch/etc.)

On the subject of major breweries going after the micro dollar, can anyone confirm a rumor I heard (from the founder of Capital Brewing Co. of Madison, WI) that Miller's will be test-marketing a stout? Gad, can a Bud Kriek be far behind?!

Date: Wed, 29 Dec 93 09:06:50 EST
From: asteinm@pipeline.com (Art Steinmetz)
Subject: full volume boils?

> how does one get all that water boiling in a single
lifetime?

That's an easy one. Buy that cajun cooker (note how
application of money solves yet another homebrew problem :-))
They go under various names like Cajun Cooker, King Cooker,
Fish Cooker. Home depot sometimes has 'em. Any self
respecting homebrew store has 'em. Cost <\$50. They put out
over 100,000 BTU and sound like a jet engine at "Military
thrust." Outdoor use preferred. They don't throw off carbon
monoxide but they do suck up lots of oxygen and throw off mondo
water vapor. I use it. I like it.

Frugal gadget heads will scavenge water heater burners and hook
'em to their natural gas line. Usual liability disclaimers
apply. You're SOL on that one anyway.

Last resort. Split your full boil into multiple pots on your
electric stove.

Date:Wed, 29 Dec 93 09:31 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: Beer Sphere and chillers

Ok, first I have a question, then a helping hint from Zymurgy.

First off anyone have any experience with the "Beer Sphere" CO2 dispensing system. It lets you store 5 gallons of homebrew with a tapping system using CO2 cartridges, and I saw for sale for \$49.95.

Now the hint. Chilling wort. Someone in the newest Zymurgy had the best method of cheap chilling I've ever read:

Take three 2-liter soda bottles. Sterilize them with bleach and rinse. Fill 3/4 with boiled water and freeze. When it comes time to cool the wort, remove the bottles from the freezer and sanitize with your choice of sanitizing agents. Immerse bottles in the hot wort. Author claims the wort is colled in 20 minutes, and bottles can be placed in the freezer for reuse.

Date: Wed, 29 Dec 93 09:47:16 EST
From: <JMO01%ALBNYDH2.bitnet@UACSC2.ALBANY.EDU>
Subject: Beer King mini-kegsystem

OK, it just goes to figure. After glancing by recent postings on the Beer King dispensing system, Santa dropped off one of these German-made contraptions under the XMAS tree. With nothing more than instructions and simple figures printed on the box, I can't help but ask for some Beer King experiences - be it good, bad, or indifferent. Is this thing the next best thing since sliced white or is it worthy of exchange for some good old-fashioned homebrew equipment?

Date: Wed, 29 Dec 1993 10:12:51 -0500 (EST)
From: Jim Busch <busch@daacdev1.stx.com>
Subject: Re: Various

> >Subject: Dishwasher Bottles
> >
> > Hello,
> > I have been wondering if it would be acceptable to use my dishwasher
> >to setrilize my bottles.

If you are lucky, you might get 165F water out of your water heater, but this is barely enough for *santization* much less *sterilazation*. Of course, who needs sterilazation for bottles? I find it simpler to use a sanitizing agent and a quick rinse. Finished beer is not too likely to get infected, unless it already harbours the beasts in the still beer.

> From: cmryglot@disney.CV.COM (Chuck Mryglot X6024)
> Subject: sparge and extraction rate
>
> First, I mash in a picnic cooler with a manifold pipe arrangement on
> the bottom. I single or double step mash. I achieve a step mash by
> adding
> boiling water to increase temperature. I finally add all of the sparge
> water to the cooler (I guess that this is called batch sparging), stir
> and
> let everything settle. Finally, I open the drain plug and start
> filling
> the boiler (I usually recirc the first bit for clarity). This takes 15
> -
> 20 mins.
>
> Now, - I usually get 20 - 25 pts/lb/gal.
>
> - Is there a relationship between sparge rate and extraction?

Yes, but more important is the conversion during mashing. First, the sugars need to be created in the mash, then adequate sparging is required. Batch sparging is fine, but you need to add more water as the first run through, otherwise you are leaving lots of sugars stuck to the grain. After the bed is set, sparging of around one hour is quite normal.
>
> - Does any one get 30 -35 pts/lb/gal?

Sure, but I use a perf sheet bottom. I'm sure you can up the efficiency from 25 pts.

>
> From: npyle@n33.stortek.com
> Subject: Specialty Malts at Mashout / Smooth Operator
>
> I've just now finished making a batch of brown ale based on my best
> pale ale
> recipe. I substituted 1 lb. of Belgian Special B 200L Crystal malt for
> the
> light crystal I usually use in the recipe. That Special B is special
> stuff,
> wonderful taste and aroma. I'll never use American chocolate malt
> again as

long as I can buy the SB. It adds sweetness and maltiness that plain old choco
> malt can't touch. This beer really worked out well for hitting
temperatures
> without adjusting anything, and I had no problems at all with my newly-
built
hop back. Whirlpooling helped keep the hops (pellets in the boil) from
getting
> sucked out the drain. This was the smoothest (in terms of the
procedure)
> all-grain beer I've made. I'll report later on how the beer comes out.

Just want to point out that while SB is a great malt, it is not
chocolate.

I have a brown ale that used too much SB and it very different from the
chocolate character. I'm not convinced that porters are as good using
SB as when using chocolate. Now, a blend of both.....

>

> From: ari.jarmala@mpoli.fi (Ari Jarmala)

> Subject: Diluting beer

>

> Timothy R. Peters wrote about adding water to already fermented
> beer to dilute it and to increase the volume at the time of
> bottling.

>

> a) Be sure that the water you dilute the beer with is suitable. It
> must not be contaminated with nasty microbes and it's chemical
> composition should be good enough. It may be wise to boil the
> water for 30 minutes and cool it down before you add it to your
> beer.

Watch for chlorine, too. This is one of the main advantages to bringing
the water to a boil. Or, carbon filter it, but I would still get the
water up to 160-170F at least.

Good brewing,
Jim Busch

Date: Wed, 29 Dec 93 10:43:43 -0500
From: steve@Pentagon-EMH6.army.mil (Steve Lichtenberg x79300)
Subject: high gravity ferments

Hi all--

I have a couple of comments and a question or two.

For each of my last two brews, I have been experimenting with getting two different beers out of each batch. I recently made an upgrade to my set up that allows me to brew 10-15 gallon batches. This has proven to be fantastic as the difference in the amount of work required to brew a 5 gallon batch and a 10 gallon batch is practically nil.

I have been brewing fairly high gravity batches (1.080++) and either diluting part of it to 1040 -1050 before or after fermentation. I am beginning to believe that doing high gravity boils and high gravity ferments causes some nice things to happen to my beer. There are some down sides as well (hop utilization is poorer so you have to use a lot ; -))

but the positives make it worth the effort. I can ferment in one vessel instead of having many carboys bubbling away all over the house. (very important with a wife that is scared of big glass carboys, two kids running

around and assorted pets). IMHO this makes for a smoother beer and I can

play around with different tastes. I split the strong beer into two kegs

one full strength and the other diluted with one or two gallons of boiled

and cooled water. Since the flavor of the diluted beer is spread out further, I can experiment with adding spices or dry hops to gain additional

flavor. This has worked out well for me and I am probably going to make it SOP.

Now, on to my questions.

While mashing last night, I had a small problem with grains sticking and scorching to the bottom of my pot. What does anyone do to help prevent this. Of course, the obvious turning down the heat and stirring more frequently will help but if I turn down the heat too far I will be heating water till next week (kitchen stoves are not very good heat sources

Oh for a commercial stove :<(and more frequent stirring is difficult due to other demands on my time ;newborns do that) . Also what is the best method for removing that burnt material from the bottom of the pot TSP and a Scotch BRITE pad worked but with a lot of scrubbing.

Second, I recently purchased a 50 pound bag of diatomaceous earth (supposed

to be good for keeping ants and slugs out of the garden) I doubt I will be using all of this for pest control and would like to explore using it as a base for a filter. Is Plain Jane DE of sufficient consistency to be used in this fashion? If so does anyone have any plans for building/maintaining a DE filter?

TIA for any help in this matter.

[disclaim.i]

--S

Steven Lichtenberg

Senior Programmer

Datanamics, Inc

1E247 The Pentagon

Washington, DC

ENJOY LIFE-- THIS IS NOT A REHEARSAL

Date: Wed, 29 Dec 1993 08:54:50 PST
From: Thomas_Tills.Henr801h@xerox.com
Subject: re:chiller efficiencies ad nauseum

>I see a lot of equations and design theory being tossed around and my
>gut reaction is: So what? I probably use more water taking a shower than
I
>do chilling my beer. And I only use water out of the cold water tap for
the
snip
>Or is this a case of overdesign for the sake of overdesign?

Believe it or not, there are parts of this country and in the world that
are in
an almost perpetual state of drought(sp?, as in really dry, not as in
kegged
beer). Even if water is abundant, clean drinkable water has probably
gone
through a lot of processing to make it that way. It seems a shame to put
clean
drinkable water down the drain, to mix with all the other sewage, just
because
we have added heat to it. If we could capture it and re-use it for some
other
purpose, or waste less of it, we have achieved something, if not just a
little
self-ritious smugness that we are doing a small part in conserving
resources.

Remember, Detroit had the same attitude toward designing cars, now look
at the
mess we/they are in.

Thomas N. Tills
Programmer/Analyst

disclaimer: these opinions are my own...

Date: Wed, 29 Dec 93 09:01:00 PST
From: Patrick Seymour <seymour@ucs.ubc.ca>
Subject: Bottles

Many of the local homebrew shops here in Vancouver, BC sell plastic beer bottles in 1 and 1/2litre sizes. Some are a green (Mountain Dew-type bottle), and others are a brown long neck stlye. Both use a plastic screw top.

After emptying a bottle, I rinse & air dry, but before bottling, I rinse again with a weak iodine & water solution. Although I have used lables which I've produced via PC & laser printer, I prefer the wine-tag (the type

that fits over the bottleneck) labels.

I highly recommend this type of bottle! I've never had an infected bottle,

they hold carbon & flavor and travelled well when I sent them as XMas presents.

I wonder though ? I've never kept a bottle around for more than 5 months,

these may not store beer as well as glass bottles.

The plastic bottles are affected by altitude - evidenced by my foamy lunchtime treat when skiing.

- Cheerio

Date: Wed, 29 Dec 93 09:17:39 TZ
From: Darryl Richman <darrylri@microsoft.com>
Subject: re: PH Meters and Water

Tom Clifton <0002419419@mcimail.com> writes:
> > Since the tap water here in the Phoenix area is so "interesting" -
PH
> > about
> > 8.0, very hard, Ca, Fe, Mg, Benzene, TCE
> ^^^^^^^^ ^^^
> ACK! Phoeel!
>
> You can get rid of the PH problem by boiling your water with
> gypsum. I think this may also reduce the magnesium (Mg) some
> which can help with the bitterness in your Black beers. If you
> are doing all grain, the high PH is definantly a problem as it
> causes excessive extraction of tannins from the grain husks.

The pH of the water may or may not be a problem. The hardness has no relation to this, but rather, the alkalinity is what's important. You cannot tell if the pH of the water will affect the pH of the mash without having a handle on the alkalinity.

For black beers, you DO want a high alkalinity water because these grains are very acidic and can counter the buffering power in a high alkalinity water. If you check water profiles, you will find that the world's dark beers all originate in locales with highly carbonate (high alkalinity) water.

One comment about using high alkalinity waters: they drastically increase hop utilization, and not in a pleasant way. They will produce a very harsh bitterness when the hopping rate goes above an estimated 30 IBUs.

To tell if your mash is reacting well to your water, CHECK THE PH OF THE *MASH*. If it's within 5.0-5.5, RDWHAHB. If it's not, consider adjusting it into this range: use CaCO3 if it's too low, use CaCl2 or CaSO4 if it's too high. (This is a bit simpleminded, but this issue is brought up so often that it needs a simple solution that is 95% right.)

--Darryl Richman

Date: Wed, 29 Dec 93 10:21:00 MST
From: Jeff Benjamin <benji@hpfcbg.fc.hp.com>
Subject: Re: Extraction/Returnables/etc.

Chuck Mryglot (cmryglot@disney.CV.COM) asks:

> Does any one get 30 - 35 pts/lb/gal?

Yes. I use a stove-top masher, a 10-gal stainless stock pot with a copper manifold, and do a 3-stage temperature step mash (122F, 150-156F, and 170F). My yields are consistently 30 pts/lb/gal or slightly higher. Sparge rate and recirculation are always a hot topic on HBD, so I can only speak from personal experience, but I do very little recirculating and my sparge only last 20 minutes, so obviously one can get good extraction with short sparge times. BTW, I sparge with "standard" 170F water.

You may want to try "continuous" sparging rather than "batch" sparging. Someone posted a good explanation for this a while back. I can't seem to find the original reference, so I'll quote JS who paraphrased the argument pretty well (no wise cracks, please :-):

It has to do with the gradual dilution effect and that the grain is always meeting up with a differential between it's remaining sugar and the dissolved sugar in the sparge water. The greater this differential is, the more sugar will be removed.

It is also easy to see that in the last batch, after stirring the water and mash, the whole liquid will arrive at some gravity. When the liquid is drained, the liquid held by the grain will be that gravity and that sugar is Lost.

Other variables are your sparge water temp, sparge water acidity, grain bed configuration, etc. I've never messed with these so I'll let others comment on that.

On the subject of reusable bottles, Stephen P Klump <sklump@magnus.acs.ohio-state.edu> writes:

> Bar bottles are excellent for homebrewing
> One drawback, is that the labels are tough to remove compared
> to the "no refill" variety.

I have to disagree with this statement. Not all refillables have hard-to-remove labels. In fact, you would think that the brewer would want easy-to-remove labels themselves.

If you get Huber in you neck of the woods, get a couple of empty cases. The labels soak off after 5 min in hot water. No ammonia, no scrubbing. They just float off of their own accord. I'm sure there are other brands of beer that have labels that behave similarly.

Jonathan G Knight <KNIGHTJ@AC.GRIN.EDU> asks about high terminal gravities:

> I seem to have chronically high terminal gravities, usually around the
> low-to-mid teens.

May I suggest that "low-to-mid teens" isn't really all that high for a terminal gravity. I will admit that I probably under aerate, pitch too

little yeast, etc., but I find my beers often finish at 1.012 - 1.015 or so with no ill affects; they don't seem particularly sweet or have any tendencies to overcarbonate. I don't have any data to back me up, but I think that a beer that finished much below 1.010 might have sweet/bitter balance problems just like a beer that finished too high. Does anyone out there have a list of *finishing* gravities for commercial brews?

- - -

Jeff Benjamin benji@hpfcla.fc.hp.com

Hewlett Packard Co.Fort Collins, Colorado

"Midnight shakes the memory as a madman shakes a dead geranium."

- T.S. Eliot

Date: Wed, 29 Dec 93 09:58:57 EST
From: <JMO01%ALBNYDH2.bitnet@UACSC2.ALBANY.EDU>
Subject: Holiday Cheer

During the XMAS weekend, I decided it was time to crack open a bottle of "young" Holiday Cheer. Recalling a recent posting on this Papazian recipe, I halved the amount of ginger root used, hoping that the brew would not take on that soapy after taste. Well, the ginger flavor is still very noticeable, maybe a little too much. Will the aging help to mellow the ginger's effect? Have any other subscribers had similiar experiences with the recipe?

Date: Wed, 29 Dec 1993 09:47:12 -0800 (PST)
From: gummitch@teleport.com (Jeff Frane)
Subject: Re: dishwashers, etc

Hey! How come Norm Pyle can submit an article with lines greater than 80 chars in length, and when I respond to it, my article gets bounced! NO FAIR!

So here we go again:

I missed the originally posted query about using a dishwasher for sterilization of bottles, but caught two responses. I have to weigh in in opposition to this concept, for several reasons.

When I first started brewing, I used the dishwasher and discovered several problems:

1. No way of knowing how hot the dishwasher actually got -- so no way of knowing whether heat alone would sanitize my bottles.
2. I added sterilant to the water (poured bleach into the dishwasher before turning it on) -- but there's no way to determine whether it really gets sprayed up into the bottles. Probably not.
3. The damn dishwasher wouldn't hold enough bottles for a complete five-gallon batch.
4. The dishwasher needed to be run first, because it always had dirty dishes in it.
5. The bottles needed to be run through the dishwasher and kept in the dishwasher until it was time to bottle. Not very convenient.

Believe me, I **hated** bottling in those days.

But -- absolutely free!!! the miracle solution!!! (theory courtesy of WYeast's Dave Logsdon, practice courtesy of 7-8 years of bottling): USE THE OVEN!!!!!!

I've found the best way to preserve sanity in bottling is to isolate the phases.

Phase 1: Clean bottles. This may require de-labeling, although after a few years you'll build up quite a supply (especially if you run a competition --additional FREE TIP!). Soak the bottles in TSP and water; a rubber trashcan works great. (ANOTHER FREE TIP: change the water periodically and do not leave the nasty bottles soaking for weeks on end. You will get some truly disgusting things growing in the water, especially if you followed the previous FREE TIP and added bottles from a competition. Some of those people grow some really weird stuff in their bottles.)

Rinse well inside and out (Jet bottle washer a handy gadget!). Put 'em away.

Phase 2: Sanitize bottles. Take each clean bottle and wrap a little piece of aluminum foil over the mouth. Put the bottles in a cold oven, turn to 350F and bake for 90 minutes. Let the bottles cool, remove and put 'em away in cases.

Phase 3: Bottle.

See? This way you're never doing all three phases at once, each one takes a very short time, and you never burn out. I bottle five gallons in something under an hour these days and never stress out. Although I keg a lot of my beers, being able to bottle this easily means the basement stays well stocked, and I have portable beer for visits, competitions, or to send to friends.

And to answer to question that always comes up: NO! The oven doesn't break the bottles. I've bottled literally hundreds of gallons of beer with this method, and I have *never* lost a bottle to heat exhaustion.

Norm Pyle writes: (but I had to chop it out because his lines were TOO DAMN LONG!!!!)

>

While I agree with Norm wholeheartedly that Special B is fantastic malt (but a whole pound, Norm!? whew!) I don't think it's a substitute for chocolate malt. It doesn't have the nuttiness of chocolate malt, and it does have that sweetness -- which isn't always the idea. Additionally, a number of people have discovered that using a big chunk of Special B adds a peculiar flavor to their beer, something that might be described as "raisin-y". I've discovered that 1/4 pound or so adds a nice round note and good color without that funny taste.

I notice that Norm says "American" chocolate malt. I didn't even know there *was* an American version, but I wouldn't touch the stuff either. The American black malt is useless, and I can't believe the chocolate malt is any better. British chocolate malt, however, is every bit as wonderful as Special B -- just different.

I inadvertently chopped out a query about bringing five gallon batches to a boil, so can't properly credit it. But, I will say from many years of experience that a big gas cooker is no different than a big gas stove. True, it produces more heat (which does help!), but I've never found myself gasping for air when I use mine. Of course, the houses may not be airtight... but I believe the problem is using charcoal briquets -- that's what kills people. On the other hand, I've never heard of anyone brewing on a barbeque, either.

--Jeff

Date: Wed, 29 Dec 93 13:17:40 EST
From: "Anton Verhulst" <verhulst@zk3.dec.com>
Subject: pump sources?

Lifting 10 gallon batches has gotten to be a bit of a pain :-) for me and I'm not quite ready to set up a gravity system and drill holes for spigots in my SS pots just yet. I'd like to get an electric pump in the 5 to 10 gallon per minute range to move hot wort and sparge water around. Does any one have reccomendations and/or sources? Several months ago some one mentioned WW Grainger as a possible source but provided no address or phone number. Thanx.

- --Tony Verhulst

Date: Wed, 29 Dec 93 12:01:45 PST
From: "Victor Grigorieff" <VGRIGORI@us.oracle.com>
Subject: Ideas on fermenter heaters for mead making?

Hello all,

I live in the San Francisco Bay area, and have no trouble making ales and lagers in my cellar (about 55 degrees). I am about to emabrk on mead-making which (as I understand it) requires temperatures of 80 to 85 degrees.

Does anyone out there know of some sort of heater for a fermenter? I assume it would either be a band which wrapped around the fermenter or something the fermenter would sit on top of. I use glass carboys as well as plastic siphonless fermenters.

Any help is greatly appreciated.

- Vic

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+-----+  
| Victor Grigorieff |  
| vgrigori@us.oracle.com |  
+-----+
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Date: Wed, 29 Dec 93 10:45:26 -0500
From: Philip J Difalco <sxupjd@fnma.COM>
Subject: Propane Burner Question

For those of you that use (high BTU) propane burners:
Do any of you use them in your house (indoors)?
If you use them indoors, How do you vent them?
If you use them outdoors, what is your set-up like?

Thanks

Date: Wed, 29 Dec 93 16:32:33 -0500
From: djt2@po.cwru.edu (Dennis J. Templeton)
Subject: Stainless steel screen

A couple of folks have sought a source for stainless steel screen.

I have a surplus catalog from Amer. Science. Surplus (in Chicago-Skokie) phone (708) 982-0870.

They list a Stainless screen part that is "1/16 inch grid... rolled into a tube 2-3/16" diameter by 4-1/4" long with a single seam. Cutting down the seam gives 7+" x 4-1/4" flat piece." The price is \$2.00 per pack of 6 and the item # is 10652, stainless filter screen. Their bimonthly catalog is a hoot and has some actually useful stuff like pipettes and flasks, as well as stuff like fake vomit.

have fun,
dennis

Date: Wed, 29 Dec 93 17:03:22 CST
From: Mike Westra <root@hpuspma.stpaul.msr.hp.com>
Subject: Sam Adams Taste-Alike

Greetings...

I know there has been a lot of Sam Adams bashing going on, but I love the taste. I would love to brew a Sam Adams Taste-Alike so I wouldn't have to buy it anymore.

Does anybody have a good extract/specialty grain recipe (I haven't attempted all-grain brewing yet) for a Sam Adams clone?? I have checked the "cat's meow ed2" and found only 1 recipe that calls for a Cooper's Ale kit and only Saaz hops. I have a lagering fridge and would love to go for the gusto... but any recipes would be greatly appreciated.

Thanks and cheers,
Mike Westra
HP-St.Paul

Please reply to: mwestra@stpaul.msr.hp.com -or- to the Digest

Date: 29 Dec 1993 15:00:15 PST
From: "JSDAWS1@PROFSSR" <JSDAWS1@PB1.PacBell.COM>
Subject: belgian double

*** Resending note of 12/29/93 14:57
To: HOMNEBRE--PB1

SUBJECT: belgian double
I've decided to brew a double, which I've never attempted, and I've seen very few recipes for all-grain. With the recent introduction of belgian malts in the bay-area I've decided to go for it... But first I got questions:

1. I'm planning a 5-gal batch with a total grain bill of 14 lbs, hoping for an SG of 1075. Is this appropriate for a double.
2. Can I substitute 9-10 lbs two-row for belgian pale malt. Is there a unique character to belgian pale malt that makes it inherently better.
3. planning on 1 lb each of 'aromatic' and special-B too much/too little ?
4. Is candi sugar, or some other sugar, really needed for this style ?
5. should I assume extended aging time similar to that required for barleywine

I'm using the Wyeast abbey ale strain and hallertauer hop pellets, mostly at the start of the boil.

Advice & suggestions greatly appreciated. Prost

| Don't anthropomorphize computers... They don't like it. |

| JACK DAWSON - JSDAWS1 - 415 545-0299 - CUSTOMER BILLING (BG) |

Date: Thu, 30 Dec 93 00:19:40 EST
From: William Furnish <fw26828@lawmail.law.columbia.edu>
Subject: Boilovers

Just subscribed to the digest and have already gotten many great ideas/hints to refine my (admittedly) rough brewing process. I thought I'd pass a tip along, directed especially to those who are somewhat new in this art (as I am).

The best way I've found to prevent your wort from boiling over is to keep an eye on it until it just starts to rise. As it is rising, take the pot off the heat until it returns to its original level. You can then put it back on without fear of another boilover. Really does work.

Disclaimer: the author assumes no liability nor makes any warranties, express or implied, as to the information in this article. ;)

William Furnish
Columbia University Law School
"If you enjoy sausage and respect the law, you should avoid watching either one being made."

End of HOMEBREW Digest #1311, 12/30/93

Date: Thu, 30 Dec 93 08:04:42 EST
From: fingerle@NADC.NADC.NAVY.MIL (J. Fingerle)
Subject: Cleaning bottles

I just saw Jeff Frane's comments on bottle washing and I just want to say RIGHT ON. Sanitizing in the oven is simple, quick, and for me after 24 batches, trouble free (knock on wood.) However, I'd like to add a couple of points.

1. Bottling will be very much more enjoyable if, every time you finish a brew you RINSE out the bottle in preparation for the next use. Don't let the beasties grow, and don't let the yeast sediment solidify.

2. When I need to bottle, I use a jet washer (my apologies if that's a TM) to thoroughly rinse a bottle with hot tap water. I let it drain, in the strainer, then put the bottle in the oven.

At this point, Jeff put aluminum foil over the mouth of each bottle. I don't know why. Jeff...?

The purpose of the jet washer is really to remove dust and whatnot. The purpose of the heat in the oven is to kill off the beasties.

3. I then fill the oven with about 50 bottles, start the temp at the minimum, and slowly raise it to 300F over the course of an hour.

4. If I want to bottle immediately, I crack the oven door for ~15 mins. Normally, I bottle the next morning, so I just let the oven cool down naturally.

On the subject of bottles-I have Miller, Lite, Bud, and Bud Lite returnable bottles, and a host of disposable ones, from Sam Adams, Dock Street, New Amsterdam, Watney's, Bass, etc. The ONLY bottles I've ever had problems with are Guinness'. Those suckers cracked during bottling.

I recommend, however, that you pick up several cases of EMPTY Miller Lite returnable bottles from your beer distributor. Why? Well they are brown, sturdy, and the wax box they come in has a two piece lid that hangs outside the perimeter of the top of the box which gives extra support. For me, each case cost \$1.50 for a deposit.

Hope this helps someone out there.
Jimmy

Date:Thu, 30 Dec 93 08:36 EST
From: <GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU>
Subject: Dos Equis

I need a good extract recipe for the commercial brew Dos Equis. I
need to make a batch as a present.

Andrew Pastuszak
Philadelphia, PA

Date: Thu, 30 Dec 93 08:01:44 CST
From: pmiller@mmm.com (Philip . Miller)
Subject: Freezing PET bottles for chilling

Someone wrote about a nifty tip from Zymurgy about freezing PET bottles of water to dump in your wort to chill. I thought this was a good idea too when I first read about it. My only concern is that when you take the bottles from the freezer and put them in your sterilant to sanitize, won't they freeze a thin layer of around the outside of the plastic which will then be transferred to your wort? Has anybody ever tried this?

Phil

Date: Thu, 30 Dec 93 09:31:37 EST
From: Mark A. Stevens <stevens@stsci.edu>
Subject: Re: dishwashers, etc

In Homebrew Digest #1311, Jeff Frane (gummitch@teleport.com) pointed out several problems that he sees with using a dishwasher to sanitize bottles,
and suggested using an oven set at 350.

I've been using the dishwasher technique for the last couple years, and haven't really had a problem, but Jeff's post has me thinking that maybe this is more luck than anything else because, as he pointed out, there is no way to know if any sterilizer got sprayed up inside the bottles and there's no way of knowing how hot the dishwasher gets.

The oven idea is certainly an interesting alternative, but I'm worried about the ability of glass bottles to withstand the heat of an oven. Shouldn't glass be tempered in some way if you're going to put it in an oven? Can beer bottles really withstand the heat of an oven? I suppose this is worth trying, I just don't want to have to pick shards of glass out of my oven later ;-)

Prosit!
Mark

Date: Thu, 30 Dec 93 09:56:28 EST
From: ht6141@usma6.USMA.EDU (Creamer TJ CPT)
Subject: San Diego Micros?

Happy Holidays to y'all!

Forgive the quick request, but are there any recommendable micro
breweries in
San Diego worth mentioning?

I am going out there 2-9Jan, and would love to visit as many as I can.
Thanks for the info in advance.

Happy New Year!

TJ
ht6141@usma6.usma.edu

Date: Thu, 30 Dec 93 10:31:10 -0800
From: Jack Tavares <tavares@ctron.com>
Subject: Kegging Questions?

Greetings!

My Christmas wish was granted and I received a keggling system. CO2 tank, regulator, pressure gauge, 5 gal "soka" keg etc etc.

Now I have a batch in primary fermentation and I was wondering:

1. Should I carbonate with corn sugar/DME or with the CO2?

Papazian's book mentions using DME/corn sugar and the literature i got with the keggling system says to use the CO2?

What have people found to be the best/easiest?

2. Are there gizmos available to allow me to hook up two kegs at once for conditioning/serving?

Date: Thu, 30 Dec 1993 9:42:20 -0600 (CST)
From: EVANS@smsd.jsc.nasa.gov
Subject: RE: oven bottle cleaning / pumps

Hello,

A couple of questions and responses:

Jeff Frane writes:

Rinse well inside and out (Jet bottle washer a handy gadget!). Put 'em away.

Phase 2: Sanitize bottles. Take each clean bottle and wrap a little piece of aluminum foil over the mouth. Put the bottles in a cold oven, turn to 350F and bake for 90 minutes. Let the bottles cool, remove and put 'em away in cases.

I've seen this mentioned before and I think I'll probably try it next time.

Seeing as that I don't necessarily want to sterilize the bottles, what is the minimum temperature and time requirements be? 200F for 30 minutes? 350F for 90 minutes seems to be a little bit of overkill :-)

Second,

Anton Verhulst writes:

Lifting 10 gallon batches has gotten to be a bit of a pain :-) for me and I'm not quite ready to set up a gravity system and drill holes for spigots in my SS pots just yet. I'd like to get an electric pump in the 5 to 10 gallon per minute range to move hot wort and sparge water around. Does any one have recommendations and/or sources? Several months ago some one mentioned WW Grainger as a possible source but provided no address or phone number. Thanx.

You're welcome.

I looked through my McMaster-Carr catalog (#99) and on page 1358, they list a drill-powered liquid pump for \$26.58. It claims to deliver 6 gpm at 2400 rpm off a 1/4" or larger drill. It has a neoprene impeller housed inside a nylon housing with a stainless steel shaft. It looks like it would do the trick nicely. It's small and looks like it's capable of doing what you want. Since McMaster Carr catalogs are not easy to get, here's the info:

McMaster Carr
P.O. Box 4355
Chicago, IL 60680-4355
(708) 834-9427

Item number 4275
Oops, hit return too soon, Item # 4275K1

Standard Disclaimer applies although we do order quite a bit from them
and are
happy with them 8-)

Hope this helps,

Chris Evans

Date: Thu, 30 Dec 1993 10:50:57 -0500
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Medicinal tastes and chlorine

I recently brewed an all-grain oatmeal stout that turned out so medicinal tasting and smelling (phenolic?) as to be completely undrinkable. The recipe was:

8 lbs Klages
1 lb oatmeal
1/4 lb roasted barley
1/2 lb chocolate malt
1 lb crystal malt
1.5 oz Willamette
Wyeast 1084 from 1 quart starter

OG=1.056 FG=1.013

The intensity of the flavor leads me to the conclusion that it is due to either chlorophenols or an infection. I surmise two possible sources of chlorine: (1) inadequate rinsing of bottles and/or fermentor after sanitizing with bleach or (2) a high concentration of chlorine in my tap water. Our town just opening a new water softening plant a couple of weeks

before I started this batch, and the water has a slight chlorine odor. I spoke with the water dept people and they said the water has a chlorine residual of 1.5 mg/L, which they have increased from the normal 0.5 mg/L in order to "clean out" the new plant. Could this level of residual chlorine account for my strong medicinal taste? For my current batch I used an activated charcoal filter AND preboiled to remove the chlorine.

Can an infection result in a such a very strong medicinal taste and odor? The bottles do have a small ring at the liquid level which I haven't seen in my other beers, but the beer does not taste sour.

Thanks for any comments.

Steve Zabarnick

Date: Thu, 30 Dec 93 10:50:14 EST
From: cjh@diaspar.HQ.ileaf.com (Chip Hitchcock)
Subject: sanitizers and septic tanks

A friend who now lives in the semi-wilds of Maine (40 miles from Portland is hardly wild) is worried-about/running-into septic tank problems from bleach used to sanitize his brewing equipment. Is this a plausible worry at canonical levels (which define: 1 tbp, 1 oz, 1/4 cup, ... per 5 gallons?)
)
(There were comments on this some time ago but I don't have access to them.)
Are B-Brite and/or iodophor (a) as effective, (b) friendlier to septic-tank bacteria at canonical levels (again which define---and does iodophor degrade on its own or should it be rinsed out?). Please reply to cjh@ileaf.com; I'll summarize and post if I get anything.

Date: Thu, 30 Dec 93 08:07 PST
From: jdg00@juts.ccc.amdahl.com (Josh Grosse)
Subject: "Beer Sphere" plastic keg review

In today's HBD there was a question about this product, and I recall there was another question about it a week or two ago. I own one.

Plastic kegs, from Edme or Hamilton Bard, are for making cask conditioned ales. They have valves that keep the pressure at approximately 11 PSI or lower. This is so you don't have to have a series of soft and hard pegs to manage the conditioning. It will either be at 11 PSI or softer.

The HB Beer Sphere differs from the Edme products, because it has a floating pickup. This prevents picking up any sediment until you reach the bottom. The Edme kegs work well for parties, where the first few pints are cloudy, after that they run clear. If you want a pint or two every day, the Sphere is the better choice.

The CO2 does not carbonate the beer, it merely provides enough positive pressure to allow beer to flow. I recommend that you use one cartridge at kegging time to flush air from the keg. (Cap, fire a cartridge, loosen cap to force the air out, tighten.) Cartridges won't be necessary if you're taking a pint or two a day, only when you're serving a lot of beer.

Due to sediment, these kegs do NOT travel well. If you transport the keg, your beer will not be drinkable for several days. It doesn't make a good "take to a party" keg.

=====
Josh Grosse jdg00@amail.amdahl.com
 jdg00@juts.ccc.amdahl.com

Date: Thu, 30 Dec 93 11:46:00 EST

From: mattb18591@aol.com

Subject: Re: #2(2) Homebrew Digest #1311 (December 30, 1993)

Please discontinue my subscription(?) to the Homebrew Digest. I have an account on the Net through my school and will be getting there from now on...

Thanks, Matt

Date: Thu, 30 Dec 1993 10:49:33 -0500
From: steve@snake.appl.wpafb.af.mil (Steve Zabarnick)
Subject: Medicinal tastes and chlorine

I recently brewed an all-grain oatmeal stout that turned out so medicinal tasting and smelling (phenolic?) as to be completely undrinkable. The recipe was:

8 lbs Klages
1 lb oatmeal
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The intensity of the flavor leads me to the conclusion that it is due to either chlorophenols or an infection. I surmise two possible sources of chlorine: (1) inadequate rinsing of bottles and/or fermentor after sanitizing with bleach or (2) a high concentration of chlorine in my tap water. Our town just opening a new water softening plant a couple of weeks

before I started this batch, and the water has a slight chlorine odor. I spoke with the water dept people and they said the water has a chlorine residual of 1.5 mg/L, which they have increased from the normal 0.5 mg/L in order to "clean out" the new plant. Could this level of residual chlorine account for my strong medicinal taste? For my current batch I used an activated charcoal filter AND preboiled to remove the chlorine.

Can an infection result in a such a very strong medicinal taste and odor? The bottles do have a small ring at the liquid level which I haven't seen in my other beers, but the beer does not taste sour.

Thanks for any comments.

Steve Zabarnick

Date: Thu, 30 Dec 93 11:59 EST
From: Tom Clifton <0002419419@mcimail.com>
Subject: Water Composition

Out of curiosity, I called my local City Water Department and inquired about the composition of the water here in Kirkwood, MO. The water here comes from deep wells in the Meramec River Valley, unlike the rest of St. Louis County which uses water from the Missouri River. The numbers were given to me as Milligrams per Liter which is the same as PPM (?).

| | |
|-----------|----|
| Calcium | 51 |
| Sulfates | 59 |
| Magnesium | 56 |
| Sodium | 35 |
| Chloride | 58 |

Any of you water guru's out there have any comments or suggestions on what if any treatment I should use? I am an extract brewer, and stick pretty much to Pilsners / Munich Light etc.

Tom

Date: 30 Dec 1993 17:07:56 GMT
From: George_Leonard@brown.edu (George H. Leonard)
Subject: Supply Store?

I am new to the area and wonder if anyone knows of a good shop for supplies located in the Providence or south Boston region. Specifically, a place that treats their hops as they should and carries high quality liquid yeast. Anybody have any suggestions?

George_Leonard@brown.edu

Date: 30 Dec 93 10:35:26 MST (Thu)
From: rcd@raven.eklektix.com (Dick Dunn)
Subject: re: Ideas on fermenter heaters for mead making?

Victor Grigorieff (vgrigori@us.oracle.com) writes:
> I live in the San Francisco Bay area, and have no trouble making ales
and
> lagers in my cellar (about 55 degrees). I am about to emabrk on mead-
making
> which (as I understand it) requires temperatures of 80 to 85 degrees.
[question about heating fermenter]

The direct answer is that yes, there are heaters for fermenters--they
strap
around the center of the fermenter like a belt. (Painful reminder to
some
of us, of our own carboy-like physiques:)]

But more to the point: You don't need to be fermenting mead at anything
like 80-85 degrees! It would probably give you fast fermentation, and
yes,
mead fermentation is sometimes very slow...but yeast at that temperature
will produce off-tastes in mead just as they would in beer. Don't try to
compensate for a naturally bucolic pace of fermentation by forcing it
with
higher temperature.

Personally, I'd aim for perhaps 75 F to get the fermentation started
quickly, then try to keep it around 70 F. Treat the yeast right; give
them something to eat; don't make them work in a sweatshop...and they'll
do a good job for you.

Mead can be an exercise in patience.

Dick Dunn rcd@eklektix.com -or- raven!rcd Boulder, Colorado USA
...Simpler is better.

Date: Thu, 30 Dec 93 09:36:27 -0800
From: Drew Lynch <drew@chronologic.com>
Subject: Re: full volume boils?

>>>> On Wed, 29 Dec 93 09:06:50 EST, asteinm@pipeline.com (Art Steinmetz) said:

> how does one get all that water boiling in a single
Art> lifetime?

Art> That's an easy one. Buy that cajun cooker (note how
Art> application of money solves yet another homebrew problem
Art> :-)) They go under various names like Cajun Cooker, King

When looking at these large scale flamethrowers, look for the ones with about 16 individual flames, not a single jet engine. They produce a little less heat (150,000 vs 185,000Btu) but I doubt you could tell the difference. Where the difference really comes in is when it's already boiling, and you want to attempt a simmer. The single flame types have a really hard time with adjustability, and are very gas inefficient at lower settings.

Art> "Military thrust." Outdoor use preferred. The don't
^^^^^^^^^^
Required!

Drew Lynch
Chronologic Simulation, Los Altos, Ca.
(415)965-3312x18
drew@chronologic.com

Date: Thu, 30 Dec 1993 11:15:52 -0600 (CST)
From: Allen Ford <allen@darwin.sfbr.org>
Subject: Wort pumps

Tony Verhulst asked about pumps from WW Grainger.

WW Grainger is indeed a good source. They probably have a location near you, wherever that is. Call them at 800-323-0620.

The pumps you should consider are hot water circulator pumps.

Stock no. 1P760, 1/100 HP, 115V, 1700 RPM motor is the one I use on my Pico Brewing Systems 1/2 bbl setup. It is the one they sell with it. I find it quite adequate for the job. List \$105.61, wholesale \$68.48.

Stock no. 1P956, 1/25 HP, 115V, 3400 RPM motor is one you might want to consider. List \$117.80, wholesale \$76.42.

Both of the above pumps are manufactured by Teel and feature bronze pump body, ryton impeller, stainless steel impeller housing and shaft. They have 1/2" NPT threads on both inlet and outlet. I have added hose fittings to mine so that they can be easily installed and removed.

I recommend that you use two pumps--one for hot liquor and one for wort. This way you can pump sparge water in at the same time that you are pumping sweet wort out. An added benefit is that you have a backup in case one fails. I have had zero problems with these pumps through seven batches. Be sure to run hot water through the wort pump to flush it out when you are finished.

When using pumps to move hot wort around, aeration is always a concern. As long as I am careful and fill all hoses with liquid before I start pumping, I see no evidence that these pumps cause significant aeration.

Hope this helps.

+-----+
-----+
| Allen L. Ford Internet:allen@darwin.sfbr.org |
| Department of GeneticsPhone:(210)674-1410 Ext.239 |
| Southwest Foundation for Biomedical ResearchFax:(210)670-3316 |
| P.O. Box 28147 |
| San Antonio, TX 78228, USA |
+-----+
-----+

Date: Thu, 30 Dec 93 11:09:03 -0800
From: Drew Lynch <drew@chronologic.com>
Subject: Re: Holiday Cheer

JMO01> During the XMAS weekend, I decided it was time to crack
JMO01> open a bottle of "young" Holiday Cheer. Recalling a
JMO01> recent posting on this Papazian recipe, I halved the
JMO01> amount of ginger root used, hoping that the brew would
JMO01> not take on that soapy after taste. Well, the ginger
JMO01> flavor is still very noticeable, maybe a little too
JMO01> much. Will the aging help to mellow the ginger's
JMO01> effect? Have any other subscribers had similiar
JMO01> experiences with the recipe?

A month or so ago I posted, about my version of the Papzian recipe:

> Spice: 4 ounces coarsely chopped ginger, added 5 minutes prior to end
> of boil.
>
> Result: Walloping fresh ginger taste - too much. I think this is the
> correct boil time for ginger, but I would reduce the amount to
> 1-2 oz.

I got a few replies suggesting I use a little of something I have in short supply, patience :-). As I now work for a startup with a number of employees less than the number of bottles produced by a 5 gallon batch, I actually got to drink some of my own Christmas brew on Christmas! I can now confirm that wise recommendation. This is absolutely the best Christmas Ale I've ever made. It also helped that I made it early enough that it had matured by Christmas. I expect the last couple of six packs to dissapear on New Years :-). Bottom Line: I will not reduce the amount of ginger next year, and will brew early for Christmas again!

Happy New Year!

Drew Lynch
Chronologic Simulation, Los Altos, Ca.
(415)965-3312x18
drew@chronologic.com

Date: Thu, 30 Dec 93 15:52:28 EST
From: asteinm@pipeline.com (Art Steinmetz)
Subject: Major into micro (was re Koch/etc.)

> ...can anyone confirm a rumor I heard...that Miller's will
be test-marketing >a stout?

Yes. This is from the Miller Reserve brand manager on
Compuserve:

#: 283576 S9/Beers & Breweries
29-Dec-93 17:44:59
Sb: #MR Velvet Stout
Fm: Jeffrey A. Kellar 73112,2062

Roger,

The stout is no hoax and a nice beer I believe (but then I
would). I will
take full responsibility for all aspects of the beer. But I
figured the best
way to create fast brewing credibility was to bring out a
stout. It will be
in market Feb. 1 just in time to pour a few half and halves with
MRAA. Besides
I have been wanting to brew a stout that is clearly a stout but
has
drinkability so we can bring more drinkers into the specialty
category.
I think our (my) Velvet Stout will do it.

Its an all barley recipe, and we are using the same ale yeast
as with MRAA.
Its hopped pretty heavy with cluster and cascade and has a
higher than
average carbonation level for a stout. But I am assessing
several levels and
may change before February. It is as with all the Reserve
brands a
nonpasteurized beer.

I am to say the least excited about it and the response it will
get. People
may find it to be a bit thin but analytically it stacks up quit
well against
Guinness. Drop me a note with other questions.

- --- end of repost ---

You can email Mr. Kellar directly at 73112.2062@compuserve.com

Date: Thu, 30 Dec 93 15:50:57 EST
From: Lee=A.=Menegoni@nectech.com
Subject: adding "creaminess" to beer / cleaning burnt stuff

RE: Creaminess like Watneys Cream Stout

I suspect the creaminess experienced in Watney's Cream Stout is the product of unfermentable complex dextrins in the beer which add to the body. One way of increasing the unfermentables/complex dextrins, particularly for extract brewers with no control over the dextrin content in the malt extract, is to add Malto-Dextrin powder. My understanding of this product is that it is an unfermentable complex dextrin which adds body but no taste to a beer.

RE: Removing Burnt stuff from bottom of mash kettle

I use a stainless steel version of the Chore Boy to scrub burnt stuff off the bottom of my brewing equipment, I call it a Kindda'EasyScrubber. I find that the stainless does a better job for scrubbing than a copper Chore Boy. I also find it is easier to clean the burnt stuff off after mashing, while sparging, than to let the stuff cool, dry and harden. I actually use them new as a filter ala Chore Boy when racking chilled wort, EasyFilter. I find that the stainless scrubby has more material in it and does a better job of filtering than the copper Chore Boy. When I replace the filter scrubber it becomes a clean up scrubber.

Date: Thu, 30 Dec 93 14:53:25 PST
From: bishop@magic.geol.ucsb.edu (Greg Bishop)
Subject: Ginger/reply to: Holiday Cheer

Someone wrote:

>During the XMAS weekend, I decided it was time to crack open a bottle
>of "young" Holiday Cheer. Recalling a recent posting on this Papazian
>recipe, I halved the amount of ginger root used, hoping that the brew
>would not take on that soapy after taste. Well, the ginger flavor is
>still very noticeable, maybe a little too much. Will the aging help to
>mellow the ginger's effect? Have any other subscribers had similiar
>experiences with the recipe?

I don't have experience with Papazian's recipe you mentioned. However,
ginger, like most spices, mellows with time. I brew a Honey-ginger beer
that in its infancy (2-3 weeks after bottling) has a very strong ginger
taste. After 2-3 months, the strength of the ginger is very nice. Allow
your beer to age a few months.

You mentioned a soapy aftertaste from the ginger. I have not experienced
that with my ginger beers. Please enlighten me.

Date: Thu, 30 Dec 93 13:17:45 EST
From: sdlsb.dnet!73410%sdicc@swlvx2.msdlcc.com (Carl Howes)
Subject: beer hunter psa / mega micro / mead

For those of you in New England who get WENH (New Hampshire PBS), they are running the Beer Hunter series on Wednesdays at 7:30 and Sundays at 3:30. One exception is next week since the Guv is preempting it. Sunday will be (mostly) about Anchor, or how a washing machine heir really cleaned up in the beer business. Seriously though, it's a good segment.

Now if you're still with me, Allan Janus (in #1311) asks if a Bud Kriek can be far off. I answer very far, since I heard a radio ad which represented A-Bs flagship product as flavorful! So while Miller seems to be making an effort to market beers with flavor, A-B is proclaiming the emperors new clothes with a bit of micro bashing thrown in. Heineken took the same approach in a recent radio campaign in the Boston area. Methinks the big players are getting nervous.

A question about mead. I racked my first mead to secondaries last night and, on drinking the hydrometer sample, found a nasty biting plastic flavor. I recall a comment made recently that off flavors are not unusual in young mead, but this off?

Happy Brew Year!

Carl

My opinions are mine, and my puns are intentional.

Date: Thu, 30 Dec 1993 18:15:00 -0500
From: tim_cardoza@wellfleet.com (Tim Cardoza)
Subject: clone requests

Does anyone have recipes for Pete's Wicked Winter Ale and Sam Smith's Winter Welcome Ale or any recipes that approximate these beers. My friends and I like these beers and would like to make our own. Extract based recipes needed as we haven't ventured into the unknown of all grain yet.

Private email is welcome.

Thanks,
Tim Cardoza
tcardoza@wellfleet.com

Date: Thu, 30 Dec 1993 18:09:48 -40975532 (CST)
From: "Mark S. Woods" <woodsman@genesis.Mcs.Com>
Subject: Holiday Cheer Results

I too brewed Holiday Cheer this fall, unfortunately I followed Papazian's recipe directly. This results in way too much ginger taste in the beer. However, I'm finding that the taste is starting to mellow after about a month in the bottle. I bottled this brew in both 12 oz bottles and in Grolsch 16 oz bottles. The Grolsch bottles are noticeably more drinkable while I find that the smaller bottles have a sort of rubbery taste (reminds me of those pink pearl erasers we used in grade school).

I'm hoping to get rid of the rest of this batch tomorrow night by forcing it on my neighbors.

Mark Woods

Date: Thu, 30 Dec 1993 18:15:51 -40975532 (CST)
From: "Mark S. Woods" <woodsman@genesis.Mcs.Com>
Subject: Sanitizing bottles in the oven

My brewpartner and I originally "baked" our bottles in the oven after washing them but found that many were breaking during when putting on caps. We thought, perhaps, that the oven heat was stressing the bottles making them more fragile (although we only ran the oven up to around 225)

.
We quit using the oven method and have had no breakage problems since then. Don't know if there is cause and effect here or not, just our experience.

Mark Woods

Date: Thu, 30 Dec 1993 18:21:49 -40975532 (CST)
From: "Mark S. Woods" <woodsman@genesis.Mcs.Com>
Subject: How to open a 15L keg?

My neighbor recently returned from Germany with a 15L keg of Krohmbacher Pils for us to enjoy over the holidays. He let me keep the keg to use for my homebrew. Can I use the keg? It has a fitting for a CO2 cartridge on top - are these standardized or will I have trouble finding a match here in the US? Does anybody know how I can open this up to clean and fill it? It has an opening on the side of the barrel about mid-way between each end. It is plugged with a cap that looks like it would require a wrench in the shape of a gear with eight square teeth to open. Where can I find one of these?

Thanks for any help you can offer.

Mark Woods

Date: Thu, 30 Dec 1993 18:12:49 -0600
From: shaver@hci.cirr.com (Dave Shaver)
Subject: Re: Dishwasher Bottles

y2046@hrpi16.DNET.hcc.com (Bruce) asks:
> I have been wondering if it would be acceptable to use my dishwasher
> to sterilize my bottles.

I've been using my dishwasher to clean bottles for over a year and it works great. The secret is to rinse the bottles just after they are emptied. Once I have decanted a homebrew, I immediately rinse the bottle and then ignore it until I'm ready to bottle the next batch.

When I'm ready to bottle a batch, I fill the dishwasher with bottles---I can get 52-54 bottles in it, so that's almost enough to bottle my six gallon batches. Before I load each bottle, I rinse the inside using a bottle washer with hot water. I then put my dishwasher on the longest setting with heated drying and put in about 1 tbl bleach. NOTE: There is no soap. I run the bottles, let them dry via the heat cycle, then run them again on a short cycle with no bleach or soap. I let the bottles dry again via the heat cycle, then let them cool. I don't open the door of the dishwasher until the moment I'm ready to begin filling the bottles.

I fill the bottles over the dishwasher door as I pull each bottle out. This keeps the spilled beer on the door of the dishwasher. When I'm done bottling, I put in the gear I want washed and run the dishwasher with soap on a short cycle. This cleans the beer off the door and the equipment inside.

This keeps the mess to a minimum and seems to clean the bottles well enough. I've never had an infected bottle using this method.

Credit for the method goes to someone else; I read about it here in HBD. Works great.

- Dave Shaver

End of HOMEBREW Digest #1312, 12/31/93
